

PLAN OF
CONSERVATION
AND
DEVELOPMENT

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INTRODUCTION

This report updates Farmington's Plan of Conservation and Development, which was last revised in 1995. Over this period, Farmington continued to experience a significant expansion of its population, employment base, housing stock and grand list. Change has also begun to influence the character of the Town's population, jobs, and housing.

The Plan of Conservation and Development as defined in Section 8-23 of the Connecticut General Statutes is a blueprint for the physical and economic development of our community. Planning officials have long recognized that these physical plans directly influence and shape the social and economic composition of a community's population, which in turn affects the types and levels of services provided by local government.

In 1991 and 1992 the Connecticut General Statutes was amended to change the status of the Plan from purely an advisory document. Zoning commissions must consider the recommendations and policies found in this document when adopting or revising zoning regulations and boundaries. The role of the Plan was expanded when in 19 legislation was passed requiring the legislative body of a municipality to participate in the adoption process. This should create a greater bond between the local planning commissions and officials charged with developing a budget and prioritizing the expenditure of funds, increasing the importance of planning in all facets of local decision making. Unfortunately, the limitations of the planning process in Connecticut identified in the 1995 Plan have not been addressed by our state government. Towns and cities cannot properly sequence growth and development. So employing growth management strategies such as building permit caps and tying new development to the installation of capital improvements are still prohibited. We must acknowledge that a process to develop one geographical area of a community before another or over a larger period of time remains legally unavailable. Growth will continue to leapfrog over more urbanized areas in our towns and regions which local and state governments will scramble to fund infrastructure to accommodate this growth on a reactive basis.

The firm of Greenwoods Associates recently analyzed the performance of the 1995 Plan. They found that of all the recommendations stated in the Plan, percent were fully or partially implemented. Actual successes and failures of

the previous plan will be examined specifically in each chapter on a particular subject category.

Prior to the writing of this document the Capitol Region and the State of Connecticut completed updates of their comprehensive plans. Policies and recommendations found in those reports have been reviewed and incorporated into Farmington's plan as deemed appropriate.

This Plan has been developed upon a foundation built from the following four premises. An analysis of current demographic statistics and trends, an inventory of Farmington's natural resources, an identification of properties where development is not favored and the planning policies expressed by the citizens of Farmington.

Policies and recommendations proposed in this plan will be presented as precisely as possible in a schedule with implementation assigned to one or more authorities. It continues to be important for the planning process to remain flexible in order to respond to conditions and events, which either has not been anticipated or which are not within the control of the Town.

The Plan of Conservation and Development is presented in two distinct parts. The first section details the present status and trend lines for a number of subjects accompanied by general goal statements. The second part contains proposals for all of Farmington's neighborhoods in conjunction with the Town's Future Land Use Plan.

I. HISTORY OF FARMINGTON

In 1640 families from Hartford, Windsor and Wethersfield established the settlement known as the Plantation of Tunxis on the east side of the Farmington River. This area was incorporated as the Town of Farmington in 1645.

Farmington's original geographic area was 225 square miles. Prior to the secession of the first of its districts in early 1700 the population was estimated at 750 residents.

While Farmington served as a significant trading center prior to the Revolutionary War, the Town's economy was substantially tied to agriculture.

After the last area of land was set off in the late 1700's the population of Farmington stood at 2,700.

A number of turnpike roads were constructed through Farmington after 1790 linking the Town with Hartford, Bristol Middletown and Danbury. These roads extended further beyond the State border to Albany, Boston and Philadelphia.

The decline of Farmington's agricultural economy, with the settlement of the Ohio valley, and the creation of the Farmington Canal in 1822 prompted the growth of commerce and industry within the Town. A number of industrial enterprises were established in Unionville, using power derived from a system of canals. The Farmington Canal was abandoned in 1846.

Miss Porter's School, which was founded in 1844, shaped the physical character and demographic composition of the Borough of Farmington. The school preserved many of the area's buildings, which were eventually incorporated into the Town's historic district.

The population of Farmington by the beginning of the Civil War rose to 3,000 residents.

The extension of a trolley line from Hartford to Farmington in 1894 established a firm link with the central city. Farmington was transformed from a somewhat isolated village to a second ring suburb. This transportation improvement directly affected land use and settlement patterns within the Town. Amusement areas were developed along Farmington Avenue both in Unionville and in the vicinity of the West Hartford town line. The creation of the Oakland Gardens subdivision was directly influenced by the operation of the trolley as well.

Zoning regulations were adopted within the Borough of Farmington in 1927 and in the Town of Farmington and Borough of Unionville in 1934 and 1946 respectively. With the consolidation of the Town and two boroughs in 1947 a new set

of regulations were adopted in 1950.

Farmington's population, which was 5,300 residents in 1940, grew to 10,800 in 1960. This population change was accompanied by a similar percentage increase in the number of school age children, resulting in the construction of three new school buildings between the years 1950 and 1960.

The flood of 1955 altered the use of land within the Town's floodplain and was the impetus for redevelopment efforts in Unionville. The Town's first plan of development was initiated shortly after this event but never adopted. This effort was followed by the composition and adoption of a subsequent plan in 1964.

A trend to decentralize commerce and industry was evidenced in 1961 with the development of the Farmington Industrial Park and later in 1974 with the opening of Westfarms Mall. In 1967 the University of Connecticut Health Center was located on Farmington Avenue paving the way for future commercial development along this segment of road.

The completion of I-84 in 1970 resulted in a significant expansion of commercial growth within the Town. A number of developments including the Farm Springs complex were built along its corridor.

Between the end of World War II and 1970 a number of large single-family subdivisions were constructed in Farmington. The Town's housing supply became more diversified in the 1960's and 1970's with the development of new rental and condominium housing. Residential building activity peaked in the mid 1980's with as many as 456 building permits issued in one year. Between 1960 and 1990 the Town's population nearly doubled, from 10,813 to 20,608.

In 1991 a committee of Farmington residents and public officials organized as "Farmington's Future" for the purpose of initiating a community dialogue on the future growth and development of the Town. The citizens of Farmington continued this process of public participation with the process entitled "Looking Forward". In 2003 members of a steering committee, Town Plan and Zoning Commissioners and the planning staff with the assistance of Greenwoods Associates held numerous town wide and neighborhood workshops for the purpose of collecting community input on a number of planning topics such as housing, transportation, open space and economic development. Many of the recommendations received in that report have been incorporated into this Plan of Conservation and Development.

II. POPULATION STATISTICS AND CHARACTERISTICS

The Town of Farmington's population grew by 14.7 percent between the years 1990 and 2000, from 20,608 to 23,641 persons. This figure represents the highest rate of growth within the Capitol Region, behind the towns of Andover, Ellington, Hebron, Suffield and Tolland. On the other hand the population of the Capitol Region as a whole increased by only 1.7 percent during this same period and the State of Connecticut by 3.6 percent.

Locally, as illustrated in the following table, Farmington had the second greatest percentage increase in population of all the communities lying adjacent to its borders.

Town	Percentage Change in Population 1990-2000
Farmington	+ 14.70
Avon	+ 13.60
Burlington	+ 16.57
Plainville	+ 0.35
Bristol	+ 0.96
New Britain	- 5.20
Newington	+ 0.30
West Hartford	+ 1.60

Farmington's continued rate of growth during the 1990's may in part be attributed to Farmington's local employment growth and its well regarded school system coupled with Farmington's ample supply of vacant land, an adequate infrastructure system and the Town's attractive location with respect to the region's highway network and employment centers.

While future population changes will continue to be affected by economic growth in the region the following projections prepared by the Farmington Planning Department reflect a reduction in developable land and a decrease in the formation of new households and reduction of household size.

Population Projections, Town of Farmington 2000-2020

From:	2000	2005*	2010	2015	2020
Farmington Planning Department	23,641 (census)	25,639	26,464	27,048	27,909

* US Census Bureau Estimate

Household Composition

The Census Bureau reported that Farmington's 2000 population was composed of 9,496 households. As previously projected, the numbers of persons per household has now effectively stabilized, dropping from 2.47 in 1990 to 2.46 today. This ratio is one of the lowest for a community in the Capitol Region, reflecting an increase in construction of multiple family housing including age restricted housing as well as the overall maturation of Farmington's population.

The rise in Farmington's number of single person households continues to parallel the national trend. In 1990 these households comprised 25 percent of the Town's total number of households. This figure rose to 27.4 percent in 2000. This change is further indicative of an aging population, an increase in the supply of one and two bedroom dwellings in Farmington as well as social changes taking place nationwide.

Households, which contain at least one member 65 or more years of age accounted for 26 percent of all Farmington households, up from 22 percent in 1980.

Age Composition

As in the case of most communities, Farmington's population became collectively older between 1990 and 2000. The median age of a Town resident increased from 37.2 years in 1990 to 40.4 years in 2000.

Fifteen and a half percent of the Town's population is now 65 years of age or older. This is a relatively small increase from the fifteen percent tabulated in 1990. The greatest change in the town's age cohort was in the 45-54 range.

The following table indicates the change in Farmington's age cohorts between 1990 and 2000.

	<u>Age Categories</u>							
	<u>0-4</u>	<u>5-14</u>	<u>15-24</u>	<u>25-34</u>	<u>35-44</u>	<u>45-54</u>	<u>55-64</u>	<u>65+</u>
1990	1,378	2,339	2,105	3,625	3,697	2,316	2,011	3,137
2000	1,348	3,457	2,075	2,740	4,273	3,874	2,200	3,674
Percent Change	- 2	+ 48	- 1	- 24	+ 15	+ 67	+ 9	+ 17

This picture of Farmington's population is reflected in the slowdown in the rate of growth in the public school system and the increase in the housing stock targeted to older residents. One important question will be whether the Town retains the large population in the 45-54 bracket. This group of residents may elect to seek alternative housing opportunities in other areas.

Racial Composition

The 2000 Census reported that 92.9 percent of Farmington's population was classified as White, 1.5 percent Black, 3.7 percent Asian and 1.9 percent other. In 1990 a slightly higher proportion of the population, at 96 percent, was categorized as White while Blacks, Asians and Other racial groups comprised 1.3 percent, 2.1 percent and .4 percent respectively. Individuals of Hispanic origin who are permitted to classify themselves under any one of the preceding racial categories represented 1.2 percent of the population in 1990 and 2.2 percent in 2000.

Income

According to the 2000 Census report Farmington's median household income was \$67,083. This figure represents slightly more than a 26 percent increase over those incomes reported in the 1990 Census. Farmington's median household income ranked twelfth in the Capitol Region.

The percentage of persons in Farmington whose income falls below the poverty level rose significantly from 2.6 percent in 1990 to 4.5 percent in 2000. This was a reverse in trend, which had been on the decline for the past several decades. However this figure is about half of the poverty rate reported for the Capitol Region.

III. AGRICULTURAL RESOURCES

Agriculture has played a prominent role in the history of Farmington, not to mention serving as the basis for the Town's name itself. In the latter part of the 18th century and into the 19th century agriculture was the predominant occupation and land use in Town. Farms located along the valley floor produced hay and food crops while the hillsides were set aside for orchards and pastureland. Although the growth of manufacturing in Unionville provided substantial demand for farm products, by the mid 1800's agricultural production had begun to decline and persons employed in farming had dropped to less than 15 percent of Farmington's population. During the late 1800's local farmers began to phase out many crops, limiting farm production to primarily dairy products, vegetables, poultry and fruit.

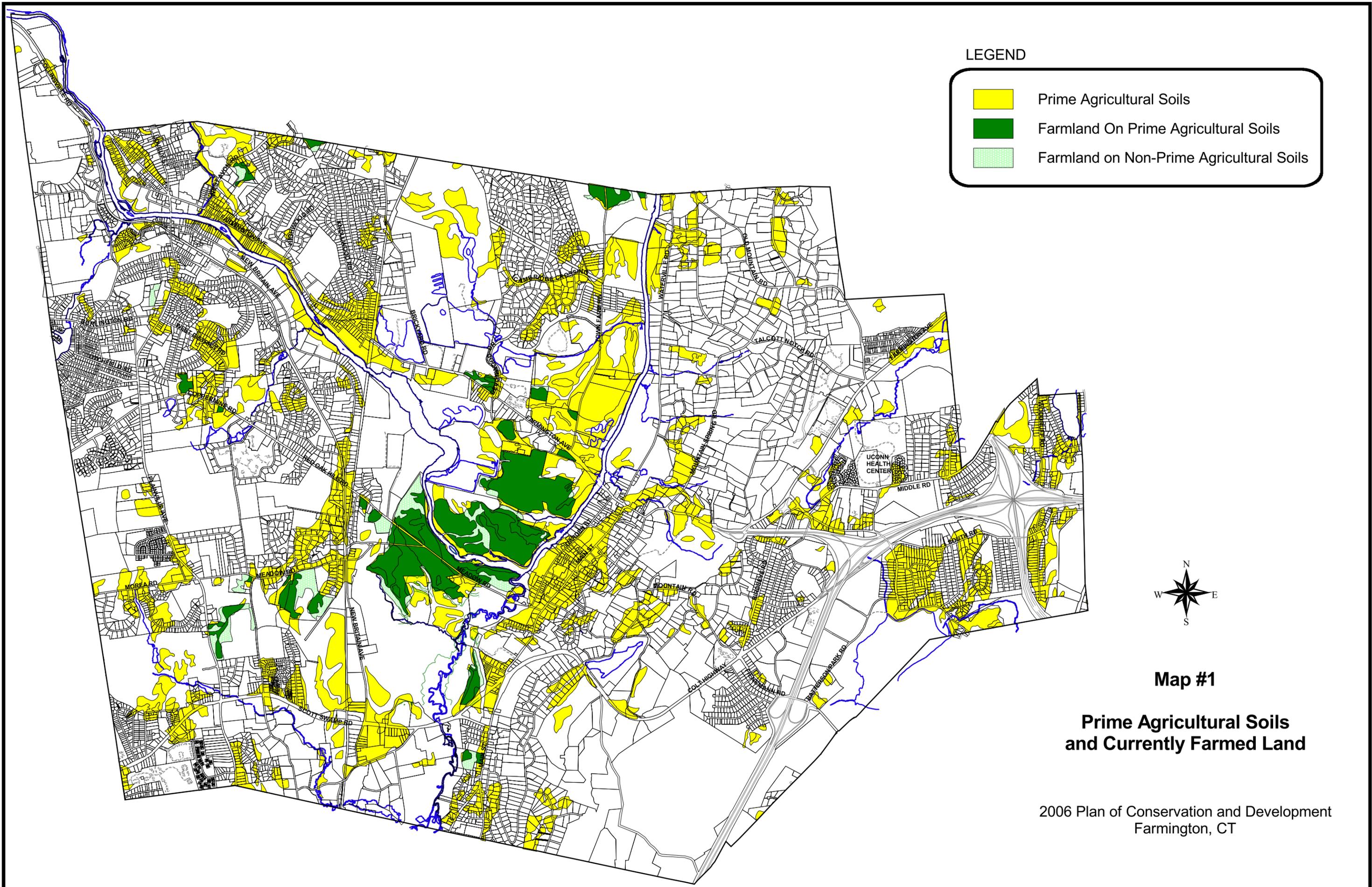
This trend continued into the 20th century and today there are a total of 761 acres of land within the Town of Farmington used in agricultural operations or preserved for future use. This figure represents a reduction of 195 acres from the total reported in the 1995 Plan of Development. This change since 1995 is primarily due the loss of approximately 143 acres of farmland to development, as well as a conversion of 139 acres of farmland to non-agricultural open space.

Additionally, through the use of aerial photography, we have further refined the agricultural land total to identify the acres of land that are actively being farmed. This analysis reveals that currently 639 acres of the 761 acres of total farmland are actively being farmed. Of these 639 acres, 119 acres comprise 17 privately owned farms, while 503 acres are leased from the Town of Farmington, and 17 acres are leased from the State of Connecticut. The current agricultural land is shown on Map #1. Most of the Town's farmland is concentrated in the Floodway and Southwest neighborhoods. With the exception of the one dairy farm located on Town Farm Road and two tree farms, agricultural products produced in the Town are generally limited to hay and vegetables.

The local agricultural economy has historically benefited from an abundant supply of favorable soils. In 1980 the Soils Conservation Service produced a list of soil types recognized as prime agricultural soils. These are soils that are permeable to water and air, nearly level in grade and not highly erosive. They are neither too acid nor alkaline, wet enough for crops but not subject to frequent flooding during the season of use and are not so stony that it interferes with cultivation by machinery.

According to the Hartford County Soil Survey of 1962 approximately 22 percent of the land area within Farmington formerly contained prime agricultural soils. These soils are illustrated on Map 1. Development over the years has reduced the acreage of prime agricultural soils available for agricultural activities. Five hundred and five (505) acres, or

79%, of the active farmland in Farmington is on prime agricultural soils.



IV. NATURAL DRAINAGE SYSTEMS AND FLOOD PRONE AREAS

Farmington's network of brooks, ponds and streams not only serves to drain the land surface but also provides sustenance for plant, fish and wildlife and recharges wetland areas and groundwater supplies. The transformation of fields and woodlands to impervious surfaces and lawns increases and accelerates the amount and velocity of runoff from a given site. This alteration of an area's natural hydrology may result in downstream flooding, increased channel erosion and sedimentation from greater peak flows and a substantial reduction in stream flow in periods of drought. Studies have also indicated that drainage from impervious surfaces may modify the temperature of receiving streams, thereby altering the habitat for aquatic life.

It is therefore important that we acquire an understanding of the hydrologic characteristics and function of the Town's natural drainage systems and their principal waterways and the individual and cumulative impacts exerted upon these systems from the development of land.

DRAINAGE BASIN DESCRIPTIONS

The Town of Farmington is composed of three major drainage basins; the Farmington River, Connecticut River and Quinnipiac River. For the purposes of this report these basins were further broken down for analysis into ten watersheds, the boundaries of which all extend into adjacent municipalities. These ten drainage basins are illustrated on Map 2.

UNIONVILLE BROOK

The Unionville Brook watershed contains approximately 1,000 acres of land within the Town of Farmington. Unionville Brook receives water from Lake Garda as well as an unnamed watercourse originating from the area of Coppermine and West District Roads, before discharging into the Farmington River. More than three-quarters of this basin is developed. There have been no recent incidences of flooding noted along the brook or its tributaries. Portions of the Unionville Brook system have been identified in a report prepared by the firm of Milone and MacBroom as a cold-water fishery.

ROARING BROOK

The smallest of the drainage basins profiled, Roaring Brook, drains an estimated 200 acres of land within Farmington. This watershed is almost completely developed with the exception of open land lying to the rear of several single family homes located along the east side of West Avon Road. Although this portion of the brook lies at the lower end of the drainage basin the brook does not regularly flood. Impacts to water quality and quantity will be most strongly influenced by activities occurring in Avon, where most of this watercourse's drainage basin is located.

SCOTT SWAMP BROOK

The Scott Swamp drainage basin, consisting of 2,350 acres, includes most of the land area comprising the southwest corner of Farmington. An extensive network of wetlands located north of Morea Road along the Farmington/Bristol border forms the headwaters of Scott Swamp Brook. Prior to discharging into the Pequabuck River the flow of water within the brook is augmented by several smaller unnamed brooks, which run in a north and south direction and are situated between Plainville Avenue and New Britain Avenue. Approximately one-third of this watershed is undeveloped, potentially leading to greater peak flows of water within this watercourse in the future. Flooding along the boundaries of this brook is infrequent.

PEQUABUCK RIVER

The 2,250 acres of land within this drainage basin contribute a flow of water, which enters the lower reaches of the Pequabuck River. The watershed is predominantly developed with much of its open areas found in the Farmington Flood Zone and the Shade Swamp Sanctuary. Flooding does occur along the flatter sections of the river, however this tends to be along undeveloped areas regulated by the local and federal flood protection laws and to a lesser degree within existing conservation areas.

FARMINGTON RIVER

As the last of the drainage basins herein discussed which discharges into the Farmington River, this designation was applied to the remaining land area, which does not drain into one of the four previous brooks or rivers. These lands drain overland or via an extensive number of minor or intermittent watercourses leading to the Farmington River. Included in this watershed is almost the entire land area designated as Flood Zone located north of Meadow Road. Over two-thirds of the property in this basin exclusive of this zone designation is presently developed. The Farmington River has flooded on a frequent basis along Meadow Road and Town Farm Road.

BATTERSON PARK POND

The Batterson Park Pond drainage basin is one of four subwatersheds of the Connecticut River described in this chapter. This basin is also one of three watersheds discussed which drains into a body of water as opposed to a brook or river. The 2,600 acres comprising the Batterson Park Pond drainage basin in Farmington account for more than three-quarters of the pond's entire watershed. Approximately three-fourths of the basin area is either developed or included within the boundaries of the Dead Wood Swamp. A network of wetlands and minor streams feed the pond from the southwest and north. This natural drainage system has been

modified to some extent by the construction of I-84. There are no regular occurrences of flooding along these waterways which discharge into the pond.

WOODRIDGE LAKE

This drainage basin is partially bounded by I-84 and the University of Connecticut Health Center, and covers 600 acres. Over three-quarters of this acreage are currently developed. Significant flooding has occurred in recent years along one of several unnamed watercourses, which traverse this basin, specifically in the area of Ridgeview Drive.

METROPOLITAN DISTRICT COMMISSION RESERVOIR SYSTEM

The 1,100 acres of the Metropolitan District Commission (MDC) drainage basin lays out in a pattern, which generally follows the Route 4 corridor north of the I-84 interchange. Several large parcels of land within this watershed are owned by the City of Hartford, State of Connecticut and the MDC. Exclusive of these plots of land the basin is more than three-quarters developed. Over the last several years there has been no incidence of flooding along the minor watercourses, which enter the reservoir system from the south and west.

ROCKLEDGE BROOK

This drainage basin may be divided into that area which directly drains into Rockledge Brook and another subarea, which indirectly contributes runoff into this brook via Piper Brook. Of its 510 acres, over two-thirds are developed. While flooding has not historically been a problem in Farmington, it has been a constant occurrence in West Hartford where the brook is better defined. Several years ago the drainage pattern above this area of flooding was altered in an attempt to reduce its severity and frequency by redirecting much of the upstream water flow through Westfarms Mall's detention system.

QUINNIPIAC RIVER

The third major drainage basin in Town consists of 240 acres of land located on the eastern edge of Farmington's border with the Town of Plainville. This area of rugged terrain is primarily undeveloped and contains a large area of wetlands. There are no well-defined watercourses within this basin, which eventually drains into a tributary of the Quinnipiac River. Flooding is not a concern.

REGULATORY PROGRAMS

For the past 24 years Farmington has participated in the Federal Government's National Flood Insurance Program. Administered by the Federal Emergency Management Agency (FEMA), the program makes low cost flood insurance available within a member community in exchange for the Town's

adoption of regulations intended to reduce potential damage from a flood event. In 1986 FEMA completed its detailed study of Farmington, producing floodway dimensions as well as elevations of the 100-year flood for seven rivers and brooks including the Farmington and Pequabuck Rivers, Roaring Brook, Unionville Brook, Scott Swamp Brook, Poplar Swamp Brook and the Woodridge Lake Inlet. While this information has been incorporated into Farmington's regulatory program, the Town has chosen to maintain more stringent requirements for development along the Farmington River between the railroad overpass and the Pequabuck River.

Thus far Farmington's experience with this program has been very positive. According to figures last released by FEMA there are 131 properties carrying flood insurance policies in Town. Over the duration of the Town's membership in this program only one property has submitted a claim in connection with more than one flooding incident.

The State of Connecticut in addition to maintaining its stream channel encroachment line program, has also implemented three regulatory programs during the 1980's aimed at reducing the incidence of flooding as well as preserving minimum water volumes within waterways.

In 1985 the State mandated the use of erosion and sedimentation controls in conjunction with developments, which disturb a minimum of one-half acre of land. This law has helped preserve the capacity of a watercourse by substantially reducing sediment carried off nearby lands by storm water runoff.

Connecticut's dam inspection program provides for the inspection of both large and small, public and private dam structures. Inspectors employed by the Department of Environmental Protection have distributed inspection reports to municipalities and private individuals alike and mandate repairs if required in order to prevent possible downstream flooding.

The Connecticut Water Diversion Act regulates the withdrawal and diversion of both groundwater and surface waters in an attempt to protect the supply of water available within a given drainage basin for other uses. While this statute goes a long way to ensuring the minimum flow of water within a watershed this program should be coupled with a complementary land use plan at the local level to ensure the achievement of this objective.

As previously mentioned, Farmington's Flood Zone Regulations have satisfactorily complemented the minimum standards established by FEMA. The configuration of the existing Flood Protection Zone and Flood Perimeter Overlay Zone was developed from data earlier compiled by the Army Corps of Engineers. These boundaries, which encompass areas along both the Farmington and Pequabuck Rivers are of greater size

than that presented in FEMA's 1986 study. This system has provided the Town with an extra level of protection.

The federal government has promulgated regulations concerning non-point source runoff. The storm water Phase II program initiated in 2004 will require towns such as Farmington to begin to monitor the quality of storm water discharges into rivers and streams.

The Town Plan and Zoning Commission's decision in 1987 to legislate the maximum site coverage within nonresidential zones at 40 percent has had a profound impact upon the Town's drainage system. Compared to a site completely covered by impervious surfaces a site which has its coverage restricted to only 40 percent will generate slightly less than 50 percent as much water runoff. Furthermore research in the 1990's has determined that the water quality in a stream has a direct correlation to the percentage a drainage basin is covered with impervious surfaces. Degradation of water quality has been associated with impervious coverage percentages of just over ten percent. The Farmington River Watershed Association completed an impervious surface study of Farmington several years ago and concluded that a number of the Town's watersheds were at or just above the ten percent threshold. This study was complemented by the recent inventory of natural resources done by Milone and MacBroom, where actual water quality sampling was performed. These results would seem to point to the need for stricter erosion and sedimentation policies coupled with a greater need to control the quality of non-point storm water runoff.

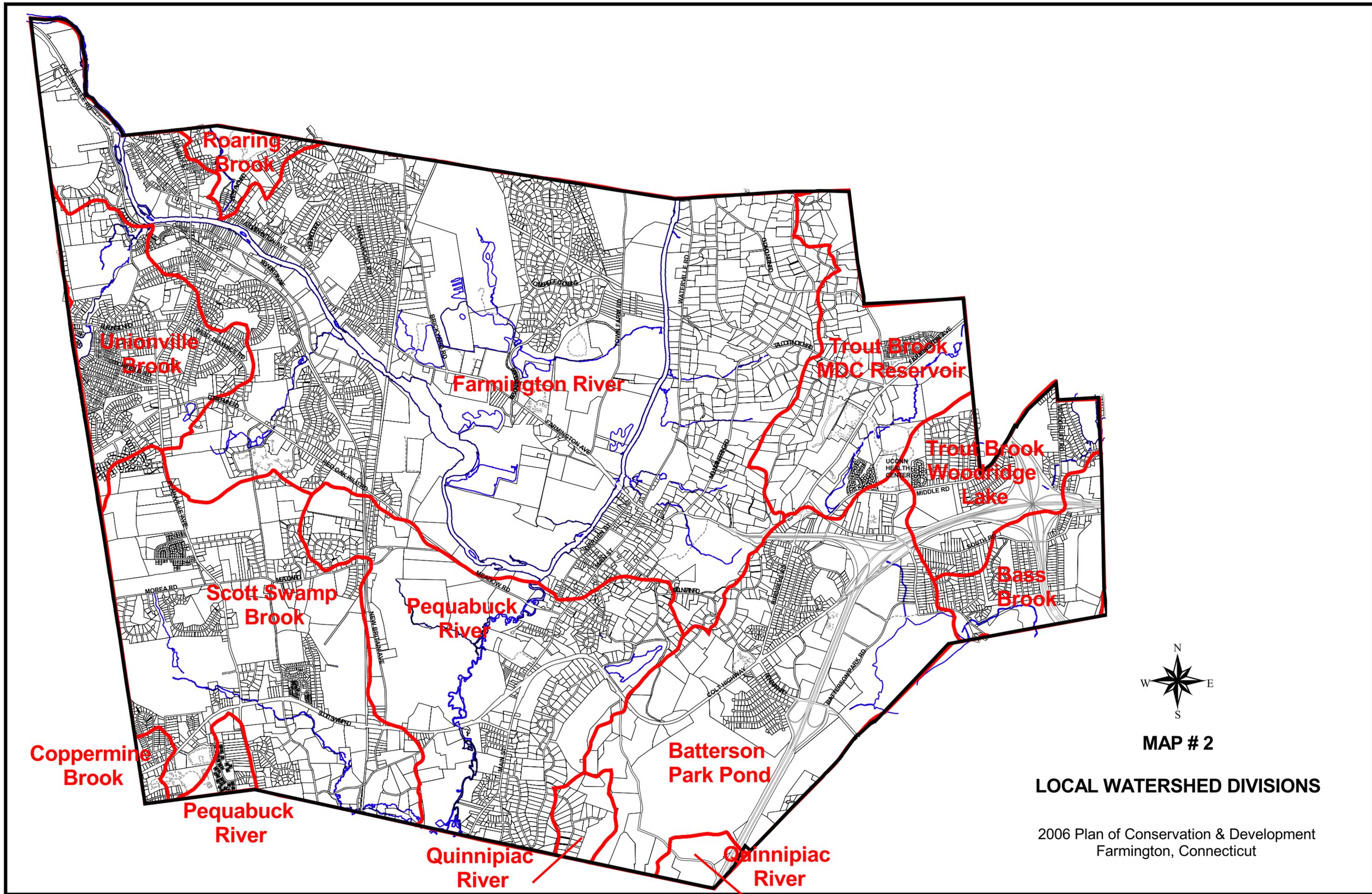
Many communities during the 1980's as part of their storm water management program have adopted a zero net increase runoff policy. This program requires the detention of storm water on a parcel undergoing development to a point where the post development peak runoff would not exceed the peak volume generated from the site in its prior natural state. While this approach may initially sound attractive, studies have shown that detaining water and releasing it over a longer period of time on sites located in the lower reaches of a watershed may have the effect of increasing peak flows and the incidence of flooding in the receiving watercourse. Therefore it has been recommended that this policy be applied only on a site-by-site basis after assessing the hydrology of the subject watershed and the receiving watercourse. In an effort to acquire this information the Town of Farmington recently included a proposed Town wide Drainage Study as part of its Capital Program. More recent studies have concluded that a policy of stressing the infiltration of storm water runoff from developed sites will have a very positive effect on stream quality and volume.

PLANNING OBJECTIVES

1. Initiate a Town wide Drainage Study to assist in the reduction and prevention of flooding and the maintenance of adequate volumes of water within Farmington's brooks

and streams. Invoke a net zero runoff policy for those areas of Town as recommended by the abovementioned study. Incorporate the recommendations of the new DEP storm water quality manual into the review process of subdivision and site plans.

2. Ensure that the development of Town owned property within the floodplain preserves the existing flood storage capacity.
3. Maintain flood protection standards along the Farmington River that are in excess of those prescribed by FEMA.
4. Aggressively enforce erosion and sedimentation regulations to prevent the filling of waterways and potential flooding.
5. Work with landowners during the redevelopment process to encourage the flood proofing of existing structures situated below the 100-year flood elevation.
6. Vigorously protect areas of wetlands in order to reduce the incidence of downstream flooding. Provide the Inland Wetlands and Watercourses Agency with greater technical expertise at the staff level.
7. Monitor changes and trends in rainfall amounts and frequency of flooding events including intensity and duration. Adjust regulatory standards and parameter as necessary.



MAP # 2

LOCAL WATERSHED DIVISIONS

2006 Plan of Conservation & Development
Farmington, Connecticut

V. GROUNDWATER

Farmington's groundwater system represents the greatest source of the Town's potable water supply. It is also a major component of the natural hydrologic cycle. In addition to being withdrawn from the ground into the water system, groundwater contributes to the supply of water within wetland areas and watercourses. Groundwater may, in many instances, provide the only source of water to a perennial stream in times of drought.

WATER SUPPLY

With the 1985 merger of the Farmington Water Company with the Unionville Water Company and the subsequent disconnection of the Metropolitan District Commission's water supply from the Unionville Water Company's distribution system in 1995 it was estimated that 90 percent of Farmington's population depend on groundwater sources for their water supply. This figure was up from 75 percent just 10 years prior.

In 2004 a connection was reestablished with the water system owned by the Metropolitan District Commission. This will stabilize the withdrawal rates of groundwater from the Town's system of aquifers reported at gallons in 200 and permit the system to function without disruption during peak summer times.

The Town's groundwater resources have been investigated in several reports since 1950. The most definitive works dealing with potential well yield and groundwater quality were undertaken in 1976 and 1980. These reports indicated that approximately 14 square miles of Farmington was underlain by a stratified drift aquifer. The most favorable locations within the aquifer for the future withdrawal of groundwater were identified in the 1980 study. These areas, which were described as potentially yielding over 250 gallons of water a minute are shown on Map 3. Since 1982 the Unionville Water Company has developed a new well in one of these areas. The Connecticut Sand and Stone well, located south of Farmington Avenue on the Connecticut Sand and Stone property approximately 1,700 feet east of the New York, New Haven, Hartford railroad trestle, yields over 600 gallons of water per minute. With the connection to the MDC system it is doubtful that additional underground supplies will be identified and developed.

WATER QUALITY, CONTAMINATION AND PROTECTION

The quality of the groundwater which supplies the Unionville Water Company system is generally very good with only minimal treatment required at each groundwater well site. However the utility does not own the land surrounding these well sites and for the most part depends upon the establishment of a 200-foot easement to ensure their

protection. In 19 the company had to develop a special filtration unit for water produced at the Charles House well field. This was the result of a moth proofing agent discovered in that water supply.

During the mid 1980's Farmington began to experience the problem of groundwater contamination. The first incident involved the loss of heating oil from a community fuel oil supply distribution system, which served the Red Coat Lane area. Subsequently, the individual wells located within the Pine Hollow subdivision were contaminated by a pesticide used in an adjoining farming operation. This was followed by the release of petroleum product from the underground tanks of a gasoline station located at Plainville Avenue and Burlington Road. These threats to the quality of the groundwater supply prompted the initiation of several regulatory and monitoring programs at both the state and local levels of government. At the present time a total of locations have been identified as having groundwater releases of concern.

The State of Connecticut began its effort with the institution of a groundwater classification system. Modeled after the system used for surface waters, the groundwater system not only describes the existing quality of groundwater sources within the State but also establishes future goals for water quality and is used by the Department of Environmental Protection in the regulation of groundwater discharges from nonresidential land uses. Today all areas of Farmington are designated either GAA or GA, with the exception of those locations which were subject to the contamination previously described as well as the abandoned Town landfill on Farmington Avenue, all classified as GB/GA, and the current sanitary landfill designated as GB/GB/GC. GAA and GA classifications apply to areas of a community underlain by groundwater which is either suitable for future water supply or is located within the area of influence of an existing public water supply well. Groundwater designated GB/GA while acknowledging the past or present contamination of a given area is regulated in such a manner as to permit the affected groundwater to potentially return to a GA class. The GB/GB/GC classification is given to locations used for waste disposal. It is the goal of the State to not permit the irreversible contamination of the underlying groundwater system. Any additional wastewater discharge into this area would require a redesignation to class GC.

The State of Connecticut's initial attempt to control potential sources of groundwater pollution focused on the regulation of nonresidential underground storage tanks. The program requires the inspection and replacement of underground tanks containing petroleum products. However heating oil tanks less than 2,100 gallons in size are exempt from these requirements. While a number of Connecticut municipalities have attempted to expand this program at the local level, the experience in Farmington indicates that these tanks are being removed voluntarily by the private

homeowners and are being well monitored by real estate lenders.

The most far-reaching action taken at the state level to date has been the adoption of Public Act 89-305. This legislation requires municipalities to establish overlay protection zones around existing and proposed water supply wells within stratified drift aquifers. The overlay protection zones will be developed from the geologic and hydrologic characteristics of the particular well. The Department of Environmental Protection has just completed and adopted regulations controlling the location and operation of particular land uses within these protection zones. The regulations will be adopted and administered by the Town Plan and Zoning Commission in Farmington. The local regulations and zoning map revision will become effective once the level A mapping has been completed and accepted for each particular well site.

In 1987 the Town of Farmington implemented its first comprehensive aquifer protection regulation. As opposed to restricting specific land uses from a particular area of Town the primary focus of this zoning amendment involved the regulation of hazardous materials used by commercial and industrial facilities. While achieving some success, the program's effectiveness has suffered from the following shortcomings: an inability to apply its provisions to existing operations in Town, and a difficulty in enforcing the regulation due to the absence of any reporting or inspection system.

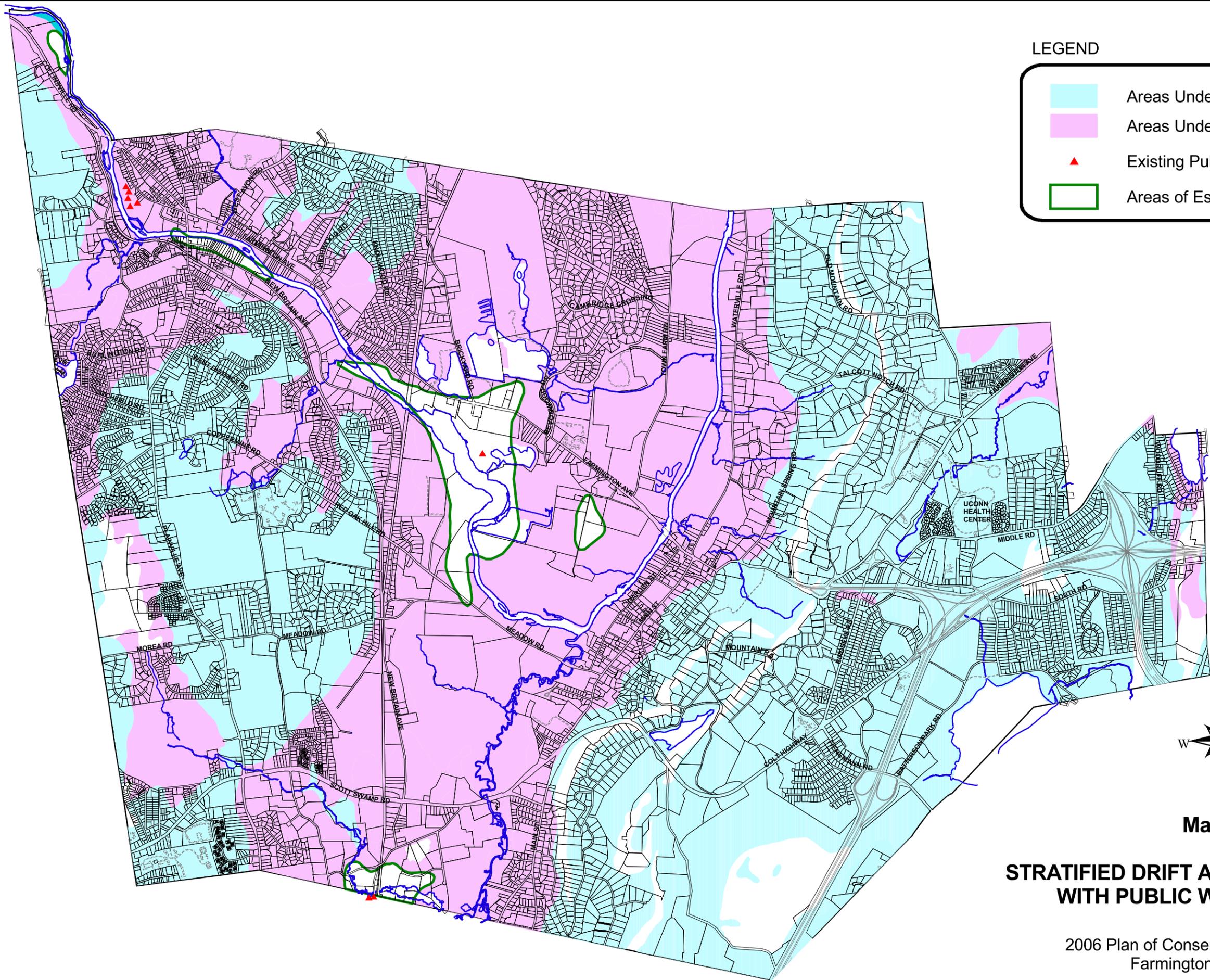
PLANNING OBJECTIVES

1. Protect existing and proposed groundwater supplies located in stratified drift by regulating or prohibiting various land uses located within the recharge areas designated by the new aquifer protection regulations.
2. Update the existing aquifer protection regulation from its current form and use it to augment the new aquifer protection regulation when it becomes effective.
3. Continue the Town's groundwater monitoring program and expand it into areas, which contribute to the groundwater supply of an existing or proposed well site. Coordinate this effort with the Unionville Water Company and assist it in procuring monitoring well sites on properties for which development approvals are sought from the Town Plan and Zoning Commission.
4. Prevent a reduction in the existing groundwater tables by the following means:
 - a. Maintain the site coverage requirements currently found in the Zoning Regulations.

- b. Require the development of storm water collection systems designed to recharge the groundwater supply on sites, which overlay Farmington's stratified drift aquifer.
- 5. Develop best management procedure for response to incidents such as spills within aquifer protection areas.
- 6. Foster and encourage through initiatives such as public outreach programs the inspection and removal of older residential underground oil tanks.

LEGEND

-  Areas Underlain by Glacial Till
-  Areas Underlain by Stratified Drift
-  Existing Public Well Locations
-  Areas of Estimated Well Yield > 250 gpm



Map # 3

**STRATIFIED DRIFT AQUIFER/GLACIAL TILL
WITH PUBLIC WELL LOCATIONS**

2006 Plan of Conservation & Development
Farmington, Connecticut

VI. HILLSIDES/RIDGELINES

The Town of Farmington is underlain by three bedrock types which define the general topography of the Town the largest being erodible sedimentary rock. The level and gently sloping land west of the Metacomet Ridge is underlain by New Haven Arkose, a reddish-brown sandstone commonly called Brownstone, while the land east of the ridge is underlain predominantly by shale. The primary hills of Farmington are underlain by harder, less erodible metamorphic rock in the northwestern corner, and igneous rock or traprock creating the Metacomet Ridge.

The slopes of northwestern Farmington form a portion of the western wall of the Connecticut Central Valley. The Central Valley is formed by underlying soft sedimentary rock, while the wall of the valley is formed by the harder, less erodible metamorphic rock of the western uplands. Metamorphic rock has undergone physical changes caused by intense heat and pressure from the Earth's interior. This heat and pressure caused the original rock to recrystallize, resulting in fused and tightly interwoven crystals. The fusing of the crystals forms a rock much more resistant to erosion than the sedimentary rocks of the adjacent central valley.

The second conspicuous hillside in Farmington is the Metacomet Ridge. This ridge rises very steeply on the western slope to elevations between 760 feet at the peak of Rattlesnake Mountain to 520 feet elsewhere along the ridge. The Metacomet Ridge was formed by a series of geologic activities, including volcanism, tilting of the Earth's crust and erosion. The Central Valley region of Connecticut was originally overlain by alternating sedimentation and volcanic lava flows. Faulting caused the layers to be tilted; while the subsequent erosion formed valleys or shallower slopes from the erodible sedimentary rock, and ridges from the less erodible volcanic traprock.

Although traprock erodes slowly, weathering by frost action greatly reduces the stability of these ridges. Traprock is formed with natural veins that give a columnar appearance to the exposed rock along the ridge. Water seeping into cracks weakens the rock along the veins by freezing and thawing. Eventually, these weakened columns succumb to gravity. The scree, or blocks of fallen traprock, at the base of sections of the Metacomet Ridge are the result of this weathering.

A third hillside type is the glacial formations such as eskers and drumlins. While these formations are not as conspicuous as the metamorphic and traprock hills, they may form locally significant hillsides, and are noteworthy for their geologic value. Eskers are sinuous ridges that were formed by glacial melt water flowing through tunnels or

crevasses in the ice. With the glacier's retreat, the water found a lower path, leaving a narrow, often steep sided ridge composed of river deposits.

