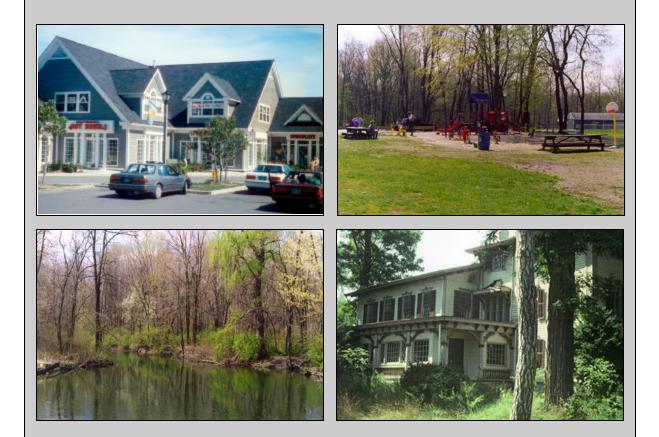
MASTER PLAN



Town of East Fishkill, NY

November 2002

Buckhurst Fish & Jacquemart, Inc.

2002

Master Plan

Town of East Fishkill

Town of East Fishkill Town Board and Master Plan Steering Committee Adopted by the Town Board November 14, 2002

Buckhurst Fish and Jacquemart Inc.

Acknowledgements

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Dedication to Beverly Ferland

This Master Plan is dedicated to the memory of Beverly Ferland, long-time resident of East Fishkill and Planning Board Secretary.

As the Town moves forward with a new Comprehensive Plan, we remember with fondness her participation and involvement with our community.

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Executive Summary

EXECUTIVE SUMMARY

In 1996, the Town Board of East Fishkill initiated the preparation of a new Master Plan for the Town. The previous Master Plan was adopted in 1982. The 2002 Plan represents the culmination of work that includes the creation of a Master Plan Steering Committee, meetings with Town department heads, a survey, and a series of public workshop meetings. The purpose of the new Master Plan is to assess the changes that have occurred in the Town over the past 20 years and to present a framework for future land-use decisions.

The following tables highlight some of the changes to the Town over the past 20 years.

Population History*

1980	18,091
1990	22,101
2000	25,589

* US Census Bureau

Existing Land Uses, 1981-2002

		2002	1981		
LAND USES	ACRES PERCENT TOTAL		PERCENT TOTAL	Percent Change, 1981-2002	
Residential	15,640	42.4%	29.9%	62.3%	
Commercial	350	0.9%	0.4%	143.1%	
Industrial/Utilities	1,430	3.9%	2.0%	124.5%	
Public/Institutional	500	1.4%	0.6%	156.4%	
Parks/Recreational	3,400	9.2%	3.3%	216.3%	
Agricultural	3,790	10.3%	17.5%	-32.7%	
Vacant	9,085	24.7%	46.2%	-38.8%	
Roads	2,625	7.1%	N/A		
Total	36,825	100.0%	100.0%	100.0%	

Source:

1980 numbers from Raymond Arnhold, Town Planner; BFJ, May 1981.2002 numbers from East Fishkill GIS Department

After more than 20 years many of the recommendations of the 1982 plan have been implemented. A new library was built in 1988 and expanded in 2000, the Appalachian Trail corridor was protected, an historic structure survey completed, design regulations were implemented, and a cluster subdivision ordinance was adopted. Other issues, however, remain current and have been incorporated into the 2002 Master Plan, including: a bypass road for Hopewell Junction and continued purchase of open space/agricultural lands.

Chapter One provides a general introduction to the Plan – its purpose, process, and organization. Chapter Two offers an historical synopsis, providing a framework for the Town's development patterns, as well as a view of East Fishkill as part of Dutchess County and the greater New York City region. Chapter Three updates the local demographic figures. Chapter Four discusses the different land uses within East Fishkill, the distribution of uses within the Town, zoning, and future build-out under existing conditions. Chapter Five presents the Town's environmental heritage – steep slopes, wetlands, soils, and groundwater. Chapter Six analyzes the transportation network. This chapter reviews the traffic patterns of the different roads and makes recommendations to improve circulation within East Fishkill. Chapter Seven examines the existing Town services. Chapter Eight summarizes the Master Plan findings and states future goals for the Town. Chapter Nine presents strategies that the Town can utilize to implement the individual components of the Plan.

The strategies in the Plan do offer choices for a different future for East Fishkill than under present conditions. The following table indicates that adoption and mapping of the proposed residential zones, together with additional restrictions on development of environmentally sensitive lands, would reduce the buildable number of homes in Town by approximately 1,700.

Development Capacity										
		Total Acres	Developable Acres	Current Development Potential [*]	Proposed R 1.5 Zone**	Proposed R-3 Zone**	# Homes Reduced			
Active Farm Overlay Zone		3,260	3,260	2,450 homes	1,635 homes	N/A	815			
Mountain/ Watershed Zone		8,050	4,250	1,900 homes	N/A	1,000 homes	900			
TOTAL				4,350 homes	1,635 homes	1,000 homes	1,715			

Development Capacity

*Current Development Potential equals (Developable Acres-10% roads) multiplied by

the existing underlying zoning

**Proposed Development equals (Developable Acres-(environmentally sensitive lands/2)-10% roads) multiplied by the proposed underlying zoning



1.0 Introduction

1.0 INTRODUCTION

1.1 Purpose of the Plan

The 2002 Master Plan for the Town of East Fishkill serves as a guide for future land use decisions, traffic circulation patterns, environmental conservation, and public facilities in the Town. This Master Plan represents the culmination of efforts begun in 1996 by the Town of East Fishkill to review the1982 Plan and to prepare a new master plan. The Town Board held a series of workshop meetings in 1999 that were attended by a cross-section of municipal officials and members of the public. The purpose of this plan is to change and adjust the existing plan and to respond to new development issues that have occurred within the Town since 1982. These issues include increased development pressures, rising population, transportation issues caused by regional growth, and the need to examine the adequacy of local facilities and services including public water and sewer.

The Town of East Fishkill is changing and rapidly evolving. Therefore, the Master Plan must provide a framework to proactively address foreseeable changes so as to minimize any negative impacts threatening the Town's quality of life. This plan seeks to preserve the best features of the Town's built and natural environments by offering goals and objectives to channel future growth to the areas of East Fishkill that can best accommodate it.

The Plan is general in nature, examining demographic and growth trends and their potential longrange impacts. The Master Plan contains an inventory of existing conditions in the community, followed by a set of goals and objectives that serve as a policy guide for future decision-making regarding East Fishkill's physical development. Many of the goals and objectives from the 1982 Plan have been met and now, after 20 years, it is time to review those prior goals and to consider new ones. For instance, the town adopted a cluster-zoning ordinance to allow for more creative developments and it completed an historic structures survey. The Town has also finished a rezoning study of the industrial land within East Fishkill and, based on the 1982 Master Plan, rezoned many parcels to residential uses. Other goals of the 1982 plan have not yet been completed, including some transportation improvements such as the creation of a service road around Hopewell Junction.

Each chapter in the new report discusses existing conditions and current data in order to lead up to the recommendations for changes to existing policies or alternative actions in Chapters 8 and 9. It is then up to the Town Board to turn the policy recommendations into substantive and specific regulatory laws that support and implement the Master Plan.

1.2 Master Plan Process

Preparation of the master plan should be viewed as an on-going planning process. The plan should be periodically evaluated given shifts in demographics, market conditions, and time. All evaluations should focus on the goals and recommendations of the plan. Are the goals still valid? Are the recommendations appropriate to the existing conditions?





These photographs were taken during the public meetings held to involve town citizens in the planning process.

EAST FISHKILL MASTER PLAN UPDATE East Fishkill, NY

Figure 1.1 Workshop Photos

Preparations for a new master plan began with the creation of a Steering Committee. The purpose of the committee was to oversee and assist the process of crafting a new master plan. To initiate the master plan process the town undertook a public opinion survey. As the planning process moved forward, the findings of the public opinion survey were presented at a public workshop in May, 1999, at the East Fishkill Town Hall (Figure 1.1). The primary purpose of the workshop was to obtain citizen input regarding transportation, land use, and environmental concerns confronting the community. Focus groups were formed to discuss the various topics and each group presented their findings at the end of the evening. The Steering Committee then provided direction and guidance when discussing the various issues raised at the public forums. Specific plan chapters were then prepared for the various functional elements of the Plan: such as open space, housing, transportation, and community facilities.

1.3 Organization of the Master Plan

The 1982 Master Plan was organized according to regional context, environmental conditions, and land use studies. From these general topics for the 1982 Master Plan derived three major principles: centers, clusters, and conservation. This Master Plan continues to support the center, clusters, and conservation principles. The new plan also provides a comprehensive examination of the many current forces shaping and changing the physical development of East Fishkill. The various elements that affect the town have been given their own chapter (regional context, population, land use, environment, transportation, and community services) to allow a fuller description of each one. After a discussion and analysis of the information, we present a number of goals and objectives that the town can then work to carry out. The final chapter, plan implementation, discusses some of the short-term policy changes that will address some of the goals and objectives while at the same time outlining those that will require incremental changes and represent longer-term policies.