Drumlins are relatively small, elongated, egg-shaped hills composed entirely, or almost entirely of glacial till. Drumlins were formed during the retreat of the last glacier by a mechanism that smeared thick layers of usually clay laden till. Drumlins usually occur in clusters.

A small cluster of drumlins, including Burnt Hill, occurs in northeastern Farmington. Bedrock contour maps indicate that these hills have layers of till 100 to 150 feet in thickness. The shale bedrock in this area probably provided the clay for the formation of these drumlins.

Farmington has long recognized the aesthetic and environmental values of hillside areas. The low-density residential development, which characterizes most of these areas has maintained the visual character of hillsides in addition to limiting erosion and reducing flood hazards in adjacent low-lying areas.

Hillside development requires careful planning for the following reasons:

- Substantial destruction of vegetation can result in increased runoff and sedimentation requiring increased public expenditures for flood control and storm water management.
- Certain hillsides contribute to the natural beauty of the surrounding area. This beauty depends, to a large extent, on the existence of significant amounts of open space and on development, which is in keeping with the surroundings, and natural constraints of the land.

Low-density zoning, the land's natural constraints and the lack of public sewers have all helped to maintain the aesthetic values and natural functions of these areas. Conditions attached to subdivision approvals have also been used to control erosion and to preserve vegetation on hillsides.

The 1991 revisions to the Subdivision Regulations included a new section that states that subdivisions shall be designed to minimize adverse impacts upon the listed natural and man-made resources which are on or contiguous to the subject premises. This list includes slopes in excess of 15 percent grade, and land along ridgelines. These regulations enable the Town Plan and Zoning Commission to preserve these valuable resources through redesign of the subdivision, use of the cluster subdivision regulations, establishment of conservation easements, regulation of the grading, building

location, etc., or a reduction in the total number of building lots. In 1999 the Town Plan and Zoning Commission adopted a ridgeline protection zone in accordance with enabling act 95-239. This law will allow the Commission to regulate activities on the Metacommet Ridge, which are exclusive of subdivision activity such as tree cutting.

PLANNING OBJECTIVES

1. Continue to encourage low-density residential use of hillside areas (over 15 percent slopes).
 - a. Prohibit disturbance, including but not limited to structures, vegetation, deposition or removal of materials, clearing, grubbing etc. on slopes of more than 24 percent.
2. Encourage residential development which minimizes the disruption of ground cover and vegetation, and which preserves expanses of open space in order to preserve the aesthetic and natural functions of hillsides and ridgelines.
 - a. Use Zoning and Subdivision Regulations to minimize the impact from development to ridgelines and hillsides.
 - b. Encourage the preservation of glacial formations such as eskers and drumlins to preserve the glacial history of the Town of Farmington.
3. The provisions of the Town's existing ridgeline protection regulations must be aggressively enforced.

VII. THE FARMINGTON RIVER

Geologic History

Prior to the last period of glaciation, most of what is now Farmington was drained by a river that flowed southward, closely following the present beds of the Quinnipiac River, and the north-flowing section of the Farmington River. The present Pequabuck River and the southeast-flowing section of the Farmington were tributaries to this river.

The present course of the Farmington River was established by the interaction between glacial ice and meltwater deposits. A dam established by material dropped by the meltwater from the receding glacier created a lake between the "dam" and the glacial ice situated over what is today the bend in the Farmington River. Round Hill near Route 4 is a remnant of a delta that formed by debris dropped from streams or glacial meltwater entering this lake. The present course of the Farmington River was ultimately established when the glacier melted sufficiently to expose the gorge through the Talcott Ridge near Tariffville allowing the impounded water to escape.

Physical Character

The Farmington River is a unique natural resource which has played a major role in Farmington's development, and which contributes significantly to the Town's character. In its entirety, the Farmington River is approximately 81 miles in length beginning in southwestern Massachusetts, and includes a watershed of approximately 600 square miles. Within the boundaries of the Town of Farmington, the river flows approximately 9 linear miles, and drains a watershed of approximately 20.6 square miles, or 72 percent of the Town. Approximately two-thirds of this area drains directly into the Farmington River, while the remaining area drains into the Pequabuck River first.

The character of the Farmington River changes as it passes through Farmington. From the river's origins to the northwest corner of the Town of Farmington the Farmington River flows with a definite pitch first through the Berkshire Mountains in Massachusetts, and then through the Western Highlands of Connecticut. Table 1 shows the change in the slope of the riverbed as it passes through the Town, from the Western Highlands to the Central Valley described in the Hillside Section. The river completes its transition to a flat-water river above the Route 4 bridge in Farmington Village. The river maintains a shallow grade north to Tariffville Gorge in Simsbury, where it breaks through the Metacomet Ridge to flow east to the Connecticut River.

Table 1

THE FARMINGTON RIVER IN FARMINGTON
Changes in Streambed Elevation

LOCATION	STREAMBED ELEVATION	FEET FROM AVON LINE	VERTICAL CHANGE (FT.)	HORIZONTAL CHANGE (FT.)	% CHANGE
Town Line/Burlington	244	48,000	--		
Rt. 4 Bridge/Union	193	41,500	51	6,500	0.78%
S. Main St. Bridge	181	36,400	12	5,100	0.24%
R.R. Bridge	164	26,600	17	9,800	0.17%
Rt. 4 Bridge/Farm.	149	11,000	15	15,600	0.10%
Town Line/Avon	146	0	3	11,000	0.03%

European Settlement

The Farmington River provided many of the resources needed for the settlement of the Town of Farmington. For centuries before the first English settlers came to this area, the Tunxis Indians had taken advantage of the fertile soils, fish and wildlife the Farmington River provided. Around 1640, the first English settlers arrived. They too were attracted by the river's abundant fishing and agricultural potential. The settlers also saw the river and its tributaries as a source of power. The "Grist Mill," which still remains at the end of Mill Lane, and its dam were constructed as early as the 1660's.

While early dams were constructed to power saw and gristmills, by the 1800's the Farmington River was providing the power for the development of Unionville as a manufacturing center. In 1828, a dam was constructed in Unionville to feed water into the Farmington Canal. The Farmington Canal was an 87-mile series of canals and aqueducts that ran from New Haven to Northampton, Massachusetts, through 60 locks and over eight rivers. The canal transported people and goods for only 20 years before the railroads took its place.

A half mile upstream from the "feeder" dam, a second dam was constructed in Unionville. The impounded water from this dam fed a canal that powered several small factories. The proximity to the Farmington Canal through the feeder canal gave Unionville factories early access to more distant markets.

The Farmington River made possible the industrial prosperity of Unionville and other towns along its banks. In return, however, the discharge of untreated sewage and industrial waste took a heavy toll on the river. As early as 1860, the river was too polluted for swimming, and few trout could be found as far north as New Boston, Massachusetts. While mill closings along the river in the late 19th and early 20th centuries brought some water quality improvement, population growth along the Farmington River and its tributaries during the 20th century substituted municipal sewage as the river's principal pollutant.

Water Quality

In 1967, the Connecticut Legislature passed a Clean Water Act, which was followed in 1972 by the Federal Clean Water Act. These statutes set criteria for the attainment of clean waters by setting contaminant limits, and requiring permits for all industrial or municipal discharges into a watercourse.

As a result of these statutes and other efforts to revitalize

Connecticut's watercourses, the entire length of the Farmington River within Farmington meets Class B water quality criteria. The section of the river from its confluence with the Pequabuck River to the Farmington/Avon town line, however, has been designated as unsuitable for swimming, because of pollution from the Pequabuck River, and the zone of influence from the Farmington Sewage Treatment Plant. This designation, however, may be removed with the next revisions to the State water quality designations due to the improved water quality of the Pequabuck River. Table 2 illustrates the improved water quality in the Farmington River, primarily as a result of improvements to the Pequabuck River.

The treatment plant, remains as the lone permitted discharge into the Farmington River within Farmington. With improved water quality, the Farmington River now supports one of the largest trout fisheries in the State, and is an important river in the State's Atlantic salmon restoration program.

Use of Stratified Drift Deposits

The lower Farmington River flows through an extensive stratified drift deposit that was laid down by glacial melt water during the last retreat of the glaciers. In Farmington, approximately 14 square miles are underlain by this material to depths, in some places, in excess of 450 feet. The fine-grained nature of some of this material, however, is incapable of yielding significant quantities of water. Map 3 identifies the areas within this deposit, which are coarse-grained (sand and gravel), saturated, and have potential water yields in excess of 250 gallons per minute (gpm).

As noted in the groundwater section, the Unionville Water Company withdrew more than 651 millions gallons of water from this stratified drift aquifer in 1990. The company's highest yielding wells are located along the Farmington River. They currently have six wells along the river including the Connecticut Sand and Stone well with yields ranging from 150 - 600 gpm. Map 3 shows the locations of these wells.

The proximity of the wells to the Farmington River does potentially impact the flow of the river. Although the wells do not draw water directly from the Farmington River, drawdown of the aquifer from pumping at the well location can result in recharge to the aquifer from the river, therefore reducing the river's flow. Although State laws prohibit the direct use of class B water for drinking water, wells drawing water from aquifers recharged by river water as a result of well drawdown need only meet State Health Code criteria to be considered potable.

The stratified drift deposits along the banks of the Farmington River also provide a resource for sand and gravel excavation. Connecticut Sand and Stone several years ago terminated its excavation operation along the river immediately downstream of the railroad overpass. The operation included approximately 183 acres. During the nineteen sixties, this operation included the removal of an approximately 12-acre island in the Farmington River, and excavation of the riverbed. A flood insurance study done in 1986 by the Federal Emergency Management Agency indicates that the riverbed in this area is up to 30 feet lower than the estimated original elevation.

Although State regulations no longer allow excavation within the river itself, stratified drift deposits along the riverbank should provide several more years of excavation potential. The life of the operation has been further extended by a pond owned by Dunning Sand and Gravel, which was dredged along the banks of the river several years ago. The pond is so close to the river that during high water periods, the river will flow through the pond. The pond then has the potential to capture sand and gravel from the floodwaters, as this material may drop out of suspension as the water slows within the pond. Although the pond does divert the river during high water, the pond predated the Connecticut water diversion statute, and is, therefore, exempt.

Recreation

The water quality improvements and the aesthetic qualities of the Farmington River have made it a popular source of recreation. The river is used extensively for fishing, canoeing and, to a lesser extent, swimming. Open space along the river is additionally used by hikers, birdwatchers and picnickers. Portions of the river's banks are also prime hunting spots, although hunting upon Town-owned land is restricted to only certain locations. Public access to the river suitable for launching canoes is available at Yodkins-Morin Memorial Park on Route 4, River Glen Park off of Woewassa and Wanowmassa Lanes and the Route 4 bridge in Farmington Village. Public pedestrian access is also available off Meadow Road and at Tunxis Mead Park.

During the last ten years the Town has acquired over 2,200 linear feet of river frontage through the purchase of open space land and the site of the police station and community center complex. While none of these areas have been developed for recreation to date a trail has been designed through properties lying adjacent to Waterville Road. The acquisition of additional riverfront land continues to be one of the highest priorities of the Town's Land Acquisition Committee. Final plans have been approved for another riverfront trail through a site proposed for mix use development at the corner of Mill Street and South Main

Street in Unionville. The Farmington River was a main focal point in the recently adopted design plan for Unionville.

River Flow and Riparian Rights

Both the attenuation of pollutants in the Farmington River and the preservation of the river's aesthetic, recreational and ecological values are dependent upon the quantity of the river's flow. Since the Farmington River is dammed along both its western and eastern branch, the flow of the river is controlled by a series of regulations and agreements to assure adequate flow for downstream users. Six key factors control the flow of the Farmington:

From Goodwin Dam:

- 1) a minimum release of 50 cubic feet per second (cfs) is required at all times;
- 2) all natural inflow to reservoirs up to 150 cfs must be released;
- 3) release of all flows released from Otis Reservoir in Massachusetts;
- 4) releases upon request of the Farmington River Power Company in volumes from 0 to 300 cfs, up to 400 million gallons per day and 21.7 billion gallons per year;

From Colebrook Dam:

- 5) releases from Colebrook Reservoir when water elevation is above 708 feet; and
- 6) releases up to 3.26 billion gallons per year as needed by DEP for fisheries.

The "upon request" releases to the Farmington River Power Company are perhaps the most valuable for maintaining the multiple use characteristics of the Farmington River. The release agreement was established to preserve the riparian rights of the Farmington River Power Company, which operates a hydroelectric facility at Rainbow Dam in Windsor. Through this agreement, release requests have averaged approximately 190 cfs through the peak recreation period of May 15-October 31. This agreement has enabled the river to flow at levels higher than would tend to occur naturally during the summer months.

It should be noted that the cfs figures are measured at the point of release. The flow in cfs in the Town of Farmington and other downstream locations will naturally be greater in volumes dependent upon the flows from other tributaries.

Water Diversions

The Metropolitan District Commission (MDC) uses the Farmington River to supply 100 percent of the water for Greater Hartford. The first diversion of water from the Farmington River watershed for water supply to the Hartford area began in 1911 with the signing of an agreement to construct Nepaug Reservoir. In 1931, MDC began construction of the 30 billion gallon Barkhamsted Reservoir on the

Farmington River's east branch to meet the growing water supply needs of the Hartford area. Finally, in 1949, the MDC, by Special Act, was granted authority to construct a reservoir on the west branch of the Farmington River, with the right to construct a tunnel to divert this water to its distribution system. The tunnel, however, was never completed, and the reservoir has been used only to meet riparian obligations.

In 1981, MDC sought to complete the tunnel and divert approximately 19 billion gallons from the Farmington's west branch. Citizen concern for the diversion's impact on the river's quantity of flow, and therefore its impact on the many values of the river, resulted in the proposal ultimately being rejected at a referendum.

As a result of the 1981 diversion controversy, the State Legislature passed the Water Diversion Policy Act in 1982 to protect Connecticut rivers from being dammed or diverted of more than 50,000 gallons per day of water without a permit. In Farmington, most permits are for well water withdrawals. The Town of Farmington has received a permit for withdrawing water from the Farmington River for irrigation at Tunxis Mead Park.

Federal Wild and Scenic River Designation

To provide further protection to the Farmington River, the federal government added a large section of the Farmington River to the Federal Wild and Scenic Rivers System. Two distinct sections were included in this program. One section is in Massachusetts, while the other is a 14 mile stretch in Connecticut from below the Goodwin Dam in Hartland to the southern extent of the New Hartford/Canton town line. The Farmington River was the third river system in New England to be included into the program following the Allagash in northern Maine, and the Wildcat in New Hampshire. Congress has recently approved the authorization of a study to include additional downstream sections of the river into the program including Farmington.

The purpose of the Wild, Scenic and Recreational Rivers Act was to establish a system through which America's outstanding free-flowing rivers could be preserved in order to balance against the existing federal policy of river development. Designation in the Wild and Scenic Rivers System provides permanent protection from new dams, diversions and other water resource projects that would have a negative impact on the river's resources. The Farmington River has been protected by the Act since 1986, when Congress authorized the study of the two river sections.

The Wild and Scenic designation for the Farmington River did not include federal land acquisition. Instead, the planning process required each town, through which the designated segment flows, to demonstrate how it planned to provide long-term protection for the various qualities of the river.

To meet this requirement, Barkhamsted, with the assistance of the FRWA and the National Parks Service, adopted a River Protection Overlay District regulation that has become the model river protection regulation for the Farmington River Valley.

River Protection Regulations

Barkhamsted's River Protection Overlay District is defined as the land within one hundred feet of the river's normal high water level. This regulation prohibits activities within the Overlay District without first receiving a special exception and meeting particular criteria and standards found in the regulation. Regulated activities include the impoundment of the river, new construction or additions to existing buildings, new septic or other waste disposal systems, dredging or sand and gravel excavation and cutting or removal of vegetation. Special exceptions can only be considered if a parcel and/or existing structure meets specified conditions.

In Farmington, development of much of the land abutting the Farmington River is regulated by a Flood Protection Zone designation. The Flood Protection Zone includes all land that is reasonably required to carry and discharge a regulatory flood. The boundary of this zone was established using an earlier study produced by the U.S. Army Corps of Engineers.

The purpose of the Flood Protection Zone is to preserve the river's ability to convey the regulatory flood. As such, uses within the Flood Protection Zone are restricted to those, which have low flood damage potential and will not obstruct or modify flood flows. The zone prohibits the construction of most structures and parking areas; and further regulates sand and gravel excavation, municipal uses, accessory structures and fill.

The purpose of the River Protection Overlay District is, more broadly, to preserve the multiple qualities of a river and the land adjacent to it. By prohibiting or regulating most alterations, including the removal of vegetation within an established buffer area, the river's ecosystem can be preserved along with the river itself.

While the Flood Protection Zone and River Protection Overlay District regulations do overlap, the zones tend to complement rather than duplicate each other. Where the land flattens out and a wider floodplain is established, such as occurs at the convergence of the Farmington and the Pequabuck Rivers, the Flood Protection Zone will provide greater protection to the rivers. Conversely, where steep banks exist and the floodway is relatively narrow, such as occurs along much the Farmington River from the northwestern town line to the railroad overpass, a River Protection District will tend to provide greater protection.

Additionally, by regulating the removal of vegetation, the River Protection District can protect a river and its characteristics in ways that the Flood Protection Zone cannot. Vegetation along rivers has important functions including slowing floodwaters, filtering pollutants such as from erosion and sedimentation, increasing bank stability, providing important fish and wildlife habitat, and preserving a river's aesthetic and recreational qualities.

Activities along the Farmington River from above the Route 4 bridge in Unionville to the railroad overpass are further regulated by the State of Connecticut's establishment of stream channel encroachment lines in this area. No "obstruction or encroachment," as defined in Connecticut General Statute Section 25-4a, may be placed within these lines without first obtaining a permit from the Department of Environmental Protection. Permit decisions are based on findings of a proposal's effect on: the flood-carrying and water storage capacities of the river and floodplain, flood heights, hazards to life and property and natural resources. Since the stream channel encroachment lines have in most cases been established up gradient from the boundary of the floodway zone, they tend to provide added protection to the river resources.

Adjacent Land Uses

The land uses along the Farmington River are in general more intensive to the west and less intensive to the east. The land along the river as it enters the Town remains vacant due to its topography and the extent of the floodway. As the river passes under the Route 4 bridge in Unionville, pockets of industrial and commercial uses appear along the right bank, with residential uses along the left bank. Due to the floodway, however, the residences are setback at least 100 feet from the river.

As the river passes through Unionville Center, the adjacent uses are a mixture of commercial and former industrial sites with a small pocket of residential along the right bank below the Route 177 bridge. Between the confluence of Roaring Brook in Unionville and the railroad overpass, the land use along the left bank is primarily open space and residential, while the uses along the right bank are nearly evenly split between residential and light industrial, with some areas of vacant land.

Due to the expanse of the river's floodway from the railroad overpass to the Avon town line, the primary uses adjacent to the river are open space, agriculture and recreation. The exception includes the former Connecticut Sand & Gravel operation below the railroad overpass, which encompasses nearly one linear mile of river frontage; the mixed uses in Farmington Village and the low-density residential development along Waterville Road.

The largest development constructed along the river in the last ten years was the municipal complex housing the Town's police station and community center. Both buildings were situated with generous setbacks from the river in respect of the site's alluvial flood plain system. The Town completed reconstruction of the former railroad bridge as a trail for pedestrians and non-motorized vehicles as a segment of the Farmington Valley Greenway.

PLANNING OBJECTIVES

1. Use the Subdivision, Zoning and Wetlands Regulations to control erosion of riverbanks, and to preserve the aesthetic, recreational and ecological values of the river. Give special attention to areas where the banks are steep and the designated floodway is narrow.
 - a. Evaluate the inclusion of river setback standards as part of a proposal for the development of upland review areas within the Town's wetland regulations to control development and vegetation removal.
 - b. Encourage the further acquisition of open space by the Town, or the establishment of conservation or public access easements over land immediately adjacent to the river.
2. Coordinate with the Farmington River Watershed Association and other public and private organizations to protect the Farmington River and enhance its aesthetic and recreational values.
 - a. Support the inclusion of additional segments of the Farmington River into the National Wild and Scenic Rivers program.
3. Encourage recreational use of the Farmington River in appropriate locations through improvements to existing public access areas, and the establishment of new access areas or walkways, which do not adversely affect the river or its floodplain.
4. Revise Zoning Regulations and development policies for land partially encumbered by the floodway to permit only a portion of the floodway land area to be used in meeting density and coverage requirements. This would better reflect the natural constraints on development and discourage the concentration of development on one portion of the site.
5. Restrict or prohibit land uses which have the potential to pollute the Farmington River, so as to maintain the existing high water quality.
6. Encourage continued efforts by the Conn. DEP to upgrade sewage treatment facilities on the Pequabuck River, a Farmington River tributary, so as to restore downstream

- water quality to a level consistent with its use for recreation and the propagation of fish and wildlife.
7. Monitor surface water quality of discharges into the Farmington River as part of the federal government's Phase II storm water program.
 8. Support the restoration of the Atlantic Salmon into the Farmington River.
 9. As a compliment to an upland review regulation and the State's current encroachment line program, Farmington should consider the adoption of an overlay zoning district along some or all segments of the Farmington River, similar to a number of communities where the River has received the Wild and Scenic designation.

VIII. INLAND WETLANDS AND WATERCOURSES

In 1972, the Connecticut Legislature, recognizing wetlands as "indispensable and irreplaceable natural resources," passed the Inland Wetlands and Watercourses Act. As a result of this statute wetlands in Connecticut are defined by drainage type, and include all land, including submerged land, which consists of any of the soils types designated as poorly drained, very poorly drained, alluvial and floodplain by the National Cooperative Soil Survey of the U.S. Soil Conservation Service. The statute further defines a watercourse as a river, stream, brook, waterway, lake, pond, marsh, swamp, bog and all other bodies of water, natural or artificial, public or private, vernal or intermittent which are contained within, flow through or border upon the State of Connecticut.

Wetlands Soils

The wetlands soils drainage classifications have the following general characteristics.

Poorly drained soils occur on primarily level or gently sloping land where the water table is at or near the surface from late fall to early spring.

Very poorly drained soils occur in level or depressed land areas, where the water table is at or above the surface during most of the growing season.

Alluvial and floodplain soils occur along level areas along watercourses that are subject to periodic flooding. These soils include all drainage classifications from well drained to very poorly drained.

Table 2 identifies the wetlands soils types found in Farmington, and lists them by their drainage classification.

While the legal definition of wetlands categorizes wetlands soils by drainage classifications, these soils can also be categorized by their location on the landscape. Know Your Land; Natural Soils Groups for Connecticut published by the Soil Conservation Service, USDA; and the Connecticut Cooperative Extension Service, groups soils by both their drainage classification and their location on the landscape.

Four general groups of wetlands soils types occur in Farmington: terrace soils, upland soils, floodplain soils, and marsh and swamp soils. Terrace soils occur above the floodplains of rivers and streams, and are underlain by water-deposited sands, and sands and gravel. Uplands soils occur in upland depressions or along hillside seeps. In Farmington, most upland wetland soils are associated with an underlying layer of compact glacial till (hardpan) that

Table 2

WETLANDS SOILS IN THE TOWN OF FARMINGTON
BY DRAINAGE TYPE

DRAINAGE CLASSIFICATION	SOILS TYPE	SOIL NAME
Well Drained:	HaA	Hadley silt loam
	StA	Suncook loamy sand
	OnA	Ondawa sandy loam
Mod. Well Drained:	PoA	Podunk sandy loam
	WwA	Winooski Silt loam
Poorly Drained:	WcA	Walpole loam
	WsA	Wilbraham stony silt loam
	WrA	Wilbraham silt loam
	RuA	Rumney sandy loam
	LmA	Limerick silt loam
Very Poorly Drained:	PmA	Peats and Mucks, shallow
	SeA	Scarboro loam
	LdA	Leicester, Whitman and very stony silt loam
	MoA	Menlo silt loam
	WtA	Wilbraham and Menlo very stony silt loam
	MpA	Menlo stony silt loam
	SaA	Saco sandy loam
	Re	Riverwash
	SbA	Saco silt loam
	PkA	Peats and Mucks

Table 3

WETLANDS SOILS IN THE TOWN OF FARMINGTON
BY SOILS GROUPS

	SOILS GROUP	SOILS GROUP
Terrace Soils	A-3a	WcA
	A-3b	PmA
	A-3b	SeA
Upland Soils (friable/firm)	B-3b	LdA
Upland Soils (hardpan)	C-3a	WrA
	C-3a	WsA
	C-3b	WtA
	C-3b	MoA
	C-3b	MpA
Floodplain Soils	E-1	StA
	E-1	OnA
	E-1	HaA
	E-2	PoA
	E-2	WwA
	E-3a	LmA
	E-3a	RuA
	E-3a	SbA
	E-3b	SaA
	E-3b	Re
Peats and Mucks	F-1	PkA

Source: Know Your Land: Natural Resource Groups for Connecticut Soil Conservation Service, USDA; and the Connecticut Cooperative Extension Service

restricts the further infiltration of water. Floodplain soils occur along nearly level land adjacent to rivers and streams that are subject to periodic flooding. Finally, marsh and swamp soils include deep peats and mucks, which have a high water table throughout most of the year. Table 3 lists the wetland soils in Farmington by their soils group.

In 2005 an inventory and assessment of all of Farmington's wetland areas over five acres in size was completed as part of the Town's first comprehensive environmental planning study. This report will be a companion to this plan and improve land use planning as well as permitting the various land use commissions to function on more of a proactive basis.

Wetlands Applications

In the last decade, the Farmington Inland Wetland and Watercourses Agency has considered 145 applications. Of these applications, 111, or 71 percent of the applications were approved. At the time an application is submitted, it is determined whether the proposed activity is significant or not. In most cases, applications are considered significant except for the smallest activities such as driveway crossings, minor filling and stream or pond cleanings. The Commission heard 71 significant applications and 74 non-significant applications.

Applications to fill wetlands or watercourses dropped significantly since the previous ten-year period (25 percent of all applications). Since publication of the last Plan of Conservation and Development, 16.75 acres of wetlands were approved for filling. This is an average of .30 acre of wetlands approved for filling per application. Of the 16.75 acres of wetlands filled, 9.25 acres or 55% of the area was filled in conjunction with applications filed by the Town of Farmington for various municipal projects such as the continued development of Tunxis Mead Park.

Wetland Jurisdiction

The science and the law have progressed to establish and recognize the vital link between activities undertaken within the drainage area of a particular wetland and the potential pollution or destruction of such wetland resource. Our understanding of the function of whole wetland systems involves the dependence of wetland and watercourse resources and their adjacent upland areas.

Over the last several years there have been three court decisions that have had a pronounced effect as to how local inland wetlands and watercourses agencies regulate watercourses and wetlands. The decision held in *Queach Corporation v. Inland Wetlands Commission* extended the legal precedent that Commissions not only had the right to

regulate direct impacts to such resources but to also regulate activities upland of wetlands or watercourses even beyond legally established widths of upland review areas if it is found that such activity is likely to affect adversely the wetland or watercourse.

However in the case of Avalon Bay Communities, Inc. v. Wilton Inland Wetlands Commission, the Connecticut Supreme Court found that the agency over reached its jurisdiction when it attempted to regulate an area upland of a wetlands in order to protect the habitat of an animal which also may occupy that wetland during part of the year or its lifecycle. The Court stated that commissions may regulate activities outside of wetlands and watercourses when those activities are likely to affect adversely the physical characteristics of those wetlands or watercourses and not just the wildlife that uses the wetlands. In response to this decision the Connecticut legislature altered the language of the wetland statutes to clarify that a Commission may not deny an application unless the impact will adversely affect the watercourse or wetland or aquatic, plant or animal life and habitats in wetlands or watercourses.

Finally, in the case of River Bend Associates, Inc. ET AL v. Conservation and Inland Wetlands Commission of the Town of Simsbury, the court has specified that a commission must make a finding of substantial evidence by an expert that an activity will likely directly or indirectly have an actual adverse impact on the wetlands or watercourse. This decision will now put the burden on inland wetland and watercourse commissions to make a finding based on scientific evidence that an activity will not only possibly have an adverse affect on the protected resource but that such impact is likely to happen.

Watercourses

Surface water covers 515 acres or approximately three percent of Farmington's total area. Major water bodies include the Farmington and Pequabuck Rivers, Roaring Brook, Scott Swamp Brook, Wood Pond, Lake Garda, Batterson Park Pond, Walton Pond, Dunning Lake and the former Farmington Reservoir. These water bodies are important assets to the Town providing recreational opportunities and aesthetic appeal, in addition to receiving storm water runoff, and discharges from sewage treatment facilities and industry.

Pollution to surface waters can be divided into two broad categories: point source, and non-point source. Point source pollution includes distinct discharges from wastewater outfalls from factories and sewage treatment facilities. State and federal laws currently regulate these pollution sources. Non-point source pollution includes a broad range of diffuse, small, intermittent or mobile discharges such as acid rain, leaky septic systems, storm

water runoff, erosion and sedimentation, and agricultural and lawn chemicals.

The Connecticut Department of Environmental Protection adopted statewide "Water Quality Standards and Criteria" in 1980, which were most recently revised in 1997, and has delineated on maps the classification of all surface waters. These standards are used to regulate point source pollution discharges. The State water quality classes include Class AA, A, B, C, and D waters; with Class AA waters being the most pristine, and Class D waters being the most degraded. Table 4 summarizes the Connecticut surface water classifications. It is State policy to restore all surface waters, where possible, to at least Class B quality, and to maintain waters of higher quality in their present state.

Most rivers and streams in Farmington are Class B quality or better. Both Scott Swamp Brook and Roaring Brook are classified as having B/A water quality. This classification indicates that while the stream currently meets Class B criteria, DEP has set a goal of achieving Class A water quality. While the discharges resulting in the B classification for Roaring Brook are beyond the boundaries of Farmington, most of the discharges into Scott Swamp Brook occur in Farmington. According to DEP officials the current B classification for Scott Swamp Brook is a result of past improper spills, discharges or storage of industrial chemicals in the vicinity. DEP's goal therefore is to clean up these contaminated areas.

The Farmington River is designated Class B water quality for its entire length through the Town of Farmington, with an additional "b" subscript for the section of the river from just west of its confluence with the Pequabuck River to the Avon town line. The "b" subscript designates the zone of influence in the immediate vicinity of treated sewage outfalls. Swimming is not advisable in these areas. The "b" subscript for the Farmington River is influenced not only by the Farmington sewage treatment plant, but also the Pequabuck River.

The Pequabuck River is currently class C/B. The Pequabuck River has historically been heavily impacted by industrial and municipal discharge resulting in high turbidity, coliform bacteria and low dissolved oxygen levels. However, controls on industrial discharges and improvements to sewage treatment facilities in Plainville and Bristol over the last decade have, according to DEP, greatly improved the water quality of the Pequabuck River.

According to the State 1997 Water Quality Standards, surface waters, which are not otherwise designated are considered

TABLE 4

SURFACE WATER CLASSIFICATION, USES, AND DISCHARGES ALLOWED*

Class	Resources Use	Compatible Discharges
AA	Existing or proposed public drinking water supply impoundments and tributary surface water.	<p>a. Treated backwash from drinking water treatment facilities.</p> <p>b. Minor cooling or clean water.</p>
A or SA	May be suitable for drinking water supply (Class A); may be suitable for all other water uses including bathing; shellfish resource; character uniformly excellent, may be subject to absolute restrictions on the discharge of pollutants.	<p>a. Treated backwash from drinking water treatment facilities.</p> <p>b. Minor Cooling or clean water.</p>
B or SB	Suitable for bathing, other recreational purposes, agricultural uses, certain industrial processes and cooling; excellent fish and wildlife habitat; good aesthetic value.	<p>a. Those allowed in AA, and A.</p> <p>b. Major and minor discharges from municipal and industrial waste water treatment.</p>
C or Sc	May have limited suitability for certain fish and wildlife recreational boating, certain industrial processes and cooling, good aesthetic value, not suitable for bathing, water quality unacceptable. Water quality goal is Class B or SB.	a. Same as Class B
D	May be suitable for bathing or other recreational purposes, certain fish and wildlife habitat, certain industrial processes and cooling; may have good aesthetic value. Present conditions, however, severely inhibit or preclude one or more of the above resource values; water quality unacceptable. Water quality goal is Class B.	a. Same as Class B.

Class A. Therefore, all lakes and ponds within Farmington are classified as having Class A quality. Batterson Park Pond, however, was given a lake trophic classification of eutrophic by the State. As a eutrophic lake, Batterson Park Pond is highly enriched with plant nutrients, and is characterized by frequent nuisance blooms of algae. Batterson Park Pond, along with Lake Garda and Dunning Lake are currently managed with annual applications of chemicals to control the algal blooms, and maximize their recreational value. In addition the City of Hartford recently received a grant from the DEP for the installation of storm water structures designed to reduce sediment load into the lake. Sediment has been found to carry nutrients, which further contribute to the lake's algae problems.

While chemical use is approved by the State, the Water Quality Standards for the State indicate that lakes, ponds and impoundments with AA or A class waters should be managed through the "implementation of best management practices, and other reasonable controls of non-point sources of nutrients and sediments." This method of management is preferred over the use of biocides for the control of eutrophic conditions. Non-point source pollutants are a major contaminant to lakes and ponds, due to the nature of non-point source pollution, however, it is not currently regulated through a State managed permit process like point source pollution. A new federally mandated storm water program may have positive effects on this situation in a number of years.

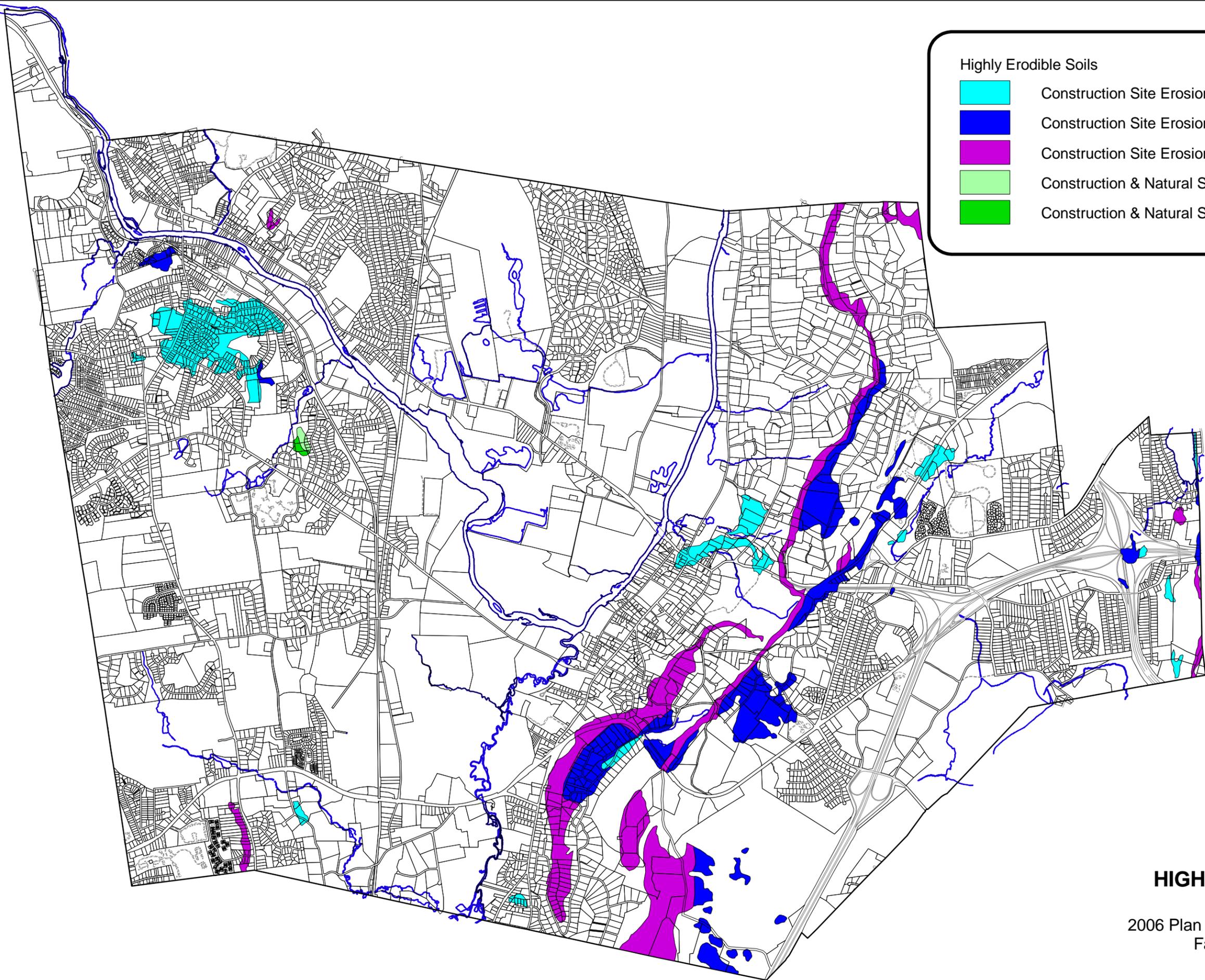
One form of non-point source pollution that has been regulated locally since 1985 is erosion and sedimentation from construction sites. Map 4 identifies the location of soils in the Town that are identified as highly erodible on slopes three percent or greater, and moderately erodible soils on slopes 15 percent or greater.

PLANNING OBJECTIVES

1. Enforce existing Inland Wetlands and Watercourses Regulations, and utilize cluster zoning regulations (Section 19.) and protection of valuable site resources Subdivision Regulations (Section 4.17) to maximize the preservation and protection of wetlands and watercourses within the Town of Farmington.
2. All erosion controls should be set and inspected for all activities in and near wetlands prior to the start of construction. These controls should be designed in accordance with the specifications found in the 2002 as amended Erosion and Sediment Control Manual.
3. Watercourses which have been identified with viable fish populations should have any proposed crossings over these streams designed to assure the free passage of fish.
4. The Inland Wetlands and Watercourses Agency should adopt and implement the definition of mitigation adopted by the Council of Environmental Quality in 1978 as follows and in the order it is presented (a..e) for all proposed wetlands activities:
"Mitigation includes:
 - a. Avoiding the impact altogether by not taking certain action or parts of an action.
 - b. Minimizing impacts by limiting the degree or magnitude of the action.
 - c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
 - d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
 - e. Compensating for the impact by replacing or providing substitute resources or environments."
5. Continue using the Farmington Inland Wetlands and Watercourse Map as a guide only. All applications involving land with wetlands or suspected wetlands should include accurately mapped wetlands based on field investigation.
6. In order to maximize the preservation of wetlands and watercourses, regulated upland areas and development setbacks should be established for incorporation into Inland Wetlands and Watercourses Regulations or other land use regulations as appropriate.
 - a. A setback or buffer area is a relatively undisturbed "upland-to- wetland" transitional landscape. Natural buffer areas can be valuable in maximizing the preservation of a wetlands or watercourse. Their primary values include wildlife habitat (e.g.

foraging, migration corridor, breeding and nesting), pollution attenuation, maintain landscape diversity, and recreational and aesthetic open space. The size of a buffer area should, at minimum, consider: site conditions (e.g. slope, vegetation cover, soils type), potential for impact from development (impervious cover, type of development, septic system), and quality of wetlands. The actual width of the setback or buffer area should be determined from information provided from a professional wetland scientist.

7. Untreated stormwater should not be directly discharged into a wetlands or watercourse. Treatment systems should be employed consistent with the recommendations of the recently published stormwater manual by the DEP.
8. The evaluation of wetlands provided in the Town's Environmental Resource Inventory and Plan should be used as a guide by the Town's land use commissions when making land use recommendations and deciding upon applications involving inland wetlands and watercourses.
9. Particular care should be given in the design, implementation and enforcement of erosion and sedimentation controls on sites which include or which are adjacent to wetlands or watercourses, or which are identified on the High Erosion Potential Map.
10. Cooperate with State and Federal efforts to reduce impacts to surface water bodies from non-point source pollution.



Highly Erodible Soils

- Construction Site Erosion Hazard; 3-8% Slope
- Construction Site Erosion Hazard; 8-15% Slope
- Construction Site Erosion Hazard; >15% Slope
- Construction & Natural Site Erosion Hazard; 3-8% Slope
- Construction & Natural Site Erosion Hazard; >8% Slope



Map #4

HIGHLY ERODIBLE SOILS

2006 Plan of Conservation & Development
Farmington, Connecticut

IX. FLORA AND FAUNA

In 1976, a Department of Environmental Protection study entitled "Rare and Endangered Species of Connecticut and Their Habitats" divided the State into 14 ecoregions. Ecoregions are areas that have similar landscapes, climate and vegetative patterns, and which are marked by the presence or absence of indicator species or species groups. According to this study, the Town of Farmington is located almost entirely in the North-Central Lowlands ecoregion. The only exception being the northwestern corner of the town, which is located in the Northwestern Hills ecoregion.

The North-Central Lowlands ecoregion is characterized by extensive floodplains and lowland areas adjacent to major rivers, interspersed with prominent north/south oriented ridge systems. The typical forest vegetation for the region is Central Hardwoods, Hemlock and White Pines. This vegetation includes Red, Black and White Oaks (Quercus rubra, Q. velutina and Q. alba), and Shagbark, Pignut and Bitternut Hickories (Carya ovata, C. glabra, and C. cordiformis). Hemlock (Tsuga canadensis) and White Pine (Pinus strobus) are noted as frequent and locally abundant or dominant.

In addition to identifying the typical forest types of each ecoregion, it emphasized the importance of "critical" or rare habitats in the preservation of rare and endangered plant and animal species. Many species are rare or endangered because suitable habitats for their survival exist in only a few areas. Since these isolated habitats are critical to the survival of many of Connecticut's rare and endangered species, they are termed critical habitats.

The study identifies five critical habitats that can be found within the North-Central Lowlands ecoregion. Four of these habitats can be found in Farmington: traprock ridges, sand plains, grasslands and floodplain forests.

A traprock ridge runs in a north/south orientation in the eastern portion of the Town. Traprock ridges are typically gradually sloping on their eastern side, with predominantly oak and hickory forests. Conversely, the western slopes of traprock ridges tend to be extremely steep with an upper cliff face and a lower talus slope. The cliff face has little soil or stored water, resulting in extremely harsh conditions for vegetation growth. The lower talus slope, on the other hand, tends to support lush forests of typically Sugar Maple, Ash and Basswood. Wetlands are also commonly present. Spring wildflowers are abundant in these forests, with many rare species being unique to this area.

Due to the steep slopes and wetlands, development on the western slope is very sparse providing habitat and migration corridors for a variety of wildlife species. Some traprock

areas attract concentrations of butterflies with some species, such as the Falcate Orange Tip, being unique to traprock ridges.

Floodplain forests are a second critical habitat found in Farmington. In most cases, as in Farmington, the remaining floodplain forests are fragmented due primarily to agricultural activity. Remaining significant stands of floodplain forests in Farmington exist along the Farmington River north of the Unionville-Route 4 bridge and near the bend of the River and along the Pequabuck Rivers in Shade Swamp. The periodic flooding of these forests creates very fertile conditions that support a high diversity of plant and animal species. Songbirds can be particularly abundant. The dominant trees tend to be Black Willow (Salix nigra), Cottonwood (Populus deltoides), Sycamore (Platanus occidentalis), and Silver Maple (Acer saccharium).

A third critical habitat found in Farmington is grassland. Several of Connecticut's rare breeding birds are dependent upon grassland habitats. In order for grasslands to provide suitable habitat they must be managed so that mowing does not occur during peak breeding and nesting periods. Farmington is fortunate to have several pockets of varying forms of grassland. The long term preservation and/or management of many of these pockets, however, is not assured.

Since the natural progression of most grasslands in Connecticut is towards the development of woodlands, most existing grasslands are maintained by pasturing or mowing. Three apparently naturally occurring grasslands in Farmington are all wet meadows, which are maintained by frequent fluctuations of the water table. One is a small wet meadow located off of South Road that is preserved by a conservation easement. The second is the grassland that grows in the alluvial soils along the Pequabuck River. The third is a wet meadow on the State property at the end of Deborah Lane and adjacent to I-84.

The final critical habitat found in Farmington is sand plains. The north central portion of Farmington is comprised of sand plain habitat. Sand plains are a rich sources of sand and gravel. Farmington's sand plains currently support two separate sand and gravel operations. While much of Farmington's sand plains have been developed, a large section has been preserved as Winding Trails Recreation Area. The low, scrubby woodlands of sand plains tend to be predominantly vegetated by Black Oaks (Quercus velutina) and Pitch Pine (Pinus rigida). Additionally, although most soils in Farmington's sand plain range from well drained to excessively drained, they are also interspersed with wetlands providing even greater diversity of wildlife habitat.

In 2003, the Wildlife Conservation Society Metropolitan Conservation Alliance and the Farmington River Watershed

Association in cooperation with the towns of Avon, Canton, East Granby, Farmington, Granby, Simsbury, and Suffield initiated a regional study known as the Farmington Valley Biodiversity Project. This effort has built upon the earlier work undertaken in 1976 and involved the collection and mapping of comprehensive data on the biodiversity of the Farmington River Watershed. This information would be made available to the Towns within the watershed to be used by local planning and zoning authorities and incorporated into their land use plans and regulatory system. Without this type of effort, existing development patterns would continue to fragment larger expanses of forested and non-forested habitats, endangering both plant and animal communities. The protection of landscapes, which contain significant size and quality are critical to achieving a healthy balance between development and preservation. The preservation of diverse ecosystems sustain and support important natural processes such as soil creation, pollination, decomposition of organic matter and filtration of water. To maintain this ecological diversity it is critical that remaining habitats are large enough and are of such quality to support viable wildlife populations and that they are arranged in such a way that allows dispersal of plants and animals across the landscape. Core wildlife habitat areas and the corridors that connect them must be identified and integrated into development and conservation initiatives, which will preserve them to the highest degree. In this paradigm corridors are not presented or defined as narrow linear links connecting habitats, but should be established as broad swaths of habitat that bridge habitat core areas, providing secondary habitat.

The Farmington Valley Biodiversity Project sought to identify the existing location of species and natural communities in an effort to locate such core areas. Such species not only include State listed species (that are endangered or threatened) but also species that have been proven to respond poorly to urbanization. The natural communities referred to in the study include sandplain grasslands, floodplain forests, red maple swamps and traprock ridge talus slopes.

The Study's authors using satellite images mapped three land cover types (grassland, shrub/scrub, forest) within the region. They then superimposed the existing road network to determine the level of habitat fragmentation. Unfragmented areas were selected as potential core habitat areas for further field study based upon size criterion. To be considered a possible candidate for a core area, forests had to exceed 125 acres in area while the minimum size of grassland or shrub/scrub plats were 25 and 5 acres respectively. Using available natural resource data, these potential core habitat areas were refined into a lesser number suitable for field study. Following the compilation of information from both existing studies and field analysis a total of 48 primary and 23 secondary (connecting) core habitat areas were identified in the region. The study

found 8 primary and 3 secondary core habitat areas within the Town of Farmington. Three of the primary areas were found along the Farmington river corridor as part of the alluvial floodplain ecoregion. A majority of acreage in these sites are already protected as open space including the Winding Trails Recreation Area, Shade Swamp Sanctuary, and a combination of State and municipally owned land situated on the north and south side of Meadow Road. An additional 3 primary areas are associated with the traprock ridge extending from the Town of Plainville to Avon and West Hartford. Substantial areas are protected as part of the Deadwood Swamp and the privately held Hillstead Museum.

The last 2 primary core sites appear in the western section of the Town and consist of Scott Swamp and the Town Forest.

The 3 secondary core sites are the Burnt Hill area, Batterson Park Pond area and the Taine Mountain area. Recent acquisitions by the Town have now assured the permanent protection of property in the Burnt Hill and Taine Mountain area while approximately 60 acres of open space have been set aside as part of the Bradford Walk development in the Batterson Park Pond area.

Map 14 illustrates the location of all the primary and secondary core areas and Figure lists the species of conservation concern documented by the Study in the Town of Farmington.

A component of the biodiversity study was an inventory and mapping of active vernal pools located within the Town.

The information contained in the Farmington Valley Biodiversity Project should be integrated into Farmington's land use regulations and used to guide the preservation priorities of the Town's open space acquisition program.

While the Farmington River is not specifically listed as a critical habitat, it is an important part of the Atlantic Salmon Restoration program in Connecticut. The Atlantic Salmon is an anadromous fish, which means that it migrates from the ocean into freshwater to spawn. At present, all adult salmon that return to the Farmington River and enter the fishway at the Rainbow Dam in Windsor, Connecticut are captured to add to the hatchery stock.

Atlantic Salmon are released along the Farmington River at three stages of their development: fry, parr and smolt. Fry are newly hatched salmon. Although most fry are released further upstream, some are released in Farmington from the

FIGURE 1

Listing of Species of Conservation Concern

Birds

Chestnut -sided warbler
Louisiana waterthrush
Black-throated blue warbler
Bobolink
Worm-eating warbler
Black-throated green warbler
American woodcock
Yellow-throated vireo
Olive-sided flycatcher
Cooper's hawk
Blackburnian warbler
Wood thrush
Rufous-sided towhee
Blue-winged warbler
Canada warbler
Eastern meadowlark
Prairie warbler
Savannah sparrow

Amphibians and Reptiles

Spotted Salamander
Blue-spotted salamander
Red-spotted newt
Four-toed salamander
Northern Dusky salamander
Jefferson's salamander
Wood frog
Leopard frog
Spotted turtle
Wood turtle
Eastern box turtle
Hognose snake

Fish

Brook trout

Insects

Big sand tiger beetle
Horsefly, *Hybomitra typhus*

Freshwater Mussels

Eastern pond mussel

Plants

New England Grape

Puttyroot

Sandplain gerardia

Purple milkweed

Route 177 bridge in Unionville, north to the Town line. In 1989-90, 225,607 fry were released in the Farmington River.

Farmington serves as a primary parr release location. When fry reach about two inches in length, they develop distinctive body markings, and are referred to as parr. Parr will remain in the river for another year or two. DEP has indicated that a fairly abundant population of parrs has established in the bend of the Farmington River. In 1989-90, 86,887 parrs were released in the Farmington River.

Salmon that reach about six inches in length between April and mid-June undergo physiological changes that allow them to enter salt water. These fish are referred to as smolts. Although all stocking of smolts is done in Windsor, Connecticut near the mouth of the Farmington River, DEP estimates that 10,000 - 20,000 smolts migrate through the Town of Farmington on their way to the ocean.

A successful restoration program could be a valuable aesthetic and economic factor for Farmington. Although there are few suitable spawning locations in Farmington, most returning salmon will pass through the Town on their way to spawning sites upstream. The potential abundance of salmon, combined with the aesthetic qualities of the Farmington River could establish this area as regionally significant for salmon fishing.

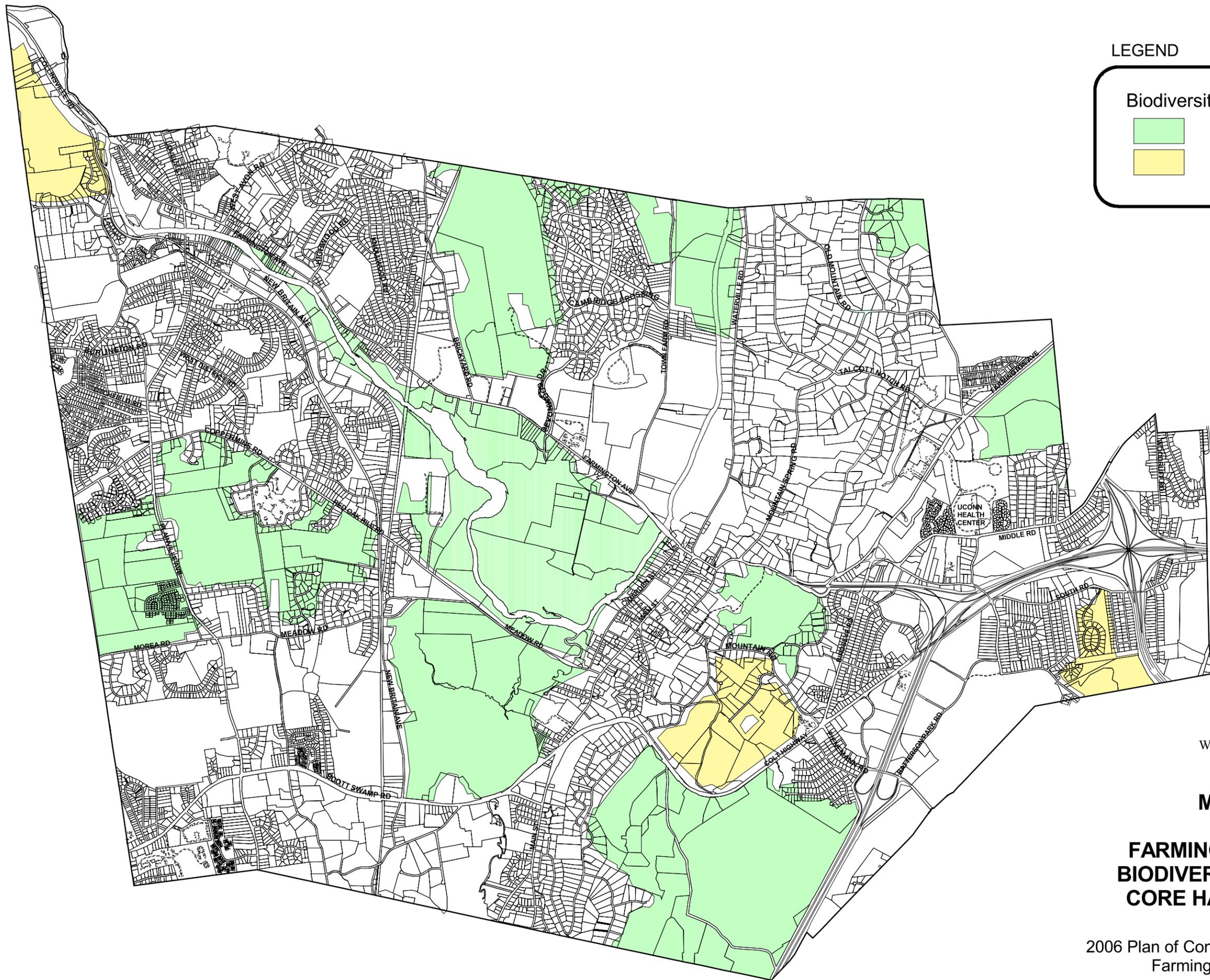
PLANNING OBJECTIVES

1. Establish guidelines for open space acquisition/preservation to maximize wildlife value for food, shelter, nesting and/or migration.
2. Identify potential wildlife corridors to preserve connections between separate parcels of existing open space.
3. Conduct wildlife management studies on Town owned open space that recommends habitat management techniques to improve the wildlife values of suitable open space, and future open space needs to encourage wildlife preservation and diversity.
4. Obtain regular updates from the Natural Diversity Data Base in order to monitor any changes regarding endangered or threatened plant or animal species in Town.
5. Consider adopting stream buffer regulations.
6. Encourage the planting and preservation of vegetation as part of the site plan review process to provide natural screening between unlike uses, natural soil erosion control, noise control, air purification, glare reductions and energy preservation.

7. Support the Connecticut Atlantic Salmon Restoration Program.
8. Encourage the preservation of remaining critical habitats in Farmington as identified in the regional biodiversity study.
9. Encourage the mowing of grasslands to be timed so as to minimize its impact upon the animal species that use this habitat.
10. Develop to the extent legally feasible regulations that will preserve the upland areas associated with vernal pools.
11. The Town should promote the awareness and knowledge of invasive species as well as programs for their control and elimination.
12. The Town should disseminate information concerning sensitive ecological areas on its website.
13. The Town should seek to facilitate the creation of inter-municipal agreements to preserve priority conservation areas, which cross political boundaries.
14. The Town Plan and Zoning Commission should initiate the creation of an overlay zoning district to protect and conserve critical habitats identified in the regional biodiversity study. This would include the establishment and adoption of standards for the collection of natural resource data.

LEGEND

- Biodiversity Core Habitat Areas
- Primary Core Habitat
- Secondary core Habitat



Map # 14

**FARMINGTON VALLEY
BIODIVERSITY PROJECT
CORE HABITAT AREAS**

2006 Plan of Conservation & Development
Farmington, Connecticut

X. EXISTING AND FUTURE OPEN SPACE

EXISTING OPEN SPACE

INTRODUCTION:

This section provides an updated inventory of the existing open space within the Town of Farmington. See also Map 5. The purpose of this portion of the plan is to provide a database of information that can be used to weigh future decisions regarding open space and land preservation. The intent is not to draw conclusions regarding the open space in Farmington, but rather to simply present the existing conditions.

Open space performs three main functions: recreation, resource conservation and enhancement of visual character. The existing open space in Farmington benefits the Town in all three capacities. Open space in this plan does not always mean undeveloped. The determination for inclusion is more related to the land's value as open, agricultural or recreational land. Developed parcels, however, are only included when a significant amount of open land exists to balance the development. The following is an analysis of the Town's open space by type of ownership, type of use, public accessibility, and relative permanence. This section considers first the open space in the Town as a whole and then the open space within each of the Town's neighborhoods.

For the purposes of this plan, open space is defined as parcels of land that meet at least one of the following criteria:

1. Land permanently preserved in its natural state for ecological preservation or passive recreation;
2. Public parks and schools, or publicly owned property held for the future development of public schools, parks or recreation.
3. Publicly owned agricultural land;
4. Class I or II water company land;
5. Cemeteries
6. Privately owned property developed for the purpose of public or private recreation or preservation (including historical or environmental resources) that includes a significant amount of open land, and that are reasonably expected to continue for the next 20 years;

The Town of Farmington currently has a total of 5,912 acres of land that meets the above definition of open space. This total acreage is 32.2 percent of the entire Town. While this is a decrease of 446 acres over the 1995 figure of 6,358 acres, this is due to changes in the definition of open space. Approximately 880 acres of land categorized as open space in the 1995 Plan do not meet the current definition of open space, including land owned by the City of Hartford, and private agricultural and forest land. The

current Plan actually includes 463 acres of new open space added since the 1995 Plan.

The total existing open space in the Town of Farmington has been divided into 7 different categories. These categories have been slightly revised from the 1995 Plan. The 1995 categories of "Private, Non Profit" and "Private, For Profit" have been combined into one category "Privately Owned Land." Additionally, privately owned agricultural and forestland are no longer considered open space. These 7 categories are further divided into 8 different subcategories. Each category and subcategory is further divided by whether the land is privately or publicly accessible. Land is considered publicly accessible if access is not limited to a specified membership or group. This definition does not prohibit charging a fee. Unlike the 1995 Plan, all of the existing open space listed in this Plan is considered permanent in that it is either permanently protected by deed, or its current use is reasonably expected to be maintained for the next 20 years. The categories tend to group the open space by owner or type of owner, while the subcategories tend to group the land by use or purpose. The results of this analysis are summarized in Table 8, and illustrated on Map 6.

OPEN SPACE BY CATEGORY:

The following is an analysis of Farmington's existing open space by category. The categories are listed in the order of their total acreage (highest to lowest).

Town of Farmington:

The Town of Farmington is the largest holder of open space, with 2,568 acres or 43 percent of the total. This is an increase of 682 acres from the 1995 study. During this time period, the Town of Farmington made several significant open space acquisitions including 100 acres in the northwest corner of town, the Fisher Farm on Town Farm Road (107 acres), 65 acres at the end of Burnt Hill Road, and the Hein Farm (51 acres). Overall the Town purchased nearly 500 acres of open space since 1995. The Town's four largest holdings make up 49 percent of the town-owned open space: floodplain land at the bend of the Farmington River (619 acres), The Farmington Town Memorial Forest (267 acres), Westwoods Golf Course (230 acres) and Tunxis Mead Park (135 acres).

Fifty-nine percent (or 1,678 acres) of town-owned open space is used as Parks and Recreation. This is a 34 percent increase (550 acres) over the 1995 study. The next largest subcategories of Town-owned open space are Agricultural Land with 500 acres and Subdivision/Zoning Dedicated Open Space with 375 acres.

Most of the open space held by the Town is publicly accessible (2,097 acres or 82% of Town owned open space). Only the 471 acres of active farmed land is categorized as privately accessible.

Privately Owned:

Farmington open space held by private organizations totals 1,355 acres, or 23 percent of the Town's total open space. This is a reduction of only 30 acres over the 1995 study. This is primarily the result of 1024 Farmington Avenue known as the Farmington Driving Range no longer being categorized as open space. This 24-acre parcel is currently being considered for non-recreation development, and therefore, no longer meets the definition of open space. The largest parcels in this category include Winding Trails with 388 acres, Tunxis Plantation Golf Course with 340 acres, Hill-Stead Museum with 138 acres and The Country Club of Farmington with 129 acres. These 4 properties together make up 74 percent of the land in this category. Thirty-six percent, or 491 acres of open space in this category is publicly accessible.

State of Connecticut:

Seventeen percent (994 acres) of the Town's open space is owned by the State of Connecticut. Shade Swamp Sanctuary alone makes up 51 percent of the State's holdings in Farmington. This 508-acre sanctuary preserves the northern extent of the Pequabuck Wetlands, a 1,000+-acre wetland that contains the Pequabuck River from its confluence with the Farmington River south into the Town of Plainville. All of the State-owned open space except 17-acres of agricultural land is publicly accessible.

Major Waterbodies:

This category was established to acknowledge the recreational and aesthetic values of large water bodies. The major waterbodies category includes water two or more acres in size that is not directly associated with any other open space. Waterbodies associated with other open space are listed under that category. As a result, many of the waterbodies listed in this category are not publicly accessible. They do, however, provide important aesthetic and private recreational qualities to the Town. An important exception is the Farmington River, which is publicly accessible. The Farmington River provides 243 acres for such water recreation as canoeing, fishing, and in some areas, swimming. It makes up 65 percent of this category's 373-acre total.

The City of Hartford:

The City of Hartford owns 282 acres or 11 percent of Farmington's total open space. This is a decrease of 583 acres over the 1995 study. The primary cause for this decrease is a change in the City of Hartford's intentions regarding property they own in the Town of Farmington. In 2000, the Batterson Park Task Force Report was completed for the City of Hartford that recommended the sale of several properties. As a result of this change in intension, only

Batterson Park with 233 acres, and Camp Courant with 47 acres continue to be listed as open space.

The Farmington Land Trust:

The Farmington Land Trust is a private nonprofit organization that plays an important role in the preservation of open space. The Land Trust currently owns 184 acres of land, or 3 percent of the Town's total open space. This is an 88% increase from the 1995 study. Seventy-one percent of the Land Trust's holdings (131 acres) are publicly accessible. The Land Trust also holds conservation easements over an additional 102 acres of land. Although conservation easements are not included in this Open Space Plan, they are an extremely valuable tool to use for preserving land.

Metropolitan District Commission (MDC):

This category includes 156 acres of West Hartford Reservoir watershed land in Farmington's northeast corner. While this land makes up only 3 percent of the Town's total open space, it provides direct public access to hundreds of acres of contiguous open space that extends northward through West Hartford and into the Town of Bloomfield.

OPEN SPACE BY SUBCATEGORY:

Whereas the open space categories noted above group the land primarily by ownership, the subcategories group the land by primary use or purpose. The subcategories are listed below in order of largest to smallest in terms of acreage.

Parks and Recreation:

This subcategory includes 3,275 acres or 55 percent of the Town's total open space. This subcategory includes land preserved for active and passive recreation, as well as for wildlife/habitat preservation. Nearly all of this open space (97 percent) is publicly accessible.

Table 9 categorizes the publicly accessible parks and recreational land in Farmington by active, passive and combined recreation areas. The table also identifies the types of facilities available at each recreation area.

Twelve active recreation areas are listed with a total area of 968 acres, and 7 combined active and passive recreation areas with a total of 706 acres. The facilities available at these areas include 6 softball fields, 6 baseball fields, 1 football field, 13 field hockey or soccer fields, 9 multi-purpose fields, 10 basketball courts, 21 tennis courts, 2 tracks, 4 paved play areas, 13 playgrounds, 6 indoor gyms, 2 golf courses, and 4 swimming areas.

Thirty-seven areas are listed for passive recreation only, totaling 1,782 acres. Of these passive recreation areas 5 provide for canoeing or canoe access, 19 areas have walking trails, 3 allow cross-country skiing, 10 have fishing access and 2 have picnic areas.

Clubs/Camps:

This subcategory has been expanded from the 1995 Plan where only camps were categorized separately. This subcategory currently includes 720 acres, while including only 92 acres in the 1995 plan. There is no new open space in this subcategory since the 1995 plan. Most of the acreage was previously categorized as Parks & Recreation land. This subcategory more clearly defines the use of these properties, as they are important aesthetic and recreational resource in Town; however, all of the land is privately accessible.

Agricultural Land:

This subcategory includes 471 acres or 8 percent of the Town's open space. This is a reduction of 528 acres from the 1995 plan. This is primarily due to the change in the definition of open space whereby privately owned agricultural land is no longer considered open space unless it is somehow permanently preserved. Additionally, only actively farmed land is listed in this subcategory. The Town of Farmington owns 96 percent (454 acres) of the open space in this category, with 403 of these acres being the town-owned farmland in the Farmington River floodplain. All of the open space in this subcategory is privately accessible.

Subdivision/Zoning Open Space:

This subcategory includes 546 acres of open space that has been dedicated as open space through the subdivision or zoning process. This includes land owned by the Town of Farmington (375 acres) and by private, nonprofit organizations in the form of homeowners' associations (166 acres). While all of the Town-owned, subdivision open space is publicly accessible; all of the land held by homeowners' associations is privately accessible.

Major Waterbodies:

This subcategory includes all water bodies in Town that are two acres or larger in size, regardless of their association with existing open space. The 624 acres of water in this subcategory (which is 11 percent of the Town's total open space), includes 252 acres in addition to those listed in the Major Waterbodies category cited above. Three waterbodies make up 72 percent of the water in this subcategory: The Farmington River with 243 acres, Batterson Park Pond with 130 acres and Dunning Lake with 74 acres. Forty-four percent (272 acres) is publicly accessible. In the 1995 plan, Dunning Lake and Batterson Park Pond were both considered publicly accessible. Due to policy changes, both waterbodies are considered privately accessible in this plan.

Water Company Land:

This subcategory includes 156 acres of land owned by water companies. This land is preserved as open space in order to protect an associated watershed for public water supply. All of the land in this category is owned by the

Metropolitan District Commission (MDC), and is publicly accessible.

Flood Control Land:

This subcategory includes land that is maintained as open space for the purpose of flood control. There are 101 acres, or 2 percent of the Town's total open space, in this subcategory. Most of this land is State-owned land in the northeast section of the Town.

Cemeteries:

While cemeteries may not be considered typical open space, they do provide open areas in some of the more heavily developed parts of town, peaceful walking areas and wildlife habitat particularly for many bird species. Farmington has 19 acres of cemeteries. The largest cemetery is Riverside Cemetery, with 13 acres, located along the Farmington River within the Farmington Village neighborhood. Additional cemeteries include Hillside Cemetery with three acres in the center of Unionville, and the historic Main Street cemetery in Farmington Village with two acres.

OPEN SPACE BY NEIGHBORHOOD:

The following is an analysis of the amount and types of open space within each neighborhood. Table 10 is a summary of this data. Map 13 identifies the location of each neighborhood in Farmington.

Batterson Park:

The Batterson Park neighborhood contains 885 acres, and 281 acres (33 percent of the neighborhood) are designated open space. Two properties owned by the City of Hartford, Batterson Park and Camp Courant, make up nearly all of the open space in this neighborhood. Both of these properties are privately accessible.

Central:

This neighborhood is the second largest in Town (2,082 acres), and also contains the second largest amount of open space, 1,036 acres. Fifty percent of this neighborhood is open space, which includes 17 percent of the Town's total open space. Tunxis Plantation Golf Course (340 acres) and Winding Trails (388 acres) make up 70 percent of this neighborhood's open space. This neighborhood includes the 107-acre Fisher Farm that was recently acquired by the Town of Farmington. Fifty-six percent (584 acres) of the open space in this neighborhood is privately accessible.

East Farms:

East Farms includes 162 acres of open space, which is 17 percent of the neighborhood. Sixty-three percent of the open space or 102 acres are publicly accessible. Most of the publicly accessible land includes the Town-owned Colt Park, a 17-acre piece off of South Road; and three open space parcels that were recently acquired through the subdivision and zoning process totaling 54 acres.

Farmington Village:

This neighborhood falls in the middle in terms of both acreage and percent of neighborhood as open space with 339 acres of open space comprising 33 percent of the neighborhood. The Hill-Stead museum (138 acres) and the Farmington Reservoir (50 acres) together comprise 56 percent of the neighborhood's open space. Since the 1995 Plan, the Town of Farmington acquired 65 acres of open space in this neighborhood, including the Farmington Reservoir (50 acres), 10 acres on Diamond Glen Road, and 5 acres as part of the Dunham Lane subdivision.

Ninety-two percent of the neighborhood's open space is publicly accessible. The Hill-Stead Museum alone accounts for 41 percent of the open space in Farmington Village.

Floodplain:

This is the fifth largest neighborhood, but it includes the most open space by both acreage (1,256 acres) and percentage of neighborhood (85 percent). Shade Swamp Sanctuary, Town-owned floodplain land and Tunxis Mead Park make up nearly all of the open space in this neighborhood.

Sixty percent (754 acres) of the open space in this neighborhood is publicly accessible. Most of the privately accessible land is agricultural land that is owned and leased by the Town. The primary change in open space in this neighborhood since the 1995 Plan involves a land swap between the Town of Farmington and Miss Porter's School to acquire the last piece of privately owned land along the Farmington River and north of Meadow Road.

Health Center:

This neighborhood contains 10 percent open space by percentage of neighborhood, or 105 acres. Nearly all of the land is publicly accessible. The publicly accessible open space in this neighborhood was recently boosted by the Town's acquisition of a 65-acre property at the end of Brunt Hill Road from the City of Hartford.

Highlands:

Twenty percent of this neighborhood, or 129 acres, is designated open space. Farmington High School, subdivision related open space and River Glen Park make up 87 percent of this neighborhood's open space. All of the open space in the Highlands neighborhood is publicly accessible. Approximately 13 acres of open space owned by the Town of Farmington and the Farmington Land Trust was added to this neighborhood since the 1995 Plan.

Lake Garda:

This is the Town's smallest neighborhood, and it also contains the least amount of open space by acreage (14 acres), and the second least amount of open space by percentage of the neighborhood (8 percent). Most of the open space in this neighborhood is the lake itself, which encompasses 11 acres. Nearly all of the open space is

privately accessible through the Lake Garda Improvement Association. No new open space was acquired in this neighborhood since the 1995 Plan.

Oakland Gardens:

This neighborhood is the second smallest, yet it contains the second most open space by percent of neighborhood (73 percent). Nearly all of the 162 acres of open space in this neighborhood is either West Hartford Reservoir land owned by the Metropolitan District Commission, or State of Connecticut land on the south side of Route 4. All of the open space in this neighborhood allows public access. While this neighborhood includes a significant amount of open space, the residential development in this neighborhood is very dense, with only a 1 acre cluster of open space that includes a small playground. The only new open space added to this neighborhood since the 1995 Plan was a 0.2 acre parcel that was added to this cluster of open space.

Robbins:

Irving Robbins Junior High School and the East Farms Elementary School provides 47% of the open space in this neighborhood (51 acres of a total 108 acres). Nearly all of the open space in this neighborhood allows public access. Since the 1995 Plan, the Town of Farmington has acquired 49 acres of open space in the southern portion of this neighborhood, adjacent to the Farmington Reservoir.

South Farmington:

South Farmington includes 406 acres of open space, which is 26 percent of the neighborhood. Deadwood Swamp in the Town's southeast corner makes up 70 percent of this open space. Nearly all of the open space in this neighborhood is designated for public access. Most of this area includes Deadwood Swamp, which is owned by the State of Connecticut DEP. Seven acres of publicly accessible land around Will Warren's Den on Rattlesnake Mountain is also located in this neighborhood. This land was donated to the Town by the Wadsworth family, and is accessible by the Metacomet Trail or a pedestrian easement from Forest Hills Drive. Newly acquired open space in this neighborhood includes 19 acres of land acquired through the subdivision process, and a 13.5-acre gift of land to the Town of Farmington from Donald Tinty for use a future family park.

Southwest:

This is the Town's largest neighborhood with 3,000 acres. Nearly 31 percent of this acreage (916 acres) is open space. Eighty-nine percent of the open space is publicly accessible including the Town Memorial Forest (267 acres) and Westwoods Golf Course (230 acres). These two areas alone make up 61 percent of the neighborhood's publicly accessible open space. Since the 1995 Plan, the Town of Farmington has purchased 102 acres of open space in this neighborhood, and acquired approximately 39 acres through the subdivision and zoning process.

Talcott:

Eighteen percent, or 321 acres of this neighborhood is open space. Of this, 51 percent or 165 acres is publicly accessible. Most of the privately accessible land includes 129 acres of the Farmington Country Club. Metropolitan District Commission property and various Farmington Land Trust holdings make up most of this neighborhood's publicly accessible open space. New open space in this neighborhood includes approximately 32 acres acquired through purchase, Land Trust gifts and the subdivision process.

Unionville:

Twenty-one percent of this neighborhood, or 307 acres is designated open space. The two largest areas of open space in this neighborhood includes 70 acres of the Farmington River, and a recently acquired 101 acre wooded parcel known as Saddleridge. Both of these properties are publicly accessible. Eighty-five percent (261 acres) of the open space in Unionville allows public access. Since the 1995 Plan, 148 acres of open space were added to this neighborhood, including Saddleridge noted previously, Suburban Park (20 acres), as well as 26 additional acres acquired by purchase, gift and the subdivision process.

West District:

Twenty-six percent of this neighborhood is open space (371 acres). Fifty-one percent of this open space (187 acres) was obtained through the subdivision process. Most of the remaining open space includes private agricultural land and the West District Elementary School. Public access is allowed on 83 percent of the open space in this neighborhood (308 acres). The privately accessible land includes open space in the Coppermine Village subdivision, and the Farmington Land Trust Bushley property holding. Since the 1995 Plan, the Town purchased 40 acres of open space near Twin Ponds Road, and added 7 acres of open space through the subdivision process. Additionally, the Farmington Land Trust acquired 42 acres of open space in this neighborhood, permanently preserving land that had been listed as nonpermanent open space in the 1995 Plan.

Table 8

OPEN SPACE IN THE TOWN OF FARMINGTON
(By Category and Accessibility)

CATEGORY	ACRES	% OF TOTAL OPEN SPACE	ACCESSIBILITY			
			PUBLIC		PRIVATE	
			ACRES	%	ACRES	%
Farmington, Town of *	2,568	43%	2,097	35%	471	8%
Private	1,355	23%	491	8%	864	15%
Connecticut, State of	994	17%	994	17%	0	0%
Major Water Bodies**	373	6%	254	4%	118	2%
Hartford, City of	282	5%	0	0%	282	5%
Farmington Land Trust	184	3%	131	2%	54	1%
MDC	156	3%	156	3%	0	0%
TOTAL	5,912	100%	4,123	70%	1,789	30%

SUBCATEGORY	ACRES	% OF TOTAL OPEN SPACE	ACCESSIBILITY			
			PUBLIC		PRIVATE	
			ACRES	%	ACRES	%
Parks & Recreation*	3,275	55%	3180	54%	95	2%
Clubs/Camps	720	12%	0	0%	720	12%
Agricultural Land	471	8%	0	0%	471	8%
Subdivision/Zoning Dedications	546	9%	384	6%	162	3%
Major Water Bodies**	624	11%	273	5%	351	6%
Water Company Land	156	3%	156	3%	0	0%
Flood Control	101	2%	101	2%	0	0%
Cemeteries	19	0%	19	0%	0	0%
TOTAL	5,912	100%	4,113	70%	1,799	30%

* Acreage includes Public Schools

** The Major Waterbodies Category only includes waterbodies that cannot be included in one of the other open space categories. The Major Waterbodies subcategory includes all waterbodies greater than 2 acres in size that are either associated with other open space or that are not bound to a particular property.

Table 9a

TOWN OF FARMINGTON
INVENTORY OF PUBLIC RECREATION AREAS AND FACILITIES

ACTIVE RECREATION

OPEN SPACE AREA	NEIGHBORHOOD	ACRES	SOFTBALL	BASEBALL	FOOTBALL	HOCKEY/SOCCER	MULTI-PURPOSE FIELDS	BASKETBALL	TENNIS	TRACK	PAVED PLAY AREA	PLAYGROUND	GYM	GOLF	SWIMMING	CANOING	WALKING TRAILS	CROSS-COUNTRY SKIING	FISHING	PICNICKING
Batterson Park	Batterson Park	234.43	1				1	1				X			X				X	X
Colt Park	East Farms	16.93										X								
Farmington High School	Highlands	52.71	1	1	1	2	2	1	8	X			X							
Farmington Polo Grounds	Central	57.73																		
Irving Robbins School	Robbins	30.84					1	1	4	X	X	X	X							
Lake Garda Playground	Lake Garda	0.08										X								
Lion's Park	Unionville	2.35										X								X
Noah Wallace School	Farmington Village	4.70					1					X								
Oakland Gardens Playground	Oakland Gardens	0.32										X								
Tunxis Plantation Golf Course	Central	339.74							4					X						
Union School	Unionville	10.14					1	1			X	X	X						X	
Westwoods Golf Course	Southwest	217.56												X						
SUBTOTAL		967.53	2	1	1	2	5	4	17	1	2	7	3	2	1	0	0	0	2	2

Table 9b

TOWN OF FARMINGTON
INVENTORY OF PUBLIC RECREATION AREAS AND FACILITIES

ACTIVE AND PASSIVE RECREATION

OPEN SPACE AREA	NEIGHBORHOOD	ACRES	SOFTBALL	BASEBALL	FOOTBALL	HOCKEY/SOCCER	MULTI-PURPOSE FIELDS	BASKETBALL	TENNIS	TRACK	PAVED PLAY AREA	PLAYGROUND	GYM	GOLF	SWIMMING	CANOEING	WALKING TRAILS	CROSS-COUNTRY SKIING	FISHING	PICNICKING	ROWING	
Colt Park	East Farms	16.93										X										
East Farms School	Robbins	19.75					1	1			X	X	X				X		X			
River Glen	Highlands	17.09		4								X			X	X	X		X			
Tunxis Mead	Floodplain	170.64	2	1		10		1				X			X	X	X	X	X			X
West District School & Adjacent	West District	68.48					1	1			X	X	X				X	X				
West Woods Upper Elementary School	Southwest	25.86	1				1						X				X					
Winding Trails	Central	387.71	1			1	1	3	4			X			X	X	X	X	X	X		
SUBTOTAL		706.46	4	5	0	11	4	6	4	0	2	6	3	0	3	3	6	3	4	1		1

Table 9c
TOWN OF FARMINGTON
INVENTORY OF PUBLIC RECREATION AREAS AND FACILITIES

PASSIVE RECREATION

OPEN SPACE AREA	NEIGHBORHOOD	ACRES	CANOEING	WALKING TRAILS	CROSS-COUNTRY SKIING	FISHING	PICNICKING
Alice Pinney Park	Unionville	0.22					
Brooks Common	Unionville	0.34		X			
Burnt Hill	Health Center	64.94		X			
Chase Open Space	South Farmington	9.89		X			
Deadwood Swamp	South Farmington	346.10		X			
Farmington Land Trust:							
Bancroft Memorial Forest	Talcott	25.09					
Bull Lot	Farmington Village	1.41					
Cowles Parcel	Floodplain	2.97	X			X	
Douglas-Mount Parcel	Unionville	4.87				X	
Farmington Canal	Talcott	7.94		X		X	
Lincoln Parcel	Talcott	3.35					
Lidgerwood Parcel	Talcott	1.96					
Miser Parcel	East Farms	2.52					
Rauch Parcel	Talcott	13.60					
Reiner Cons. Ease.	Talcott	11.17		X			
Rutz Parcel	East Farms	4.44					
Stedman Parcel	Farmington Village	1.12					
Thomson Parcel	Talcott	2.45					
Walter's Parcel	Farmington Village	0.18					
Farmington Canal Aqueduct*	Talcott	12.99		X		X	
Farmington Reservoir	Farmington Village	49.63	X	X		X	
Farmington Village Green	Farmington Village	1.32					
Fisher Farm	Central	107.30		X		X	
Hein Farm	Southwest	50.59		X			
Hill-Stead Museum	Farmington Village	137.26		X	X		
MDC Reservoir	Oakland Gardens/Talcott	133.37		X	X		
Oakland Gardens	Oakland Gardens	0.38					
Poplar Bars Open Space	Robbins	49.10		X			

Table 9c
TOWN OF FARMINGTON
INVENTORY OF PUBLIC RECREATION AREAS AND FACILITIES

PASSIVE RECREATION
(Continued)

OPEN SPACE AREA	NEIGHBORHOOD	ACRES	CANOEING	WALKING TRAILS	CROSS-COUNTRY SKIING	FISHING	PICNICKING
Saddleridge	Unionville	100.93		X			
Shade Swamp Sanctuary	Floodplain	558.62	X	X		X	
Suburban Park	Unionville	20.80		X			
Trinity Family Park	South Farmington	15.67				X	
Town Memorial Forest	Southwest	266.92		X			
Town-Owned Floodplain	Floodplain	182.36	X	X	X	X	
Unionville Green	Unionville	0.34					
Will Warren's Den	South Farmington	7.19		X			
Yodkins-Morin Park	Unionville	3.87	X			X	X
SUBTOTAL		1,781.71	5	19	3	10	2

Note: Table to be further updated for Farmington Land Trust Parcels

Table 9d

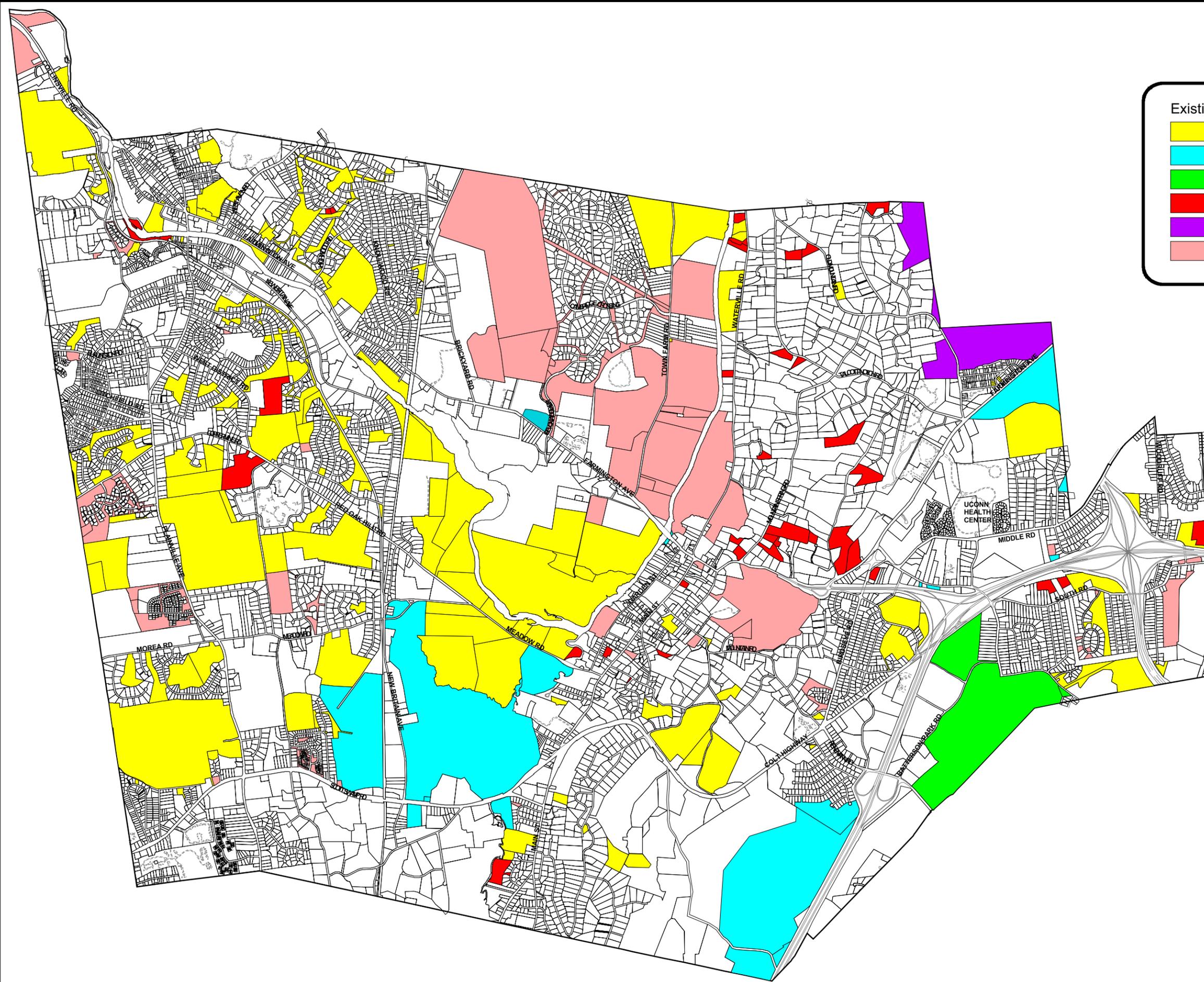
TOWN OF FARMINGTON
 INVENTORY OF PUBLIC RECREATION AREAS AND FACILITIES

OPEN SPACE AREA	ACRES	SOFTBALL	BASEBALL	FOOTBALL	HOCKEY/SOCCER	MISC. PLAYFIELDS	BASKETBALL	TENNIS	TRACK	PAVED PLAY AREA	PLAYGROUND	GYM	GOLF	SWIMMING	CANOEING	WALKING TRAILS	CROSS-COUNTRY SKIING	FISHING	PICNICKING	ROWING
TOTAL FOR ALL PUBLIC PARKS AND RECREATION AREAS	3,455.7	6	6	1	13	9	10	21	2	4	13	6	2	4	8	13	5	12	5	1

Table 10

OPEN SPACE IN THE TOWN OF FARMINGTON
(By Neighborhood and Accessibility)

CATEGORY	ACRES	% OF NBHD	% OF TOTAL OPEN SPACE	ACCESSIBILITY			
				PUBLIC		PRIVATE	
				ACRES	%	ACRES	%
Batterson Park	281	33%	4.8%	0.5	0.2%	280	99.8%
Central	1,036	50%	17.5%	453	44%	584	56%
East Farms	162	17%	2.7%	102	63%	60	37%
Farmington Village	339		5.7%	310	92%		8%
Floodplain		33%				29	
Floodplain	1,256	85%	21.2%	754	60%	502	40%
Health Center	105	10%	1.8%	103	98%	2	2%
Highlands	129	20%	2.2%	129	100%	0	0%
Lake Garda	14	8%	0.2%	0.1	1%	14	99%
Oakland Gardens	162		2.7%	162	100%		0%
		73%				0	
Robbins	108	18%	1.8%	101	93%	8	7%
South Farmington	406		6.9%	405	100%		0%
		26%				1	
Southwest	916	31%	15.5%	812	89%	104	11%
Talcott	321	18%	5.4%	165	51%	156	49%
Unionville	307	21%	5.2%	260	85%	46	15%
West District	371	26%	6.3%	308	83%	62	17%
TOTAL	5,912	32%	100%	4,064	69%	1,848	31%



Existing Open Space

- Farmington, Town of
- Connecticut DEP
- Hartford, City of
- Farmington Land Trust
- Metropolitan District Commission
- Privately Owned