2.0 Historical and Regional Context

2.0 HISTORICAL AND REGIONAL CONTEXT

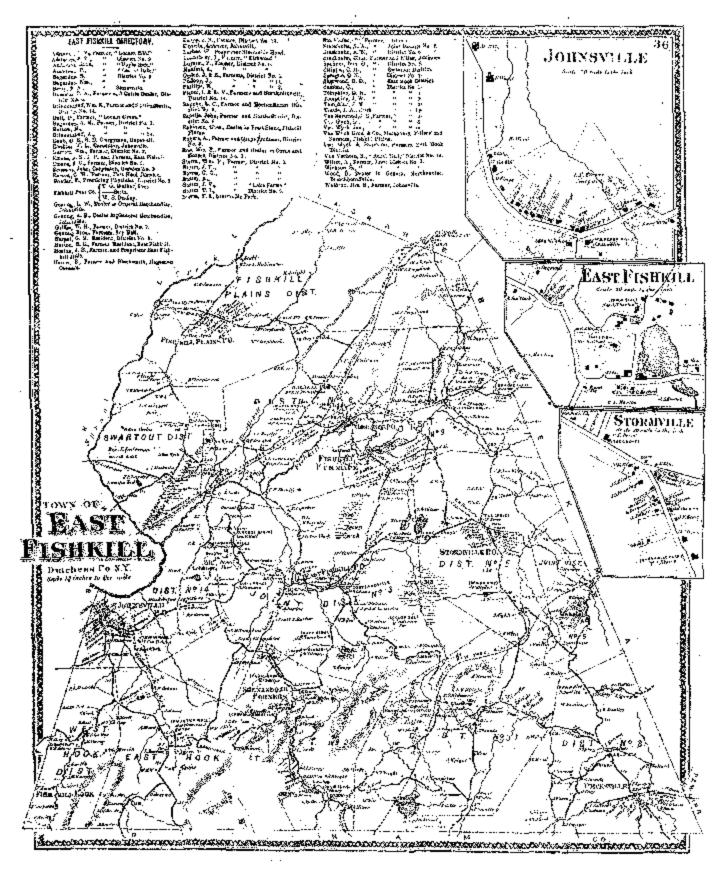
East Fishkill's current land use patterns, local infrastructure, and economic base are the results of private- and public-sector decisions made over many years. Having an understanding of the town's past provides a context for the present and direction for the issues to be addressed in the Master Plan. This section provides an overview of East Fishkill's place in the region: its history, development patterns, and demographic trends.

2.1 History

The political boundary of the Town of East Fishkill dates back to 1849 when East Fishkill formally separated from Fishkill; but, as a part of Fishkill, the known history of the region reaches to the 17th century. Originally, East Fishkill and the surrounding towns were the territory of the Wappinger Indians. The Town Historian reports that there may have been an Indian settlement just to the southwest of Wiccopee (which, like Shenandoah, has retained its native American name). By 1685, three New York City residents had obtained land grants to the region. English and Dutch settlement of the area began, encouraged by the valuable timber and game found here. The name Fishkill derives from the Dutch words *vis* or "fish" and *kill* meaning "stream". The original colonial settlement was centered at Old Hopewell, opposite the Hopewell Reformed Church, the oldest church in Town. The Verplanks, Rombouts, Van Wycks, Storms, Brinckerhoffs, and Pecks are just a few of the family names that survive to this day. As more and more settlers arrived, trapping and timber cutting gave way to a more domesticated economy consisting of farming and orchards. Agriculture came to dominate the town's economy and to imbue the town with the rural character that many residents still want to continue and to preserve.

During the last half of the 19th century there was significant change in East Fishkill. A new town center developed next to the railroad station, Hopewell Junction. This new center adopted the station name, reflecting the growing importance of the railroad and the significance of the transfer station to the local and state economy. The railroad provided easy connections to New York City and by the first half of the 20th century many City residents had bought land and built summer cottages around the lakes and in the Town's southern hills. This transient population, however, did not alter the town's essentially rural character. The older place names still exist in the town: Hopewell Junction, Stormville, Wiccopee, and Pecksville. In 2001, the Town mapped and identified all historic properties. Groups of these older remaining homes in these hamlets attest to the more rural period of East Fishkill's past. The Town will update the historic structures survey in 2002. The map on the following page illustrates East Fishkill in the second half of the 19th century. Note the prevalent historical land use pattern of concentrated neighborhoods with open space and agricultural land between them.

The railroad diversified the local economy and created the town center that we see today, yet East Fishkill remained a rural community of only a thousand people. More significant change would come to the town a century later, in another transportation form, the interstate highway. Today the town does not have any railroad service, but the construction of Interstate-84 and the Taconic Parkway has resulted in residential, commercial, and industrial subdivisions that have transformed the landscape and the town's population. While many acres have been transformed from farms and orchards to houses and backyards, perhaps the greatest evidence of this growth can be seen on the region's roads on a daily basis with increased car and truck traffic. East Fishkill now strives to achieve a balance between its rural past and its suburban present.



EAST FISHKILL MASTER PLAN UPDATE East Fishkill, NY

Figure 2.1 Historic Map of East Fishkill

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2.2 Regional Context and Development Patterns

Regional Context

The Town of East Fishkill is located in the southern part of Dutchess County, at the northernmost edge of the New York City Metropolitan Area. New York City is 75 driving miles distant to the Dutchess County towns of Fishkill, Wappinger, LaGrange, and Beekman, together with the towns of Kent and Philipstown in Putnam County border East Fishkill. Poughkeepsie, the seat of Dutchess County, lies approximately ten miles northwest of Hopewell Junction. The Hudson River flows approximately eight miles west of the town.

Development Patterns

Historically, Dutchess County's development has been shaped by the county's close proximity to New York City and its abundant natural features and resources. From the time the county was settled in the 1700s to the late 19th-century, agriculture formed the center of the County's economy, supplying the metropolitan New York City area with its produce, meat, and dairy goods. As the population grew in nearby New York City, Dutchess County also became known as a resort area, due largely to its natural and scenic beauty. Vacation cottages and lakeside developments were built throughout the county. Housing, shopping, services, and industries were concentrated, in ascending order of importance, in small hamlets; towns along the railroad, the Hudson River and older highways; and Poughkeepsie – the county seat and principle city.

Following World War II, the entire metropolitan area began to change as a new generation sought housing in the suburbs. Spurred by low-interest loans, new highways, and inexpensive transportation costs, development accelerated throughout the region. At first, Dutchess County's location at the northern edge of the metropolitan region minimized its value for suburban housing. As the communities closer to New York City filled in, however, demand was pushed farther out. The building of I-287, I-684 and I-84 increased mobility across the region and further spurred development away from the City. At the same time, jobs have been decentralized throughout the area, most notably IBM's plant in East Fishkill. As a result of increased mobility and diversified employment centers, developers have found a vibrant housing market in East Fishkill and southwest Dutchess County.

During the past decade, new employment centers in Westchester County and New York City have appeared. Most of these automobile -dominated centers in Westchester provide easy commuter access to East Fishkill, fueling the potential for suburban development. Additional residential and employment centers are planned for the area, further stimulating demand and straining the existing resources of the area.

There is an active railroad line (Figure 6.6), owned by the Metropolitan Transportation Authority (MTA), which traverses East Fishkill. The rail line crosses East Fishkill's easterly boundary south of Route 216 in the Stormville area and travels west, northwest into Hopewell Junction, where it bends to the southwest and intersects the westerly boundary of town between SR 52 and SR 82.

Figure 2.2 Location Map

The resurgence of jobs in the NYC metropolitan area has made Metro North study the feasibility of providing new commuter rail stations in the suburbs. The aforementioned line connects MTA's Hudson Line in Beacon with their Harlem Line in Brewster and their New Haven Line in Danbury. A recent study concluded that there are not enough customers to justify the expense of expanded passenger service into East Fishkill. In addition to passenger traffic, the tracks could be used for freight service. The Housatonic Railroad has rights to the track for freight service and that option is being evaluated.

In addition to the aforementioned economic factors of transportation, employment, and housing costs, the natural beauty of the area also serves to encourage development. People are drawn to the area because of the numerous lakes, rolling hills, open spaces, scenic vistas, and overall close proximity of nature. A portion of the Appalachian Trail passes through East Fishkill, offering residents additional recreational opportunities.

In summary, East Fishkill and Dutchess County are changing from a rural community of farmers and vacationers to an employment center and bedroom community of commuters. The many lakes, farms, parks, and preserves that attract people exist side-by-side with an increasing suburban development pattern. Development pressure, however, threatens the natural assets that East Fishkill currently enjoys. Already the roads are becoming congested with traffic and undeveloped land is rapidly being converted to housing developments. While many people are attracted to the community because of its rural image, the increased population and new subdivisions are altering the rural perception and changing the physical landscape. Balancing the preservation of the environment and open space on the one hand, and development on the other, is an important challenge.

2.3 Regional and County Plans

Regional agencies have prepared recommendations for the region's future development. These plans are advisory. They provide insight as to how East Fishkill could fit into the region as development pressures change the physical and social forms of existing communities. Plans prepared by the Regional Plan Association and Dutchess County Department of Planning are described briefly below.

In 1996, the Regional Plan Association (RPA) prepared its third plan for metropolitan New York City, including parts of New York, New Jersey, and Connecticut. Dutchess County, located at the northern edge of the metropolitan region, is a part of this 31-county, tri-state area. RPA's plan, *A Region at Risk*, seeks to enhance the quality of life for all residents of the region. For the Dutchess County area, it advocates limiting suburban sprawl, retaining farmland and open space, and supports innovative developments that will reduce transportation congestion and support existing centers. As Figure 2.3 shows, RPA views Dutchess County as separated from the New York area by the "greensward" of the Hudson Highlands. It recognizes East Fishkill as a mix of suburban and agricultural densities. RPA serves only as an advisory role in regional government and its plan has no direct effect on land use or development. RPA seeks to build consensus among various constituents and influence local decision-making.

In 1987 the Dutchess County Department of Planning identified over 200 policies to control quality of growth in the countywide plan *Directions: The Plan for Dutchess County*. The plan has been recognized by the County Planning Board as an official advisory policy document. The Town of East Fishkill has officially endorsed the plan. As can be seen in Figure 2.4, East Fishkill is seen as a combination of suburban development (principally in the western part of the town) and rural development. The policies outlined in *Directions* seek to reinforce the County's

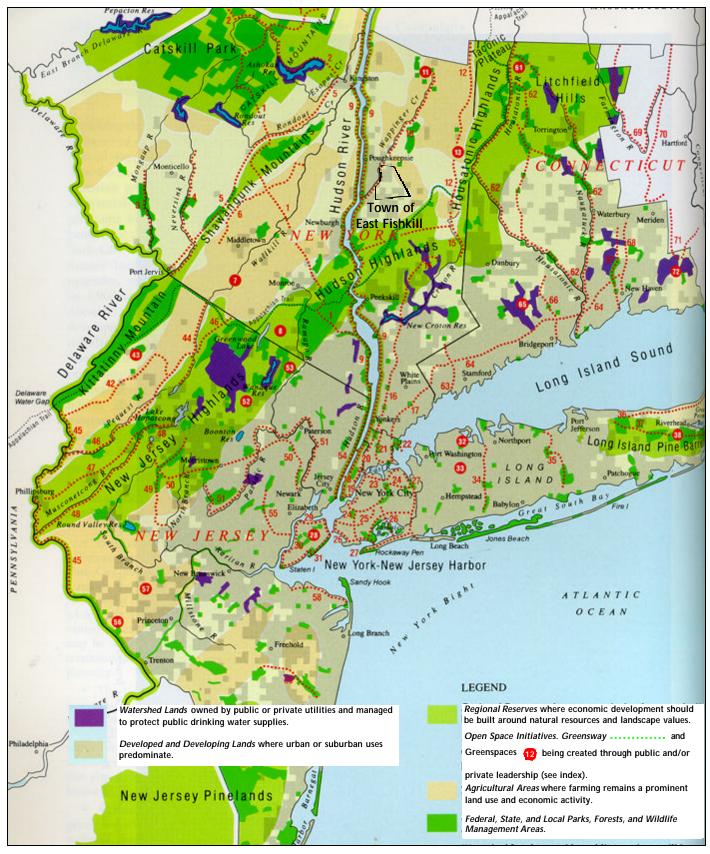
existing cities, villages, and hamlets as well as to protect its environmentally sensitive and valuable areas. Issues addressed include community values, land use, natural resources, water supply and waste disposal, transportation, housing, community facilities, recreation/open spaces, historic/ cultural resources, and energy and site planning.

In 2000, the Hudson River Valley Greenways Community Council approved *Greenway Connections: Greenway Compact Program and Guides for Dutchess County Communities.* The Greenway Compact Program keeps land-use decision-making at the local level, but it encourages municipalities to promote design controls to enhance building design, landscaping, streetscapes, and pedestrian connections. The Greenway Compact Program is a "Smart Growth" strategy. It provides guidelines for communities to make decisions that retain local character, enhance their physical surroundings, and coordinate individual actions into a regional strategy to support Dutchess County as a whole.

The policy goals and recommendations that are most relevant for East Fishkill include:

- Preserve and maintain the quantity and quality of the County's surface and ground water resources.
- Protect the County's soils, prime agricultural lands, steep slopes, and significant natural areas, and preserve the health and usefulness of the county's forests.
- Insure adequate long-term supplies of clean, reasonably priced water and environmentally sound disposal of wastes.
- Promote land use patterns that strengthen existing centers, protect natural resources, maintain an efficient transportation network and provide for economical services and facilities.
- Provide housing alternatives for all residents, which ensure quality in construction and environment, variety, affordability, and accessibility.
- Meet the recreation needs of all County residents in a way that fulfills community goals, maximizes accessibility, and minimizes public costs.

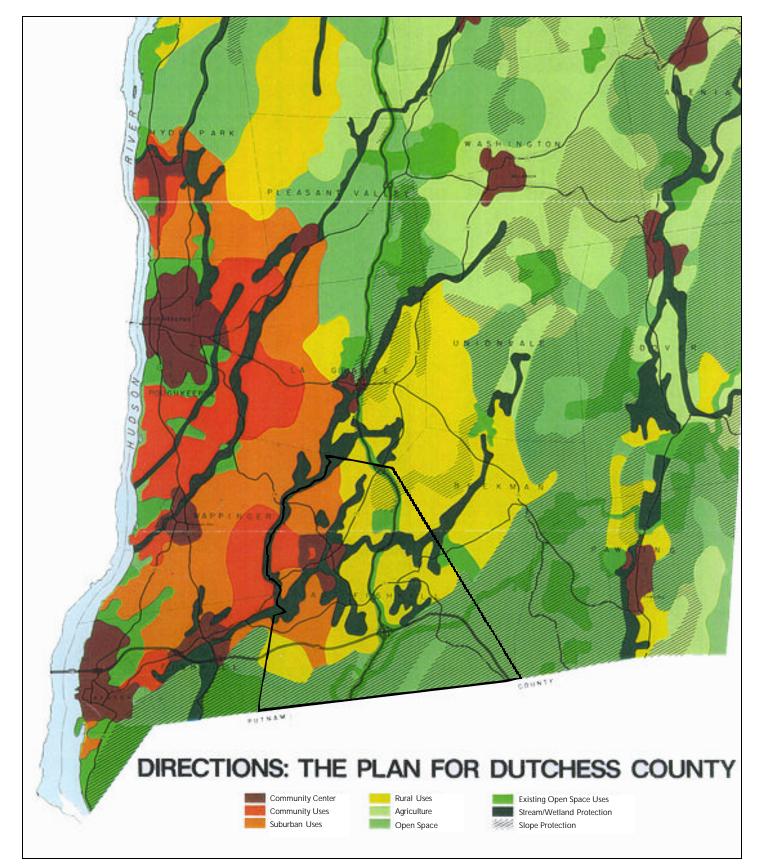
All of these regional plans strive to reconcile the rural and suburban character of the County. They recommend continued development onto land that is suitable for development from an access and environmental point of view. Where they are specific, they recommend development in northern East Fishkill and preservation in southern East Fishkill.



EAST FISHKILL MASTER PLAN UPDATE East Fishkill, NY

Figure 2.3. Regional Plan Association's Greensward Map

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EAST FISHKILL MASTER PLAN UPDATE East Fishkill, NY

Figure 2.4. Directions' Land Use Map

East Fishkill



3.0 Population

3.0 **POPULATION**

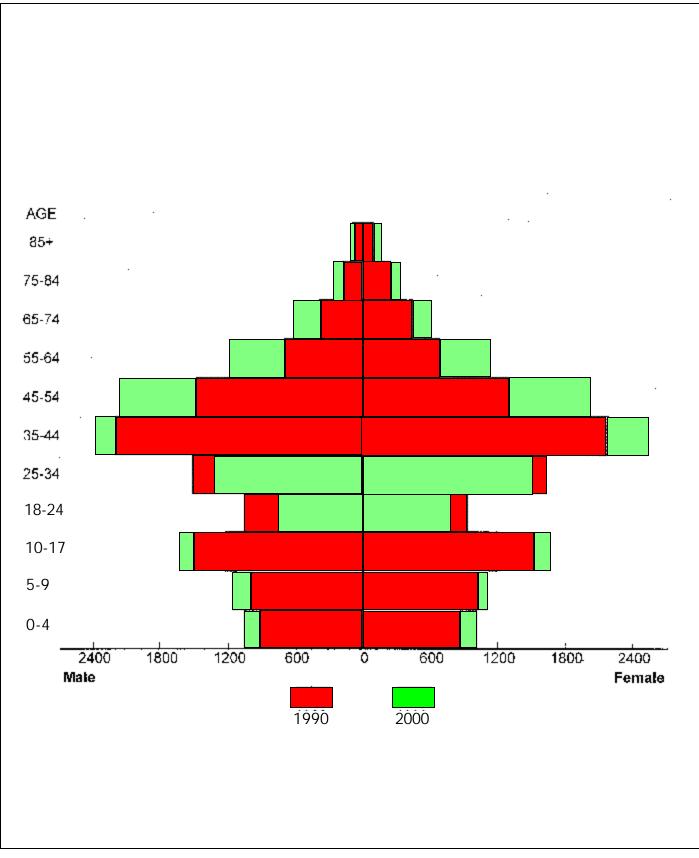
3.1 Growth

The 1980s and 1990s were a period of rapid growth for East Fishkill. As Table 3.1 indicates, the Town grew by 13.6% between 1990 and 2000. Its proximity to major highways and regional employment centers explains most of the town's increase. The Town of East Fishkill has consistently been one of the fastest growing communities in Dutchess County. Table 3.1 shows the population figures for the town, surrounding towns, and the county and compares the different growth rates. The southwest corner of the county, of which East Fishkill is a part, has experienced significant growth rates. Judging by the amount of new residential construction in town, its population will continue to increase, though it will be at a slower rate as the community matures and less land becomes available for development.

Table 3.1Population Figures

		Years		Percent Change				
	1980	1990	2000	1980-90	1990-00	1980-00		
East Fishkill	18,091	22,101	25,589	22.17%	13.63%	41.45%		
Beekman	7,139	10,447	11,452	46.34%	8.78%	60.41%		
Fishkill	13,951	17,655	17,994	26.55%	1.88%	28.98%		
LaGrange	12,375	13,274	14,928	7.26%	11.08%	20.63%		
Wappinger	22,621	26,008	26,274	14.97%	1.01%	16.15%		
Dutchess County	245,055	259,462	280,150	5.88%	7.38%	14.32%		
Source: US Bureau of th	ne Census							

While there has been an overall increase in population within the town, the increase has not been uniform across all age groups. The following page contains the population pyramid for East Fishkill. This diagram illustrates the different gains and losses occurring within specific age cohorts from the period 1990-2000. For both men and women, the largest population gains occurred throughout the 45-74 year old age groups. The 45-54 year olds showed the greatest gain (1,315 people) for an increase of 45.5% over the decade. The age cohort 55-64 grew 51.0%, and the 65-74 group grew 52.3%. The 35-44 age bracket contained the greatest overall number of people (4,937 persons) and increased 11.4% during the 1990s. Those East Fishkill residents 35-54 years old reflect in microcosm the national baby-boom trends. Born between 1946 and 1964 with the peak birth rate in 1957, baby boom children are now older but not having the number of children that their parents had. While there have been significant increases in younger children, much of that increase is due to in-migration of families, not large household sizes. Other substantial percentage increases in the total population include the 85+ age group (up 55.5%), which also reflects the national trend with an increasing elderly population.



EAST FISHKILL MASTER PLAN UPDATE East Fishkill, NY

Figure 3.1 Population Pyramid

3.2 Households

Data from the 2000 census indicates that the average number of persons per household was 3.1. This number is well above the Dutchess County level 2.8 persons per household and reflects the large number of families with children that find East Fishkill an attractive place to live. Following national population trends, however, the average number of people within an East Fishkill household has consistently declined over the years. In 1990, for instance, the average household size was 3.24. Population projections indicate that this trend will continue, which has implications for schools and classrooms, recreational space, and commercial demand.

The number of households with senior citizens is also growing in East Fishkill. Between 1990-2000, the number of one-person households over 65 years of age grew 25% from 253 to 317. The number of two or more person households with at least one member over 65 increased 41% over the past decade to 1,142. In order to meet the needs of the Town's growing senior population, the Town may want to consider housing alternatives that are attractive to older residents. Alternatives could include smaller home sizes and smaller lot sizes, to reduce maintenance responsibilities. The location of new housing options near hamlet centers where services are available should be considered.