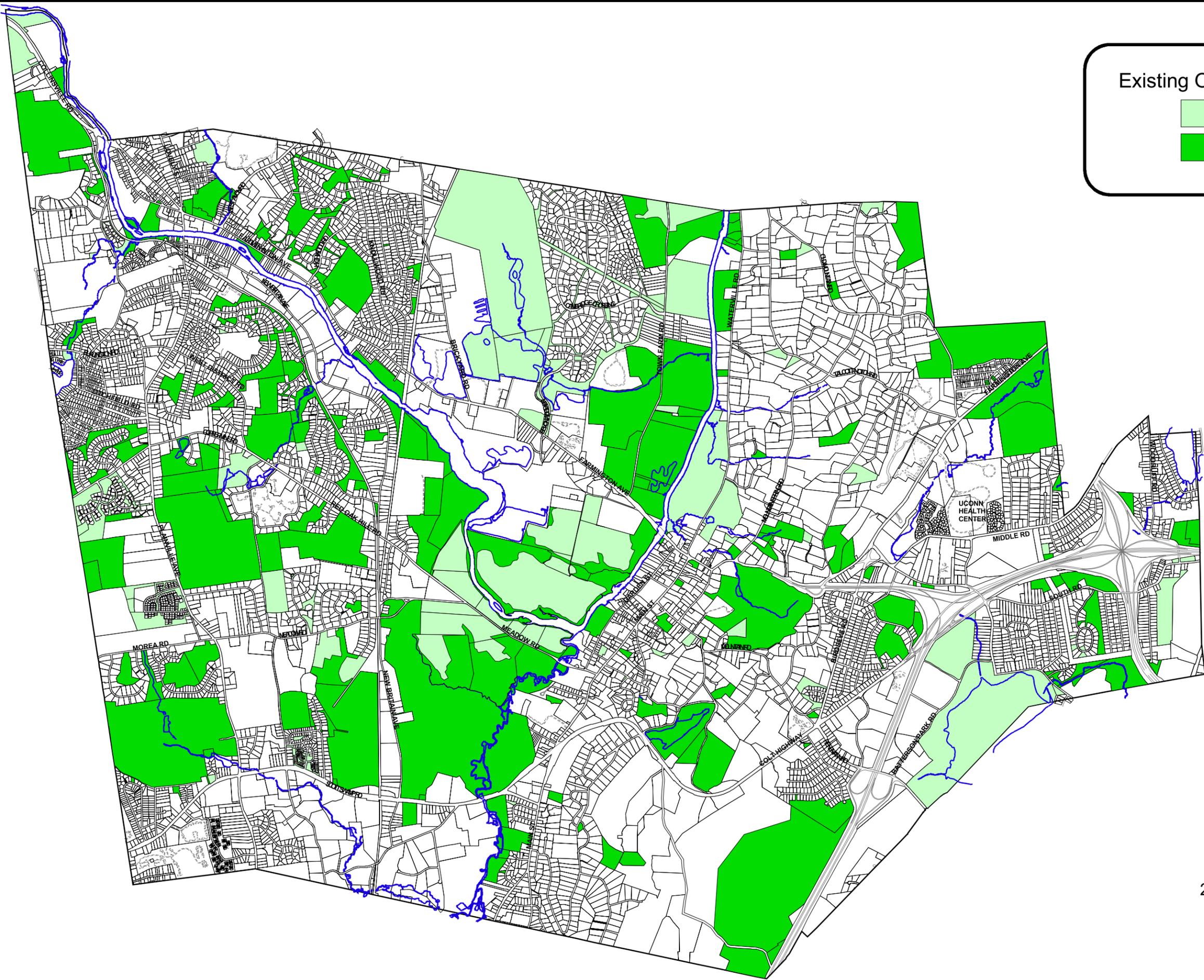


Map #5
EXISTING OPEN SPACE

2006 Plan of Conservation & Development
 Farmington, Connecticut

Existing Open Space by Accessibility

- Private Access
- Public Access



Map # 6
EXISTING OPEN SPACE
BY ACCESSIBILITY

2006 Plan of Conservation & Development
 Farmington, Connecticut

FUTURE OPEN SPACE

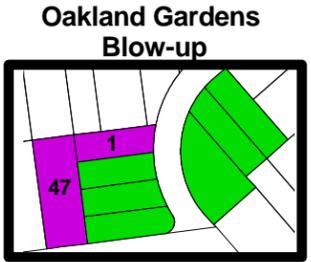
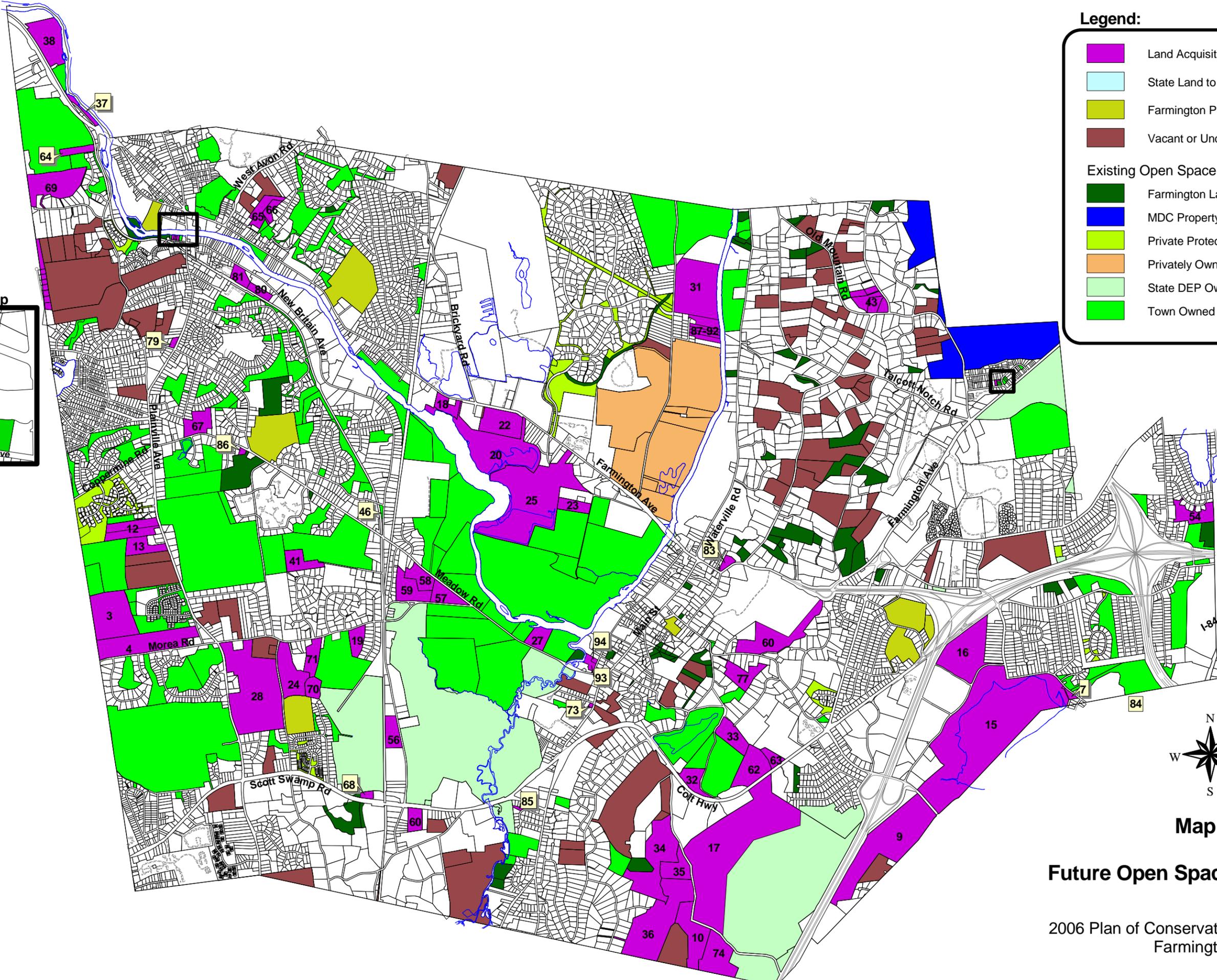
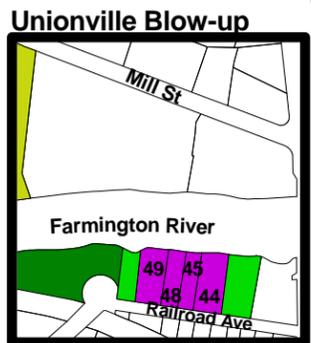
In 1997, the Farmington Town Council established the Open Space Acquisition Committee. The goal of this Committee was to assure that the properties identified by the Conservation Commission as valuable open space for aesthetic, natural resource, historical or recreation purposes be protected for future generations. In 2000, the Open Space Acquisition Committee was renamed as the Land Acquisition Committee, and added the charge of considering the acquisition of properties for municipal use as well as for open space. The Committee is made up of 5 members: 2 Farmington Land Trust members, 2 Conservation Commission members (including its Chair) and a member of the Town Council who serves as the Committee's Chair. Since its creation, the Committee has successfully negotiated and acquired 580 acres of open space. The Land Acquisition Committee maintains a list of properties being considered for acquisition. This list of properties is included in Appendix A of this report, and identified on the Map of Future Open Space (Map #7). While this list indicates parcels or portions of parcels that should have a high priority for preservation, it is not in order of priority.

PLANNING OBJECTIVES

1. Encourage the preservation of the Metacomet Trail through Farmington, and specifically
 - a. Use Section 4.17 "Protection of Valuable Site Resources" of the Farmington Subdivision Regulations to preserve the continuity of the Metacomet Trail.
 - b. Coordinate with the Connecticut Forest and Parks Association towards the protection, maintenance and, where necessary, relocation of the Metacomet Trail.
2. Where possible, preserve a 100-foot wide wooded or natural corridor for the Metacomet Trail in order to protect the pristine nature of the trail, as well as to provide privacy for the nearby homeowners.
3. Work with the National Park Service as the Metacomet Trail is considered for inclusion as a National Scenic Trail.
4. Use Section 4.17 "Protection of Valuable Site Resources" of the Farmington Subdivision Regulations to establish fee ownership or conservation easements that preserve unique or sensitive characteristics of the property being considered for subdivision.
 - a. Consider buffer areas from the unique or sensitive area when establishing the open space or easement boundary.
5. Where possible interconnect existing and future open space and conservation easements for wildlife corridors or future pathways.

6. Where suitable, develop pathways on existing Town-owned open space.
 - a. The pathway should be compatible with the surrounding uses and the purpose of the open space.
7. Develop a pathway network of all existing and proposed trails, paper roads and sidewalks in Town.
 - a. Proposed pathways that are not on existing publicly accessible land should be considered for inclusion on the Town Land Acquisition List
8. Continue to support regional efforts to construct multiuse recreation trails over the abandoned railroad beds in Farmington and surrounding towns, including the following (also see Map #9):
 - a. future proposals involving the railroad bed south of Red Oak Hill Road into Plainville;
 - b. future proposals involving the connection of the multi-use trail that ends at the intersection of Collinsville Road and River Road into Burlington and Canton;
 - c. future proposals involving connection of the multi-use trail between River Road and Route 177; and
 - d. future regional efforts to link railroad beds, including those in Farmington, into a regional trail network.
9. Require the preservation of open space to the maximum amount allowed under Section 4.01.03 of the Farmington Subdivision Regulations. Where significant elements as listed below exceed the allowed open space percentage of Section 4.01.03 of the Subdivision, use of the cluster regulations should be considered as provided under Section 4.17.01(ii) of the Subdivision Regulations to maximize the protection of the valuable site resources. In establishing this open space, the following elements should be considered:
 - a. presence of any of the natural resources listed in section 4.17 of the Farmington subdivision regulations;
10. Interconnection with existing or future open space or walkways; and
11. Aesthetic qualities as viewed from public roads or walkways.
12. Farmington Valley Biodiversity Study
13. Town of Farmington Environmental Resource Inventory and Plan
14. Establish a conservation easement management plan for all conservation easements held by the Town.

- a. This plan should include an inventory of easement locations and natural features, a schedule for inspections, and recommended maintenance, if any.
15. Inventory and incorporate all conservation easements held by either the Town or the Farmington Land Trust into the Farmington Open Space Plan.
16. Establish Open Space Management Plans to evaluate the existing conditions and resources and to recommend future management needs for all town-owned open space.
17. Continue invasive species evaluations for town-owned open space.
18. Further development of Town parks should balance the need for active and passive recreation, agriculture and wetlands and habitat preservation within the Town.
 - a. Future plans for Tunxis Mead should be revised to incorporate the preservation of wetlands and floodplain forest, and the preservation of agriculture.
 - b. Future development plans for Town-owned parkland should be coordinated with the Conservation Commission.
19. The Town should seek to preserve a minimum of 40 percent of its area as permanently protected open space. Public acquisition of key parcels identified in the Town's Land Acquisition List should be considered on a priority basis as funds become available.
20. Existing open spaces, particularly natural and conservation areas, must be vigilantly protected from encroachments and unauthorized activities. While Public Act 06-89 will assist greatly in the protection of such areas, the Town should proactively deter such activities by the adoption of several methods and strategies including the use of aerial photography, the establishment of a local stewardship program and the possible addition of an open space zoning district.
21. The Town should seek to develop a network of trails that would link neighborhoods to the multi-use trail system and other major walking paths.



Legend:

- Land Acquisition List: September 2006
- State Land to be Conveyed to Town
- Farmington Public Schools
- Vacant or Underdeveloped Land 5+ acres

Existing Open Space

- Farmington Land Trust
- MDC Property
- Private Protected Open Space
- Privately Owned Public Golf Course
- State DEP Owned Open Space
- Town Owned Open Space



Map #7

Future Open Space Planning Map

2006 Plan of Conservation and Development
Farmington, CT

XI. ECONOMY AND FISCAL CONDITION

The Town of Farmington continued to experience significant expansion of its commercial and industrial base over the last ten years. The Town has maintained its position in the region as a sizable employment center adding several thousand jobs over this period. Although the value of residential properties as a percentage of the grand list has grown at a higher level than that of businesses, the commercial real estate's contribution to tax revenues is higher than for most communities of Farmington's size.

Employment

Since 1990 Farmington has added 4,808 jobs within its boundaries, an increase of 19.5 percent. The number of jobs in the community continues to exceed the Town's population. The following table presents the distribution of these jobs in two categories.

Non-Agricultural Employment in Farmington

	<u>1990</u>	<u>2005</u>	<u>% Increase</u>
Total Non-Agricultural Employment	24,650	29,458	19.5
Manufacturing	5,710	2,845	-50.1
Non-Manufacturing	18,940	26,613	40.5

Farmington's strong increase in job growth was achieved despite a severe downturn in manufacturing jobs. The loss of jobs in the manufacturing sector paralleled the same phenomenon found statewide. Significant gains were found in service sector including retail sales.

This local job growth was one of the main reasons Farmington continues to enjoy an unemployment rate below the national and state averages. In November 2005 the State Department of Labor reported Farmington's unemployment rate at 3.7%.

Non-Residential Development

Commercial and industrial development since the last Plan of Conservation and Development has taken place for the most part in existing business parks and shopping centers. This includes the expansion of Westfarms Mall and the addition of several new buildings at the Farmington Industrial Park and Farmington Corporate Park. Other additions to the Town's inventory of commercial buildings included hotels on Farmington Avenue and Batterson Park Road and several office buildings on Farmington Avenue, Scott Swamp Road and Batterson Park Road. The Barnes Group and Connecticutcare constructed corporate offices within a mile of each other.

All of this development was consistent with the policies and recommendations of the future land use plan contained in the 1995 Plan of Conservation and Development.

Office Use

Approximately 368,000 square feet of office space was constructed between 1995 and the present. This figure is substantially lower than for previous decades, reflecting a general slowing of the office market as well as a reduction of available land with superior access to the highway and serviced by adequate utilities. A majority of the office area created was contained in just two buildings located on Batterson Park Road and Scott Swamp Road. It is estimated at this time that the vacancy rate for Class A office space in Farmington is just over ten percent. This is a marked improvement from a several years ago when this figure was above fifteen percent.

Retail

Of the 390,000 square feet of non-office commercial space that was developed exclusive of the Westfarms Mall expansion, less than 50,000 square feet of this space could be categorized as retail. This is consistent with a policy limiting the expansion of retail use from the 1995 Plan.

The demand for retail space continues to lag behind the Town's population growth. Several of the smaller shopping centers in town have had extended vacancies and have had to lease to non-retail businesses. It is anticipated that future demand for retail space in Farmington will focus on food, drug and small specialty shops.

Industrial

Industrial space grew by almost a half million square feet during the last ten years (482,000). Two of the Town's long residing manufactures, Trumpf and EBM accounted for just over 77% of this total. Farmington has been fortunate to retain the types of industries, which have had a strong presence in the Town for years including aerospace, machine tools, printing, and metal fabrication. A survey conducted by the Town in the 1990's indicated that these businesses were attracted to Farmington for its low tax rate and proximity to labor and markets and suppliers. The Town did lose to long time members of the community, The Charles House Company and Thompson Precision Ball.

Government Finance

The Town of Farmington has experienced a substantial change in the structure and growth of its tax base since the late 1980s. With the exception of revaluation years, the growth in the grand list of property has been in the range of one to two percent a year while the percentage of commercial and industrial property as a proportion of the grand list has dropped from close to forty percent to just over twenty eight percent. Residential property values have soared over the last five years while the value of non-residential property has grown at a much more modest rate.

Income

Residential and non-residential construction coupled with revaluation in 2002 pushed Farmington's Grand List above the two and one half billion-dollar mark. Over the last ten years the grand list has grown from just over 1.75 billion to over 2.65 billion dollars.

According to a study undertaken by the State of Connecticut Office of Policy and Management, Farmington had the thirty-second greatest equalized Grand List of all 169 municipal subdivisions within Connecticut in 2003. Farmington surpassed the ranking of many communities, which had much higher populations including New Britain and Middletown.

The Town of Farmington, as a result of its substantial Grand List, derives most of its revenue from the local property tax. In 2003 Farmington derived about 13% of its revenue from State and Federal sources. This figure was up from about 10.5% just short of ten years ago.

Expenditures

During recent years the budgets of most localities grew by levels in excess of the rate of inflation and Farmington was no exception. However the mill rate assessed by the Town has been acknowledged as one of the lowest in the State of Connecticut. In a 2003 study performed by the State Office of Policy and Management, Farmington was found to have an equalized mill rate (mill rate adjusted for the last date of revaluation) amongst the lowest 22 percent of all Connecticut towns and cities.

PLANNING OBJECTIVES

1. Permit a degree of commercial and industrial development, which will closely maintain the existing ratio between the value of residential and non-residential real estate, which comprises the Grand List. This amount of development however should not exceed the carrying capacity of the Town's infrastructure system or its natural environment.
2. Maintain the existing policy of not encouraging the development of new sites for large-scale retail centers.
3. Provide an environment for the maintenance and growth of Farmington's manufacturing base.
 - a. Monitor and carefully regulate the conversion of manufacturing facilities to non-manufacturing uses.
 - b. Provide educational resources to support the employment needs of manufactures.
4. Encourage the establishment of non-residential uses, which tend to generate lesser amounts of traffic or traffic during off peak hours.

5. Continue to maintain a close working relationship with the University of Connecticut Health Center. Undertake a program, which will make Farmington attractive to the development of bioscience industry within the town.
6. Work with the Unionville Village Improvement Association and other groups to implement the development plan for Unionville Center.
7. Explore the creation of several smaller retail hubs to service existing residential neighborhoods. This will not only provide a valuable service for these areas but will cut down on transportation and energy use. In some cases these areas may be designed as mixed-use centers.

XII. HOUSING

Perhaps the single most important element of Farmington's Plan of Conservation and Development may be the housing plan. The number and types of future housing units constructed will not only dictate the future population of the Town but also influence the socioeconomic composition of the community. As the greatest user of land in Farmington, the design of our housing developments will most extensively affect our physical environment and the use and protection of its valuable resources.

Many experts in the field of economic development agree that an inadequate supply of housing has a negative affect on the economic health of a community and its ability to sustain economic growth in the future. More and more businesses have cited the scarcity of affordable housing as a major or contributing factor in their decision to relocate to or from a particular location.

Housing Supply and Production

In 2000 the Census Bureau reported a total of 9,854 housing units in the Town of Farmington. This was 1200 dwellings or approximately 14% more than the figure counted in 1990. This percentage increase was practically identical to the Town's overall percentage increase in population. This is a significant change from the previous decade, reflecting stability in Farmington's persons per household (dwelling unit). Farmington's growth in housing units trailed behind just six communities in the Capitol Region.

The number of new housing permits issued since the last Plan of Conservation and Development was completed fairly well mirrors the number of permits historically issued in Farmington with the exception of the mid 1980's when on average 400 units per year were developed. In recent years the composition of building permits have changed, with a greater share of condominium housing including age restricted units. The following chart shows the number of permits issued for selected years since the last Plan of Conservation and Development was published.

In 2000 62% of Farmington's housing stock was classified as detached single family. This was practically identical to the 61% in 1990. The number of rental housing units expanded in Farmington by 173 with the addition of the Heritage Glen and Westwoods apartment complexes and two senior housing developments, the Village at Hunters Ridge and the expansion of the Westerleigh apartments. All of these new rental developments contain or are totally categorized as affordable housing. The lack of any new market rate rental family housing construction can be attributed to a number of factors including foremost the high cost of land. Lower mortgage rates have also made homeownership more achievable and attractive.

Rental housing as a proportion of the Town's total housing stock dropped to 24.7 % from almost 30% in 1990. In addition to a lack of new construction, this loss of rental unit percentage may be

attributable to a reduction in the number of both single family and condominium units previously placed on the rental market. Even with a five point plus percentage loss in rental units, the Census Bureau found the vacancy rate for leased housing to be a healthy 4.5%. It appears that the market is currently operating at a similar rate and prices of rental housing have not escalated to the same degree of ownership housing.

Over the last ten years the average size of newly constructed single-family homes has increased significantly. The typical single-family home constructed in Farmington today contains between three and four thousand square feet of living area. A majority of these homes continue to be constructed within cluster subdivisions on lots ranging from one quarter to three quarters of an acre. The Unionville neighborhood has experienced a level of building activity during the last ten years exceeding that originally anticipated. The developments known as Strawfield, Hunters Ridge, Anglers Bend and Saddle Ridge have added close to one hundred new residences to the neighborhood.

In recent years Farmington has witnessed a demand for a new development product, age restricted housing for adults over the age of 55. An exception contained in the Federal Fair Housing Law permits the construction exclusively for this population. This law coupled with the aging of the baby boom generation has produced a robust market for this type of housing. Farmington's location relative to the highway, health care facilities and larger population centers such as West Hartford, has positioned itself well with regards to this market. A total of 215 units of active adult housing has been constructed to date within Farmington. If these dwellings are added to other conventional senior housing and units of assisted living, they would all together account for 781 dwelling units or about 8% of the Town's housing stock.

Housing Market and Housing Costs

Since 1995 both the single family and condominium housing markets have made a full recovery from the downturn in the housing market, which began, in the early 1990's. In the last three years the market has produced strong sales volume and price appreciation. This trend has taken place despite lackluster job growth in the region as well as minimal population growth. Low interest rates and the higher formation of single person and single parent households have fueled demand adding pressure to prices.

The following charts illustrate the consistent strength of the overall housing market as well as the increase in growth of the condominium market in recent years.

Accompanying the healthy number of housing transactions has been a steady climb in housing prices. Between June of 2004 and July of 2005, the median price of all homes sold was \$264,000. The median price of a single-family home during this time period was \$352,000. These sale prices ranked Farmington eleventh in the region for all housing types and fourth for single-family homes in terms of most expensive housing.

The following charts show the rise of housing prices for all housing categories as well as for single-family homes.

As prices have gone up there is a greater concern that Farmington's housing stock could be becoming further out of the reach of low to moderate income households. In 2005 a moderate income household in the Hartford region could afford a home, based upon current interest rates and a five percent down payment, having a maximum price of \$174,000. Of the 279 new and existing single-family homes sold in 04'-05', only 14 or 5% were conveyed for a price at or below this figure. A low-income household (earning at or below 50% of the median household income in the Hartford region) would be completely shut out of the single-family market.

Housing Demand

In 1995, the Capitol Regional Council of Governments presented its final report on the number of affordable housing units developed in the region under the Regional Affordable Housing Compact. This voluntary program allocated a target number of affordable housing production for each participating town. Farmington pledged to create 151 units of affordable housing as a signatory to the compact. At the time of the release of the final report 193 units of affordable housing had either been approved or constructed in the Town. All of these units had been created under the Town's inclusionary zoning regulations, the Affordable Housing zone.

The formula used to compute this figure was expressed as the number of physically inadequate dwelling units in the region (as reported in the 1980 Census) plus the number of housing units for which individuals or families paid more than 30 percent of their income for housing costs plus the number of dwellings needed in the region to attain a five percent vacancy rate for rental housing and a two percent vacancy rate for owner occupied housing. This calculation did not take into consideration an element of demand known as "wishing to reside." Wishing to reside represents the number of persons who would prefer to live in a given community assuming there are adequate numbers of housing units available or potentially available at a price affordable to that person. Typically this element of demand is measured as a function of the number of employment opportunities located within a given commuting radius of a locality or region.

Future housing demand in Farmington will be driven by an increase in employment, increases in demand for different housing types (such as multiple-family or active adult housing) and possibly a further reduction in the number of persons per household. During the next ten years it is expected that the age cohort of 18-35 will grow significantly. This age group, which is the basis of new household formations, exerts a substantial demand for new housing.

While it is projected that the rate of job growth will slow in coming years the Connecticut Economic Resource Center has

estimated that the number of jobs in the Capitol Region will increase by over 13,000 between now and the year 2010. Some housing professionals and demographers have estimated that each new job added would require the production of .66 housing units.

Any further decline in the number of persons per household would require additional housing units just to accommodate the existing population. Each one-hundredth of a point drop in the number of persons per household in Farmington would require approximately 25 additional housing units to accommodate the same population.

Housing Programs and Regulations

In an effort to advance the construction of affordable housing the State of Connecticut instituted several mandatory and elective housing programs during the 1980's.

Municipal plans of development and zoning regulations must now encourage and provide for the development of housing opportunities for all citizens of the community.

Public Act 89-311 established an affordable housing land use appeals procedure within the Hartford-New Britain Superior Court. Under the terms of this act, where a land use application involving affordable housing is denied by a municipal planning, zoning or inland wetlands commission, the applicant may appeal such action to this court. The burden is then placed on the commission to prove that the particular project would be injurious to the public interests and that the protection of such interests would clearly outweigh the local need for affordable housing. This shift of the burden of proof from the developer to the town is contrary to the approach taken in all other types of land use litigation. The Town of Farmington has been sued a number of times under the provisions of this statute. In one particular case the court mandated that approval of a development, which contained a mixture of affordable and market rate housing. This project known as Snowberry Cobble is currently under construction.

Voluntary initiatives sponsored by the State in the past include the Connecticut Housing Partnership Act, the Regional Fair Housing Compact Pilot Program and the adoption of Public Act 91-204, enabling municipalities to adopt inclusionary zoning regulations.

Farmington joined the State's Housing Partnership Program in 1990. Under the provisions of this program members of the Partnership Committee are required to conduct a housing needs analysis, develop a housing plan and initiate or support a project to develop affordable housing.

The Regional Housing Compact Pilot Program represented Connecticut's first experience with a fair share housing plan. Under such a plan each municipality within a planning region is requested to provide a particular sum of affordable housing units over a five-year period. The Capitol Region Council of Governments, one of two planning regions participating in the

pilot program, developed a compact to foster the development of between 5,000 and 6,521 units. As one of 25 towns participating in the compact, the Town of Farmington has pledged the development of 151 affordable housing units over the abovementioned period of time. While plans were approved for more than the number of units pledged, actual construction of a number of these dwellings did not take place until the expiration of the compact, including the aforementioned Snowberry Cobble.

Since the 1995 Plan of Conservation and Development was completed a total of 211 affordable rental and ownership units have been constructed within the Town of Farmington. In addition, there are 52 units of affordable housing as of this date occupied at Snowberry Cobble. When completed Snowberry Cobble will have a total of 89 affordable units.

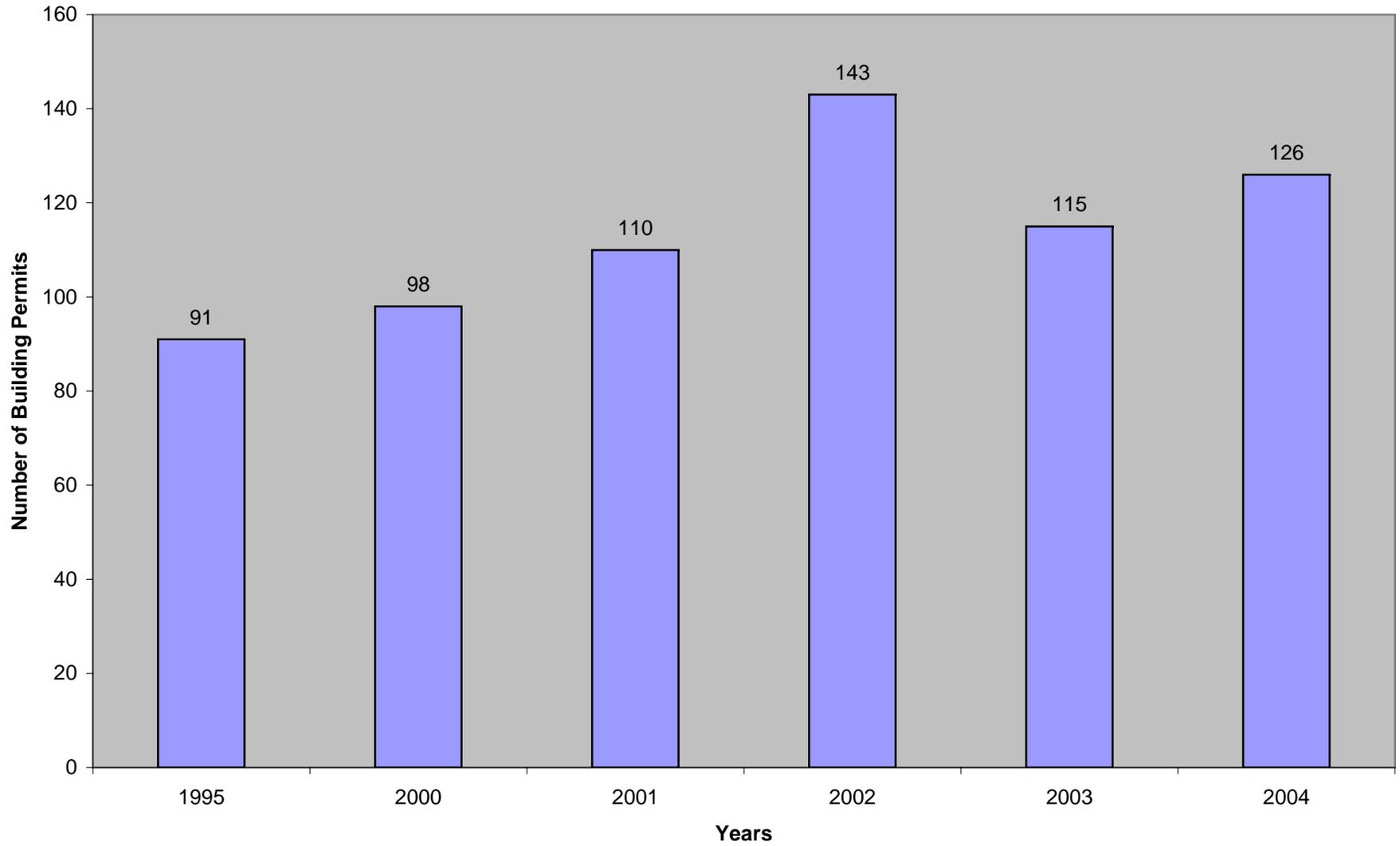
The Town continues to maintain and operate its Section 8 certificate and voucher program as well as the Cooperative Ownership Program.

PLANNING OBJECTIVES

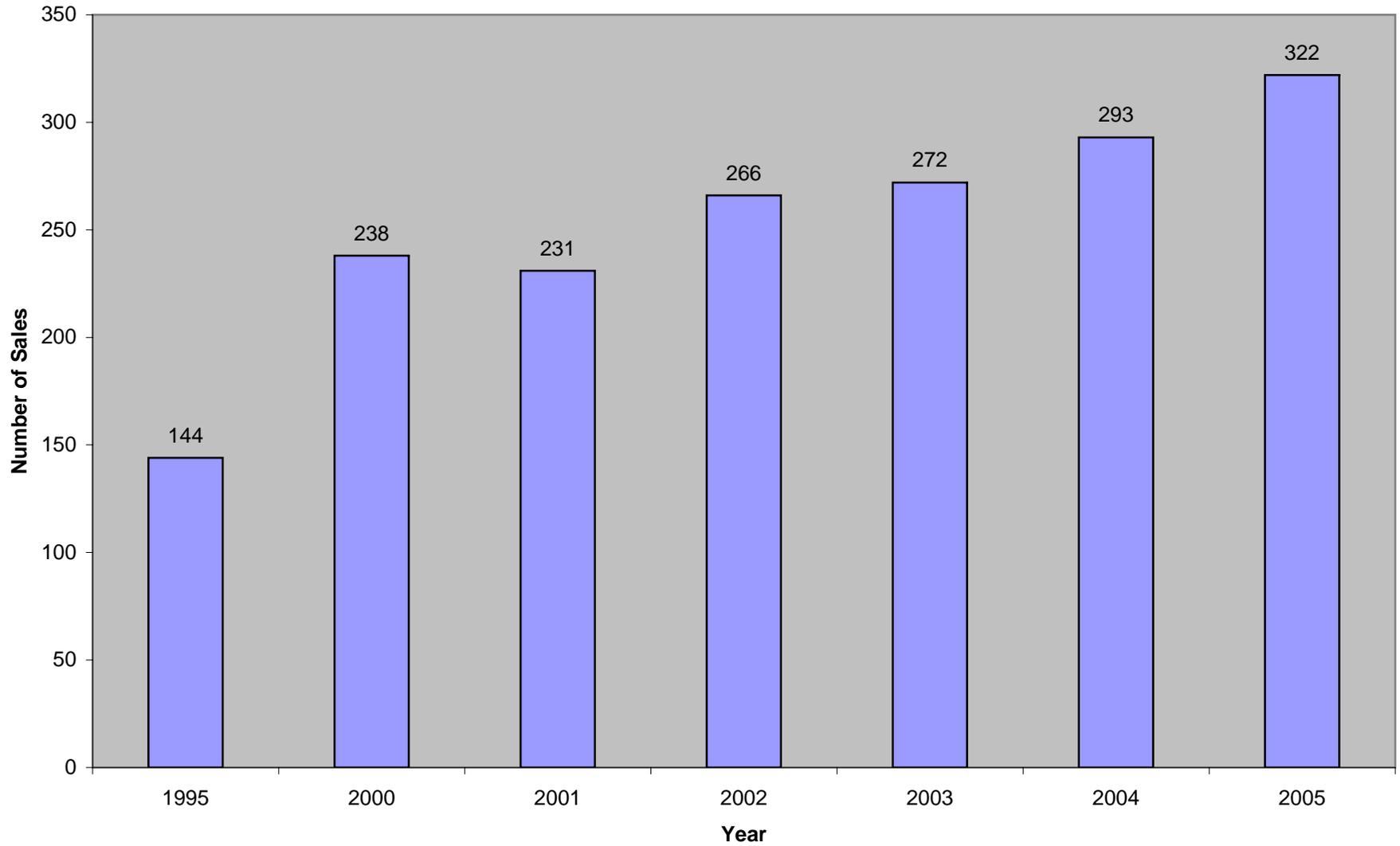
1. Residential developments should be located and developed in a manner consistent with the policies and recommendations found in the Future Land Use Plan.
2. Permit affordable housing at higher densities only in instances where environmentally sensitive features are adequately protected and the development would be compatible with surrounding land uses.
3. Work with regional and state authorities to develop and promote a plan for the development of affordable housing under a fair share formula.
4. The Town should carefully monitor the growth and demand for active adult housing in the region and consider adopting a cap on the amount of this housing type in the future in Farmington. Densities for this housing currently permitted under the zoning regulations should be reduced to a figure more compatible with surrounding single family zoning districts.
5. Encourage the use of site design techniques including building orientation, street and lot layout to promote energy efficient development.
6. Aggressively enforce the housing code to ensure proper maintenance of Farmington's housing stock.
7. The Town Plan and Zoning Commission should begin to explore the mandated installation of automatic fire suppression systems within residential structures containing one to

three dwelling units as an expansion of the existing zoning regulations.

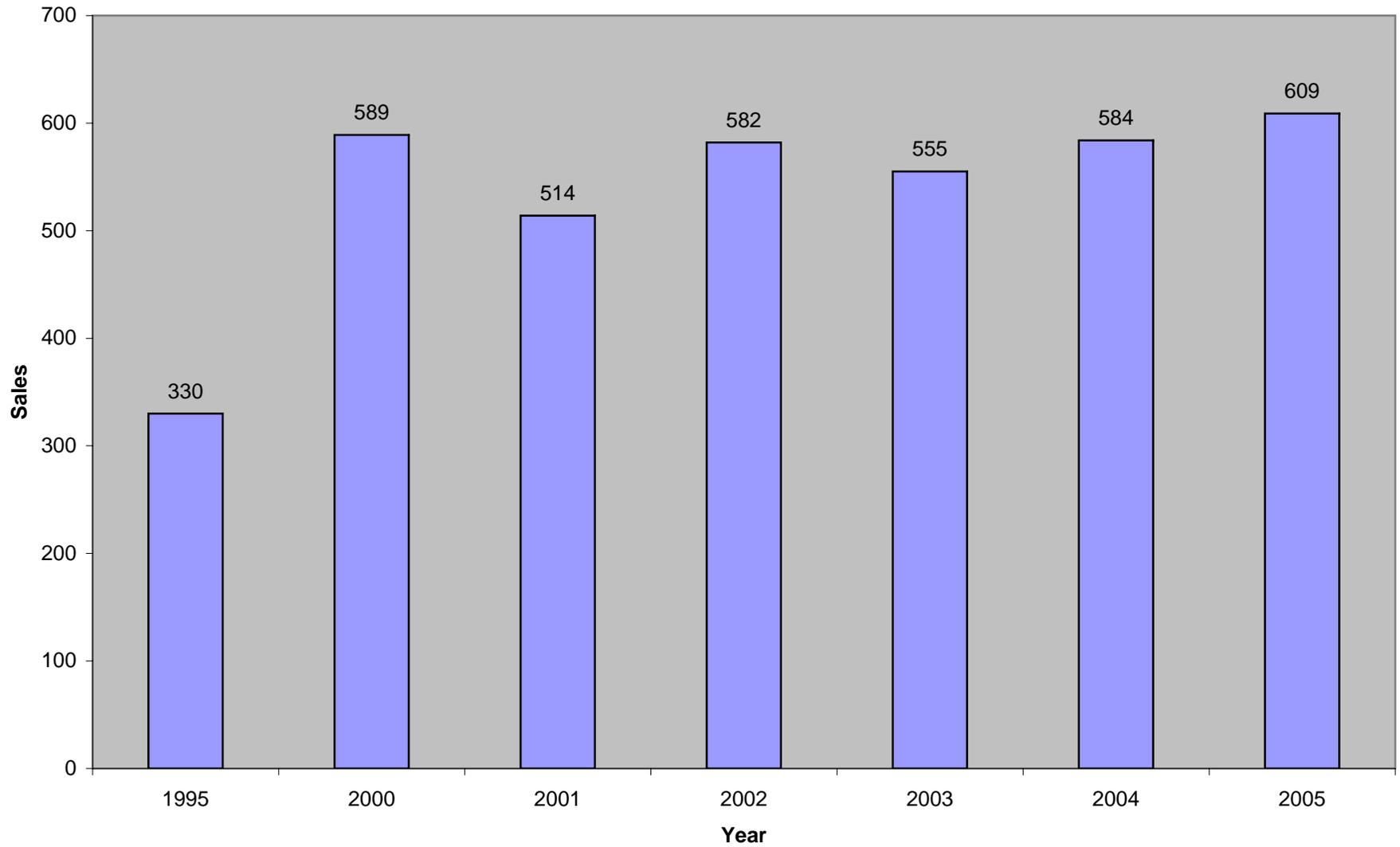
New Housing Permits for All Unit Types By Year



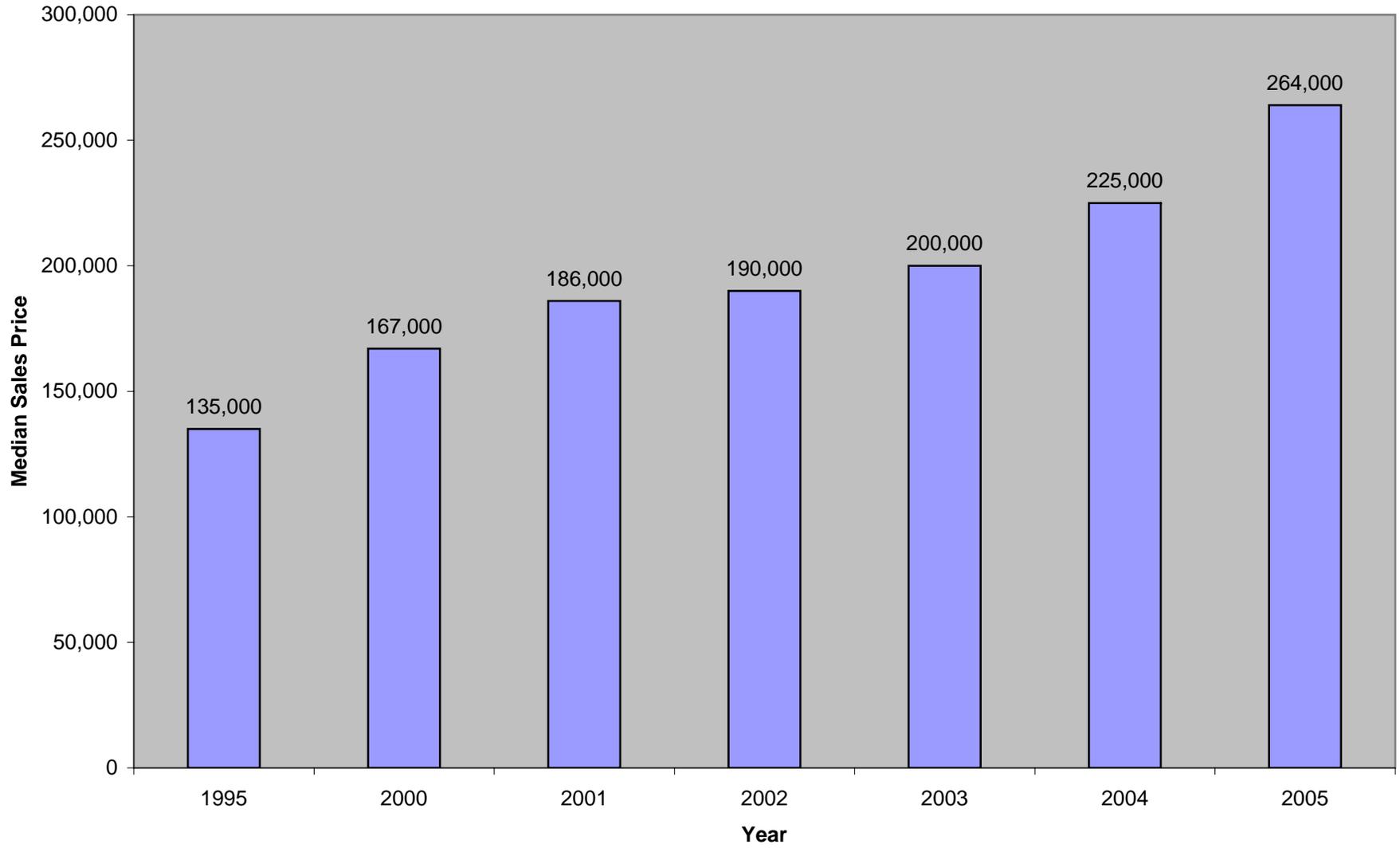
Number of Sales Per Year for Condominium Housing Units



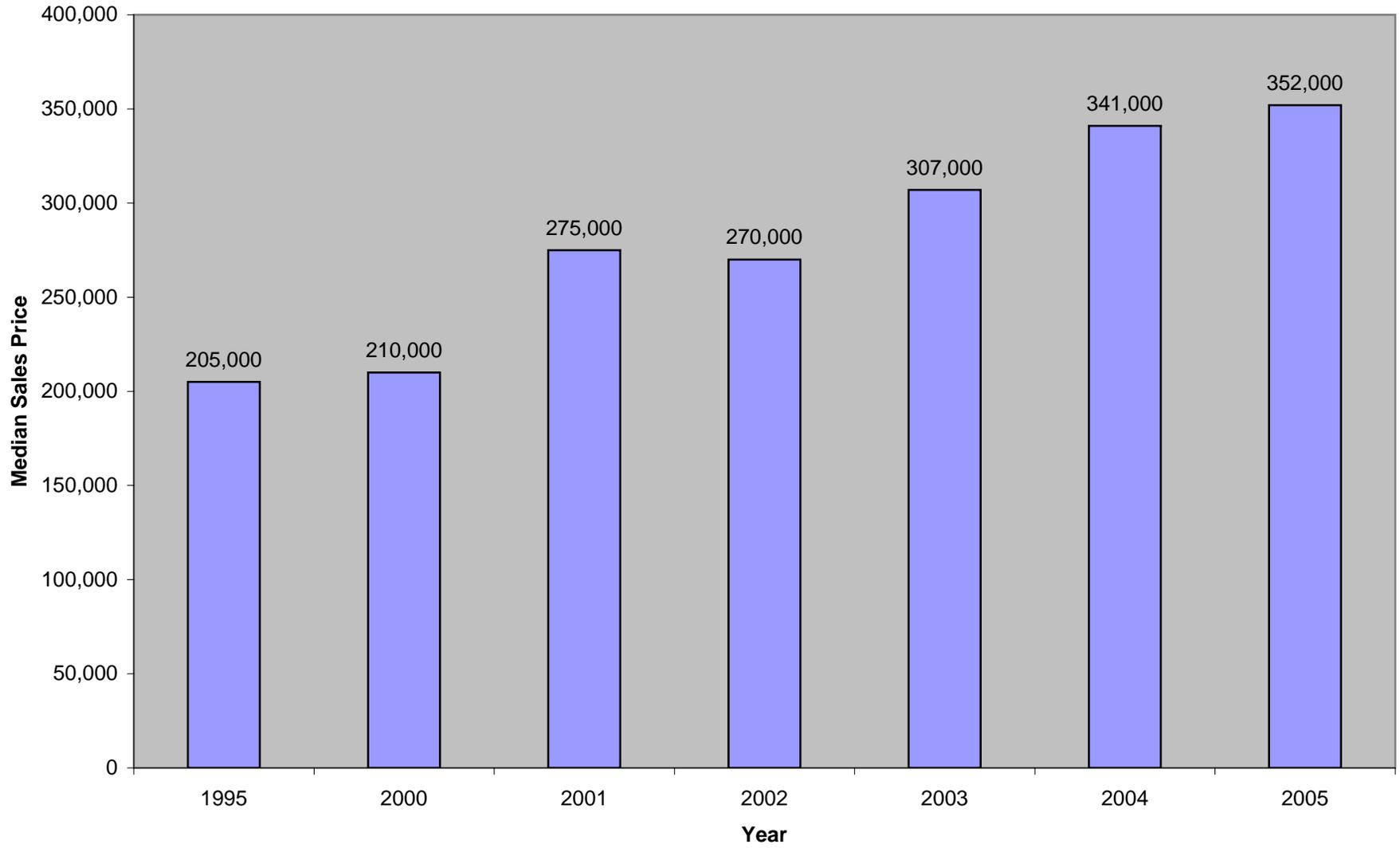
Number of Sales Per Year for All Housing Units



Median Sales Price Per Year for All Housing Units



Median Sales Price Per Year for Single Family Housing Units



XIII. TRANSPORTATION AND CIRCULATION

A community's transportation and circulation system is vital to both its quality of life and economic well-being. The measure of a transportation system's safety, capacity, efficiency, and accessibility directly affects the satisfaction of local residents including the young, handicapped and elderly, as well as those workers and commuters from outside the community who use the system. The system's ability to successfully transport goods and people also influences the attractiveness of Farmington as an employment center.