3.3 Race and Ethnicity

According to the 1990 census, minority groups represent a very small percent of the population. However, each group showed modest growth. The following chart shows the racial and ethnic composition of East Fishkill.

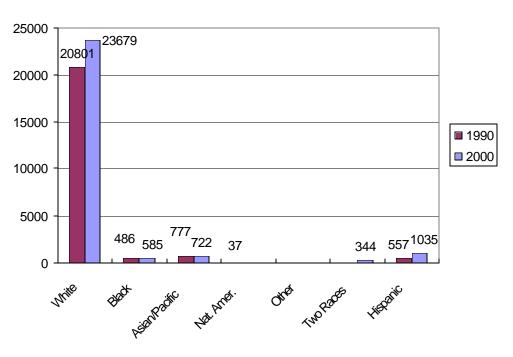


Chart 3.1 Racial and Ethnic Composition – 1990 & 2000

Source: US Bureau of the Census

3.4 Homes

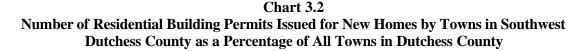
Building Permits

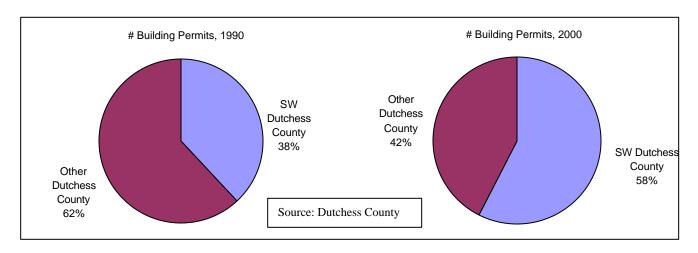
Along with the general increase in population, East Fishkill has seen a concomitant increase in the number of dwelling units within the Town. According to the 1990 census, East Fishkill had 6,791 dwelling units. In 2000, the Census Bureau counted 8,495 housing units within the town, an increase of 1,704 units. This significantly exceeds the Dutchess County estimate of 7,597 dwelling units for the year 2000. This new figure reflects the strong upturn in the real estate industry in the later half of the 1990s as well as a re-invigorated employment sector represented by a recovery of IBM and other companies from the recession in the early 1990s.

Since 1993, East Fishkill has led all other towns in Dutchess County in the number of new, single-family building permits issued each year. Between 1991-2001, the town issued 1,689 building permits for new, single-family homes. East Fishkill and its surrounding neighbors have comprised about 58% of all building permits issued for new homes throughout the entire county since 1993 (Chart 3.2). That figure grew rapidly from 1990 when they comprised only 40% of the countywide permits.

Table 3.2Number of Residential Building Permits Issued for New Homes, 1991-2001

SW Dutchess	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	sum
Beekman	70	67	43	57	46	84	98	142	206	152	58	1023
East Fishkill	68	95	71	124	144	152	192	210	231	183	219	1689
Fishkill	105	190	56	63	31	22	17	27	23	26	23	583
LaGrange	31	47	27	50	37	47	66	89	109	95	99	697
Wappinger	32	45	24	26	20	22	32	39	37	25	21	323
Dutchess County	686	832	-	566		621	753	856	1009	858	729	7846
source: Dutches	s Coun	ty Plan	ining D	epartn	nent							





Home Prices

Towns in southwest Dutchess County have some of the highest average home prices in the County. Homes in East Fishkill sell for far more than the County average. Home sales for the last six months of 2001 indicate that East Fishkill has an average sale price of \$254,647, which is second from the top of the range for the six towns in southwest Dutchess County. Only Pawling exceeded the average selling price of East Fishkill for the second half of 2001. Table 3 shows the residential sales (under 5 acres) statistics for July-December, 2001.

Table 3.3Residential Sales Statistics (Jul-Dec, 2001)

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^

	No. of Average			
	Sales	Price		
Beekman	109	\$215,775		
East Fishkill	98	\$254,647		
Fishkill	57	\$218,342		
LaGrange	86	\$235,056		
Pawling	38	\$287,552		
Wappinger	112	\$217,150		
Dutchess County	1,216	\$199,351		
Source: Dutchess County Department				

of Real Property Tax

According to the 2000 Census data, the median East Fishkill family income in 1999 totaled \$83,213. That income level would allow a purchase price of approximately \$280,000, with a 10% down payment. In contrast, the median Dutchess County family income in 2001, according to the US Dept. of Housing and Urban Development, was \$63,400. This income level would allow a purchase price, with 10% down, of approximately \$205,000. It is expected that the average selling price of an East Fishkill house will continue to rise to match what the median family can afford. However, if East Fishkill is to remain a diverse community of residents of various income ranges, then the Town may consider an affordable housing policy.

As part of an affordable housing policy, the Town Board could set income guidelines for sale or rent of units. An affordable housing policy could include safeguards to ensure that the designated homes were built of the same quality as the market-rate homes and that they were spread throughout the development, rather than concentrated in one area. To encourage the production of affordable units, the Town could offer incentives to developers, such as additional market rate units for each affordable unit. The ratio should not exceed 1:1, or one additional market rate unit for each affordable housing unit constructed.

3.5 Income and Education

As a rural/suburban community, East Fishkill's present population is relatively well educated and affluent. In 2000, according to the U.S. Census report, approximately 5,797 (35.2% of those over 25) persons held a college degree or had done some postgraduate work. Over 91% of those over 25 years old held at least a high school diploma. In 2000, about 15% of all households earned less than \$35,000, 13% earned between \$35-50,000, 30% had income between \$50-100,000, and the final, and close to one-third of East Fishkill's households earned more than \$100,000.

3.6 Place of Work

In 1990¹, nearly 25% of East Fishkill residents worked and lived within Town. About 62% of working residents commuted within Dutchess County while another 20% traveled to Westchester County. Only about 5% of workers each commuted to Putnam County and New York City. The remaining 8% worked in Connecticut, New Jersey, and other parts of New York State. IBM's employment figures peaked at about that time. Today, it is likely that fewer residents work in town. Figure 3.2 illustrates the commuting patterns for East Fishkill residents according to the 1990 census.

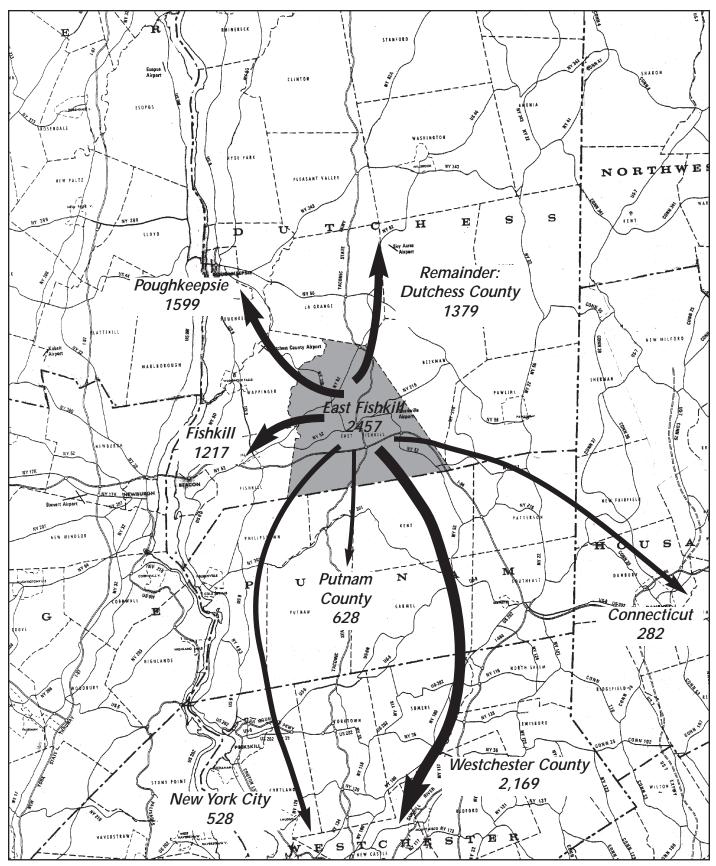
According to the 2000 Census data, over 82% of all households in East Fishkill owned two or more automobiles and almost 83% of residents commuted alone to work. The automobile represents the primary means of residents to get to work. Parking requirements should require at least two off-street parking spaces for every single-family residential dwelling.

3.7 Conclusions

East Fishkill's proximity to employment centers, highway transportation, and its regional setting all work together to make East Fishkill a desirable place to live. This desirability is now evident with the high number of building permits in town, the strong real estate market, and strong population gains in the 1990s, which typically were much lower in other parts of Dutchess County.

But with the increase in population comes issues of traffic, accommodating school children, and providing infrastructure services to these new residents. The challenge now is to integrate new growth into the community and maintain existing or improved levels of community services.

¹ 2000 Census data was not available at the time of adopting the Comprehensive Plan.



EAST FISHKILL MASTER PLAN UPDATE East Fishkill, NY

Figure 3.2 Commuter Patterns







4.0 LAND USE

This chapter of the Master Plan examines the Town's current land uses, how they have changed over time, and how they might change in the near future. Presently, residential uses dominate the town's landscape. The predominance of single -family homes is evident by driving through the town as well as by examining land use and zoning maps. Population growth has transformed East Fishkill from a rural, agricultural community to one that is now a suburban community. The most obvious manifestation of this growth has been the conversion of open space, farmland, and forestland into residential subdivisions. Land use is therefore critical to the Master Plan because it influences the type of development that will take place.

4.1 Land Use and Zoning

General land uses have been broken down into the following categories: residential, commercial, industrial, public/institutional, agriculture, parks, and vacant land. Figure 4.1 illustrates the location of the different land uses within East Fishkill. Residential land is highlighted in yellow, commercial in red, and industrial land in purple. Public/institutional land is shown in dark blue. Land identified within this category includes uses such as churches, town buildings, fire and police stations, and cemeteries, for example.

Orange represents agricultural land. The land depicted as agricultural on figure 4.1 is coterminous with active farmland that has been placed within the Active Farm Overlay zone. Parks are identified with a green color. Private lands that serve a recreational purpose, such as golf courses, ski areas, or campgrounds, have been shaded a light green. Dark green has been reserved for town/state/federal lands that are protected from development. The vacant category represents land that has the potential to be developed but currently remains idle.