The components of a transportation/circulation system include the network of roads, bridges, sidewalks, and parking facilities as well as transit services (bus, rail, taxi and van operations). The predominate element of Farmington's transportation system continues to be its roads. These roads perform varied functions within the network.

This system of roads may be categorized as minor streets, collector roads, secondary arterials and primary arterials. Minor streets provide access to individual properties, which are typically limited to residences. Collector roads serve to connect minor streets to secondary and primary arterials or serve to link distinct neighborhoods. Secondary arterials transport mostly intralocal traffic from one section of town to another or from residential neighborhoods to employment or retail centers. The average daily volume of traffic carried by a secondary arterial is generally in the range of 4,000 to 10,000 vehicles a day. Primary arterials transport over 10,000 vehicles per day, much of it being interlocal traffic and frequently having direct connections with a limited access expressway.

All of the roadways within Farmington have been classified according to these definitions and are presented on Map 8, entitled Circulation: Classification of Roads. The categorization of Farmington's road system into the classifications presented is an exercise primarily used for planning purposes. The designation of a particular existing street is recognition of its current function and traffic volume. It should in no way be interpreted as a statement that a given road had been originally planned as a collector, secondary arterial or arterial roadway or a finding in this report that such road is currently operating safely or efficiently as thus designated. Furthermore, this designation does not indicate that the road in question currently contains the right of way or pavement width or any other physical attribute recommended by State, Federal or national engineering authorities.

Regional and Federal planning agencies classify Farmington's road network as part of the Urban Systems Program. This permits a number of our roads to become eligible for particular grants in aid.

Minor Streets

The design of a minor street must not only reflect its function but also to the greatest extent possible be compatible with the character man made and natural environment. While Farmington's current subdivision regulations specify that minor streets contain a fifty-foot right of way and a twenty-two or twenty-six foot pavement width, the Town has continued to permit the use of private roads and cartways. These streets generally require little if no right of way and have a paved travel way in most cases between eighteen and twenty-two feet. In all cases, private individuals or community homeowners' associations assume the ownership and maintenance of these roads.

It can be concluded that this new system of private roads has been successful. Residents appear to be satisfied with function of these roads and the privacy they bring. The streets have had a beneficial impact upon the natural environment and fit nicely with the latest storm water quality management programs.

The extension and connection of minor streets will continue to be a paramount issue in Farmington. Residents desirous of protecting their streets and neighborhoods from the negative effects of through traffic are frequently pitted against Town officials who wish to promote a policy of road connections for the safe and efficient movement of traffic. Advocates of a policy known as Smart Growth have strongly recommended the use of grid street patterns and discourage development of cul-de-sacs. This would tend to more equally distribute traffic volumes through a neighborhood and not place excessive volumes of traffic on just one street.

Collector Streets

Since the last Plan of Development was adopted, several streets have now been designated as collector roads including Lake Street, Litchfield Road, Mill Street and Munson Road.

It is recommended that the design standard for a collector road be maintained at a twenty-six foot pavement width unless the street is designed to serve a commercial district where on street parking is planned or expected.

Secondary Arterials

The list of secondary arterials has remained unchanged since the 1995 Plan of Conservation and Development.

Arterials

Four of Farmington's State Highways, Routes 4,6,10 and 177 are the only streets that possess both the traffic volumes and characteristics that would categorize them as arterial roads. Traffic volumes on these roadways continue to grow as a result of both local and regional development. The peak hours of travel now extend significantly beyond the traditional 7 to 9 in the morning and 4 to 6 in the afternoon.

Existing Conditions

Traffic Volumes

Table 11 presents and compares traffic volumes for selected roadways in Farmington between the years 1991 and 2003. During this period, traffic has increased on some roads or road segments by as much as 40 percent while it has decreased on others by as much as 19 percent.

Twenty-four hour counts taken by the State of Connecticut Department of Transportation has shown a greater use of Route 6 within the Town of Farmington. A recorded decline in traffic volumes along some segments of Route 4 would seem to indicate this traffic increase along Route 6 is at least partially attributable to the use of this road as an alternative to Route 4. This result is something that Town officials have promoted in the past. The numbers also indicate that the north south traffic volumes along Routes 10 and 177 have leveled off somewhat except in the immediate vicinity of Route 6.

Roadway Capacity and Congestion

The capacity of a road is defined as the maximum rate of vehicles which has a reasonable expectation of passing a given section of lane or roadway during a given time period under prevailing roadway and traffic conditions. Typically, the roadway condition which most greatly limits the capacity of a given road is its intersection with another road controlled by either a stop sign or mechanical signal. Congestion occurring at an intersection may be qualitatively measured by use of a scale known as Level of Service. Level of Service describes driver satisfaction with a number of factors that influence the degree of traffic congestion. These factors include speed and travel time, traffic interruption, freedom of maneuver, safety, driving comfort and convenience and delays.

There are six levels of service describing traffic flow conditions. The highest, Level of Service A, represents a condition of free flow with lower traffic volumes and high speeds. There is little or no restriction in maneuverability and drivers can maintain a desired speed with little or no delay. Most vehicles will arrive at a signalized intersection during the green phase of a traffic signal.

Level of Service F on the other hand represents the lowest level of service and is described as forced flow and characterized by volumes that exceed the roadway's capacity. Congestion prevails and vehicles are typically delayed at a signalized intersection for more than 60 seconds.

Level of Service E represents the actual capacity of a roadway or intersection. This is considered the limit of acceptable delay.

Table 12 contains the level of service for a number of intersections within the Town of Farmington. The 1989 figures come from a comprehensive town wide traffic study authored by Wilbur Smith Associates. The most recent analysis is taken from various traffic studies submitted to the Town in conjunction with land use applications as well as data from the Route 4 and Route 10 Corridor Studies. In some cases, the change in level of service reflects improvements that were made to the road system. This is quite apparent when analyzing the changes reported along the Route 6 corridor. Since 1989 this network saw the reconstruction of the intersection of Colt Highway/Fienemann Road and Birdseye Road as well as the addition of two lanes from Scott Swamp Road to Route 177. Both of these projects also included new traffic signals.

Traffic Origin and Destination

Traffic origin and destination studies reveal the starting and end points of vehicle trips within a locality or region. They are particularly valuable in regional transportation planning, including the development of transportation plans for major arterials and limited access highways.

In 1989, as part of the comprehensive traffic study undertaken by Wilbur Smith Associates, survey stations were established at all major access points into and out of Farmington. Motorists were handed post cards requesting trip information at both the A.M. and P.M. peak hours.

Of the more than 30,000 vehicles surveyed entering the Town of Farmington, 46 percent of these vehicles have both the origin and destination of their trip outside of the Town. Forty nine

percent of the vehicles leaving Farmington were found to be traveling to and from locations based outside of the Town.

Traffic surveyed on Waterville Road at the Avon town line was found to have the largest percentage of vehicles beginning and ending their trips outside of Farmington, with inbound vehicles at 67% and outbound vehicles at 72%.

The artery which had the least number of trips with neither an origination or destination in Farmington was Fienemann Road at 22 and 29 percent.

In 1996 as part of a study of regional arterial roadways sponsored by CRCOG, consultants found that over 38% of the vehicles surveyed at a point west of the junction of Route 4 and I 84 had their trips both begin and end outside of Farmington.

Safety

Table 13 lists the number of accidents documented for a three-year period commencing on. The largest majority of accidents are attributable to driver error and not the geometrics of the road. Excessive speed and following too closely were cited as the most frequent reasons for these incidents. That's not to say that the geometry of Farmington's roads and intersections do not significantly contribute to the accident rate. The Town has initiated improvements to a number of roads like Talcott Notch Road, River Road, and Aqueduct Lane to improve their safety. These types of improvements are generally quite extensive and costly and should be minimized. Campaigns to reduce speeding and programs to install safety signs and improved lane demarcation should be more heavily relied upon to increase traffic safety within the Town.

Traffic and Road Improvements

Following the publishing of the 1995 Plan of Conservation and Development, the Capitol Region Council of Governments announced plans to undertake a number of arterial corridor studies within the region. In the case of Farmington, this included a study of Route 4 and Route 10. The study's focus was not limited to these road's existing right of ways, but included an assessment of possible bypass or alternative routes in order to reduce congestion. While a number of alternative routes for a bypass of Route 4 were identified early on in the study, none survived to make it to list of final recommendations. In the final analysis, they were considered too expensive and disruptive to merit support. The recommendations from the report included a new bridge over the Farmington River (at Brickyard Road), spot improvements to Route 4 in the Village and improvements to I 84 and Route 6 as a way to pull traffic away from Route 4. A

number of the suggested improvements to the I 84 interchange system were also endorsed in another study conducted by the Connecticut Department of Transportation. At this time the Town is awaiting construction of the spot improvements along Route 4 between Town Farm Road and I 84, as well as those to I 84. It is expected that these projects will not see construction until 2009. Town voters rejected the concept of constructing a bridge as recommended in the Route 4 Corridor Study. The I 84 project will include the installation of a service road which will permit access to Route 9 from Route 4. This should relieve some of the traffic volume now found on South Road.

The most significant set of road improvements since 1995 was the realignment and reconstruction of the Route 4 / South Road / Birdseye Road intersection. This project coupled with the widening of Farmington Avenue to four lanes from the jug handle to Talcott Notch Road, reduced traffic congestion and improved road safety. It permitted the commercial development of adjoining property and accommodated the continued expansion of the University of Connecticut Health Center.

In order to expand the efficiency of Route 4 west of the Village, the State of Connecticut has initiated the update of a number of traffic signals. This system as designed should allow the signals to operate in a manner in which their operation is more coordinated with the volumes of traffic on this state highway at a particular time.

Other road improvements completed over the last ten years include the addition of lanes at the Meadow Road / Route 177 intersection and the extension of Judson Lane to Meadow Road.

Concept plans were developed for a number of intersection improvements in Unionville Center. Perhaps the most important project, the upgrade of the New Britain Avenue / Route 177 intersection, has gone to actual design. However, it is expected that funding will not be made available till the end of the decade.

A number of bridges were rehabilitated including the Cottage Street Bridge and a span on Batterson Park Road. The State of Connecticut has scheduled the reconstruction of the bridge, which crosses Roaring Brook as well as the Farmington River Crossing east of Town Farm Road.

The proposed collection of future roadway improvements are presented on the map entitled Circulation Proposed Improvement Plan. This plan includes the widening of Route 6 from Fienemann Road to Scott Swamp Road as well as number of spot intersection improvements designed to process more vehicles through each

traffic light cycle. One proposal, which remains from both the 1982 and 1995 plans is the development of a service road system along Route 4.

Mass Transportation

The mass transportation network and service in Farmington remains essentially unchanged since the last plan. With the exception of the extension of service of the Farmington Avenue line to Tunxis Community College, the system has remained unchanged. The Town of Farmington had to discontinue the Farmington Valley Shuttle due to costs. While provisions for bus service have been introduced into a number of new developments along Route 4, the Town's decentralized development pattern continues to hinder an increase in transit ridership.

Pedestrian and Bicycle Circulation

The Capitol Region Council of Governments recently adopted a Regional Pedestrian Plan. This document presents a vision statement which proposes that in the future residents and visitors to the region will be able to walk, bicycle or use other means of non-motorized vehicles to access schools, shopping, transportation, and employment centers by use of roads, sidewalks, or multi-use trails. In order to achieve this vision the plan lists a number of recommendations including the expansion of walk systems and the creation of compact, mixed-use development.

The 1995 Plan of Conservation and Development supported the completion of the Town's multi-use trail system as well as an expanded sidewalk program and the establishment of a local/regional bicycle trail system.

While it appears that the completion of the multi-use trail network is just a matter of time, as it is tied to available state funding, the same cannot be said about any meaningful expansion of the Town's sidewalk network. Most of the new sidewalks built in Farmington over recent years is the result of work undertaken by developers of projects approved under the subdivision and zoning regulations. CROCG's report touts a national program entitled Safe Routes to School as a way for communities to expand their sidewalk system while meeting the need to transport students. This has the effect of reducing traffic in the vicinity of schools coupled with reductions in pollution and improvements in children's health.

PLANNING OBJECTIVES

1. Encourage land uses and design standards along arterial roads which support mass transit, generate lower volumes of traffic during peak hours while limiting the number of proposed access points.
2. Maintain the requirement for sidewalks as part of the Town's site plan and subdivision application process.
3. Coordinate the development of vacant or underutilized properties to ensure the most efficient placement of access points, including driveways and new streets. Be vigilant about minimizing the installation of new traffic signals.
4. The Town should work with CRCOG to update both the Route 4 and Route 10 Corridor Studies and to initiate a corridor study and plan for Route 6.
5. Support the creation of a dedicated traffic division in the Police Department.
6. Generally require that collector roads in large new developments be designed and built as public roads particularly when potentially serving adjoining parcels of land.
7. Encourage the development of a commuter parking lot within the Route 6 corridor.
8. Support the establishment of a local/regional bicycle trail system through CRCOG.
9. Work cooperatively with regional and local officials to coordinate transportation improvements on a regional level.
10. Undertake the funding of a continuous sidewalk expansion program as part of the capital budget. Perform a review of the Town regulations as they pertain to the maintenance and legal responsibility of sidewalks so that they will gain more acceptance from the public.
11. Support the completion of the planned multi-use trail system. Consider expanding access to the system so that it can be used more extensively and function as a greater element of the Town's transportation system.
12. Initiate a feasibility study for the introduction of a local shuttle bus system to reduce the number of trips made in town.

13. Update the Town's subdivision regulations concerning the use and design of dead end roads. To the greatest degree possible, new subdivision roads should be designed for through access.
14. The Town should consider the feasibility and propriety of an additional Farmington River crossing.

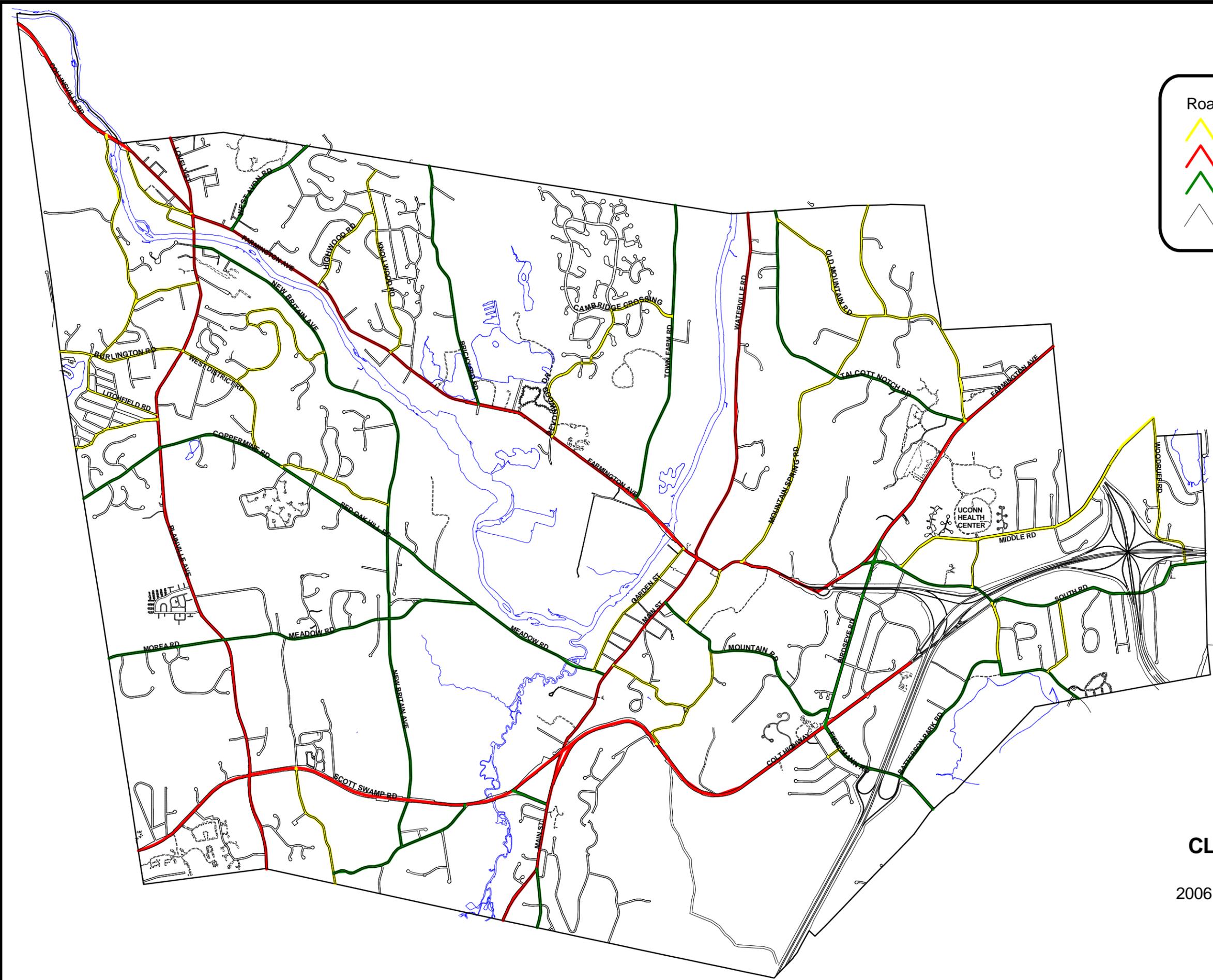
TABLE 11
Present and Past Average Daily Traffic Volumes (ADTS)
for Various Locations in Farmington

Road	Location	ADT		Percent Change
		1991	2003	1991 - 2003
Route 4	N W of Rte. 177	11,900	13,600	+14%
	E of Rte. 177	19,500	22,000	+13%
	E of Brickyard Rd.	22,900	21,700	-5%
	E of Rte. 10	36,900	31,400	-15%
	N E of South Rd.	18,500	22,400	+21%
Route 6	E of Bristol Line	17,500	20,400	+17%
	E of Rte. 177	15,000	18,200	+21%
	E of Hyde Rd.	17,400	23,000	+32%
	W of Fienemann Rd.	17,600	22,500	+28%
	E of Fienemann Rd.	13,400	18,700	+40%
Route 177	N of Route 4	9,000	8,000	-11%
	N of New Britain Av.	17,500	17,300	-1%
	N of W. District Rd.	16,800	14,600	-13%
	N of Route 6	14,100	16,200	+15%
	S of Route 6	12,800	15,700	+23%
Route 10	N of Route 4	9,700	8,700	-10%
	S of Route 4	13,900	11,300	-19%
	S of Route 6	13,100	14,400	+10%
	S of Cooke St.	7,600	7,300	-4%
Fienemann Rd.	SE. of Rte. 6	10,300	10,300	0%
	SE of I-84	12,300	13,900	+13%
Route 167	N. of Rte. 4	7,500	7,500	0%
South Rd.	SE of Munson Rd.	5,200	10,500	+102%
Birdseye Rd.	S of South Rd.	6,900	5,300	-23%
Mountain Rd.	E of High St.	6,500	5,500	-15%

All figures taken from counts conducted by the Connecticut Department of Transportation.

Road Classifications

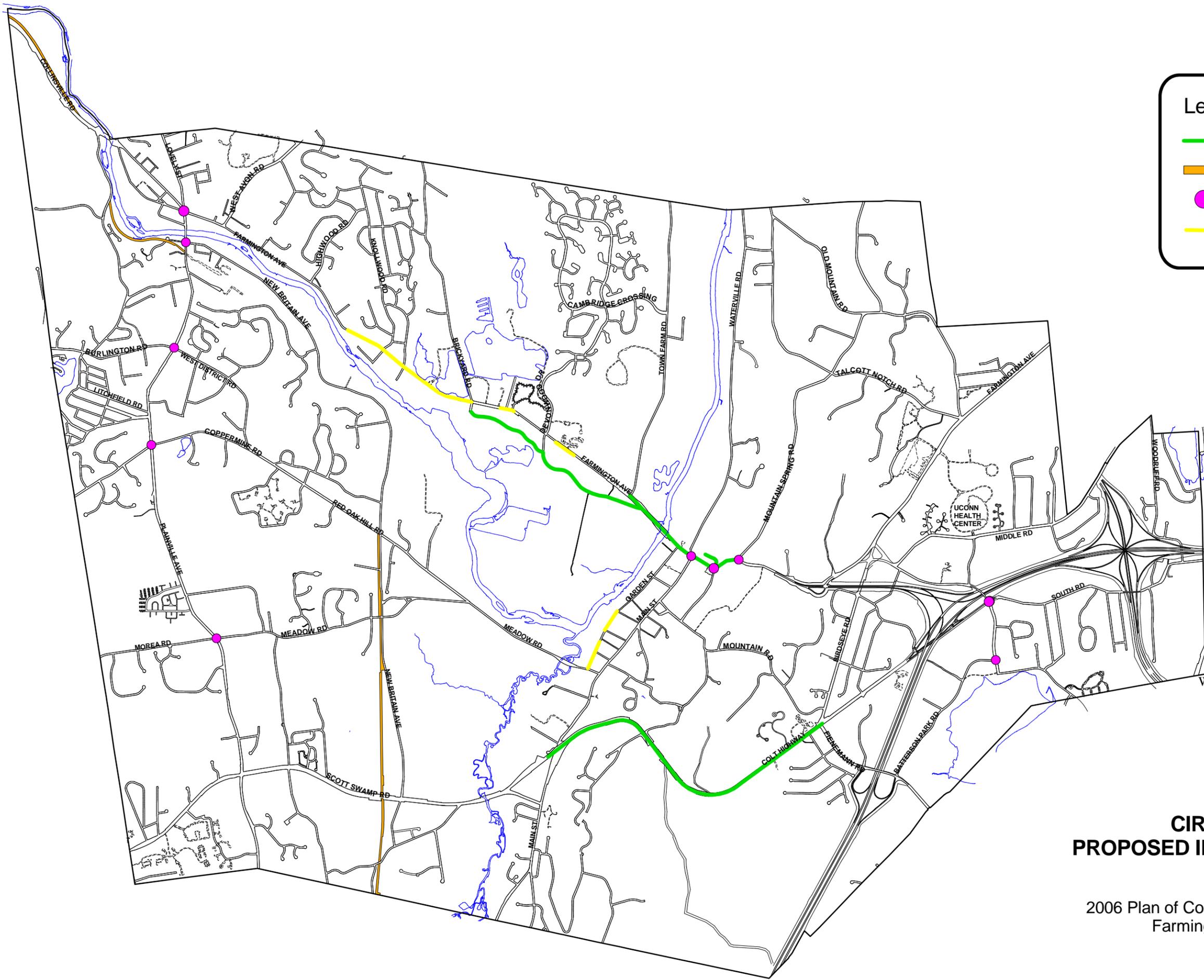
-  Collector Road
-  Primary Arterial Road
-  Secondary Arterial Road
-  Minor Road



Map # 8

**CIRCULATION
CLASSIFICATION OF ROADS**

2006 Plan of Conservation & Development
Farmington, Connecticut



Legend

- Road Improvements
- Multi-Use Trail System
- Intersection Improvements
- Sidewalk Improvements



Map #9

**CIRCULATION
PROPOSED IMPROVEMENT PLAN**

2006 Plan of Conservation & Development
Farmington, Connecticut

XIV. PUBLIC UTILITIES

Water

Farmington's water supply system has undergone major changes since the nineteen eighties. During this period of time the State of Connecticut established exclusive service areas for all public and private water utilities. Twenty years ago a merger occurred between the Farmington and Unionville Water Companies. The Unionville Water Company has subsequently been purchased by the Connecticut Water Company.

The Town of Farmington is currently divided into three major service areas with exclusive rights reserved by the Unionville Water Company, New Britain Water Department and the Metropolitan District Commission. The boundaries of these areas are illustrated on the Public Utilities Plan. Properties in these areas may be supplied with public water only by the designated company unless it waives its right to service. This arrangement has generally worked well with the exception in an area of town in the vicinity of Colt Highway and Fienemann Road. However just recently the Unionville Water Company and the MDC entered into an agreement to supply water to a thirty-five acre parcel of land approved for the development of age restricted housing.

Providers

In addition to the three major water companies two smaller companies supply water to more than 50 customers, Maple Ridge Farms Water Association and Hilltop Corporation. When taken together these water supplies provide service to approximately seventy percent of the Town's population. Plans are to replace the Maple Ridge Farms Water Association with a more dependable system from the MDC. Groundwater serves as the exclusive source of supply for the Hilltop Corporation, while the New Britain Water Department and MDC use surface waters located outside the Town of Farmington. Until recently groundwater served as the lone supply of the Unionville Water Company. However in 2003, in an effort to deal with chronic shortages of supply during the summer months, UWC completed a connection to the MDC water system for the purchase of treated water. This new source provides up to 2.1 million gallons per day. In an effort to assure the most dependable supply of water in Connecticut's cities and towns the State adopted a law in 1984 regulating the formation of new water companies. As a result there have been no new providers of water in Farmington since that time.

After its merger with the Farmington Water Company, the Unionville Water Company substantially upgraded water supply service within the Town. Over the last twenty-five years the company has added five new supply wells and acquired the Farmington Industrial Park water supply system. (For the location of all well sites see Map 3). A connection has been established between the Unionville and Farmington Village subsystems. This improvement followed the integration of the southwest service area into the main distribution network. Storage tanks have been constructed in the vicinity of the Farmington Edge condominiums

and the former Farmington Reservoir, making the supply more reliable and increasing pressure. The Unionville Water Company has terminated the daily use of water from the Plainville Water Company and the Metropolitan District Commission, relegating these sources to emergency supply only. In 2003 the Wells Acres well supply was abandoned by the Company, leaving nine active wells in the Unionville Water Company's system.

Improvements to or expansion of the New Britain Water Department and Metropolitan District Commission systems continue to occur within Farmington. While the New Britain water system was extended to serve the Heritage Glen, Garden Gate and Bradford Walk housing complexes, the Metropolitan District Commission expanded service within the areas of Munson Road, Middle Road, South Road and Farmington Avenue. This follows an extension of service to the Oakland Gardens neighborhood. Both systems require upgrades to their distribution service to provide improved pressure and adequate fire protection. The planned extension of the waterline located on Colt Highway east of Fienemann Road will improve fire service to the area of Mountain Road and Birdseye Road.

Supply and Demand

For the Town of Farmington future concerns are generally limited to the production and distribution capabilities of the Unionville Water Company. In its recently completed 50-year water supply plan, prepared under Section 25-32d-5 of the Connecticut General Statutes, the Unionville Water Company reported that the maximum daily supply of water comfortably exceeded the maximum daily demand. However the report goes on to say that this situation will only continue through the year 2020 unless permission is granted by the State of Connecticut to fully integrate the water from the Farmington Industrial Park wells into the distribution system. If that application is denied, the Company could explore the alternative of purchasing more supply from the MDC or seek to expand their own system with the development of a new water supply well. The fear of contamination has dampened the enthusiasm for new groundwater sources. In the late 1990's the Company had to add a treatment facility to the Charles House well field in order to control the amount of dieldrin (a pesticide) in the water. In addition the Company recently had to temporarily cease operation of the Connecticut Sand and Stone well due to a spill of petroleum product from an accident, which took place up gradient on Brickyard Road. A proposal has also been made to interconnect Farmington with the company's Collinsville system. This is being considered as part of a twenty-year planning horizon. Since the merger with the Farmington Water Company, the Unionville Water Company has increased its production of water from just over 508 million gallons per year in 1985 to over 707 million gallons per year in 2003. It has been projected by the utility that average daily demand will increase from 1,939,523 gallons per day in 2003 to 2,324,683 gallons per day in 2050.

Using water more efficiently can reduce the need for additional sources. Replacing older pipes with typically higher leakage rates coupled with the implementation of stringent conservation

plans will permit the current supply of water to serve more customers. The current leakage rate in the Company's primary system is 2,057 gallons per day per mile of pipe and 2,801 gallons per day per mile of pipe for the smaller Farmington Industrial Park distribution system. The goal is to reduce this loss of water to no more than an accepted standard of 1,500 gallons per day per mile of pipe.

PLANNING OBJECTIVES

1. Coordinate the provision of water service to areas of Town located along the exclusive service area boundaries to ensure the greatest and most reliable availability of water for domestic use and fire protection.
2. Support the expansion of the public water supply distribution system to all areas, which have or are proposed to have public sewer service.
3. Maintain requirements for extension of water lines as recently amended and specified by the Town's Zoning and Subdivision Regulations.
4. Enact the provisions of the State's new aquifer protection regulations in accordance with the established legal timetable.
5. Support the upgrading of the Unionville Water Company's distribution system.
6. Ensure that land use decisions are consistent with the protection of existing and proposed well locations.

Sanitary Sewers

The 1995 Plan of Conservation and Development reported that approximately eighty five percent of the Town's population was serviced by a public sewer system. The Plan also recommended that Farmington adopt a sewer avoidance plan for the Talcott Notch neighborhood. Since that time the Town has added the Oakland Gardens neighborhood to the municipal system, serviced portions of the East Farms neighborhood as well as Westfarms Mall and created the sewer avoidance program as recommended. There continue to be however portions of the Town where businesses or older homes on smaller lots continue to function on on-site systems and which would benefit from an opportunity to connect to municipal sewer. In an effort to encourage the expansion of the sewer system, the Town Plan and Zoning Commission recently revised the standards for extending sewer lines in the vicinity of new subdivisions from one hundred feet per building lot to two hundred feet.

Description of System

Three components of the Town's sanitary sewer system are the treatment plant, pump stations and collection network.

Farmington's wastewater treatment facility was originally constructed in 1960, expanded in 1970 and further expanded and modernized in the early 1990's. This last expansion also included an elaborate sludge composting system. Since then the Town and its Water Pollution Control Authority have had to confront a number of other issues associated with the plants daily operation. The Town is also under a mandate to expand the plant's secondary treatment process by increasing the amount of nitrogen removed from effluent before it is released into the river. In a report recently completed by Metcalf & Eddy, Inc. Consulting Engineers, the authors submitted a set of recommended improvements for the maintenance and repair of the plant. The plan presented a budget of in the range of 5.25 million dollars to address shortcomings with the facility's pumps, trickling filters, electrical and HVAC systems in addition to the costs of the nitrogen removal. The WPCA will also have to examine the state of the plant's capacity and a possible plan for inflow and infiltration to reduce the amount of effluent treated and released.

A total of 17 pump stations are presently in operation within Farmington's municipal boundaries, 13 of which are owned and maintained by the Town of Farmington. An agreement has been put in place for the Town to own and maintain a privately operated pump station with in the Farmington Corporate Park once certain upgrades have been made to the facility. Work has begun on the reconstruction of two of these pump stations located at Patrick Flood Road and Scott Swamp Road. The Portage Crossing pump station has been eliminated with construction of a new main sewer line on Judson Lane.

Present and Future Conditions

In 1991 the Town of Farmington authorized the Maguire Group to update the sanitary sewer master plan originally developed by Marchant and Minges Engineers in 1959. The consultant's scope of work included an examination of the existing collection system including the preparation of recommended improvements as well as the formulation of a plan for the location of future service lines. This plan was developed in an effort to promote the most efficient route to existing unsewered areas and limit the number of additional pump stations.

This study has generally served the Town well however it has become more apparent that it is time for the plan to be updated in light of new development patterns and economic circumstances in order to foster service to areas not presently served.

Regional Coordination

As a condition of the acceptance of State or Federal funding for the improvement or expansion of sanitary sewer systems, communities which contain significant collection and treatment facilities are required to examine and incorporate the needs of nearby towns into their comprehensive waste water collection plan. This policy reduces duplication of effort, resulting in significant cost savings while potentially producing less impact

on the environment. As of this time, through agreements, Farmington accepts effluent from the Towns of Burlington, Canton and Avon. The volume of wastewater received from these towns have not substantially increased over the last ten years.

While almost all wastewater produced in Farmington is discharged into the local collection and treatment system, the Town has existing agreements with the Metropolitan District Commission, Plainville, Mattabassett and Bristol sewer authorities to accept those remaining flows. Over recent years the agreement with the MDC has been modified to permit additional discharge from Farmington into the system in West Hartford. It is expected that a new line intended to service the Ridgeview Road area will be constructed soon.

Sewer Avoidance

To date the Town's experience with its Sewer Avoidance Program has been positive. The Water Pollution Control Authority has had to consider a request to allow the extension of a sanitary sewer line north on Mountain Spring Road in order to service several existing homes situated on non-conforming lots. Reports of septic system failures in the Talcott Notch neighborhood have been very low. In the recently completed Environmental Resource Study and Plan for the Town of Farmington, the consultants recommended a set of design guidelines for permitting the location of septic systems in this neighborhood consistent with the areas soil types and groundwater characteristics.

PLANNING OBJECTIVES

1. Adjust the present Sewer Avoidance Program as needed.
 - a. Consider the adoption of standards for the siting and design of septic systems as recommended in the Town's Environmental Resource Study and Plan.
 - b. Team with the Farmington Valley Health District to oversee the maintenance of septic systems in Town and distribute information to residents concerning the care and proper use of these systems.
2. Recognize that sewer trunk lines tend to follow existing drainageways and watercourses and balance the need to install such lines along these sensitive areas against anticipated environmental impacts.
3. Maintain current policies regarding the mandatory extension of sewer lines as set forth in the Zoning and Subdivision Regulations.
4. Undertake updated studies of the capacity of the Sewer Treatment Plant as well as the Town's comprehensive plan for the collection network.

Storm Sewers

The development and maintenance of an adequate storm drainage system is necessary for ensuring public health and safety and the protection of property and natural resources. Development activities may modify the hydrology of the natural drainage system (including wetlands and watercourses) resulting in impacts ranging from persistent flooding to the significant reduction of water flow during the summer. The conversion of fields and woodlands to impervious surfaces typically causes a significant increase in surface water runoff while accelerating the movement of this water through the watershed.

As in the case of many communities, Farmington has historically reviewed the potential drainage impacts of development in an incremental fashion. This approach, however, loses sight of the cumulative impacts on the natural drainage system and doesn't apportion the cost of required man-made drainage improvements. In an attempt to reduce the impacts of development on both the natural and man-made drainage systems several cities and towns in Connecticut have elected to adopt a zero runoff regulation. This legislated standard requires that the peak runoff associated with any development activity be no greater than that which was generated in the property's natural state. Usually this result is attained by disposing of storm water underground or storing this water in man-made retention or detention structures located on the property. While this technique generally assures the minimum flow of water needed to sustain downstream wetlands or watercourses the potential for flooding may even increase, particularly when storm water has been retained on property located in the lower reaches of a watershed. For this reason, as previously recommended in the last Plan of Development, the Town should undertake a comprehensive town wide drainage study.

Existing Problems

For the most part Farmington does not experience chronic drainage problems, which endanger persons or property. The municipal flood and drainage control program apart from existing regulatory measures is limited to the installation of spot improvements primarily along municipal roadways. However the alteration of the hydrology of several watercourses in Town has become evident over the years as a result of development.

PLANNING OBJECTIVES

1. Regulate and manage storm water runoff in a manner which poses the least amount of injury to property and natural resources.
 - a. Initiate policies and regulations for the attenuation of pollutants in storm water runoff particularly in areas adjacent to watercourses and wetlands.
2. Use Zoning and Subdivision Regulations to protect downstream properties.

3. Undertake a comprehensive town wide drainage study in order to coordinate drainage control and protect natural resources.
4. Use detention and retention structures only after finding that downstream facilities are inadequate to accommodate projected runoff. Ensure that the hydrology of the receiving watercourse will not be altered in a detrimental manner and that adequate maintenance is provided for.
5. Implement a program, which fairly assesses and distributes the cost of drainage improvements as recommended by the town wide drainage study.

XV. COMMUNITY FACILITIES

Community facilities are designed to provide public services to Town residents in the most cost effective manner. Changes in the size, type, and location of these facilities reflect the Town's changing demographics.

Schools

Perhaps no other community facility is more extensively or immediately affected by demographic shifts than the school system. Over the last ten years the total public school population has risen steadily from 3,441 students to 4,344 students. However in 2005 enrollment has dropped to 4,257. As we have seen in the past, this increase may only partially be attributable to Farmington's overall gain in population and households. In the 1970's Farmington had one school age child for every four residents in the community. Today that figure is about one per six and one half residents. The health of the economy and the birth rate are more important predictors of school population than housing starts.

At the time the last Plan of Conservation and Development was completed, Farmington was experiencing significant increases in enrollment in its elementary schools. Today that bubble has moved into the High School. Over the last ten years, Farmington responded to these student increases by constructing a new school for grades five and six and by completing two renovations to the High School. It is expected that in the short term (one to five years) the Board of Education may have to respond to a new set of more localized increases at the elementary school level by instituting limited redistricting. The following table presents the current enrollment per school against each buildings planning capacity.

<u>School</u>	<u>School Enrollment</u> <u>October 2005</u>	<u>School Capacity</u> <u>Est. 2002</u>
East Farms	422	440
Noah Wallace	376	460
Union School	316	340
West District	341	380
West Woods	664	700
IAR	674	700
FHS	1398	1400

In 2005, the number of kindergarten students was 241. This is a significant drop from just five years ago, when this figure was 277. This may be an indicator that overall enrollment will stabilize or slightly drop. In a report just released by the State of Connecticut Department of Education, the author found that Farmington's school population should decline modestly over the next several years, citing that in 2015 total enrollment could drop to less than 4,000 students. This decline is chiefly linked to a decline in expected births. However, the addition of new housing units in Farmington could introduce more young families, offsetting the falling birth rate. The report goes on

to say that enrollment in the West Woods School and Irving Robbins School should drop significantly during the projected period. The number of students attending Farmington High School may peak in the next one to three years, and then moderate.

Farmington's population attending private schools has been amazingly constant. During the 2000-2001 school year a total of 292 students attended private school. Last year this number expanded by one to 293.

The only private secondary school in Farmington, Miss Porter's School, expanded its physical facilities by adding a new library and science building. It is expected that the school will see further expansion and updating in its athletic facilities.

Tunxis Community College will begin construction on a plan to update and modernize its campus buildings. This follows an expansion project, which concluded at about the time this Plan was updated in 1995.

In this past year College has added a new branch in the Town of Farmington, at the Exchange. Plans call for this facility to start with just a handful of classrooms to over the next several years.

Fire Protection

Farmington's fire fighting facilities include five firehouses. Since the last Plan of Conservation and Development was published, three of the firehouses have been updated and new buildings are located at Oakland Gardens and at the Westwoods Golf Course. The new facility at Westwoods coupled with a new water main on Plainville Avenue has significantly upgraded the firefighting capability on the southwest side of Farmington.

The Town Plan and Zoning Commission's regulations concerning minimum fire flow standards for subdivisions and the required use of automatic sprinkler systems in most commercial, industrial and institutional buildings has made a positive contribution to fire safety within Farmington. A recent study indicated that there were only a few areas of the Town, which contained residential neighborhoods with less than desired fire flows. This situation was also the result of further improvements made by the Unionville Water Company.

Community Centers

Facilities in Farmington, which over the years have operated as community centers, have provided much needed recreation, social and meeting space. Recognizing the inadequacies in its facilities, the Town in 2001 developed a dedicated senior and community center (approximately 13,000 square feet in area) on a parcel of land, which it shares with the police department. This new space, coupled with expanded meeting facilities at the main library, have strongly addressed the needs of Farmington's citizens and organizations. Other meeting spaces which have been available to the public over the years include the various fire

houses as well as the University of Connecticut Health Center and a meeting room at the Westfarms Mall. The community next needs improve the size and quality of its teen center.