The Town of East Fishkill comprises approximately 36,825 acres or 57.5 square miles.¹ Table 4.1 shows the 1981 and 2002 land use categories within the town, the number of acres in each category, and the number of acres as a percent of town land.

The comparison between uses in 1981 and 2002 illustrates the growth of the residential sector from 30% to 42% of the land. The commercial and industrial sectors grew by approximately 1,000 acres. The amount of parkland in town has more than tripled, but that has been offset by losses in the agricultural and vacant sectors. In 1981, an estimated 21,000 acres (roughly 2/3rds of the town) remained unbuilt. Today, the amount of land being used for agriculture, parkland, camps, recreational use, or simply lying vacant has decreased 23% to about 16,000 acres. Approximately 6,000 acres of prior vacant or agricultural land has been transformed into residential areas for approximately 2,300 homes.

East Fishkill has grown increasingly suburban over the years with the number of dwelling units rising from 5,700 in 1980 to 8,495 in the year 2000, according to the Census Bureau. Most of the units are located in subdivisions built in north and central East Fishkill, though the number of new residences in the south and east has grown rapidly. Many of the highest densities of single-family houses exist surrounding the many lakes in town. Most of these residences were converted years ago from summer vacation homes to permanent, year-round residences. Approximately 10% of the Town remains in agricultural uses.

¹ According to the East Fishkill GIS Department's database and Dutchess County.

Existing Land USCS, 1901-2001						
LAND USES	ACRES - 1981	PERCENT TOTAL	ACRES- 2002	PERCENT TOTAL		
Residential	9,636	29.9%	15,640	42.5%		
Commercial	144	0.4%	350	1.0%		
Industrial/Utilities	637	2.0%	1,430	3.9%		
Public/Institutional	195	0.6%	500	1.4%		
Parks/Recreational	1,075	3.3%	3,400	9.2%		
Public			1,320			
Private			2,080			
Active Agricultural	5,650	17.5%	3,790	10.3%		
Vacant	14,873	46.2%	9,160	24.9%		
Residential			7,350			
Commercial			250			
Industrial			735			
Agriculture			825			
Roads	N/A		2,555	6.9%		
Total			36,825	100.0%		

Table 4.1Existing Land Uses, 1981-2001

*The number of acres in each category was taken from the Town's GIS calculations. Roads were excluded from the GIS program. They are estimated by deducting all other categories from the total. **1981 figures were calculated roughly from 1"=2000' maps.

They are presented here for comparative purposes only.

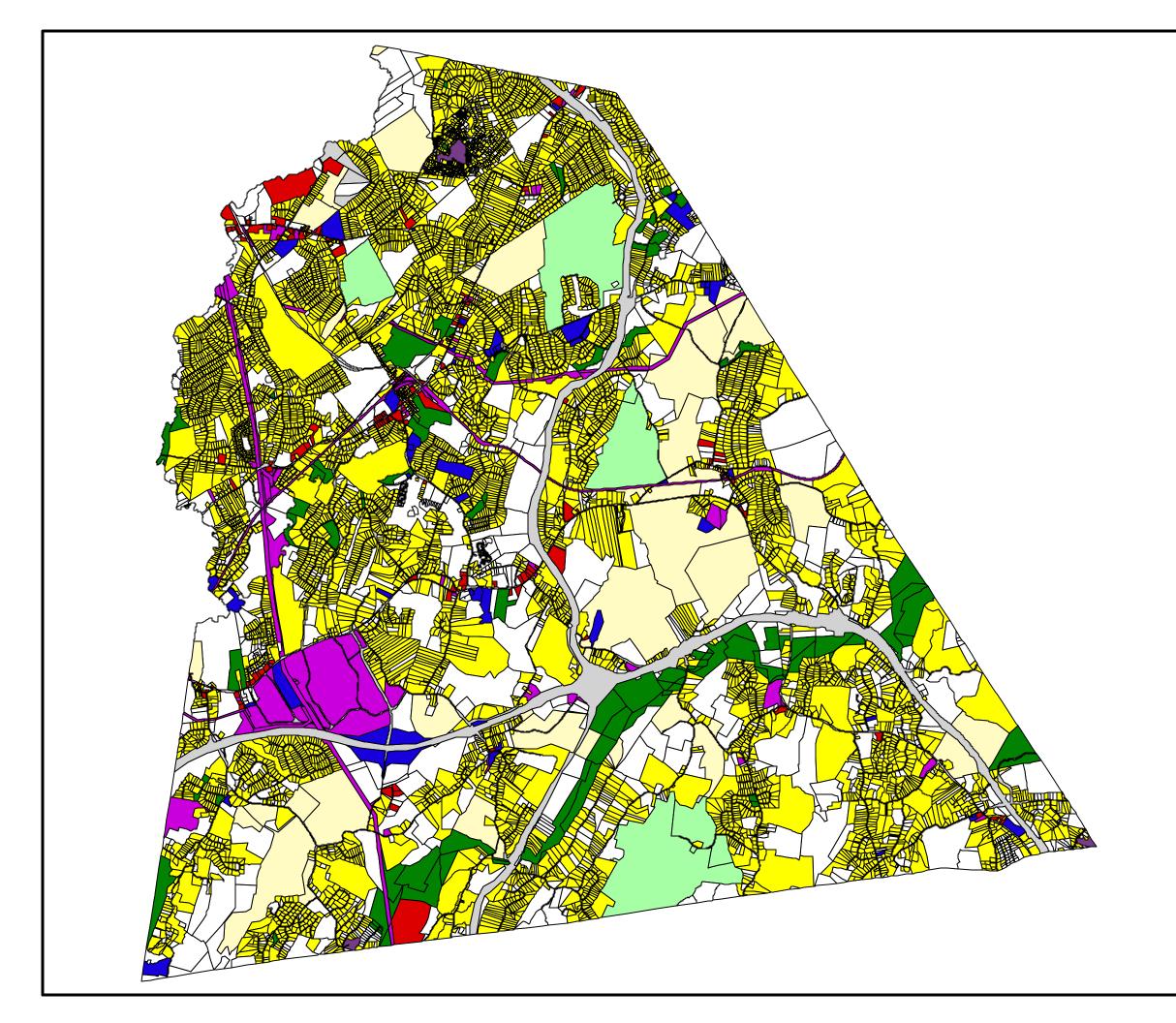
Source: 1980 numbers from Raymond Arnhold, Town Planner; BFJ, May 1981.

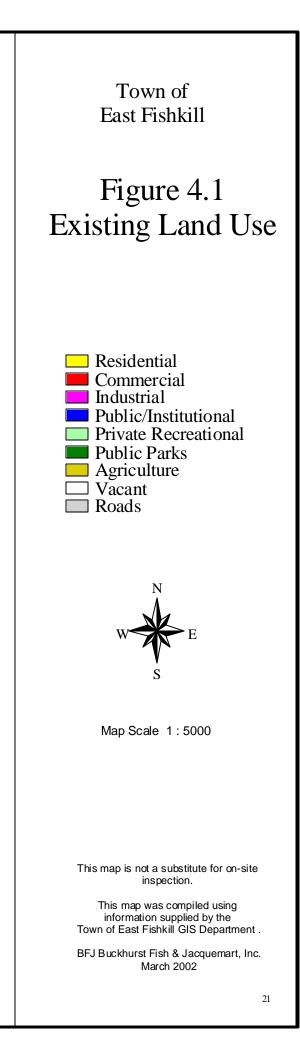
2001 numbers from East Fishkill Assessor's Office

Shopping, professional offices, automobile services, and other services are concentrated in the Hopewell Junction neighborhood, as well as other hamlets in town, remnants of older, compact neighborhood commercial centers. A number of commercial enterprises also exist along Routes 376 and 52, supplementing commercial activities in Hopewell Junction. Industrial and larger commercial activities have located near Interstate 84 to take advantage of the convenient transportation access.

The land uses in town, as well as their location, are a function of the present zoning code. Figure 4.2 shows a generalized zoning map for the town while table 4.2 lists the different zones and shows the approximate amount of land dedicated to each zone. Commercially zoned land accounts for 2% of East Fishkill's land whereas industrially zoned land represents 6.5% of the total land area. The remainder, over 90%, is zoned residential. The R-1 and R-2¹ zones, respectively, account for almost all of the residentially zoned land.

 $^{^{1}}$ R-1 zone criteria requires each new dwelling unit to have one acre of land. R-2 requires each dwelling unit to have two acres of land.





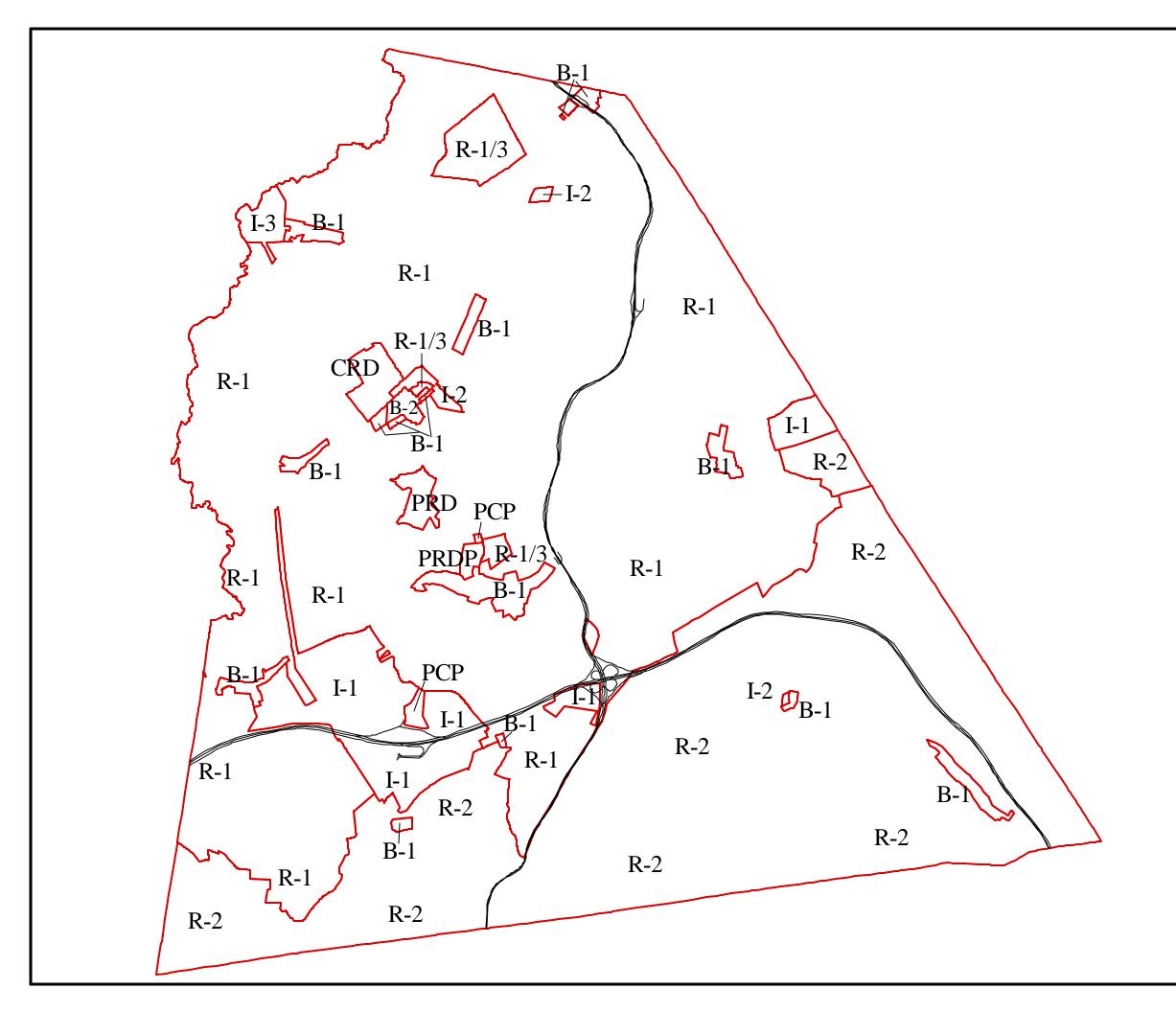
The zoning regulations provide for thirteen districts: five residential, three commercial, and five industrial. With the exception of the Conservation Residential Development (CRD) zone, these are the same zones that existed in 1982. The Town Board adopted the CRD zone in 1988 to replace the Planned Residential Development (PRD) zone. The Town Board has now mapped the CRD zone on land known as Mulford Farm or Deer Run, within Hopewell Junction. The PRD designation remains because one parcel was zoned to PRD before the adoption of the CRD zone.² That designation is no longer appropriate, however, because the allowable density exceeds the recommended density for the Hopewell Hamlet area, and the property contains significant amounts of environmentally sensitive lands, which could be adversely impacted by dense development. The CRD zone is an attempt to allow greater flexibility of subdivision design and to establish design controls over future development.

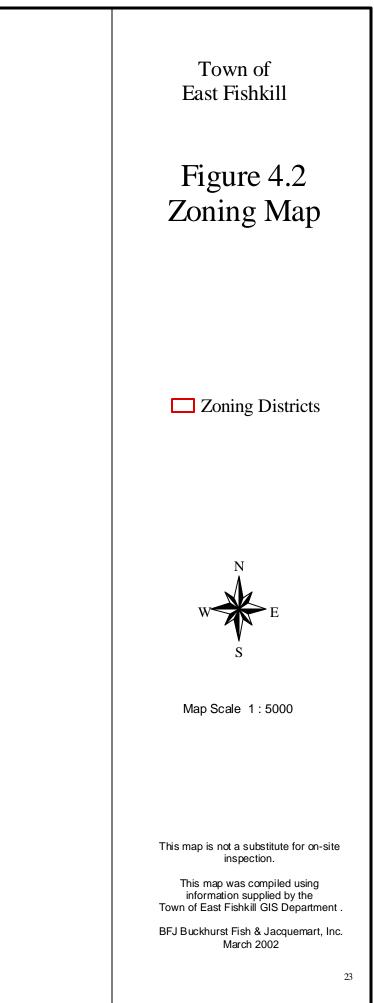
In October, 1997, as part of the Master Plan process, East Fishkill undertook a public opinion survey to help give direction to the Master Plan. Of those that responded, 48% indicated that they do not want to "encourage additional suburban type development." Another 80% agree "East Fishkill should tighten design and construction standards to enhance aesthetic development."

Zones	Acres*	% Total
Commercial		
B-1	670	
B-2	60	
PCP	45	
	Subtotal 775	2.10%
Industrial		
I-1	1490	
I-1S	155	
I-2	90	
I-3	140	
PRDP	40	
	Subtotal 1,915	5.20%
Residential		
R-1	21,445	
R-2	12,030	
R-1/3	380	
CRD	170	
PRD	110	
	Subtotal 34,135	92.70%
	TOTAL 36,825	100.00%
Source: Acreage fi	igures from East Fishk	ill GIS Department
*Acreage figures i	nclude adjacent roads	and water bodies.

Table 4.2Zoning Acreage

² Chapter 9 of the plan recommends rezoning the sole PRD zone to CRD.





East Fishkill still has considerable room for development. Thirty percent of the town lies vacant while another 15% could be converted from agriculture or private recreational land to a residential use. Paying attention to the changing demographics, market forces, and lifestyles, East Fishkill can plan to accommodate future growth that strengthens the existing built fabric. Without controls, however, views will be despoiled, neighborhoods will lose an ability to create individual character, and services will not be provided where needed. In the next section, the Master Plan examines the development potential for the town and discusses various means to control and direct growth.

4.2 Development Potential

Over 90% of the land in East Fishkill is zoned for residential purposes. That does not mean that all of the land is developed. But it does indicate that if the entire town were to be built out under the present zoning code, 90% would be for residential uses. Because the residential sector comprises such an overwhelmingly large portion of the town, it is useful to break it down into its various components. Chart 4.1 illustrates the percentages of built and unbuilt residentially zoned land in Town.

Currently, about 55% of the residentially zoned land has been developed. One-third remains vacant; and the final 14% consists of agricultural land. The 11% of homes on lots over 10 acres represent another 2,500 acres that could be subdivided further. To provide residents with an idea of what the town could look like under a build-out scenario, it is useful to calculate a "saturation population", or the population that is possible if all the land were developed according to the present zoning code.

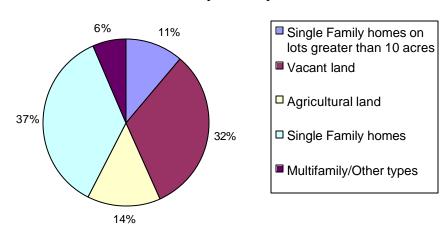


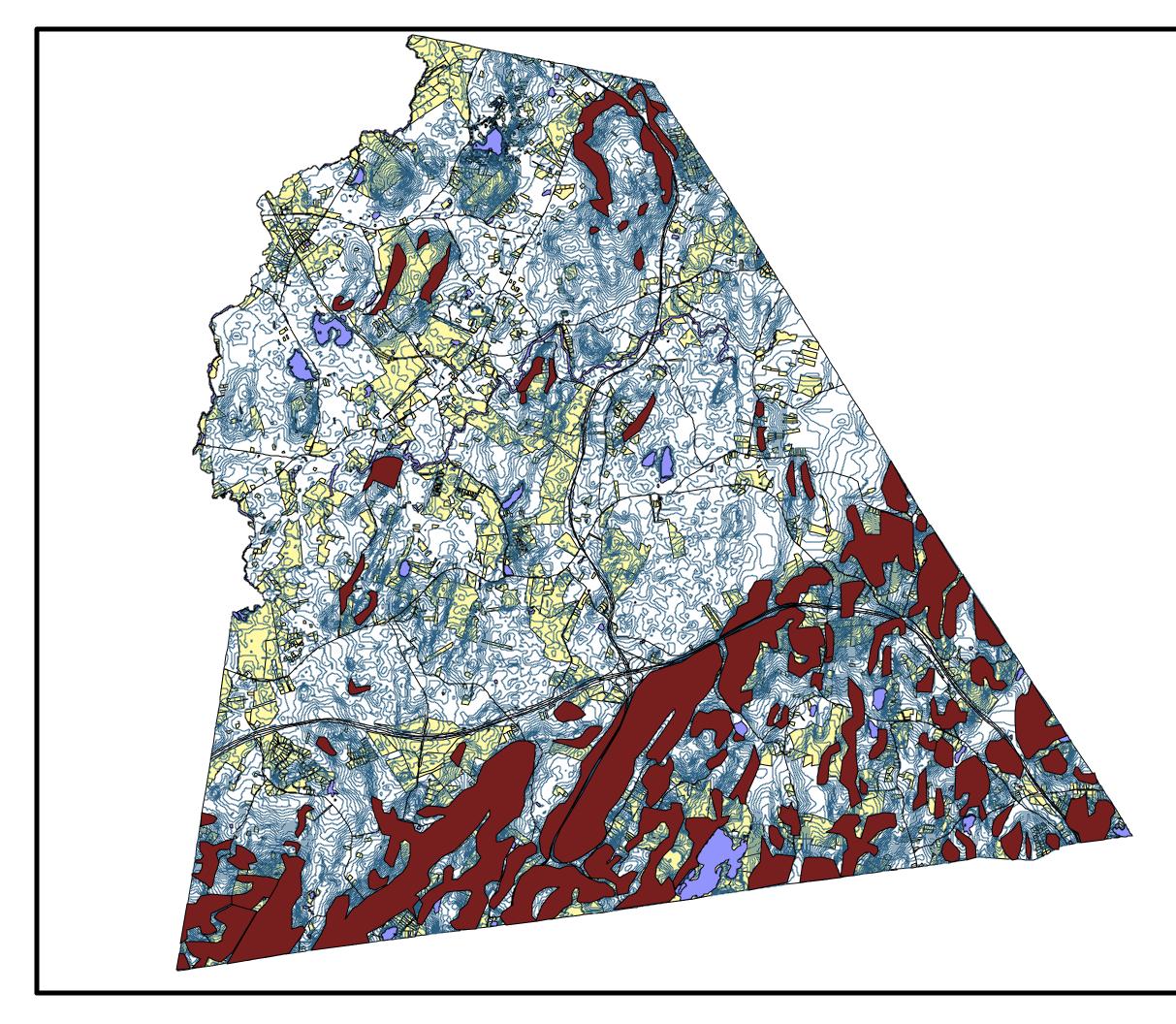
Chart 4.1 Residential Zones By Intensity of Use