Day Care Centers

Since the publication of the last Plan of Conservation and Development the Town has witnessed the development of several sizeable privately operated day care centers. Generally these facilities are either single independent businesses or a part of small regional companies with the exception of the Kinder Care day care center, which opened for business in 2003. Together these centers provide capacity for several hundred children. This is in addition to several preschool programs available in Farmington as well as a number of in home day care services.

Solid Waste

The Town of Farmington has continued to maintain its relationship with the Connecticut Resources Recovery Authority for the receipt of the Town's domestic waste. Other waste such as construction debris must be trucked out of town to other approved facilities. Recycling efforts have increased only modestly since the mid 1990's with only a few new items such as magazines added to the recycling stream. Although it is expected, that household junk mail will be added to the list of recycled materials shortly.

The Town maintains responsibility for the two closed landfills within its border. This includes periodic groundwater testing for the purpose of monitoring any leachete plume emanating from either of these facilities.

UConn Health Center

The University of Connecticut Health Center has completed a new strategic plan as well as an updated physical master plan. During the past decade the focus of the Center has shifted somewhat away from the medical services offered at the John Dempsey Hospital to bioscience research, ambulatory care and the maintenance and improvement to both the medical and dental schools. In 2004 the Center purchased the office building at 16 Munson Road and has proceeded to move a number of administrative positions to this facility. This year saw the completion of the new Medical Arts Building consisting of approximately 100,000 square feet of space and housing a musculoskeletal institute and ambulatory surgical center.

A second research tower has been recommended in the Master Plan completed in 2002. This recommendation also proscribes that this building contain a minimum of 150,000 square feet of space. As a complement to the University's research efforts at this campus, a modest incubator program has been instituted in one of the portable buildings located near main entrance. In 2007 the University purchased the building located at 400 Farmington Avenue for the housing of a new stem cell research facility. In addition to accommodating new laboratory and support space this building will also be the new location of the Center's incubator

program. A proposal to replace the John Dempsey Hospital has been submitted to the State legislature. If approved the former hospital space will be backfilled with additional research facilities.

Library

In 2004 the main branch of the Farmington library was expanded by approximately 13,500 square feet. This expansion included general building upgrades and additional floor area for both the adult and children services. A plan is presently being formulated for the upgrade of the Barney branch library.

Town Hall/Police Headquarters

The Town Hall has operated in its present area for over thirty years. During this period of time there have been several interior renovations, including the most recent improvements made to the former Police Department space and the Board of Education offices. Over the next ten years, unless current departments are relocated outside the existing building, the Town Hall will have to expand to accommodate the need for additional secured storage area and office space.

The development of a new police headquarters building in 2001 has thus far served the Town very well. There is no anticipated need to upgrade or expand this facility during the life of this Plan or even substantially beyond.

TABLE 12

ROADWAY LEVELS OF SERVICE

	<u>1989 Conditions</u>		<u>Most Recent Study</u>	
	Peak Hour		Peak Hour	
	<u>AM</u>	<u>PM</u>	<u>AM</u>	<u>PM</u>
Farmington Ave. at River Rd.	B	D	C	D
Farmington Ave. at Rte. 177	F	F	E	D
Farmington Ave. at Rte. 167	C	E	B	C
Farmington Ave. at Brickyard Rd.	D	D	B	D
Farmington Ave. at Rte. 10	F	F	F	F
Farmington Ave. at High St.	E	F	F	F
Farmington Ave. at I-84	D	F	C	C
South Rd. at Birdseye Rd.	B	B	C	C
Route 10 at Cooke St.	B	B	B	B
Route 10 at Scott Swamp Rd.	C	D	B	B
Route 10 at Meadow Rd.	D	F	C	B
Route 10 at Mountain Rd.	F	D	B	C
Route 6 at Hyde Rd.	F	D	NA	A
Route 6 at New Britain Ave.	E	F	NA	B
Route 6 at Scott Swamp Rd.	D	D	C	C
Route 6 at Fienemann Rd.	F	F	C	D
Fienemann Rd. at Farm Springs Rd.	D	C	B	B
Fienemann Rd. at Batterson Pk. Rd.	F	D	C	B
New Britain Ave. at Hyde Road	A	A	NA	B
Route 177 at Meadow Rd.	E	F	D	D

TABLE 13

ACCIDENT DATA FOR SELECTED ROADWAYS
DECEMBER 2001 - DECEMBER 2003

ROAD	NUMBER OF ACCIDENTS REPORTED
Batterson Park Road	2
Birdseye Road	15
Brickyard Road	19
Burlington Road	16
Collinsville Road	16
Colt Highway	134
Coppermine Road	10
Devonwood Drive	2
Farmington Avenue	509
Fienemann Road	18
Garden Street	8
Highwood Road	2
Hyde Road	2
Knollwood Road	2
Lovely Street	13
Main Street (Unionville)	12
Main Street (Farmington)	62
Meadow Road	15
Morea Road	5
Mountain Road	6
Mountain Spring Road	6
New Britain Avenue	20
Plainville Avenue	101
Red Oak Hill Road	6
River Road	9
Scott Swamp Road	100
South Road	26
South Main Street	62
Spring Lane	1
Talcott Notch Road	25
Town Farm Road	12
Two Mile Road	2
Waterville Road	34
Webster Street	7
West Avon Road	10
West District Road	2
Woodruff Road	0

XVI. HISTORIC RESOURCES

The protection and preservation of Farmington's historical, architectural and archaeological resources are a prominent element of the Town's quality of life.

The Farmington Village Historic District has existed for over 35 years, preserving those sites and structures located within its boundary. In the last two years the district has been expanded by fifteen properties. In addition the Historic District Commission had its designation expanded to the Farmington Historic Properties Commission. This permits the Commission to designate historic properties, which lie outside of boundaries of the historic district and place them under the Board's control. At present the Commission is seeking to establish this designation for a number of homes located on Cottage Street in Unionville.

In 2002 a study committee finished its report for the creation of a historic district within a portion of Unionville. Unfortunately, this proposal was defeated narrowly by the property owners. In 2004 the Town Plan and Zoning Commission adopted a Village District regulation for Unionville center. This regulation was enabled by a change in State law, which permits communities to preserve or enhance their town centers. The Village District designation will permit the Town to regulate construction in this area in a manner consistent with Unionville's historic past.

For more than ten years Farmington has had provisions in its land use regulations to further protect the community's historic elements. These regulations contained in the zoning and subdivision laws protect historic and archaeologically significant sites when a parcel of land is developed. The State of Connecticut Museum of Natural History has made a map indicating possible archaeologically significant sites available to the Planning Office.

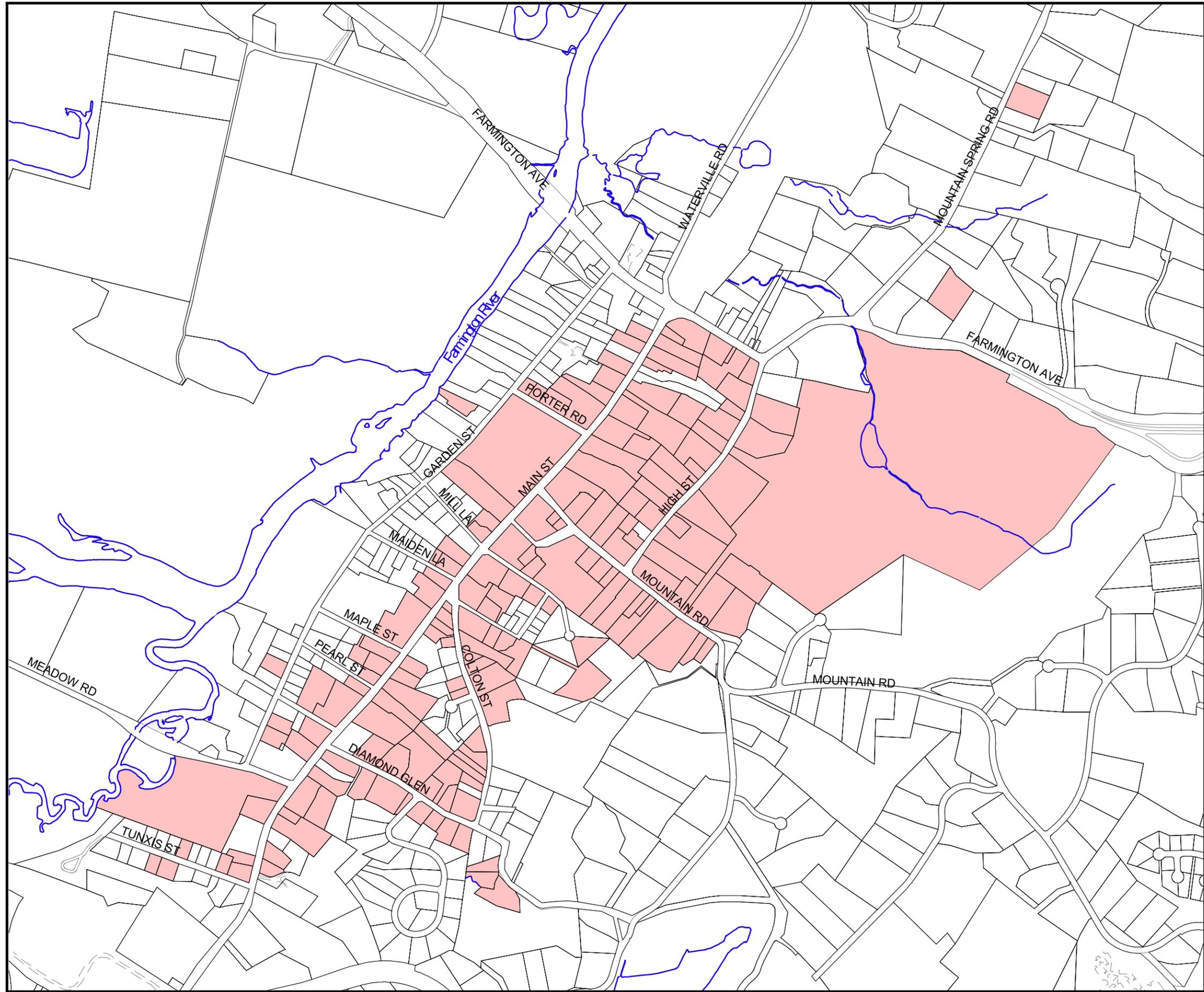
Another mechanism used to protect architecturally significant structures, which may be employed in conjunction with zoning actions is the facade preservation easement. This restrictive covenant, typically established between government authorities or preservation organizations and private property owners, prevents structures from being razed and ensures that any physical change to a structure's outside appearance is done in accordance with accepted preservation

standards. A number of homes located on Cottage Street had been preserved by this method as the result of an agreement between the property owners and the Hartford Architectural Conservancy. Unfortunately the Conservancy has now dissolved and as noted earlier the Farmington Historic District Commission will try to protect these structures by designating them as local historic properties. The Town Plan and Zoning Commission was responsible for establishment of a façade easement on property located at 340 Main Street.

Over the last several years there have been a number of improvements made to historically notable properties including the Hill-Stead Museum, the Stanley Whitman House and the offices of the Farmington Historical Society located on Main Street.

PLANNING OBJECTIVES

1. Create a historic district within Unionville to compliment the revitalization efforts in Unionville Center.
2. Continue to expand the Farmington Village Historic District in order to incorporate all historically or architecturally significant buildings and properties within the Main Street corridor and along Mountain Spring Road.
3. Expand the designation of individual historic or architecturally significant properties or structures not included within any existing or proposed historic districts in accordance with Section 7-147p. of the Connecticut General Statutes.
4. Protect the historic or archaeological elements of a parcel of land involved in a development proposal by use of the planning and zoning regulations.
5. Encourage the renovation and adaptive reuse of older buildings while maintaining their architectural integrity.
6. Promote where possible the use of preservation easements as part of the development review process.
7. Develop and redevelop properties within Unionville Center in a manner consistent with the historic architecture of Unionville.
8. Consider the designation of Farmington Center as a Village District overlay zone similar to the approach having been taken in Unionville.



 Historic District Properties



Map # 10

Farmington Historic District

2006 Plan of Conservation & Development
Farmington, Connecticut

1" = 800'

XVII. EXISTING LAND USE

The Town of Farmington is predominantly residential (Tables 14 and 15). Currently, 67.2 percent (12,343 acres) of the Town is zoned residential, with 64 percent of this land (7,953 acres) zoned either R80 or R40. Land zoned for commercial or industrial use is closely split with 6.1 percent (1,112 acres) zoned industrial, and 4.7 percent (855 acres) zoned commercial. The remaining 13.8 percent of the Town is zoned either Floodway or Excavation.

The Existing Land Use Map (Map 11) in this plan depicts the current land uses in Farmington as of October 2006. Tables 16-20 and Figure 1 analyze the acreages shown on this map:

- Table 16: Existing land use summary by general categories;
- Table 17: Changes in land use from 1993 to 2006;
- Table 18: Existing land use by neighborhood;
- Table 19: Existing land use by percent of neighborhood;
- Table 20: Existing land use by percent of land use category;
- Figure 1: General land use categories and business land use categories: 1993 vs. 2006.

The following summarizes the current land uses and their changes since 1993.

RESIDENTIAL:

In 1993, residential development occupied 28.0 percent (5,155 acres) of the Town; while in 2006, this percentage increased to 33 percent (5,977 acres) (Table 17). The vast majority of this development is occupied by single-family residential homes (87.1 percent or 5,208 acres) (Table 16).

Residential development as a whole grew by 16 percent between 1993 and 2006, with new development occurring on 822 acres (Table 17). Single-family development grew by 14 percent (655 acres), while multifamily development grew by 28 percent (167 acres). Of the 167 acres of additional multi-family development, 80 acres (or 48 percent) is age restricted for seniors; while 65 acres of the age restricted development is dedicated to active adults (55yrs and older).

By neighborhood, the Lake Garda neighborhood continues to have the highest percentage of residentially developed land, at 64 percent of the total neighborhood (Table 19). Other neighborhoods that are largely comprised of residentially developed land include the Highlands, West District and Talcott neighborhoods with 59, 54 and 53 percent respectively.

By percentage of neighborhood, the largest growth in residential development occurred in the West District neighborhood where residential development increased 8 percent from 1993. Residential development in the Central and East Farms neighborhoods each increased by 7 percent, while it increased by 6 percent in the Health Center and Robbins neighborhoods. By overall acreage, the most residential development occurred in the

Central, Southwest, and West District neighborhoods, with 133, 129 and 114 acres of new residential development respectively.

The Talcott and West District neighborhoods contain the largest percentages of the Town's total residential development by acreage. Combined, these neighborhoods contain 29 percent of the Town's total residential development (Table 20).

COMMERCIAL/INDUSTRIAL:

This category, which includes professional office, general commercial, general industrial and excavation land uses, occupies 8.8 percent of the Town's total land area (Table 16). As a whole, this category grew by only 27 acres since 1993. This is due to the change in category of 73 acres of land off of Executive Drive that was categorized as excavation in 1993, but that is categorized in the current plan as 60 acres of vacant non-residential land and 13 acres of commercial use. Omitting excavation, the commercial/industrial uses have grown 12 percent or 153 acres since 1993 (Table 17).

The greatest individual land use growth in this category occurred with general commercial development. General commercial development grew by 15 percent from 428 acres in 1993 to 493 acres in 2006 (Table 17). General industrial and professional office land uses also expanded since 1993. Fifty-one acres were developed for general industrial, for a 13 percent increase; while 37 acres were developed for professional office, for a 9 percent increase (Table 17).

While residential development is scattered throughout the Town, much of the non-residential development tends to be concentrated in certain areas. Eighty-two percent (369 acres) of the professional office land is located within the Batterson Park, Health Center, and Southwest neighborhoods; with 41 percent located in the Batterson Park neighborhood alone (Table 20). While the Batterson Park neighborhood holds nearly half of the Town's professional office development, the neighborhood itself makes up only five percent of the Town's total land area. The primary cause of this concentration is the neighborhood's proximity to the I-84 corridor; and the Interstate's Fienemann Road exit, which provides easy access to the businesses in this area. This pattern has changed little from the 1993 plan.

Seventy-two percent (329 acres) of the land developed for general industry is located in the Southwest neighborhood (Tables 18 & 20). Industrial land, however, occupies only 11 percent of the total land area in this neighborhood (Table 19).

By contrast, however, general commercial development tends to be somewhat more scattered throughout the Town. As in 1993, the largest concentrations remain in the Central, East Farms and Southwest neighborhoods; where, respectively, 23, 16 and 14 percent of the Town's total commercial land is located (Table 20). These concentrations are attributed to Route 4, Westfarms Mall and Route 6 respectively.

VACANT LAND:

Vacant land includes vacant residential and vacant nonresidential land. Current acreages are shown on Table 16.

Currently, 14 percent of the Town (or 2,569 acres) is categorized as vacant land (Table 16). This is a reduction of 8 percentage points (or 1,511 acres) since 1993, when vacant land accounted for 22 percent of the Town (or 4,080 acres) (Table 17). Residentially zoned vacant land declined during this period by 37 percent, from 3,598 acres to 2,272 acres.

Vacant land determines the future growth potential for the Town. By neighborhood, the South Farmington, Unionville and Talcott neighborhoods have the greatest development potential with 33, 26 and 23 percent of each neighborhood, respectively, categorized as vacant land (Table 19). By the Town as a whole, the Southwest neighborhood contains the largest portion of the Town's total vacant land (24 percent or 624 acres) (Tables 18 and 20).

OPEN SPACE:

The overall reduction in vacant land between 1993 and 2006 is not solely the result of new development. New open space accounted for 484 of these acres, for an overall growth of 9 percent for this general category (Table 17). As shown on Table 16, the total open space category includes recreation/open space, major water bodies, public schools and cemeteries.

Recreation/preservation is the sum of seven subcategories used in the Open Space section of this plan: Town of Farmington, Private, State of Connecticut, Major Waterbodies, City of Hartford, Farmington Land Trust and Metropolitan District Commission (MDC). Major water bodies, public schools and cemeteries are included in the total open space category because of their permanence, and their importance for aesthetic, recreation or wildlife habitat purposes. Each category is covered in more detail in the Open Space section of this plan.

With 1,256 acres of total open space, the Floodplain neighborhood includes the largest percentage of open space by both percentage of the neighborhood (85 percent) (Table 19), and percentage of the Town's total open space (21 percent) (Table 20). Other neighborhoods that include a significant proportion of open space include the Oakland Gardens and Central neighborhoods. The Oakland Gardens neighborhood is 73 percent open space (Table 19), however, its 162 acres of open space (Table 18) represents only 3 percent of the Town's total. The Central neighborhood is 50 percent open space, and its 1,036 acres of open space (Table 18) comprises 18 percent of the Town's total open space (Table 20).

Table 16
TOWN OF FARMINGTON
EXISTING LAND USE SUMMARY

	LAND USE	ACRES	% OF TOWN
RESIDENTIAL:	SINGLE FAMILY	5,173	28.2%
	2-4 FAMILY	62	0.3%
	MULTIFAMILY	707	3.8%
	SUBTOTAL	5,942	32.3%
COMMERCIAL:	PROFESSIONAL OFFICE	451	2.5%
	GENERAL COMMERCIAL	493	2.7%
	SUBTOTAL	943	5.1%
INDUSTRIAL:	GENERAL INDUSTRIAL	455	2.5%
	EXCAVATION	251	1.4%
	SUBTOTAL	706	3.8%
INSTITUTIONAL:	GOVERNMENT/INSTITUTIONAL	566	3.1%
	SUBTOTAL	566	3.1%
TRANSPORTATION:	UTILITY/R-O-W	128	0.7%
	STREETS	1,610	8.8%
	SUBTOTAL	1,738	9.5%
OPEN SPACE:	RECREATION/OPEN SPACE	5,333	29.0%
	MAJOR WATER BODIES	373	2.0%
	PUBLIC SCHOOLS	187	1.0%
	CEMETERIES	19	0.1%
	SUBTOTAL	5,912	32.2%
VACANT LAND:	VACANT RESIDENTIAL	2,272	12.4%
	VACANT NONRESIDENTIAL	297	1.6%
	SUBTOTAL	2,569	14.0%
Total		18,377	100.0%

Table 17

LAND USE CHANGES
(1993 - 2006)

GENERAL LAND USE CATEGORIES:

	1993		2006		Change 1993 - 2006	
		%		%		%
	Acres of Town		Acres of Town		Acres	Change
Residential	5,155	28%	5,942	32%	787	15%
Business	1,246	7%	1,399	8%	153	12%
Misc.	2,519	14%	2,555	14%	36	1%
Open Space	5,428	30%	5,912	32%	484	9%
Vacant Land	4,080	22%	2,569	14%	-1,511	-37%

RESIDENTIAL AND COMMERCIAL/INDUSTRIAL LAND USES:

	1993		2006		Change 1993 - 2006	
		%		%		%
	Acres of Town		Acres of Town		Acres	Change
Single Family	4,553	25%	5173	28%	620	14%
Multi-Family	602	3%	769	4%	167	28%
Prof. Office	414	2%	451	2%	37	9%
General Commercial	428	2%	493	3%	65	15%
General Industrial	404	2%	455	2%	51	13%

NOTE:

Business acreage includes Professional Office, General Commercial and General Industrial

Government/Institutional, and Transportation

Figure 1
 TOWN OF FARMINGTON
 CHANGES IN LAND USE
 (1993 - 2006)

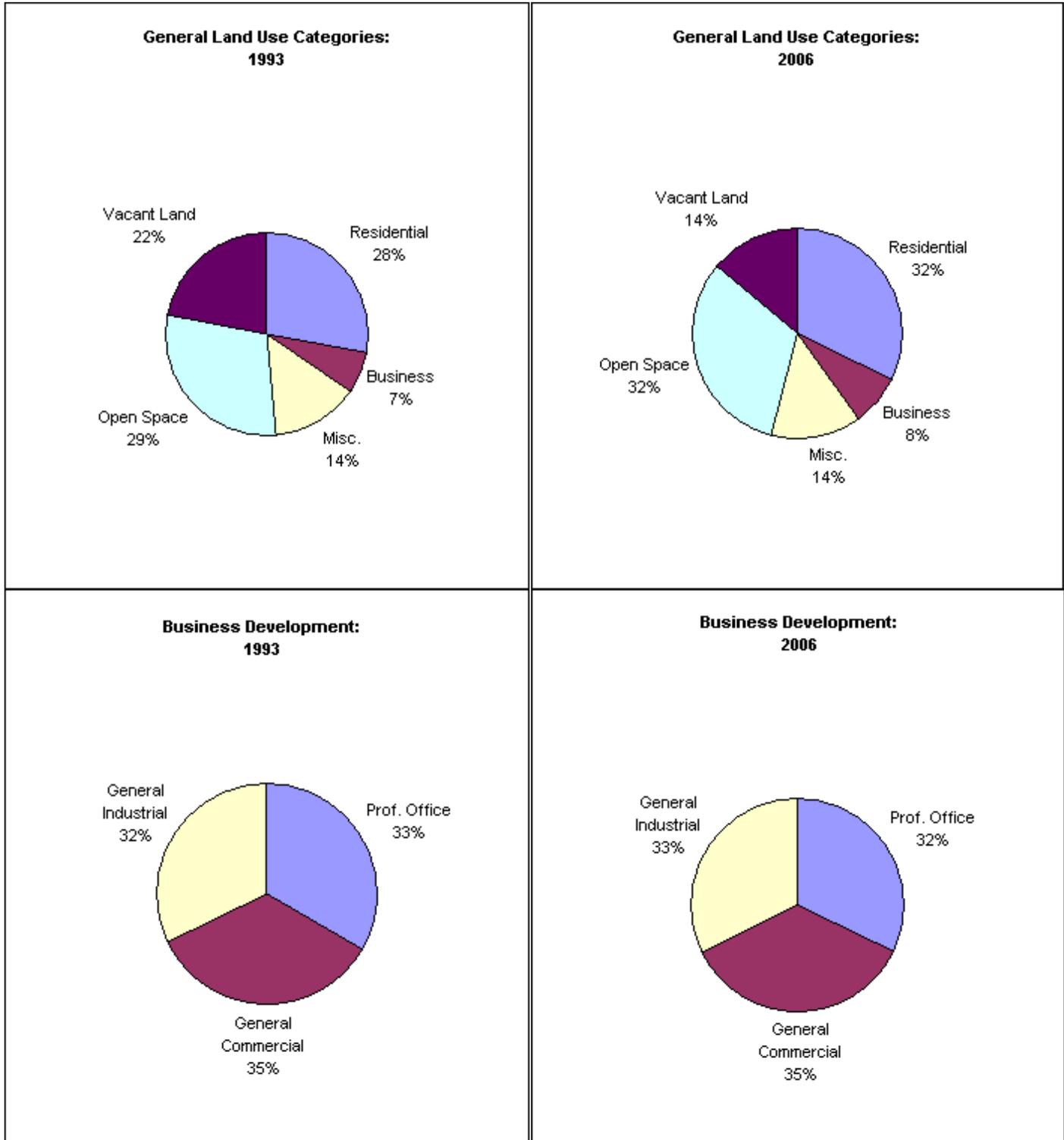


Table 18
EXISTING LAND USE BY NEIGHBORHOOD
Acres

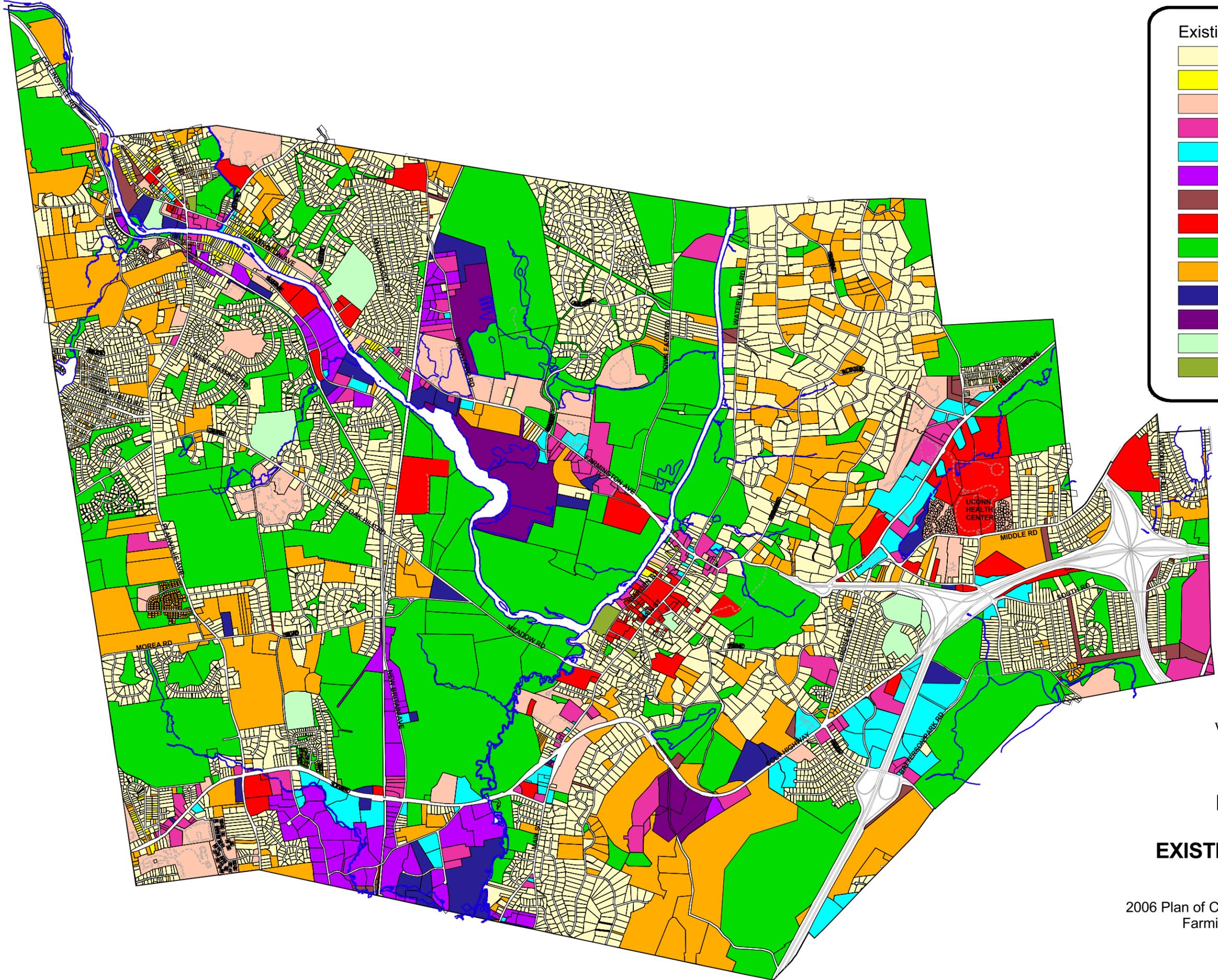
CATEGORY	LAND USE	BATTERSON PARK	CENTRAL	EAST FARMS	FARMINGTON VILLAGE	FLOODPLAIN	HEALTH CENTER	HIGHLANDS	LAKE GARDA	OAKLAND GARDENS	ROBBINS	SOUTH FARMINGTON	SOUTHWEST	TALCOTT	UNIONVILLE	WEST DISTRICT	TOTAL
Residential	Single Family	87	395	338	349	0	191	361	116	27	248	365	596	973	428	698	5,172
	2-4 Family	0	0	0	4	0	0	6	0	0	0	0	10	0	42	0	62
	Multifamily	8	143	22	49	0	126	14	0	5	0	25	128	0	98	89	707
	SUB-TOTAL	95	538	360	402	0	317	381	116	32	248	390	734	973	568	787	5,941
Commercial/ Industrial	Professional	186	20	13	7	0	101	1	0	6	13	14	82	0	3	5	451
	General	37	111	77	45	0	39	8	0	1	20	47	70	0	28	10	493
	General	0	37	0	0	0	0	0	0	0	0	19	329	0	17	53	455
	Excavation	0	68	0	0	117	0	0	0	0	0	66	0	0	0	0	251
	SUB-TOTAL	223	236	90	52	117	140	9	0	7	33	146	481	0	48	68	1,650
Miscellaneous		6	32	57	92	52	210	33	0	1	0	6	27	0	22	28	566
	Utility/Streets	141	135	284	87	10	176	76	34	18	75	101	213	101	148	139	1,738
	SUB-TOTAL	147	167	341	179	62	386	109	34	19	75	107	240	101	170	167	2,304
Open Space		281	977	136	307	1,09	105	59	3	162	58	406	890	301	239	313	5,333
	Major Water	0	59	26	12	160	0	16	11	0	0	0	0	20	55	14	373
	Public Schools	0	0	0	5	0	0	53	0	0	50	0	26	0	10	43	187
	Cemeteries	0	0	0	15	0	0	0	0	0	0	0	1	0	3	0	19
	SUB-TOTAL	281	1,0	162	339	1,25	105	128	14	162	108	406	917	321	307	370	5,912
Vacant Land	Vacant	99	52	29	50	16	70	23	18	1	92	497	513	426	348	38	2,272
	Vacant Non-	14	52	0	0	21	16	0	0	0	29	10	111	0	27	17	297
	SUB-TOTAL	113	104	29	50	37	86	23	18	1	121	507	624	426	375	55	2,569

Table 19
 EXISTING LAND USE BY NEIGHBORHOOD
 Percent of Land Use Category in Each Neighborhood

CATEGORY	LAND USE															
		CENTRAL	EAST FARMS	FARMINGTON VILLAGE	FLOODPLAIN	HEALTH CENTER	HIGHLANDS	LAKE GARDA	ROBBINS	SOUTHWEST	TALCOTT	UNIONVILLE	WEST DISTRICT			
Residential	Single Family	10%	19%	34%	34%	0%	18%	56%	64%	12%	42%	23%	20%	53%	29%	48%
	2-4 Family	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	3%	0%
	Multifamily	1%	7%	2%	5%	0%	12%	2%	0%	2%	0%	2%	4%	0%	7%	6%
	SUB-TOTAL	11%	26%	37%	39%	0%	31%	59%	64%	14%	42%	25%	25%	53%	39%	54%
Commercial/ Industrial	Professional Office	22%	1%	1%	1%	0%	10%	0%	0%	3%	2%	1%	3%	0%	0%	0%
	General Commercial	4%	5%	8%	4%	0%	4%	1%	0%	0%	3%	3%	2%	0%	2%	1%
	General Industrial	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	1%	11%	0%	1%	4%
	Excavation	0%	3%	0%	0%	8%	0%	0%	0%	0%	0%	4%	0%	0%	0%	0%
	SUB-TOTAL	26%	11%	9%	5%	8%	14%	1%	0%	3%	6%	9%	16%	0%	3%	5%
Miscellaneous	Government/Institution	1%	2%	6%	9%	4%	20%	5%	0%	0%	0%	0%	1%	0%	1%	2%
	Utility/Streets	16%	6%	29%	9%	1%	17%	12%	19%	8%	13%	6%	7%	6%	10%	10%
	SUB-TOTAL	17%	8%	35%	18%	4%	37%	17%	19%	9%	13%	7%	8%	6%	12%	12%
Open Space	Recreation/Preservation	33%	47%	14%	30%	74%	10%	9%	2%	73%	10%	26%	30%	17%	16%	22%
	Major Water Bodies	0%	3%	3%	1%	11%	0%	2%	6%	0%	0%	0%	0%	1%	4%	1%
	Public Schools	0%	0%	0%	0%	0%	0%	8%	0%	0%	9%	0%	1%	0%	1%	3%
	Cemeteries	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
	SUB-TOTAL	33%	50%	17%	33%	85%	10%	20%	8%	73%	18%	26%	31%	18%	21%	26%
Vacant Land	Vacant Residential	12%	2%	3%	5%	1%	7%	4%	10%	0%	16%	32%	17%	23%	24%	3%
	Vacant Non-residential	2%	2%	0%	0%	1%	2%	0%	0%	0%	5%	1%	4%	0%	2%	1%
	SUB-TOTAL	13%	5%	3%	5%	3%	8%	4%	10%	0%	21%	33%	21%	23%	26%	4%
TOTAL		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 20
EXISTING LAND USE BY NEIGHBORHOOD
Percent of Total Land Use Category in Each Neighborhood

CATEGORY	LAND USE	BATTERSON PARK	CENTRAL	EAST FARMS	FARMINGTON VILLAGE	FLOODPLAIN	HEALTH CENTER	HIGHLANDS	LAKE GARDA	OAKLAND GARDENS	ROBBINS	SOUTH FARMINGTON	SOUTHWEST	TALCOTT	UNIONVILLE	WEST DISTRICT	TOTAL
Residential	Single Family	2%	8%	7%	7%	0%	4%	7%	2%	1%	5%	7%	12%	19%	8%	13%	100%
	2-4 Family	0%	0%	0%	6%	0%	0%	10%	0%	0%	0%	0%	16%	0%	68%	0%	100%
	Multifamily	1%	20%	3%	7%	0%	18%	2%	0%	1%	0%	4%	18%	0%	14%	13%	100%
	SUB-TOTAL	2%	9%	6%	7%	0%	5%	6%	2%	1%	4%	7%	12%	16%	10%	13%	100%
Commercial/ Industrial	Professional Office	41%	4%	3%	2%	0%	22%	0%	0%	1%	3%	3%	18%	0%	1%	1%	100%
	General Commercial	8%	23%	16%	9%	0%	8%	2%	0%	0%	4%	10%	14%	0%	6%	2%	100%
	General Industrial	0%	8%	0%	0%	0%	0%	0%	0%	0%	0%	4%	72%	0%	4%	12%	100%
	Excavation	0%	27%	0%	0%	47%	0%	0%	0%	0%	0%	26%	0%	0%	0%	0%	100%
	SUB-TOTAL	14%	14%	5%	3%	7%	8%	1%	0%	0%	2%	9%	29%	0%	3%	4%	100%
Miscellaneous	Government/Institution	1%	6%	10%	16%	9%	37%	6%	0%	0%	0%	1%	5%	0%	4%	5%	100%
	Utility/Streets	8%	8%	16%	5%	1%	10%	4%	2%	1%	4%	6%	12%	6%	9%	8%	100%
	SUB-TOTAL	6%	7%	15%	8%	3%	17%	5%	1%	1%	3%	5%	10%	4%	7%	7%	100%
Open Space	Recreation/Preservation	5%	18%	3%	6%	21%	2%	1%	0%	3%	1%	8%	17%	6%	4%	6%	100%
	Major Water Bodies	0%	16%	7%	3%	43%	0%	4%	3%	0%	0%	0%	0%	5%	15%	4%	100%
	Public Schools	0%	0%	0%	3%	0%	0%	28%	0%	0%	27%	0%	14%	0%	5%	23%	100%
	Cemeteries	0%	0%	0%	79%	0%	0%	0%	0%	0%	0%	0%	5%	0%	16%	0%	100%
	SUB-TOTAL	5%	18%	3%	6%	21%	2%	2%	0%	3%	2%	7%	16%	5%	5%	6%	100%
Vacant Land	Vacant Residential	4%	2%	1%	2%	1%	3%	1%	1%	0%	4%	22%	23%	19%	15%	2%	100%
	Vacant Non-residential	5%	18%	0%	0%	7%	5%	0%	0%	0%	10%	3%	37%	0%	9%	6%	100%
	SUB-TOTAL	4%	4%	1%	2%	1%	3%	1%	1%	0%	5%	20%	24%	17%	15%	2%	100%



Existing Land Use

- Single Family Residential
- 2-4 Family Residential
- Multi-family Residential
- Commercial
- Professional Office
- Industrial
- Utility
- Government/Nonprofit
- Open Space/Recreation
- Vacant Residential
- Vacant Non-Residential
- Earth Excavation
- Public School
- Cemetary



Map # 11

EXISTING LAND USE

2006 Plan of Conservation & Development
Farmington, Connecticut

XVIII. FUTURE LAND USE PLAN

The Future Land Use Plan is composed of the Future Land Use Map (Map 12) as well as the specific development guidelines and policies found in the following neighborhood plans. These documents must be utilized together when making land use decisions since there will be occasions when circumstances described in the neighborhood plan would alter or require reconsideration of the preferable land use designation of a given parcel of land on the Future Land Use Map.

In developing the Future Land Use Plan the Commission considered the following: environmental conditions and constraints, current land use patterns, availability and adequacy of utilities and transportation systems, the planning objectives stated in the previous sections, the recently adopted Strategic Plan as well as the recommendations made by citizens through forums conducted over the last two years.

The actual decision to implement the recommendations contained in the Future Land Use Plan is dependent upon both a detailed analysis of the on site environmental features of a given parcel of land as well as a review of the particular circumstances external to that site including the operation of the surrounding road network and adjacent land use. In many cases a set of prerequisite conditions must be established before a recommendation of the Future Land Use Plan can be set in motion. An example of such a prerequisite may be the upgrade of an adjacent roadway or extension of a sanitary sewer line.

The zoning laws of the State of Connecticut do not generally permit municipalities to directly control the pace of development of its land once placed in a particular zoning district. Therefore, one of the few ways to affect the timing of growth within a town is through the zone change process. It must also involve a thorough assessment of the impacts of a land use change upon such issues as traffic safety and circulation, the community's infrastructure including schools and utilities and the provision of local services (i.e. fire, police and recreation).

All parcels of land have been classified into one of eight land use categories which are as follows: Residential (at four density classes), Commercial, Office, Industry, Government/Institution, Open Space, Utility and Transportation Rights-of-way and Water Bodies. Each is discussed below.

Residential - This category provides five levels of density as opposed to differentiating between housing types (i.e. single or multiple family). Since all five classes could accommodate some form of housing other than individual subdivision lots through application of the Town's cluster or RDM regulations, it would be impractical to precisely identify on this type of map all of the sites which would be appropriate for multiple family housing. A number of institutional uses currently permitted by the Farmington Zoning Regulations within residential zoning districts would also fit into this category.

Commercial - This classification includes retail and personal services, restaurants, recreational and lodging facilities. It would also permit office uses and many institutional uses.

Office - This category includes lodging facilities as well as a number of institutional uses.

Industry - This classification includes manufacturing, warehousing, wholesaling, lodging facilities, office uses, some institutional uses and a limited number of commercial uses including recreational facilities.

Government/Institution - This category in addition to government functions would also include health and special population care facilities, schools, museums and religious facilities.

Open Space - In applying this designation to various parcels on the Future Land Use Map, only those properties currently identified as permanent open space in Section X of this Plan or those parcels, which have no development potential due to environmental or regulatory constraints are shown on the Future Land Use Map as Open Space. Existing non-permanent open spaces in addition to those parcels identified by the Commission as future open space are described in the Open Space Plan in Section X. The reason this was done was to ensure that the Plan provided a recommended land use for a property in the case where such site was unavailable for acquisition or protection as open space.

At full development, based upon current household size, the Future Land Use Plan would allow Farmington's population to rise to an estimated 31,006 residents. This figure would be reduced if the Town was able to carry out the recommendations of the open space plan presented in Chapter X.

PLANNING OBJECTIVES

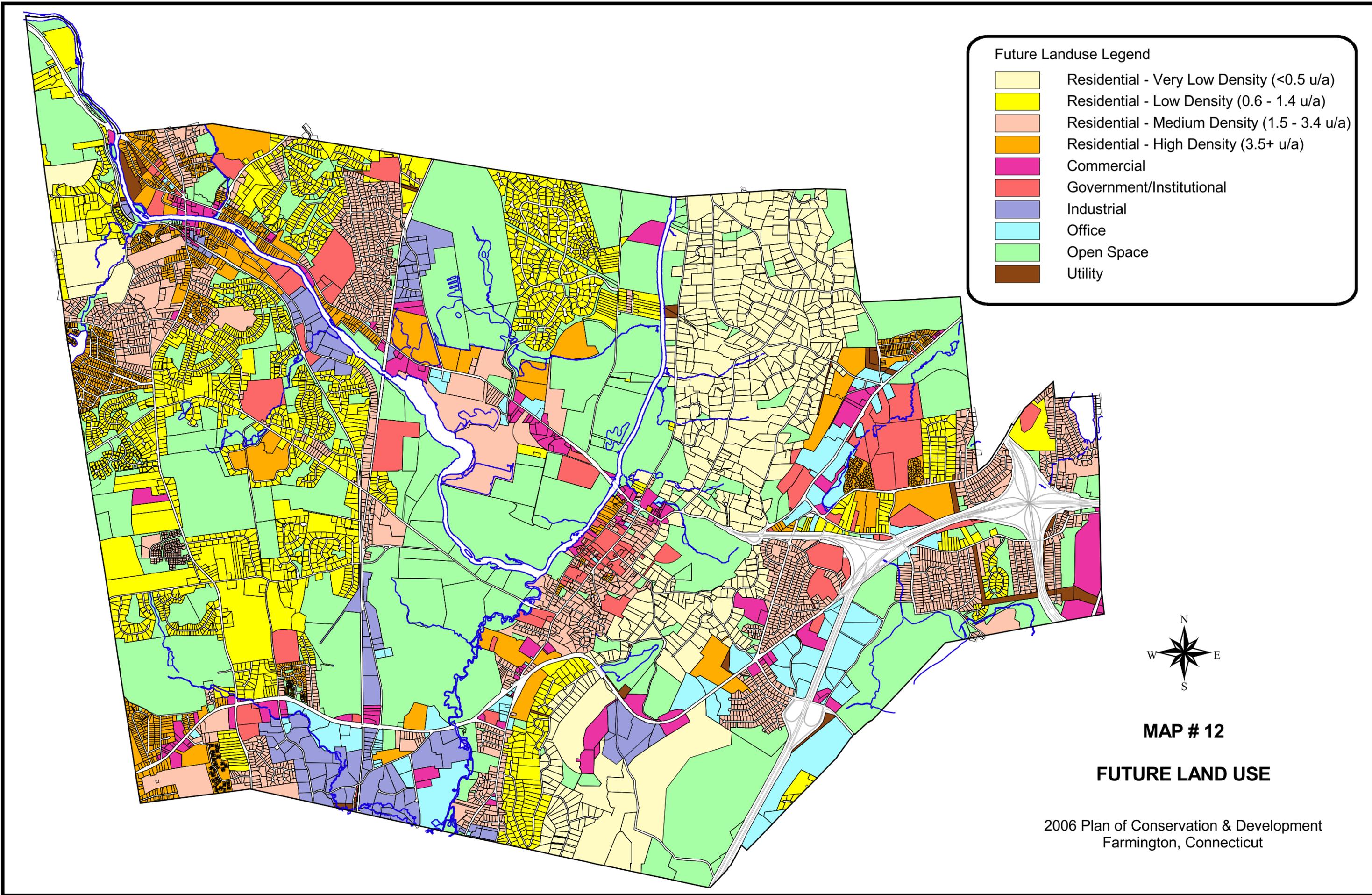
1. Preserve residential neighborhoods as stable, safe, vital and attractive living environments.
 - a. Institute safeguards to protect neighborhoods from the adverse effects posed by adjacent new development.
 - b. Parcels of land, which are contiguous to existing residential neighborhoods should only be developed in a compatible manner. In measuring compatibility, consideration should be given to similarity of uses (type, density, scale), traffic impacts, hours of activity, noise generation, lighting and design (setbacks and buffers).
2. Vacant land located along Farmington's arterials should primarily be developed as housing in order to reduce sprawl and preserve the Town's major activity centers. The density of such housing will generally range from medium to high in order to support mass transportation systems. The plan also

proposes that neighborhood centers be considered with mixed uses in order to provide services in a convenient manner, reducing dependence upon automobile trips while increasing opportunities for walking and the use of other non-motorized modes of transportation.