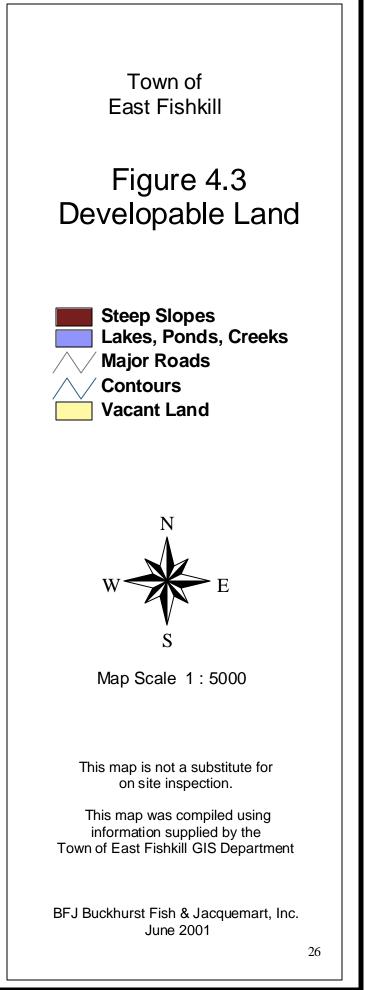
Table 4.3, on page 27, presents the saturation population and summarizes the amount of vacant, developable land remaining in East Fishkill. It also categorizes it by zoning district. According to the data, if the underdeveloped residential land in the above chart were to be fully developed, East Fishkill's population could almost double with an estimated increase of 25,639 people. The table also shows that there exists a significant amount of commercial and industrial land in town that, if developed, could increase the need for greater services in East Fishkill to supply a large daytime working force.

In order to calculate the acreage and population/employee figures for Table 4.3, we created a map (see figure 4.3) of all the vacant land in East Fishkill and then superimposed the wetlands and steep slopes over the vacant land. Twenty-five percent of the environmentally sensitive acreage was then subtracted from the developable land in order to account for land that is generally not developable. This number was then multiplied by 75% to account for roads, design inefficiencies, parking, and other factors that limit the development capabilities of any parcel of land. This final figure equals the net developable area. Multiplying the net developable area times the underlying zoning results in the number of additional dwelling units that could be built under the present zoning code

NET DEVELOPABLE AREA = (Vacant Land – 25% of Environmentally Sensitive Land) x 0.75

Once the additional number of dwelling units has been calculated, then multiplying that number by the expected average size of a household results in the "saturation population", or the maximum anticipated population of the town given a complete build-out scenario. The assumptions for the additional residential and employee populations are stated at the bottom of Table 4.3. The "saturation population" equals 25,589 (2000 census) plus 25,639 (potential residents) for a grand total of 51,228 residents. Additionally, Table 4.3 states that an additional 1,056 undeveloped acres are found in the commercial and industrial districts. This land could hold an additional 11,970,290 square feet of floor space if the business and industrial acreage were built out, and an additional 33,450 employees could increase the town's daytime population.





Zone	Developable Land	Net Developable Acres	Potential Development	Additional Population
Residential				
CRD^{1}	160	120	360 units	990 residents
PRD^{1}	95	45	270 units	742 residents
R-1/3 ²	135	73	219 units	657 residents
R1 ²	9,000	6,000	6,000 units	18,000 residents
R2 ²	6,000	3,500	1,750 units	5,250 residents
Total	15,390	9,738	8,599 units	25,639 residents
Commercial				
B-1 ³	257.5	160	2,787,840 sq. ft.	13,940 employees
B-2 ³	2.5	2	34,850	175 employees
Total	260	162	2,822,690 sq. ft.	14,115 employees
Industrial				
I-1 ⁴	450	310	5,401,440 sq.ft.	10,800 employees
$I-1S^4$	155	110	1,916,640	3,830 employees
I-2 ⁴	15	10	174,240	350 employees
I-3 ⁴	100	65	1,132,560	2,265 employees
PCP ⁵	39	20	261,360	1,045 employees
PRDP ⁶	37	15	261,360	1,045 employees
Total	796	530	9,147,600 sq. ft.	19,335 employees

Table 4.3Development Potential of Vacant Land

Assumptions:

¹ potential development equals net developable area times 2.75 persons per household

² potential development equals net developable area times 3 persons per household

³ potential development equals FAR 0.4 * net developable area and 1 employee per 200 sq. ft.

⁴ potential development equals FAR 0.4 * net developable area and 1 employee per 500 sq. ft.

⁵ potential development equals FAR 0.3 * net developable area and 1 employee per 250 sq. ft.

⁶ potential development equals FAR 0.4 * net developable area and 1 employee per 250 sq. ft.

The amount of developable land, current zoning laws, and subdivision regulations have implications for the town's population and development patterns. Recently the Town has seen a significant amount of building activity, but a significant amount of land could still be developed. This plan considers the density issues raised by these projections. It also considers the kind of infrastructure needed to support additional population: such as roads, schools, water, sewer, etc. It also considers the other qualities of new housing, including development controls to maximize open space, preserve landscape buffers, preserve environmentally sensitive lands, encourage walking paths along streams, and provide a variety of housing types.



5.0 Environment

5.0 ENVIRONMENT

This chapter describes the environmental characteristics of East Fishkill. East Fishkill enjoys a wide variety of terrains, offering diverse plants, wildlife habitat, and recreational opportunities. The environmental components listed below (slopes, surface water, soils, and ground water) are all interconnected. Water features interact with and connect topographical environmental systems as well as those underground. An understanding of the interrelated qualities of the various environmental components will make it easier to make decisions based upon this chapter.

The Town, roughly triangular in shape, can be divided into two fairly distinct physiographic zones: a stream valley and an upland zone. The southeast corner of the Town and a narrow band running along the southern boundary comprise the upland zone that includes a portion of the Taconic Mountains. This area contains approximately one-third of the entire Town's area and is characterized by relatively high elevations ranging from 600 to 1,200 feet, steep slopes, and shallow soils. The remaining two-thirds of the town is essentially a stream valley consisting of fertile soils, lower elevations, gentle hills, and containing a number of water bodies. Fishkill Creek and Whortlekill Creek (a tributary of the Fishkill) are the predominant lowland environmental features. This lower lying area holds most of the Town's developed land.

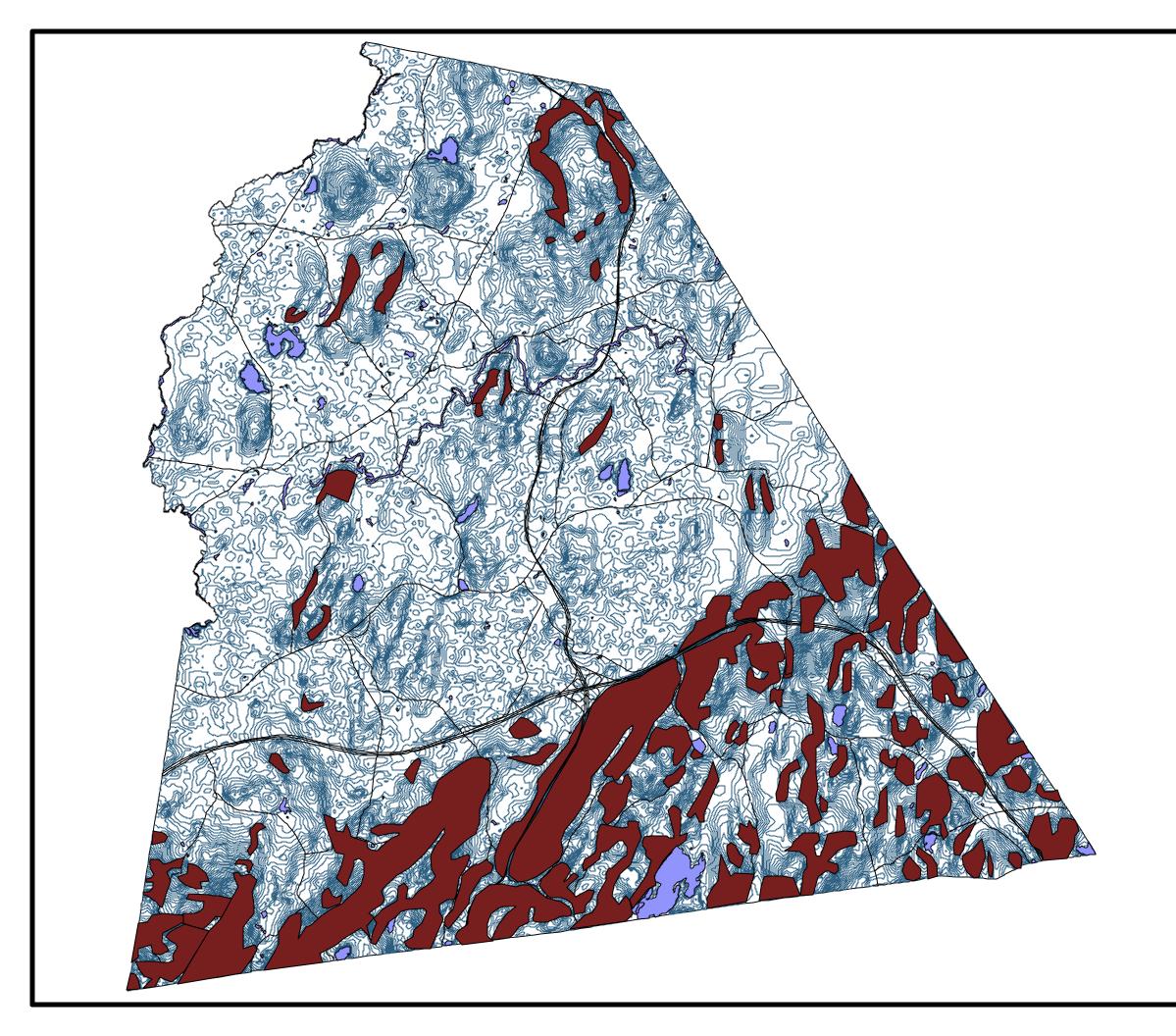
The Town has retained Hudsonia, an environmental research institute for the Hudson Valley, to provide a biodiversity study of the flora and fauna within East Fishkill. The biodiversity study, completed in 2002, examines present conditions as well as identifies potential threats to local and native species. The report includes maps of local habitat and aids in the land-use decision-making process.