- a. Parcels of land, which have substantial depth should be developed in a clustered design in order to increase setbacks from the roadway. This design will ameliorate effects from traffic while providing a pleasant view from the abutting street.
 - b. Where the development of housing is not feasible the Town should encourage the development of land uses which generate lower volumes of traffic or which generate their greatest amount of traffic during off peak hours.
3. The following criteria shall be utilized in applying density standards to various areas of Town:
- a. Very low density (up to .5 units per acre) where average slope of land exceeds 20 percent; where soils present severe or very severe limitations for on site septic systems; for all areas included in a sewer avoidance program and where the existing neighborhood is characterized by very low density use.
 - b. Low density (.6 to 1.4 units per acre) where average slope of land is less than 20 percent; in areas, which contain active agricultural activity or prime agricultural soils; in areas which contain a significant concentration of sensitive environmental resources; in areas characterized by low or very low density development.
 - c. Medium density (1.5 to 3.5 units per acre) where average slope is less than 15 percent; where public sewers are readily available; in areas located between high density and low density neighborhoods; in areas presently characterized by medium density developments.
 - d. High density (3 to 5 units per acre) where average slope is less than 15 percent; where public sewer and public water is readily available; where areas are in close proximity to supporting services; to serve as a transition between dissimilar uses; where multiple family development can provide a feasible alternative to commercial development along those portions of arterial streets where single family homes are no longer desirable.
 - e. Very high density (over 5 units per acre) where average slope is less than 10 percent; where public sewer and water is readily available; where areas are in close proximity to supporting services; where areas are located immediate to secondary arterial and arterial roadways; to serve as a transition between dissimilar

uses; where multiple family development can provide a feasible alternative to commercial development along those portions of arterial streets where single family homes are no longer desirable.

4. Require single-family cluster development in order to:
 - a. Protect sensitive and desirable environmental features including wetlands, water bodies, ridgelines, vegetation, agricultural resources and open spaces.
 - b. Encourage the provision of affordable housing.
 - c. Protect new housing developments from impacts associated with major roadways and other incompatible uses.
5. Encourage the use of site design techniques including building orientation, street and lot layout and landscaping which maximize the potential for using passive solar energy.
6. Generally require all commercial property in excess of two acres be placed into the BR zone classification.
7. Situate to the greatest degree possible future industrial development in close proximity to I-84. This will reduce the movement of truck traffic through residential streets.
8. Consider redrafting Farmington's industrial zoning classifications to specifically eliminate retail and service uses. The present system may lead to having retail uses sited in areas not originally intended. The system of regulating land uses by special permit may in this case not be sufficiently adequate to control the growth of large retail uses in existing industrial areas. This change may also reduce pressure upon the value of industrial land in Town, allowing manufacturing and other typical industrial land uses to locate an adequate supply of land for future growth without competing with uses permitted in commercial zones.
9. Ensure that clustered single-family home development is well designed and compliments Farmington's existing neighborhoods and housing stock.
10. Consider developing a set of zoning regulations for the redevelopment of Farmington's older residential neighborhoods to maintain their current character. As the availability of land continues to diminish and the price of housing escalates, there will be more interest in replacing existing smaller homes with larger and taller residences.



- Future Landuse Legend
- Residential - Very Low Density (<0.5 u/a)
 - Residential - Low Density (0.6 - 1.4 u/a)
 - Residential - Medium Density (1.5 - 3.4 u/a)
 - Residential - High Density (3.5+ u/a)
 - Commercial
 - Government/Institutional
 - Industrial
 - Office
 - Open Space
 - Utility



MAP # 12

FUTURE LAND USE

2006 Plan of Conservation & Development
Farmington, Connecticut

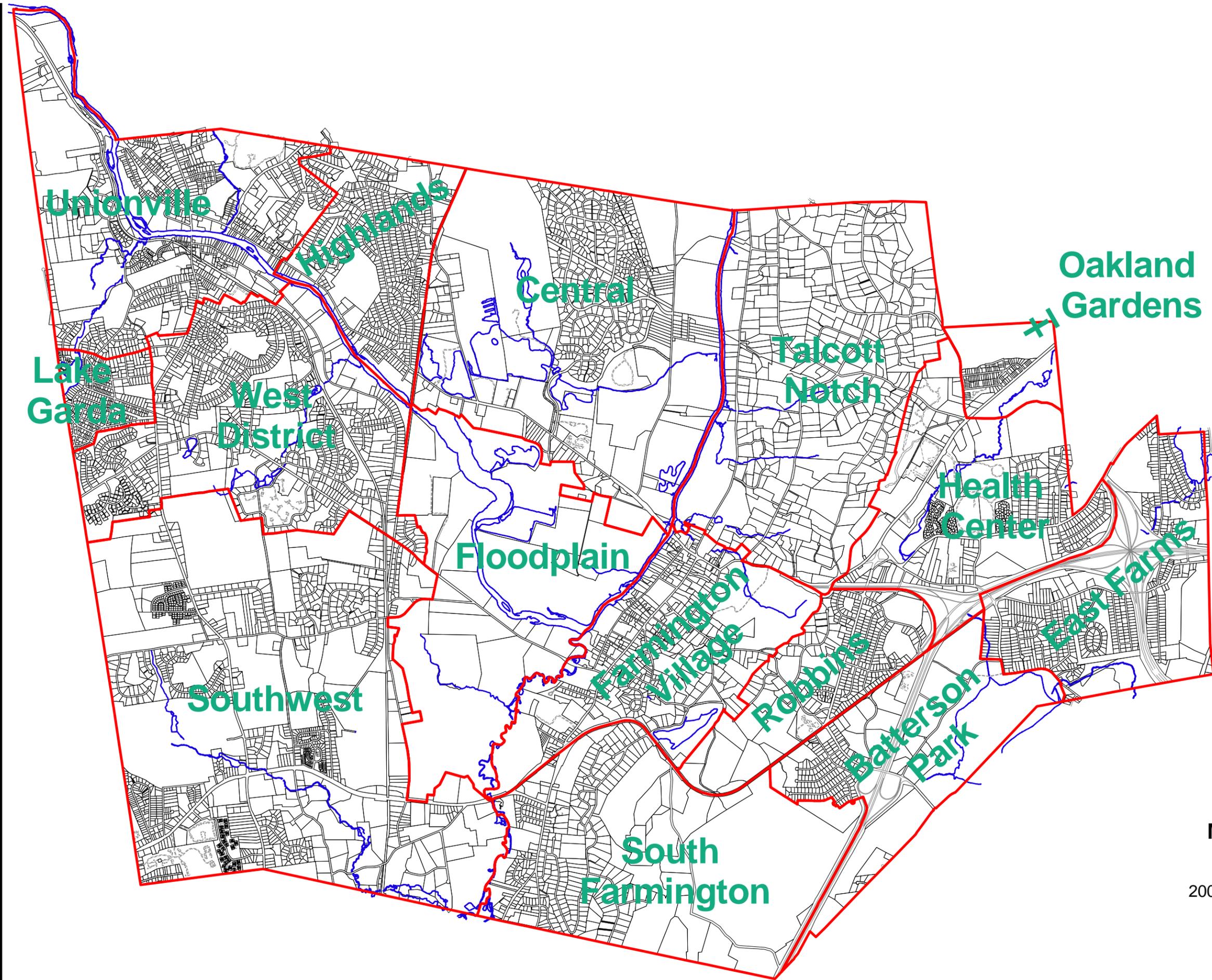
XIX. NEIGHBORHOODS

This section of the Plan of Conservation and Development translates planning objectives found in preceding sections into more detailed development policies for specific locations. This includes recommendations for particular action as well as observations, which identify opportunities and constraints for individual parcels within each neighborhood.

The Plan of Conservation and Development has maintained the designation of 15 neighborhoods from the previous Plan. See also Map 13. This was done in order to permit direct comparisons of data from the 1982 Plan of Development to today.

A brief description of each neighborhood is followed by a set of policy statements and population statistics. These population statistics include the population of each neighborhood at full development as well as the percentage of the Town's future population growth attributable to each neighborhood. Full development of the Town is defined as the maximum development of all remaining vacant and underutilized land under current zoning designations and restrictions.

The following neighborhood analyses should be used together with the Future Land Use Plan and Map.



Map # 13

MAP OF NEIGHBORHOODS

2006 Plan of Conservation & Development
Farmington, Connecticut

BATTERSON PARK

The Batterson Park neighborhood is located in southeastern Farmington and bounded by Route 6 to the north, the New Britain city line to the south, Dead Wood Swamp to the west and Two Mile Road with its adjoining residences to the east. Future development of this neighborhood will be influenced chiefly by the presence of I-84. The scope and scale of this development must take into account the availability of an adequate water system for domestic and fire supply and the surrounding road network as well as the potential impact upon the water quality of Batterson Park Pond. The largest parcel of land with the greatest development potential is owned by the City of Hartford and lies to the west of Fienemann Road. It is presumed that all land owned by the City of Hartford and located to the east of Fienemann Road will remain as recreational use.

Development Policies

1. Encourage the development of office, research and development, lodging and institutional uses along the I-84 corridor.
2. Ensure that all new development located within the Batterson Park Pond watershed contains a water quality management plan. Such plans should promote to the greatest degree possible subsurface drainage systems in addition to the use of catchment structures for the attenuation of pollutants and landscaping maintenance programs, which produce the least amount of nutrient runoff.
3. The largest single vacant parcel in this neighborhood, located to the south of I-84 and west of Fienemann Road, should be developed for office or research and development use.
4. Farm Springs Road should remain a dead end in order to prevent through traffic from using Terrie Road.
5. Maintain residential zoning districts within this neighborhood. The conversion of these areas for commercial use will exacerbate traffic congestion and safety and negatively impact the value, use and enjoyment of adjoining residences.

Population Statistics

2005 Population:	681			
1990 Population:	628			
Percent Change 1990-2005:	+8			
Build Out Population:	841			
Percent Change 2005-Build Out:	+23			
Neighborhood Percentage of Town's Future Population Growth:	2.9			
1990 Population Density:	.71	Persons	per	Acre
2005 Population Density:	.77	"	"	"
Build Out Population Density:	.95	"	"	"

CENTRAL

The area of this neighborhood extends from the railroad right-of-way to the Farmington River and from the Avon town line to the boundary of the flood zone south of Farmington Avenue. Many of the properties, which constitute the eastern and southern boundaries of this area are located in either the Town's flood zone or flood fringe. As a result this neighborhood contains a large portion of permanent open space.

Land uses in the Central neighborhood are quite diverse including low and high-density residential use as well as a number of office and retail establishments.

The presence of Farmington Avenue transecting this neighborhood will have the greatest impact on its character over the next decade.

Development Policies

1. Establish development along Route 4, which would not require the need for an additional traffic light. Where feasible access to larger vacant parcels should be limited to existing intersecting streets.
2. Although residential development is recommended for much of the vacant land along Route 4, this use should be well set back and buffered from the street.
3. Land use in the vicinity of the existing Connecticut Sand and Gravel well must be in harmony with the State's Aquifer Protection Program.
4. While the operation of public and semipublic recreation areas within the floodplain may be encouraged and supported by the Town, the establishment of accessory structures should be discouraged and rigorously regulated. The future development of this area should also consider the objectives and recommendations from the regional biodiversity study.
5. Remnants of the former Farmington Canal should be maintained through application of the Town's Zoning and Subdivision regulations.
6. Establish use controls for preexisting nonconforming uses within the Flood Zone district, such as the Polo Grounds.
7. The zoning classification of the Greenbriar office site as well as the adjacent vacant land to the east and south should consider a mixed-use development of office, retail and medium density housing. However this type of development should be linked to the construction of a service road (between Brickyard Road and Melrose Drive), service by mass transit and the ability of Route 4 to accommodate increased traffic from this site.

8. The northern portion of the Dunning Sand and Gravel property fronting on Brickyard Road should be reserved for light industrial, office or institutional use. Design elements should provide for a transition between industrial uses to the south and the residential/recreational uses to the north.
9. Ensure that as vacant lands are developed along the route of the proposed service road owners either construct a portion of the road or financially contribute to its development.

Population Statistics

2005 Population:	2,759			
1990 Population:	1,897			
Percent Change 1990-2005:	+45			
Build Out Population:	2,795			
Percent Change 2005-Build Out:	+1.3			
Neighborhood Percentage of Town's Future Population Growth:	.06			
1990 Population Density:	.89	Persons	per	Acre
2005 Population Density:	1.28	"	"	"
Build Out Population Density:	1.30	"	"	"

EAST FARMS

The boundaries of the East Farms neighborhood extend from the West Hartford/Newington town lines to Interstate 84. The western edge of this community is formed by the Batterson Park and Camp Courant properties. Prominent physical features include the Route 9/I-84 interchange, Wood Pond and one of the most valuable privately owned wetland areas in the Town located between Ridgeview Drive and I-84. While East Farms is the location for some of the older subdivisions in Farmington, many of these areas are still not served by public sewer and water.

The commercial development along Route 71 as well as the presence of two highways substantially impact this area. The completion of the Westfarms Mall expansion has not resulted in significant volumes of new traffic through the residential streets of this neighborhood.

Development Policies

1. Maintain low-density residential zoning designation for the Monastery property.
2. Establish a program to monitor the operation of existing subsurface sewage systems throughout this neighborhood. Public sewers should be extended throughout this area as soon as possible.
3. Future development within the Wood Pond watershed should be undertaken in such a manner, which protects the pond's water quality.
4. Commercial zoning should not extend to the west of Woodruff Road nor east of the present zoning boundary near Two Mile Road.
5. This neighborhood should benefit by the proposed improvements to the I 84 interchange system, particularly with the construction of a service road that will permit traffic from Route 4 to directly access Route 9 without using South Road as well as the South Road - Two Mile Road intersection. However the neighborhood needs additional pedestrian paths and walks as well as improved access to convenient recreational areas.

Population Statistics

2005 Population:	1,530
1990 Population:	1,058
Percent Change 1990-2005:	+44
Build Out Population:	1,848
Percent Change 2005-Build Out:	+21

Neighborhood Percentage of Town's Future Population Growth:	5.9			
1990 Population Density:	1.06	Persons	per	Acre
2005 Population Density:	1.56	"	"	"
Build Out Population Density:	1.88	"	"	"

FARMINGTON VILLAGE

The Farmington Village neighborhood is bounded on the west by the Farmington and Pequabuck Rivers, on the east by a line essentially extending from the eastern border of the Hill- Stead Museum and the Farmington Reservoir, on the south by Route 6 and the north by Route 4 and the I-84 connector. The character of this neighborhood continues to be most strongly influenced by the historic district and its adjoining historic residences as well as Miss Porter's School. While generally developed, this area does contain a number of acres of vacant land mostly in the form of excess property associated with a number of existing homes.

Development Policies

1. The commercial zoning district along the Route 4 corridor should not expand beyond its present boundaries.
2. Consideration should be given to developing a service road north of Route 4 between Mountain Spring Road and the Farmington Country Club. If this project is constructed existing structures lying adjacent to this roadway may be encouraged to be converted to retail or office use.
3. Further commercial development along Route 10 between Route 4 and Meadow Road should be strongly discouraged.
4. It is appropriate to permit the premises known as 185 Main Street to be used for limited commercial or institutional use providing activity is limited to the existing structures and the remainder of the property is permanently preserved as open space.
5. Sidewalks should be extended to allow for improved access to the village, especially along Route 4.
6. Residential development of the eastern portion of this neighborhood should be maintained as very low density due to the presence of steep slopes and as a means of preserving the quality of the area occupied by the Hill- Stead Museum.
7. The flood zone area should be carefully maintained in order to preserve the floodplains of the Pequabuck and Farmington Rivers.
8. Expand the use of the former Farmington reservoir as a passive recreation area.
9. Expand the boundaries of the current historic district in conjunction with the plan developed by the Farmington Historic District Commission.
10. Foster greater cooperation between the Town and Miss Porter's School in order to coordinate the school's future needs and expansion.

Population Statistics

2005 Population:	1,631			
1990 Population:	1,271			
Percent Change 1990-2005:	+28			
Build Out Population:	1,933			
Percent Change 2005-Build Out:	+18.5			
Neighborhood Percentage of Town's Future Population Growth:	5.6			
1990 Population Density:	1.4	Persons	per	Acre
2005 Population Density:	1.8	"	"	"
Build Out Population Density:	2.13	"	"	"

FLOODPLAIN

The boundary of the Floodplain neighborhood essentially follows the limit of the Town's flood zone district south of Route 4. It extends to Route 6 to the south and from the Pequabuck and Farmington Rivers to the vicinity of New Britain Avenue east to west. This area is and will remain predominantly undeveloped due to the occurrence of frequent flooding and ownership of a majority of this property by State and local government. The northern portion of this neighborhood is underlain by the most productive area of Farmington's stratified drift aquifer.

Development Policies

1. Continue to monitor quality of groundwater in the vicinity of the former sanitary landfill adjoining Tunxis Mead Park.
2. Closely monitor current sand and gravel operations to ensure no degradation of the natural environment. Specifically assess impact upon groundwater, floodplain capacity and surface water quality of the Farmington River.
3. All sand and gravel operations in this neighborhood should eventually be converted to open space.
4. Continue to develop Quirk Park as the Town's major recreational facility. However this development must be undertaken in a manner, which preserves the value and function of the park's wetland and floodplain system and its value within Farmington's biodiversity plan.
5. Maintain the border of the existing flood zone district. Permit structures within this zone for recreational, agricultural and government purpose only.

HEALTH CENTER

The Health Center neighborhood encompasses an area, which is bordered by the West Hartford town line to the east, residences along Metacomet and Prattling Pond Roads to the west, I-84 to the south and the Oakland Gardens community to the north. Development patterns have and will continue to be most affected by the presence of the UConn Health Center as well as the area's proximity to I-84 and Route 4.

Development Policies

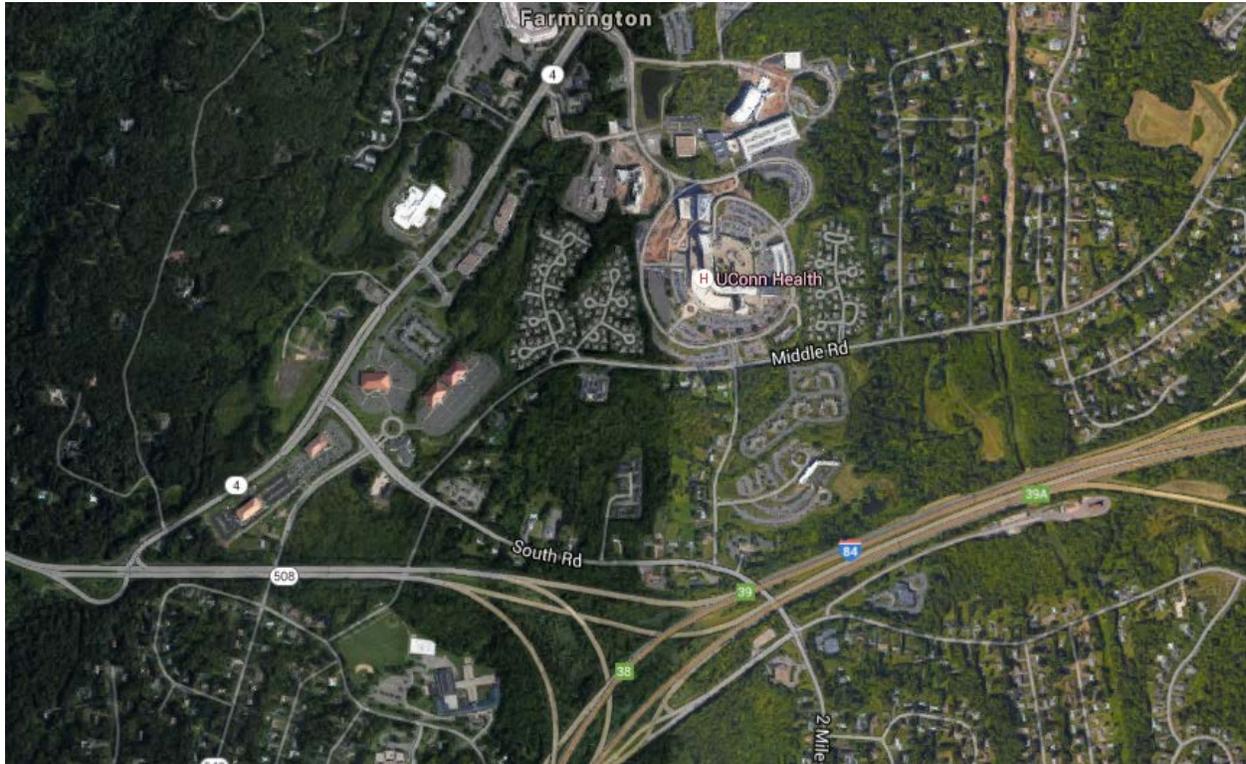
1. Based upon the configuration of the lots, the presence of significant wetlands and existing land use patterns, the area bounded by Munson Road, Middle Road and South Road should remain classified as low density residential.
2. Property not already categorized commercial and situated to the south of South Road should be categorized as low density residential.
3. Sidewalk development within the area of Route 4 should be expanded to facilitate pedestrian access. Sidewalks or trails should be installed to link the residential portion of this neighborhood with Route 4.
4. Maintain the former landfill site as limited storage area.
5. Coordinate land use policies with the Health Center, which may seek to expand more of their facilities off campus.
6. Consider adding additional retail services along Route 4 in order to serve the nearby residential neighborhood.

Population Statistics

2005 Population:	1,723			
1990 Population:	1,272			
Percent Change 1990-2005:	+35			
Build Out Population:	1,869			
Percent Change 2005-Build Out:	+8.5			
Neighborhood Percentage of Town's Future Population Growth:	2.7			
1990 Population Density:	1.2	Persons	per	Acre
2005 Population Density:	1.62	"	"	"
Build Out Population Density:	1.76	"	"	"

Southern Health Center Neighborhood Planning Study

Farmington, CT



This Study Adopted February 15, 2016

October 2015

Prepared for Metro Realty Group, Ltd.



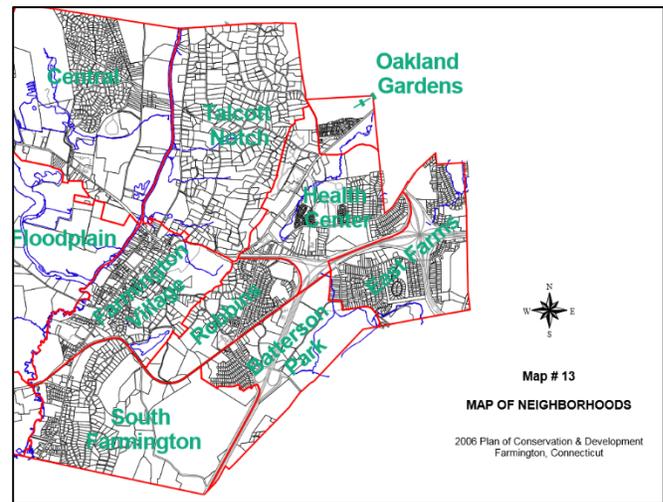
Introduction

The UCONN Health Center Neighborhood has undergone significant transformation over the past two decades as the UCONN Health Center (UHC) began implementation of its “Research Strategic Plan” and the State implemented the Bioscience Connecticut Initiative. The Bioscience Connecticut Initiative is an ongoing \$864 million state economic development program to expand the bioscience cluster surrounding the UHC. Investments include \$318 million in renovations to existing laboratory, instructional, and hospital space, and \$521 for a new Ambulatory Care Center, a new patient care tower at the John Dempsey Hospital, new incubator space for biotechnology start-ups, new laboratory space for the Jackson Laboratory for Genomic Medicine, and new parking garages. A report by the Connecticut Center for Economic Analysis projects that the Bioscience Connecticut Initiative will result in an additional 683 jobs on the UHC campus alone by 2017. By 2037, these investments are projected to produce 16,400 direct, indirect, and induced jobs.

As a result of these investments, the neighborhood has become a hub for cutting-edge bioscience research and development, quality medical education and training, and quality medical care. These types of uses thrive in tight clusters, such as the Health Center neighborhood because they are dependent not only on state-of-the-art facilities, but also on intellectual capital. Moreover, the neighborhood is well-suited for housing this biotech/ life sciences cluster due to its excellent interstate transportation access, relatively low mill rate and location in a community known for its high quality educational and town services. The Town of Farmington has an opportunity to leverage public and private investments in the Health Center Neighborhood to bolster its national and international significance and prestige as a leader in bioscience, which can help to sustain and enhance quality of life for all Farmington residents.

Given the level of continued investment in the neighborhood (the National Institute of Health just announced a \$3.7 million dollar grant for Jackson Laboratory for Genomic Medicine to develop a new system for understanding the 3D genome – just one of many examples of federal investments in the neighborhood), the rate of recent development and the national and international significance of the facilities and research in the neighborhood, the Farmington Plan of Conservation and Development (POCD) should specifically address the Town’s goals and objectives for the future of the Health Center Neighborhood. The critical mass of medical, research and laboratory facilities and supportive services that have developed recently has augmented demand for more intense land use in the neighborhood. Precipitated by the tremendous investments already made and the Bioscience Connecticut Initiative’s plans for continued growth, the rate of change in land uses is likely to accelerate. The Director of UCONN’s Institute of Regenerative Engineering has likened UHC’s plans for the area to the Massachusetts Institute of Technology (MIT) in Cambridge, where more than 200 small, medium and

Figure 1. Excerpt from Neighborhoods map in 2007 POCD



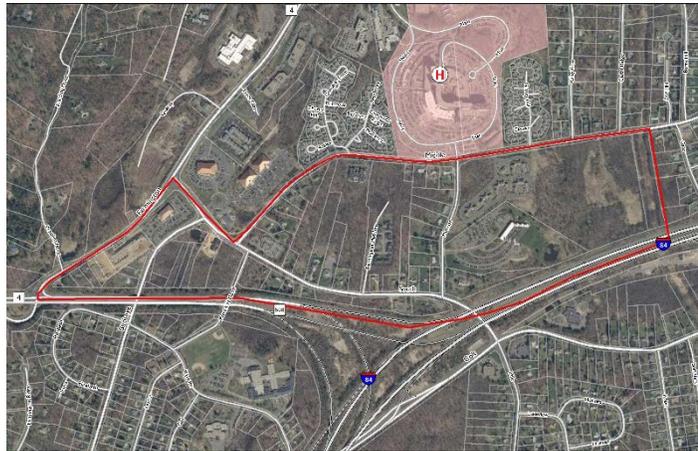
large companies surround the campus, supporting research and development, while spinning off new companies and technologies. Therefore, the Town should act now to guide this continued growth in a way that complements what currently exists while capitalizing on the potential for this life sciences cluster.

This study makes recommendations for future development in the area based on a comprehensive analysis of existing conditions and historic development, the physical potential for future development, other planning efforts, and neighborhood stakeholder input. Regardless of the recommendations, the study highlighted the need for the Town of Farmington to set a course for this neighborhood. Change is difficult for most people, especially when shrouded in uncertainty. Because significant state investments in the area have pre-empted local land use control and the Town’s Planning & Zoning Commission has frequently re-zoned properties in the neighborhood without strong support in the current Plan of Conservation and Development to do so, neighborhood residents have felt uncertain about the future of their homes and properties.

Study Area

The current Farmington POCD defines the “Health Center Neighborhood” as the area generally north of Interstate 84 and the Route 4 Connector encompassing Farmington Avenue commercial properties north to Old Mountain Road, the UCHC campus, and east to the Interstate 84 and Route 9 interchange (see excerpt of map above). As much of the Farmington Avenue corridor has been developed, this study focused in particular on the southern area of the larger Health Center Neighborhood. This area is roughly delimited by Interstate 84 and the Route 4 connector to the south, Route 4 to the west, Middle Road to the north and the utility right-of-way paralleling West Gate Road to the east.

Figure 2. Study Area



Historic Development

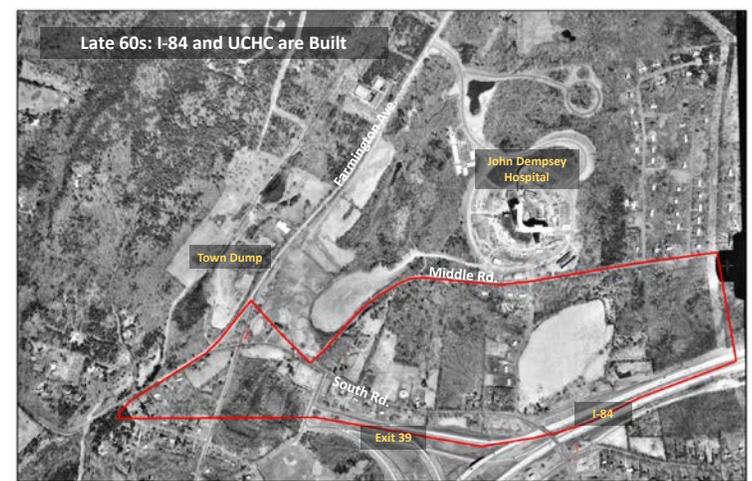
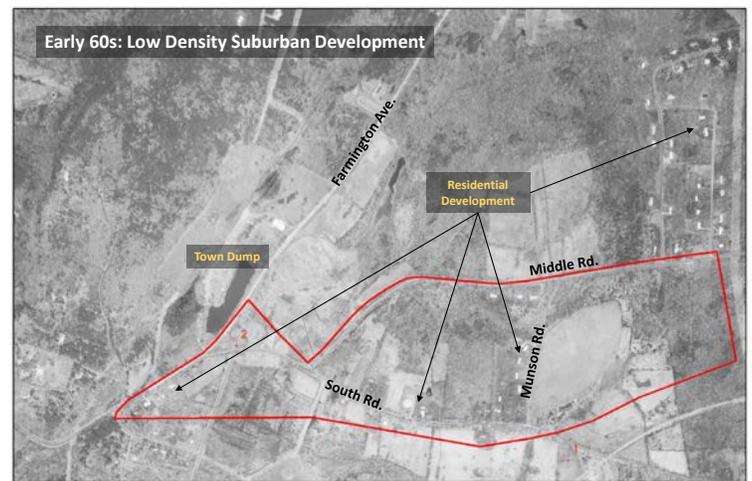
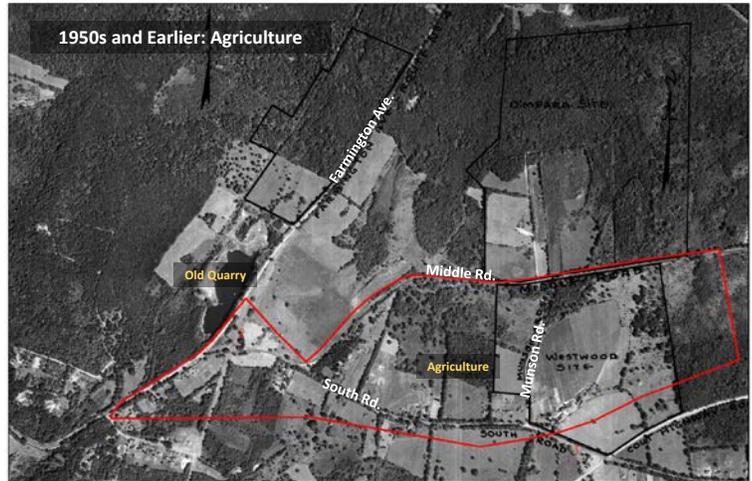
The transformation of the Health Center Neighborhood and Study Area from an agricultural area to the bustling bioscience and medical services cluster that exists now began with the construction of Interstate 84 and the State Legislature’s decision to locate the UCHC here. The following series of aerial photos depict this transformation over the past several decades.

In the 1950s Farmington Avenue, Middle, Munson and South Roads were all bordered by farmland; however, at that time, plans for the location of Interstate 84 were solidifying.

By 1965, low-density suburban development had started in the Study Area and larger Health Center Neighborhood with single-family homes along Middle, Munson and South Roads, the construction of a church on South Road and subdivisions off of Middle Road (Valley View Drive and Cedar Ridge Drive). A Legislative Committee selected the site for the UCONN Health Center in 1962 with original plans calling for a 400-bed University hospital. At the same time, Interstate 84 was under construction in other parts of the State.

By 1970, John Dempsey Hospital is constructed with only 200 beds, Interstate 84 is complete with an exit to Patrick Flood Road, and a few more single-family dwelling units have been built in the area.

By 1990, the Route 4 Connector is complete and significant more commercial and residential development has occurred, precipitated by the arrival of the Interstate and Hospital. Farmington Avenue has experienced much more intensive development with the Exchange now built. Higher density residential uses located off of Talcott Notch Road have developed, as well as Farmington Meadows within the Study Area. Further on-campus Health Center development has occurred. And, several office buildings, including the Heublein complex, have developed around the Munson, South Road area.



By 2004, even more residential, especially senior housing, and office commercial development has taken hold. O’Meara Ridge and O’Meara Farms, both active adult housing developments, are in place. Middlewoods and Arden Courts have been built along Middle Road and at the intersection of Middle and South Roads. Additional medical offices have developed along Farmington Avenue and South Road. And, additional low-density single-family residential units have developed along Middle Road.

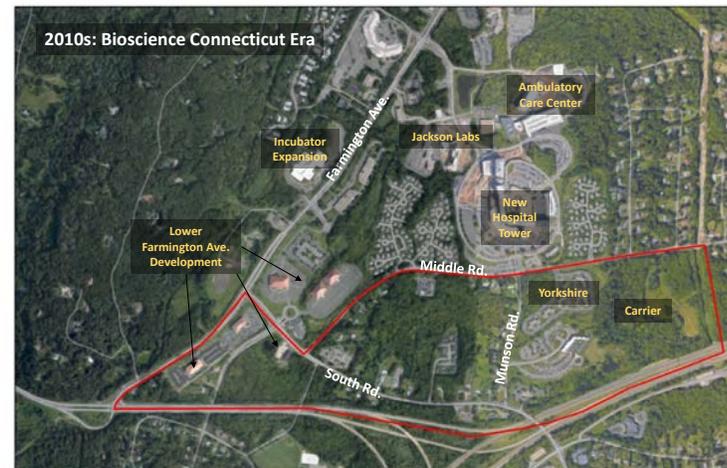
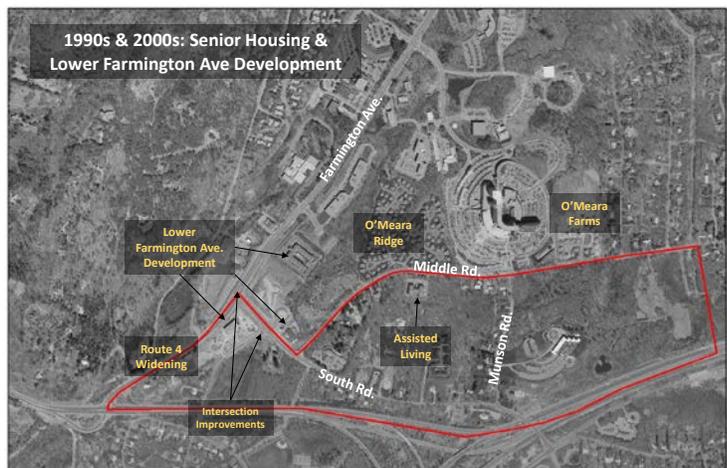
In addition to significant expansion of facilities on the UCHC campus, the last decade has brought more higher-density residential development and commercial office development to the neighborhood and Study Area.

As is evident from this history, while Bioscience Connecticut has spurred significant new interest and development in the neighborhood, the general transformation of the Health Center Neighborhood really began with the arrival of the interstate and the Hospital.

Land Use Change Analysis

Over the last two decades, the UCHC has evolved from a medical services center to a leading bioscience research and development campus. There has also been substantial private investment in the Health Center neighborhood, particularly along Farmington Avenue, South Road, and Middle Road. The transformation of this neighborhood into commercial office and higher density housing is evident in the existing land use map in Figure 3. The map reflects only built properties; however, there are additional approved and under-construction projects that will change land uses in the near future, including a multi-family project in the eastern portion of the Study Area along the south side of Middle Road, and medical office buildings on Birdseye Road and the southern portion of Farmington Avenue.

Overall, nearly 3,000,000 square feet of medical and commercial development currently exists in the Health Center Neighborhood, as shown in Table 1. In addition, several high-density and/or very high-



density residential developments (as defined by the Town’s 2007 Plan of Conservation and Development, high-density is three to five units per acre, very high-density is over five units per acre) have co-located in the Health Center neighborhood, taking advantage of its proximity to medical services and other nearby amenities such as West Farms Mall along with easy transportation access and public transit availability. These developments range from single-family cluster subdivisions (O’Meara Farms), to assisted living facilities (Middlewoods), to apartments (Village at Yorkshire). Most of these developments are age-restricted, catering to people 55 years old and over. Over 400 units of housing have been built or are under construction since 1997, as shown in Table 2.

Figure 3. Existing Land Use (2015)



The volume and density of uses already existing in the neighborhood are consistent with basic planning principles of locating intense uses in areas with existing infrastructure. As UCONN continues to purchase off-campus properties (including the Heublein building on Munson Road, as well as 195 and 400 Farmington Ave) and the Bioscience Connecticut Initiative continues to expand, the remaining low-density single-family and vacant properties appear to be logical targets for further intense development.

Table 1.*Medical/ Commercial Development in the UCONN Health Center Neighborhood*

Address	Use	Building Area (Sq. Ft.)	Year Built
Middle Rd/ Farmington Ave	UCHC Campus	2,300,000	1969-2015
Jackson Labs - Discovery Drive	Research Labs	183,500	2014
Farmington Avenue	Medical Offices Not in MOC	30,000	Varies
308 Farmington Avenue	Professional Offices	42,858	1998
399 Farmington Avenue	Medical Offices	77,880	2005
499 Farmington Avenue	Medical Offices	54,000	2004
505 Farmington Avenue	Medical Offices	67,374	2012
2 Farmglen Blvd	Hotel	98,940	1998
11 South Road	Medical Offices	43,840	2008
21 South Road	Medical Offices	43,840	2008
30 South Road	Professional Offices	12,979	2012
35 South Road	Daycare	8,950	2004
Existing Commercial Development		2,964,161	-
Additional Approved Commercial			
521 & 529 Farmington Avenue	Medical Offices	20,000	
32, 36, 38 Birdseye Road	Medical Offices	34,800	
Existing and Approved Commercial Development		3,018,961	-

Source: Town of Farmington Assessors Office

Table 2.*Residential Development in the UCONN Health Center Neighborhood Since 1995*

Address	Use	Housing Units	Year Built
45 South Road (Arden Court)	Nursing Home	56	1997
509 Middle Road (Middlewoods)	Assisted Living	73	1998
O'Meara Farm	Condo (Age Restricted)	104	2002
O'Meara Ridge	Condo (Age Restricted)	50	2005
465 Middle Road (Yorkshire)	Apartments (Age Restricted)	91	2008
Lot 2B Middle Road (Carrier)	Condo (Age Restricted)	94	Under Construction
All Residential Development		412	-

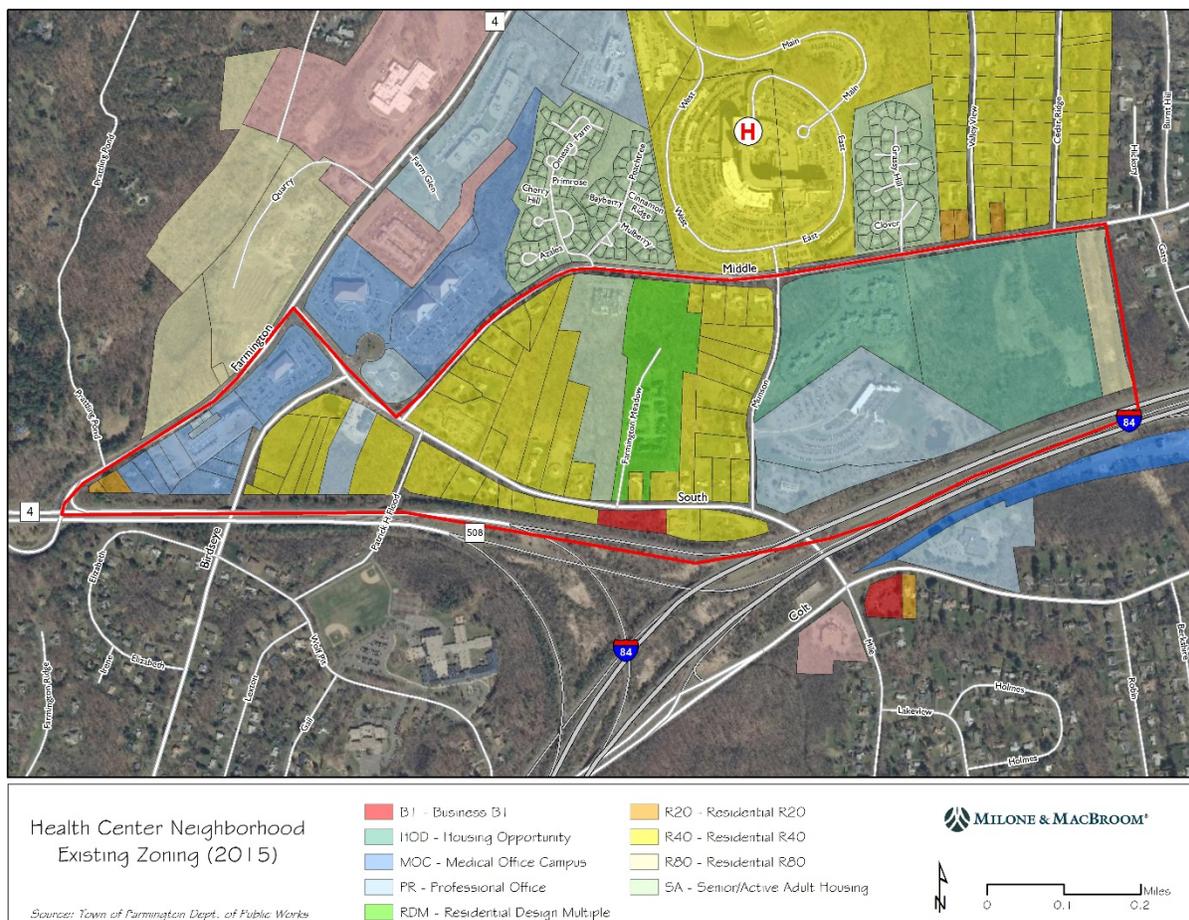
Source: Town of Farmington Assessors Office

Zoning and Zone Changes

Existing Zoning

The Study Area contains a mix of low-density residential, very high-density residential, and professional and medical office zones, as seen in Figure 4. The eastern and western portions of the Study Area contain higher intensity uses. With the exception of the state-owned commuter parking lot, all parcels between Birdseye Road and Farmington Avenue are in the Professional Office (PR) or Medical Office Campus (MOC) zone. The four parcels east of Munson Road are in the PR and Housing Opportunity (HOD) zone. The middle portion of the Study Area is primarily low density residential, with the exception of an undeveloped Business District 1 (B1) parcel at 8880 South Road, the Acstar office building at 30 South Road, and two high-density and very high-density residential complexes in the Senior/Active Adult (SA) and Residential Design Multiple (RDM) zones respectively.

Figure 4. Current Zoning in Health Center Neighborhood



Bioscience Enterprise Zone

The Connecticut Department of Economic and Community Development (DECD) has established a Bioscience Enterprise Corridor Zone in Farmington and surrounding municipalities. This designation provides tax incentives and abatements to companies with less than 300 employees who engage in bioscience, biotechnology, pharmaceutical or photonics research, and businesses engaged in the study

of genes, cells, tissues, and chemical and physical structures of living organisms. The incentives apply to businesses that relocate to the target area, or existing businesses who expand or renovate their operations.

Recent Zone Changes

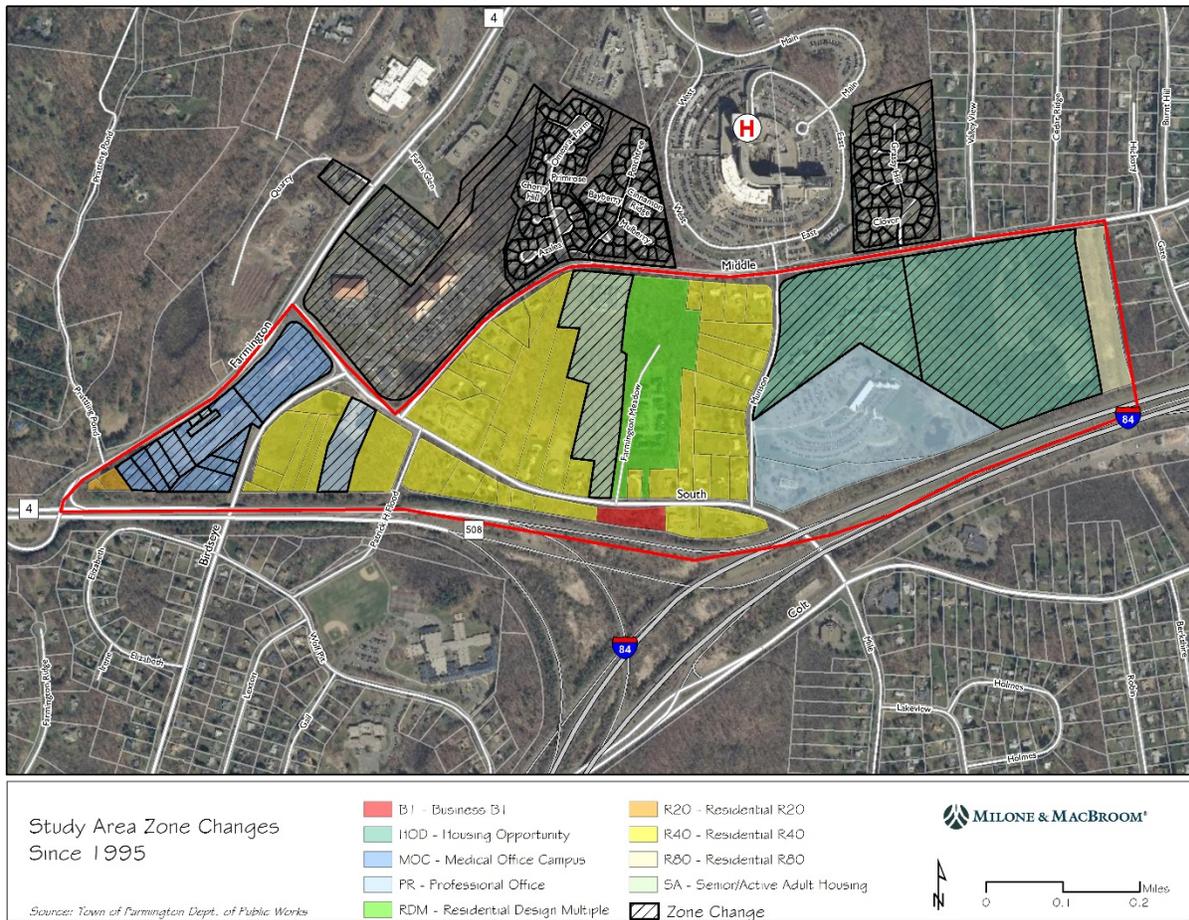
Over the last two decades nearly all private development in the Study Area has required a zone change. These changes are summarized in Table 3 and shown in Figure 5. In the late 1990s, the Town added the Senior/Active Adult Housing (SA) Zone to its regulations. Since then, three SA parcels (O’Meara Ridge, O’Meara Farm, and Middlewoods) were developed adjacent to Health Center complex. In 2010, a new Medical Office Campus (MOC) zone was established in the Health Center neighborhood. Since then, 12 parcels have changed to the MOC zone. The MOC zone is unique in that its parking requirements and impervious surface calculations are done for the entire MOC district as opposed to a single parcel. Prior to transitioning to MOC zoning, several parcels had already been re-zoned from R-40 to Professional Office (PR). Due to restrictive coverage requirements in the PR zone, though, already developed properties were changed again to MOC specifically to enable further development on adjacent lands. None of these zone changes were initiated by the Town’s Planning and Zoning Commission; however, they were all approved by that body.

Table 3.
Zone Changes in the UCONN Health Center Neighborhood Since 1995

Parcel	Former Zone	Initial Zone Change	New Zone	Year of Zone Latest Change
2 Farm Glen Boulevard (Homewood)	PR	N/A	BR	1997 *
Senior - Active Adult Housing (SA) Zone Established				1999*
O'Meara Farms	PR/R40	N/A	SA	1999*
O'Meara Ridge	R40	N/A	SA	2000 *
509 Middle Road	R40	N/A	SA	2000 *
45 South Road	R40	N/A	PR	2004 *
435 Middle Road	PR/R40	N/A	HOD	2007
Medical Office Campus (MOC) Zone Established				2010
11 South Road	R40	PR	MOC	2011
21 South Road	R40	PR	MOC	2011
30 South Road	R40	N/A	PR	2004
35 South Road	R40	PR	MOC	2011
399 Farmington Avenue	R20	N/A	MOC	2011
499 Farmington Avenue	R40	PR	MOC	2011
501 Farmington Avenue	R40	PR	MOC	2011
529 Farmington Avenue	R20	N/A	PR	2011
406 Farmington Avenue	R80	N/A	BR	2013
32 Birdseye Road	R20	N/A	MOC	2013
36 Birdseye Road	R20	N/A	MOC	2013
38 Birdseye Road	R20	N/A	MOC	2013
505 Farmington Avenue	R20	N/A	MOC	2015
521 Farmington Avenue	R20	N/A	MOC	2015
529 Farmington Avenue	R20	N/A	MOC	2015

* Approximate time frame.

Figure 5. Current Zoning and Zone Changes Since 1995



Infrastructure

Utilities

Adequate infrastructure, notably public water and sanitary sewer, are necessary to support higher density development in the Study Area. This section provides an overview of existing utilities and planned improvements.

Public Water

Public water is provided to the Study Area by the Metropolitan District Commission. The Study Area is served by water mains on Middle Road, Munson Road, South Road, Patrick Flood Road, and Farmington Avenue.

Sanitary Sewer

Sanitary sewer service is provided by the Town of Farmington. The Study Area is currently served by publicly maintained sewer lines on Farmington Avenue, Middle Road, South Road, Birdseye Road, and Patrick Flood Road. The Talcott Notch neighborhood to the west of Farmington Avenue has been designated as a sewer avoidance area. The Town is currently undertaking a \$57 million upgrade of its Water Pollution Control Facility, increasing its treatment capacity to 6.3 million gallons per day. These

upgrades will have adequate excess capacity to support future growth in the Health Center neighborhood.

Other Utilities

Natural Gas service provided by Connecticut Natural Gas is available within the Study Area, although it is not used by all parcels. Higher density developments such as the UCONN offices at 16 Munson Road and the medical offices at 499 and 501 Farmington Avenue are already served by natural gas. Most of the low density residential parcels utilize oil, propane, or electric heating systems.

Electric transmission to the neighborhood has recently changed. The sub-station off of Talcott Notch Road which serves UCH recently extended transmission along Farmington and South Roads to the junction of South and Middle Roads. This coupled with supply that comes along Middle Road out of West Hartford provides redundant power supply, which is important to research and medical uses that have critical facilities that cannot lose power.

Transportation

Highways

The Study Area is bounded by several major highways, including Interstate 84 and Route 4. The interchange of Interstate 84 and Route 9 is located approximately 1 mile to the east. The neighborhood is well-served by Exit 39 off of Interstate 84, but is also easily accessible from Exit 38. Traffic volumes on Farmington Avenue at South Road are approximately 23,700 vehicles per day. Average daily traffic on South Road ranges from 7,400 to 15,300 vehicles per day while Middle Road has the lowest average daily traffic of 3,200 vehicles per day. In the early 2000s, Farmington Avenue was widened and the intersection of Farmington Avenue and South Road underwent a major reconfiguration. Long range planning studies call for highway access improvements in the Health Center neighborhood, including ramp reconfiguration, direct access between Route 9 and Route 4, and potential utilization of the unused “stacks” at the I-84 and Route 9 interchange.

Transit

As UCHC expanded off of its main campus, it implemented shuttle services between the main campus and its satellite locations. UCHC currently operates 5 shuttle bus routes which provide connections between the Health Center and Munson Road, South Road, and Farmington Avenue. The shuttle system helps to facilitate the kinds of collaborative interactions that are vital to the life sciences cluster concept, in which enough resources and intellectual capital is located and interacting to develop a sustainable competitive advantage over other areas.

Public transit service to the Health Center neighborhood is provided by Connecticut Transit. The Health Center is currently served by three bus routes:

- *Route 66* – Connections to Unionville, West Hartford and Hartford
- *CT Fastrak Route 121* – Connections to Newington, West Hartford, Hartford, East Hartford and Manchester
- *Route 506* - Connections to New Britain

Route 506 stops on Munson Road, while Route 66 enters the medical offices off of South Road. All routes converge on the UCHC circulator road. Transit service to the Health Center has expanded with the introduction of CTFAstrak in March of 2015, cutting the travel time from Downtown Hartford to about 30 minutes. Due to these recent improvements, the Town has applied for a STEAP grant to construct several new bus shelters along Farmington Avenue.

Transportation Studies

Capitol Region Transportation Plan (2015)

The Capitol Region Transportation Plan provides a 25-year overview of the major transportation investments for the Greater Hartford region. Recommended improvements to the area surrounding UCONN Health Center centers on improvements to the I-84 interchanges with Route 9, Route 4, and Route 6. Key elements include elimination of the eastbound bottleneck near Route 9, elimination of left-hand ramps, better access to Route 6, and direct access from Route 4 to Route 9 southbound.

UCONN Transportation Safety and Improvements Study: Farmington and Hartford (ongoing)

The upcoming study will recommend multi-modal transportation enhancements between UCHC in Farmington and the future UCONN Hartford Branch in Downtown Hartford. The study is expected to be completed in 2017.

Development Constraints

MMI conducted an analysis of development constraints in the study including wetlands, steep slopes, floodplains, shallow depth-to-bedrock soils, and the presence of aquifers. These constraints are summarized on the following pages and can be seen in Figure 6.

Wetlands

Wetlands are defined by the National Cooperative Soil Survey (NCSS), as areas that contain one of three soil types: Poorly drained, very poorly drained, and alluvial and floodplain soils. According to the Town of Farmington *Designated Inland Wetlands and Watercourses Map*, there are three major wetlands within the Study Area. Wetland areas should be verified by a certified soil scientist prior to development, as the exact boundaries of wetlands may differ from the NCSS. The first wetland is approximately 11.6 acres and contains a mix of poorly drained and very poorly drained soils. It is located between South Road, the Route 4 connector, Birdseye Road, and Patrick Flood Road. Frontage along South Road in this areas has already been developed; however additional development to the rear would be challenged by this wetland. The second and largest wetland in the Study Area is approximately 40 acres of poorly drained soils located between Middle Road, Munson Road, and South Road. Single-family residential development has occurred in this wetland area along Munson and Middle Roads. Development deep within this area would be limited by this large wetland. The third wetland is located on the eastern edge of the Study Area south of Middle Road.

Steep Slopes

The POCD recommends that only very low density (up to 0.5 units per acre) development be permitted in areas where the average slope exceeds 20 percent. The Plan also contains language that seeks to prohibit disturbances, including building construction and vegetation clearing on slopes of 25 percent or higher. Within the Study Area, the only significant area of steep slopes in excess of 25 percent is found

east of Munson Road between the Yorkshire Village apartment complex and planned Carrier development.

Flood Plains

The Federal Emergency Management Agency (FEMA) classifies flood hazard zones based on the annual probability of flooding. The far eastern portion of the Study Area is within FEMA Flood Zone A, which has a 1% annual chance of flooding.

Shallow to Bedrock Soils

Shallow to bedrock soils are areas where the depth to bedrock is less than 20 inches. These areas are challenging for building foundations, underground utilities, and stormwater infiltration. There are no shallow to bedrock soils within the Study Area. However there are two vacant parcels on Farmington Avenue that consist of shallow to bedrock soils, which may impede their future development.

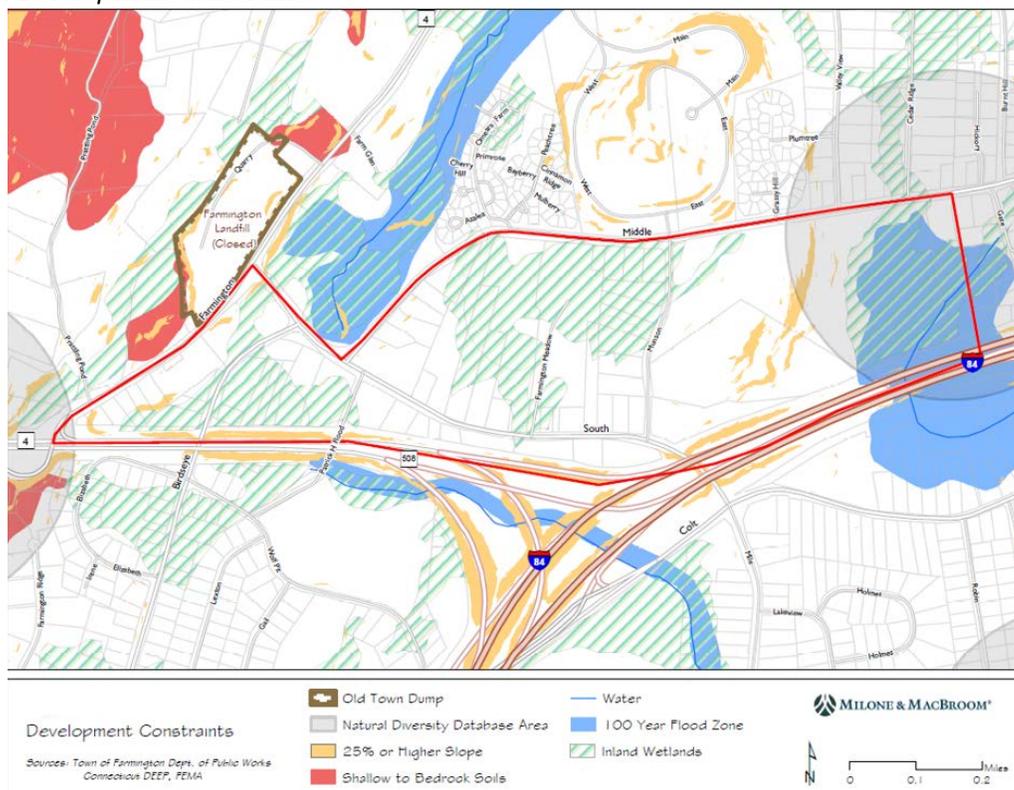
Natural Diversity Database Area

The Connecticut Department of Energy and Environmental Protection has inventoried habitats across the state that contain threatened or endangered species of concern. These sites are included in a special survey, called the Natural Diversity Database (NDD). To protect sensitive locations, DEEP creates half mile buffers around the approximate locations of significant natural communities or protected species. The far eastern part of the Study Area is located in an NDD area. Future development should ensure that these protected species are not negatively impacted.

Aquifers

There are no aquifers within the Study Area.

Figure 6. Development Constraints



Future Development Potential

The greatest potential for economic growth in the Health Center neighborhood comes from the expansion of small companies through UCONN's Technology Incubation Program (TIP). The TIP provides laboratory space for startup companies ranging from 200 to 1,000 square feet. The Bioscience Connecticut Program will double the amount of incubator space in Farmington to 56,000 square feet, supporting up to 50 companies. It is anticipated that as bioscience startups outgrow their incubator spaces, there will be demand for new off-campus office and laboratory space in the surrounding neighborhood.

Limited vacant land without environmental constraints remains along Farmington Avenue from the Route 4 connector to Talcott Notch Road, limiting future development potential in the Health Center neighborhood despite significant demand. The Town's zoning regulations do not support the densification of developed parcels along this corridor, which will steer future private development elsewhere. Due to its proximity to UCHC, planned highway access improvements, and its existing water and sewer infrastructure, it is likely that the area between Middle Road and Interstate 84 will continue to see market demand for professional office, laboratory, and high-density residential land uses.

Planning Analysis

Farmington Plan of Conservation and Development (2007)

The Town of Farmington POCD adopted in 2007 offers conflicting language that both supports the expansion of the biosciences cluster around UCHC while simultaneously limiting development in its adjacent residential areas. One of the POCD'S planning objectives is to "Continue to maintain a close working relationship with the University of Connecticut Health Center. Undertake a program, which will make Farmington attractive to the development of bioscience industry within the town."

The POCD identifies six development policies for the Health Center Area:

1. Based upon the configuration of the lots, the presence of significant wetlands and existing land use patterns, the area bounded by Munson Road, Middle Road and South Road should remain classified as low density residential.
2. Property not already categorized commercial and situated to the south of South Road should be categorized as low density residential.
3. Sidewalk development within the area of Route 4 should be expanded to facilitate pedestrian access. Sidewalks or trails should be installed to link the residential portion of this neighborhood with Route 4.
4. Maintain the former landfill site as limited storage area.
5. Coordinate land use policies with the Health Center, which may seek to expand more of their facilities off campus.
6. Consider adding additional retail services along Route 4 in order to serve the nearby residential neighborhood.

The Future Land Use map generally reflects the existing land use patterns in the Study Area when the POCD was adopted in 2007. The map indicates that the Study Area contains a mix of low-density residential (1.4 units per acre), high-density residential (3.5+ units per acre), institutional/government, and office uses.

When the Plan was adopted in 2007, there was still developable commercially-zoned land within the larger neighborhood and the Bioscience Connecticut Initiative had not yet begun. Logically, the Plan wanted to steer development towards Farmington Avenue. However, since the Plan's adoption, most of the vacant land in the corridor has been developed and demand for additional lab and office space has grown significantly with the State's investments. The lack of a long-term land use vision for the Health Center neighborhood has resulted in significant re-zoning in the area on an ad hoc basis and uncertainty for property owners.

[Town of Farmington Strategic Plan \(2014\)](#)

The Town of Farmington's 2014 Strategic Plan supports the retention, expansion, and attraction of businesses in order to grow the Town's tax base. The Plan recommends that continued support be provided to the Town Council's UCONN subcommittee, and that the Town continue to coordinate with UCONN about UCHC expansion and bioscience efforts. Recognizing the growth of the bioscience cluster, the Strategic Plan also recommends rezoning a vacant 86-acre parcel south of the Study Area, across from Batterson Park, to support professional office or research and development.

[CRCOG Regional Plan of Conservation and Development \(2014\)](#)

The Regional POCD Future Land Use Map indicates that the Study Area is located in the Middle Intensity 1 and Middle Intensity 2 Development Areas. The Land Use Policy Matrix states that Middle Intensity Areas may have higher density zoning which includes mixed use, industrial, multi-family residential, planned industrial, planned residential, regional-scale commercial, town center, and town-scale commercial uses. The area surrounding UCHC is identified as a municipal focus area, being one of two major economic growth areas in Farmington. Future development is anticipated to be closely linked to UCHC, including medical offices and laboratories.

[Conservation and Development Priorities: The Plan for Connecticut \(2013\)](#)

The State Conservation and Development Priorities Plan is centered on six Growth Management Principals which generally encourage development in areas with existing infrastructure and along major transportation corridors.

According to the State Locational Guide Map, the Study Area contains a mix of Priority Funding Areas and Balanced Priority Areas. **Priority Funding Areas** are locations with the infrastructure needed to support higher density development such as public water and sewer, and transit service. The entire Study Area is served by public water and sanitary sewer. In addition, local bus service is provided by CT Transit along Farmington Avenue, South Road, and Munson Road.

Balanced Priority Areas are delineated based on the presence of both conservation and development factors. Conservation factors that are present within the Study Area include wetlands and agricultural soils. Growth is recommended in these areas so long as they are sensitive to the underlying environmental constraints.

Neighborhood Input

All property owners in the primary Study Area, as identified by the latest data available from the Town Assessor were mailed invitations to two neighborhood planning meetings. The meetings were held on September 23rd and 30th in the Jefferson Radiology Suite at 399 Farmington Avenue. Approximately sixteen individuals attended one or both meetings.

Participants identified the strengths of their neighborhood as follows:

- UCHC has brought jobs, prestige and diversity
- Still a livable area
- Property values strong
- Committed, invested property owners

Participants also identified the following issues and concerns with their neighborhood:

- Traffic, speeding – Residents have seen an increase in overall traffic coupled with increasing speeds presenting safety concerns as well as detracting from quality of life.
- Lack of amenities and integration of pedestrian uses – The lack of a continuous sidewalk network ringing Middle, Munson and South Roads prevents residents as well as UCHC campus employees from being able to take advantage of a logical recreational loop. In addition, the existing sidewalk along Middle Road is separated from the street by a metal guardrail near its junction with South Road. The guardrail prevents pedestrians crossing from the opposite side of Middle from easily accessing the sidewalk. There are also opportunities for additional pedestrian connections throughout the Study Area, e.g. direct pedestrian connections from O’Meara Farms to medical office building complexes off of South Road. Because of the volume of employees, as well as the number of higher-density residential units in the area, there is significant demand for pedestrian amenities in the neighborhood.
- Lack of integration with existing single-family residential uses – Residents expressed frustration that existing low density single-family uses are not integrated into development plans.
- Uncertainty over future – Residents are concerned about the future of their homes and properties with many expressing the desire to remain in their homes.
- Spot zoning – The history of development in the neighborhood has entailed significant re-zoning on an ad hoc basis which contributes to residents’ uncertainty over the future of their own properties.
- Potential negative impacts on property values – Residents are concerned that should they remain in their homes while development continues to occur around them, their property values will fall.
- Threat of eminent domain – Participants in the meetings were not confident that the Town would not attempt to use eminent domain for economic development purposes in their neighborhood.
- Lack of planning – Residents expressed frustration over not knowing the Town’s objectives for the area so that they could plan accordingly for their properties.
- State’s plans not transparent – Participants also expressed frustration with the State’s lack of transparency in its plans for the Health Center neighborhood.

Most participants in the meetings do not want commercial office development in the Middle, Munson and South Roads area. Some participants signaled that further higher density residential uses in that specific area would be appropriate, provided that pedestrian amenities were increased and enhanced. Residents also acknowledged that they cannot prevent their neighbors from selling to developers and that they have little confidence that the Town would prevent further development in this area. There was also acknowledgement that property values would likely increase if plans and zoning clearly indicated the Town's desire to intensify uses in the area.

Recommendations

The Town of Farmington has an opportunity to build upon tremendous investment already made in the Health Center neighborhood. Other areas of the community, such as the parcel singled out in the Town Strategic Plan, may also provide opportunities to capture spin-off demand for further medical office and lab development. However, maintaining a tight cluster of development around UCHC, with the transit and shuttle services that already exist and may expand, fosters research and development by increasing opportunities for interactions out of sheer proximity. Supporting this world-class bioscience cluster and the skilled workforce behind it can build the Town's tax-base through not only tax revenues from properties in the neighborhood, but also the indirect enhancement of property values throughout the community as Farmington's reputation as the home of an internationally significant life-sciences cluster becomes firmly established.

The development opportunities that remain in the Health Center neighborhood are limited by some environmental constraints such as wetlands. However, the Study Area is a logical area for an intensification of land uses due to its available infrastructure, transportation access, proximity to the UCHC campus, and adjacent more intense land uses. While a logical area for intensification of uses, the Town must be mindful and respectful of the single-family properties and residents that remain as further development occurs. Therefore, the following principles and recommendations underpin the recommended plan for the Study Area shown in Figure 6:

- The Town will not use eminent domain for future economic development
- The Town will strive to address traffic concerns
 - The Town should enforce speed limits in the neighborhood.
 - The Town's Engineering Department, in collaboration with UCHC, should explore the potential for traffic calming along Middle, Munson and South Roads.
 - The Town must actively participate in State and regional transportation planning to ensure that the concerns of entire neighborhood are addressed.
- Pedestrian safety and accessibility will improve
 - The Town and State should work to complete gaps in the sidewalk system ringing Middle, Munson and South Roads.
 - The Town's Engineering Department should evaluate the potential and need for crosswalks on Middle, Munson and South Roads.
 - The Planning and Engineering Departments should evaluate opportunities for additional off-street pedestrian connections to existing development along Farmington Avenue and the western end of South Road.
- Property values for all owners will be protected

- Adopting and implementing a well thought-out plan that establishes a predictable future for property owners and the neighborhood will help to protect property values.
- Ensuring future development does not detract from existing land uses will help protect property values.
- Zoning and land use conflicts will be reduced
 - The Town should establish zoning that enables logical phased development while ensuring proper buffering, noise mitigation and avoidance of light trespass onto existing single-family residential uses.
 - If the Town adopts new zoning in accordance with a plan for the neighborhood, then unplanned, parcel by parcel spot zone changes should be eliminated.

The recommended plan for the Study Area and surrounding areas is shown in Figure 7. The plan calls for development that complements the mixture of land uses that have been developed over the last two decades: clustered and multi-family residential and commercial office.

Specifically, the plan highlights the southern portion of the Health Center Neighborhood as an area for **Medical Research/ Office** uses. Medical Research/ Office uses are uses that are currently allowed under Medical Office Campus zoning. The plan also highlights pedestrian connections needed to complete the sidewalk network in the neighborhood as well as an additional potential pedestrian connection between O’Meara Farms and existing South Road medical office complexes, if the property owners were interested in pursuing such a connection.

In order to ease the transition to these more intense uses the Planning and Zoning Commission should explore regulatory means for protecting and respecting existing land uses, such as:

- Establishing a floating zone with a minimum acreage requirement of 3 acres to land the floating zone, for higher intensity development. The majority of single-family residential parcels in the neighborhood are roughly one acre. Establishing a minimum requirement will help prevent leapfrogging of new development by forcing assemblage of properties.
- Strengthening standards for buffering between new development and existing low-density residential uses will help to minimize visual impacts, and light and noise trespass. Standards should address landscaping, site grading, fencing and other design features aimed at screening and buffering existing single-family properties.
- Requiring the provision of pedestrian amenities, and that site plans consider and treat the possibility of pedestrian interconnections with other higher density residential and/or office developments, will help to complete the pedestrian network, as well as encourage site design that is respectful of existing properties.
- Establishing access management standards and encouraging site design that anticipates the potential for future parking lot and driveway connections will help to ensure cohesive development of the neighborhood while reducing traffic conflicts.

These recommendations are consistent with regional and State plans and programs, such as the Bioscience Enterprise Zone, to grow density and investment in the neighborhood. Amending the Farmington 2007 Plan of Conservation and Development to incorporate these recommendations will reflect recent development, reduce uncertainty over future land uses, ensure logical and cohesive development and enable the Town to seize the opportunity for bolstering its reputation as the home of the Bioscience Connecticut Initiative.

Figure 7. Recommended plan for southern portion of Health Center Neighborhood



Study Area Planning Recommendation

Source: Town of Farmington Dept. of Public Works

Roads

- Major Highways
- Highways
- Major Roads
- Local Traffic
- Other Ramps
- Ramps
- Parcels
- Study Area



HIGHLANDS

The Highlands neighborhood is bounded by the multi-use recreation trail, the Avon town line on the north, the Farmington River to the south and the Burke Estates subdivision on the west. Although mostly developed, this area experienced a substantial population increase over the last ten years. Future development within this neighborhood will predominantly consist of single-family residences and modifications to existing homes, which were constructed a number of decades ago.

Development Policies

1. Sidewalks should be extended along the north side of Route 4.
2. Subdivisions of vacant land should be clustered where possible, with lot sizes consistent with the R20 Zone.
3. The residential zoning districts should be maintained along Route 4 essentially at current densities.

Population Statistics

2005 Population:	1,864			
1990 Population:	1,923			
Percent Change 1990-2005:	-3			
Build Out Population:	1,927			
Percent Change 2005-Build Out:	+3.4			
Neighborhood Percentage of Town's Future Population Growth:	1.2			
1990 Population Density:	2.85	Persons	per	Acre
2005 Population Density:	2.8	"	"	"
Build Out Population Density:	2.85	"	"	"

LAKE GARDA

Lake Garda, Farmington's smallest neighborhood unit, is also its most densely developed. This 185-acre area lies adjacent to the Burlington border and is bounded by Plainville Avenue and West Meath Lane on the east, Burlington Road on the north and the Woodside Estates subdivision to the south. Future development will ease even further with construction limited to approximately sixty legally preexisting nonconforming lots.

Development Policies

1. Complete the extension of public sewer and water service throughout the entire neighborhood.
2. Upgrade the storm water system to reduce harmful deposits of sand and pollutants into Lake Garda.
3. Maintain the existing R9 and R12 Zones.
4. Consider developing a sidewalk or path system within the Neighborhood to facilitate pedestrian circulation.

Population Statistics

2005 Population:	1,122			
1990 Population:	1,001			
Percent Change 1990-2005	+12			
Build Out Population:	1,339			
Percent Change 2005-Build Out:	+19			
Neighborhood Percentage of Town's Future Population Growth:	4			
1990 Population Density:	5.4	Persons	per	Acre
2005 Population Density:	6.0	"	"	"
Build Out Population Density:	7.24	"	"	"

OAKLAND GARDENS

The Oakland Gardens neighborhood is located to the north of Farmington Avenue and to the west and south of the West Hartford town line. Old Mountain Road forms the area's western border. The provision of public water and sewer throughout this community will continue to permit the construction of a relatively small number of homes upon legally preexisting nonconforming lots.

Development Policies

1. Single family homes should continue to be the predominate land use within this neighborhood.
2. Maintain Maple Avenue as a dead end road, prohibiting thru traffic from using this street as a route to bypass the traffic light at the corner of Old Mountain Road and Route 4.
3. The sidewalk system should be expanded in this area to provide improved access within the neighborhood as well as to nearby commercial establishments.
4. The residential zoning district along Farmington Avenue should be retained. Although today's traffic volumes have had a negative impact upon these residences the number of lots (and associated curb cuts) and their size does not make them suitable for commercial use. Furthermore the existing homes are sufficiently set back from the road and they do not face commercial buildings.

Population Statistics

2005 Population:	295			
1990 Population:	233			
Percent change 1990-2005	+27			
Build Out Population:	317			
Percent Change 2005-Build Out:	+7.5			
Neighborhood Percentage of Town's Future Population Growth:	.4			
1990 Population Density:	1.01	Persons	per	Acre
2005 Population Density:	1.28	"	"	"
Build Out Population Density:	1.37	"	"	"

ROBBINS

The Robbins neighborhood is bounded by Route 6 to the south, the Hill-Stead Museum to the north, Route 4/I-84 to the east and to the west by the former Farmington reservoir. East of Birdseye Road this neighborhood is mostly developed while the western portion contains a large amount of vacant acreage, particularly along Route 6. Several of the larger parcels in this area were purchased by the Town of Farmington over the last several years.

Development Policies

1. Maintain the R80 zoning classification of land surrounding the Hill-Stead Museum in order to preserve the character of the museum's landscape.
2. Rezone residential home sites located on the west side of Birdseye Road, north of Paul Spring Road, to R20 in order to eliminate current zoning nonconformities.
3. Commercial development should not be extended to the north side of Route 6 between Birdseye Road and Wolf Pit Road, except on the vacant parcels, as of October 12, 2016, at the northeast corner of Birdseye Road and Fienemann Road, which are appropriate for office, retail, restaurant and similar commercial uses, excluding automotive uses, gas stations, car washes and retail convenience stores with or without gasoline sales.

Population Statistics

2005 Population:	784
1990 Population:	673
Percent Change 1990-2005:	+16
Build Out Population:	911
Percent Change 2005-Build Out:	+16
Neighborhood Percentage of Town's Future Population Growth:	2.4
1990 Population Density:	1.12 Persons per Acre
2005 Population Density:	1.31 " " "
Build Out Population Density:	1.54 " " "

SOUTH FARMINGTON

The South Farmington neighborhood extends east to west from I-84/Fienemann Estates to the Pequabuck River. It is bounded on the north by Route 6 and on the south by the Plainville town line. The western section of this area is characterized by mixed land use and higher density development while the eastern section is dominated by large expanses of open space, much of which, due to steep grades and wetlands, posing severe constraints to development.

Development Policies

1. Existing areas used for mining operations should be utilized in the future for the processing of earth products or light industry. However the Town should not permit the physical expansion of these sites.
2. The floodplain and wetland system associated with the Pequabuck River should be protected from encroachments.
3. The existing communication towers located on Rattlesnake Mountain should continue to be utilized to accommodate advances in technical equipment without increasing the size and height of such towers and without posing a threat to nearby residences.
4. While the privately owned property located to the south of Route 6 possesses some of the most severe terrain in Farmington consideration should be given to clustering development in detached structures in areas of moderate grade providing public sewer is available.
5. Development in this neighborhood should be done in a manner, which minimizes disturbance to the Metacomet Trail.
6. Commercial and industrial districts located within the Route 10 and Scott Swamp Road corridors should not be expanded.

Population Statistics

2005 Population:	975
1990 Population:	905
Percent Change 1990-2005:	+8
Build Out Population:	1,195
Percent Change 2005-Build Out:	+22
Neighborhood Percentage of Town's Future Population Growth:	4
1990 Population Density:	.55 Persons per Acre
2005 Population Density:	.59 " " "
Build Out Population Density:	.73 " " "

SOUTHWEST

The Southwest neighborhood is bounded on the west by the City of Bristol, on the south by the Plainville town line, on the east by the Shade Swamp Wildlife Sanctuary along with the Pequabuck River and on the north by Coppermine Village and the northern border of the Town Forest. In addition to being Farmington's largest neighborhood geographically, it also contains the greatest amount of vacant land. However this area also has the largest concentration of permanent open space with the exception of the Floodplain neighborhood.

Future development will occur within all three major land use categories, with residential growth primarily north of Route 6 and commercial and industrial expansion taking place principally south of Route 6.

Development Policies

1. Rezone all property to the south and west of the Trotters Glen subdivision to R40. Utilize cluster development extensively within this sub neighborhood as a device to preserve active farmlands.
2. Drainage plans associated with development of property located north of Morea Road and within the Scott Swamp Brook watershed should generally contain detention in order to provide sufficient flow for the brook and its associated wetland systems as well as to prevent further incidences of flooding on Morea Road.
3. Maintain residential zoning classifications for all developed properties along Route 6 and Hyde Road east of New Britain Avenue.
4. Nonresidential zoning districts should not be expanded within the Route 6 corridor. The Future Land Use map eliminates some existing commercial zones in order to discourage strip development and traffic on Scott Swamp Road.
5. The vacant parcel located on the southwest corner of Route 6 and Route 177 currently zone for business, should be developed for uses that would generate a low to moderate volume of traffic. This site may also be appropriate for multiple-family housing if it is merged with the property immediately located to the west. Access to the site should be established as right turn in only from Route 6 and provided a substantial distance away from the intersection, preferably limited to opposite the entrance to Tunxis Community College.
6. Expansion of the municipal golf course may be undertaken with the appropriate environmental controls. Additional parking facilities may be required to accommodate this expansion.

7. The vacant property situated across Route 6 from Brookshire Lane is appropriate for low to medium density clustered attached or detached housing. Access to this site can be provided from both Plainville Avenue and Scott Swamp Road.
8. Property to the south of Wells Acres along the Plainville town line should remain zoned as medium density residential in order to buffer the existing residences from further encroachment by industrial uses.
9. The vacant parcel located on the corner of Route 6 and the Bristol town line is appropriate for medium to high density housing if it were to be combined with other parcels to the east or the Farmington Edge Condominiums.
10. A majority of the area now occupied by the Farmington Industrial Park as well as portions of the adjoining Farmington Corporate Park will be overlaid by the new aquifer protection regulations. The Town must work with existing property owners to develop uses for these buildings, which are not prohibited by these regulations.
11. Property at the corner of Spring Lane and Route 6 is currently zoned industrial and is suitable for office or limited commercial use. Any development plan should consider the impact on residences on the north side of Route 6. Access to Scott Swamp Road should not be allowed.
12. A number of the commercial sites lining the west end of Route 6 do not conform to current zoning standards. Additional landscaping and reductions in impervious surface should be encouraged when these sites are brought in front of the Commission for future review. In addition the widths of driveways serving a number of these sites should be reduced.

Population Statistics

2005 Population	4,070			
1990 Population:	2,766			
Percent Change 1990-2005	+47			
Build Out Population	5,962			
Percent Change 2005-Build Out:	+46			
Neighborhood Percentage of Town's Future Population Growth:	35			
1990 Population Density:	.92	Persons	per	Acre
2005 Population Density:	1.36	"	"	"
Build Out Population Density:	1.99	"	"	"

TALCOTT

Bounded on the north by the Avon town line and on the west by the Farmington River, this neighborhood extends easterly to the rear of a number of businesses and multiple family residences located on Route 4 and southerly to the I-84 connector and Farmington Village. This area reflects the Town's most homogeneous land use pattern and its rugged topography coupled with the substantial absence of public sewer and water will maintain this characteristic in the future. Development pressure within this neighborhood is expected to remain low.

Development Policies

1. Retain the R 80 zoning designation, which covers most of the land in this neighborhood. The existing sewer avoidance area which overlays much of this neighborhood must be reinforced with alterations to the R 80 regulations to ensure viability of on site sewage disposal systems. These recommended changes are found in the Town's recently completed Environmental Inventory and Plan.
2. Several of this neighborhood's roadways have design deficiencies. Safety improvement plans must be designed and undertaken in balance with the natural landscape and current and future scenic road designations.
3. Maintain the ridgeline protection regulations as a viable method to balance the protection of this resource against the rights of affected property owners.
4. Consider additional homes along Mountain Spring Road for inclusion in the Farmington Historic District.

Population Statistics

2005 Population:	941			
1990 Population:	578			
Percent Change 1990-2005	+63			
Build Out Population:	1,521			
Percent Change 2005-Build Out:	+62			
Neighborhood Percentage of Town's Future Population Growth:	11			
1990 Population Density:	.32	Persons	per	Acre
2005 Population Density:	.51	"	"	"
Build Out Population Density:	.83	"	"	"

UNIONVILLE

The Unionville neighborhood is bordered by the Burlington town line to the west, the Avon town line to the north, the Highpoint West subdivision to the east and the Heritage Woods sub-division along with Burlington Road on the south. Unionville Center serves as one of Farmington's two village centers. Unionville has recently lost some of its long standing industrial uses but has retained others in the area of New Britain Avenue and Depot Place. While the eastern section is substantially developed, the western area contains significant amounts of vacant land. Several of these parcels are the subject of development plans. The neighborhood contains many community facilities such as a post office, community center, museum, and firehouse and is the location of most of the Town's subsurface water supply.

Development Policies

1. The residential zoning classifications along Route 4 should be maintained. This policy will keep new vehicle trips to a minimum while protecting the viability of existing residences. In some instances it may be necessary to permit the use of home occupations and the conversion of larger homes into multiple family housing.
2. Properties on Railroad Avenue should be rezoned to R9.
3. The Town must work cooperatively with the private property owners in Unionville Center to facilitate the implementation of the design plan authored by the team from the University of Connecticut and Yale University. Support for this project should include the initiation of road improvements and streetscape improvements.
4. The land use designation for property located west of River Road should remain as low density residential.
5. Nonresidential zoning along New Britain Avenue should not be expanded.
6. The industrial property at 150 New Britain Avenue is surrounded by residential land uses. While this property could continue to function as an industrial site, it could also be considered for residential development.
7. Historic structures identified in a study for the historic district proposed in 2003 should be individually protected by municipal regulation or placed into a new historic district.

Population Statistics

2005 Population:	3,384
1990 Population:	2,665
Percent Change 1990-2005:	+27

Build Out Population:	4,418			
Percent Change 2005-Build Out:	+30			
Neighborhood Percentage of Town's Future Population Growth:	19			
1990 Population Density:	1.8	Persons	per	Acre
2005 Population Density:	2.28	"	"	"
Build Out Population Density:	2.97	"	"	"

WEST DISTRICT

This neighborhood's northern border is defined by the Farmington River, the terminus of Forest Street and Plainville Avenue. It is bounded on the west by the Lake Garda neighborhood and the Bristol town line, to the south by the Town Forest, Red Oak Hill Road and the southern border of Coppermine Village and to east by the railroad right-of-way. With the exception of a number of parcels fronting on New Britain Avenue, this neighborhood may be characterized as residential. Future development activity will be limited to a number of smaller properties.

Development Policies

1. The industrial zoning district along New Britain Avenue should not be expanded.
2. If the site of the former gasoline station located at the corner of Plainville Avenue and Burlington Road is ever permitted to be redeveloped, the future use and site design should conform significantly to the Town's current coverage, landscaping and driveway regulations.
3. Commercial development along Plainville Avenue should not be expanded.
4. The sidewalk system to West District Road should be improved and expanded.

Population Statistics

2005 Population:	3,880			
1990 Population:	3,738			
Percent Change 1990-2005	+4			
Build Out Population:	4,130			
Percent Change 2005-Build Out:	+6			
Neighborhood Percentage of Town's Future Population Growth:	4.5			
1990 Population Density:	2.5	Persons	per	Acre
2005 Population Density:	2.59	"	"	"
Build Out Population Density:	2.76	"	"	"

XX. PLAN IMPLEMENTATION AND SCHEDULE

In order to implement the various elements of this plan there must be a coordinated effort between the various local, regional and state land use and planning bodies, the town council and the private sector. This plan has been particularly developed to compliment and support the state and regional long range plan as well as Farmington's strategic plan.

Many of the proposals found in this document may only come to fruition if funding is made available. Whether it is for the expansion of the Town's sidewalk system, improvements to the road network or other infrastructure, or the addition of new conservation or recreation areas to our existing inventory, adequate dollars must be provided at the state or local level. This also applies to the continued management and maintenance of our public land and buildings. Most of this funding will be appropriated through the Town's capital budget. This coupled with an effort to obtain Farmington's fair share of grants and loans from the state and federal sources will be needed to upgrade the major elements of the Town's transportation and utility systems.

Following the adoption of this plan a matrix will be developed to assign the responsibility for implementing the recommendations contained in this report along with a timetable and approximate funding levels.