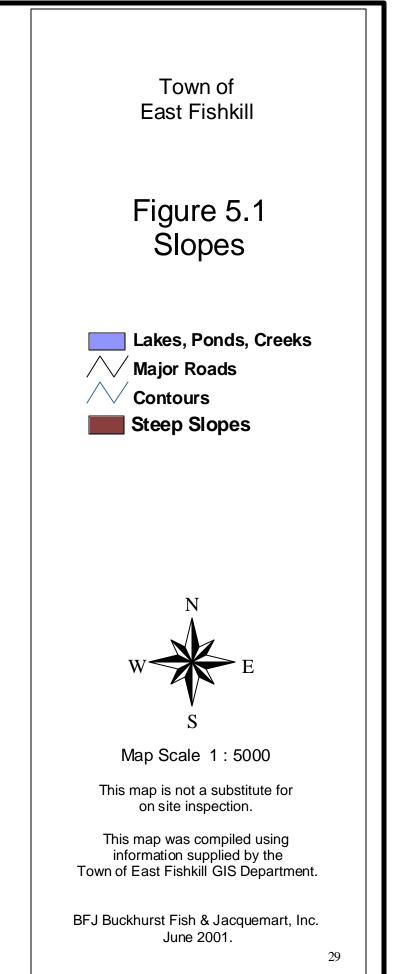
5.1 Slopes

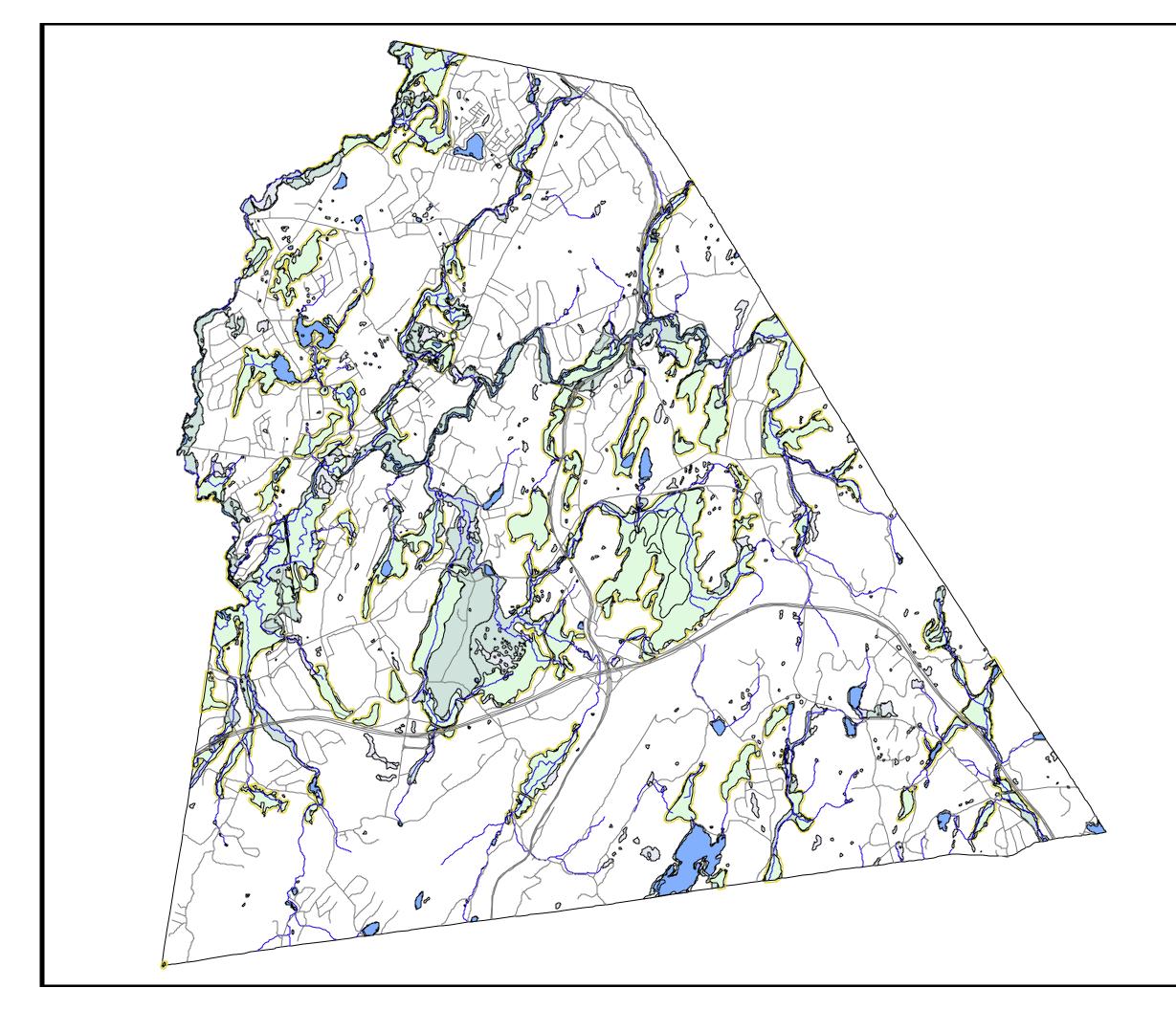
Approximately half of the land in the upland zone has slopes in excess of 25% and slopes greater than 20% are too steep for septic systems and driveways. These areas, as shown in Figure 5.1, are considered unsuitable for intensive development for several reasons:

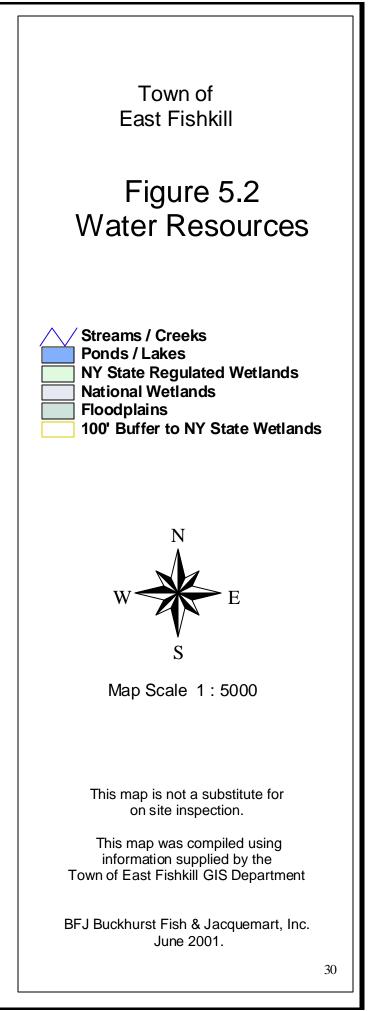
- Construction in these areas is difficult and expensive.
- Generally accepted planning standards state that roads should not exceed a 10% grade whenever possible with 15% being a maximum, and only when necessary.
- Clearing of vegetation for development on these steep slopes increases the rate and volume of surface runoff and soil erosion resulting in potential septic problems and problems in ground water availability.

As a result of the difficulties inherent with development on steep slopes, the Master Plan recommends a different development standard for steeply sloping areas. The soils cannot support the same level of intensity as flatter lands, and should therefore not have the same development density. This Plan proposes reducing the allowable development density from 100% to 50% for slopes exceeding 20%. This means that when calculating the lot area, the developer must count steeply sloping land (slopes greater than 20%) 50% towards the required lot area, rather than its full 100% value.









5.2 Surface Water, Wetlands, and Floodplains

The main surface water feature in East Fishkill is Fishkill Creek, which flows from east to west through the north-central portion of the Town. Sprout Creek, Whortlekill Creek, and Wiccopee Creek are all tributaries.

The area along these streams, especially in the lowland zone, is characterized by extensive wetlands, swamps, and marshes, as well as by areas that are susceptible to flooding. The 100-year flood plains and wetlands, as delineated in Figure 5.2, are considered to be unsuitable for development for several reasons:

- Areas that are prone to flooding represent a very real hazard to life and property.
- Wetland areas pose serious constraints to development in terms of difficult and costly construction practices as well as providing inadequate septic fields.
- Wetlands reduce the danger of flooding downstream by acting as natural detention basins during peak runoff periods. The biological activity in wetlands helps to maintain water quality by absorbing excess nutrients.
- Wetlands play a vital role in the ecosystem by providing habitat for various wildlife and flora.

Wetlands, like steep slopes, have development constraints. Similarly, this Plan recommends that wetlands count 50% towards the lot calculation for development purposes. Reducing the allowable density within wetland areas still allows the developer to retain his property and development rights, but it recognizes the specific inadequacies of wetland soils for development purposes.

Wetlands over 12.4 acres in size are mapped and protected by the New York State Department of Environmental Conservation (NYSDEC). As shown in Figure 5.2, many of East Fishkill's freshwater wetlands have been designated and mapped by the NYSDEC. Any construction activity that might impact these wetlands (excavation, filling, building, obstructions, potential pollution sources, etc.) is regulated, whether or not the activities occur on the wetland itself or on land adjacent to the wetland.

5.3 Soils

East Fishkill can be subdivided into four fairly distinct soil groups (Figure 5.3).

- AREA 1 includes two evenly distributed soil types: Venango gravelly silt loam and Cambridge gravelly silt loam. These two soil types tend to be deep, moderately well drained, and have slow permeability. They may be fine for some agriculture, but they have severe limitations for buildings.
- AREA 2 is dominated by the Hoosic gravelly loam. These soils are deep, well drained, and have rapid permeability. They are good for agriculture and have few limitations for construction.
- AREA 3 is a mixture of soil types. These soils consist of a variety of different types, with limited agricultural use and some limitations for construction.

• AREA 4 is comprised of the Hollis-Chatfield Rock Outcrop complex and the Nassau shaly silt loam-Rock outcrop complex. These rocky soils are located in the upland zone and have severe limitations for agriculture and buildings.

Depth to bedrock and soil permeability are significant in terms of development and land use. Shallow soils with rock at or near the surface and/or impervious soils represent a development constraint for the following reasons:

- Construction costs for buildings and roads can increase sharply if rock excavation is required.
- Installation of on-site waste disposal systems such as septic tanks may be difficult or impossible in shallow soils.
- Soils that are essentially impervious are unsuitable for surface drainage systems and septic tanks as well.

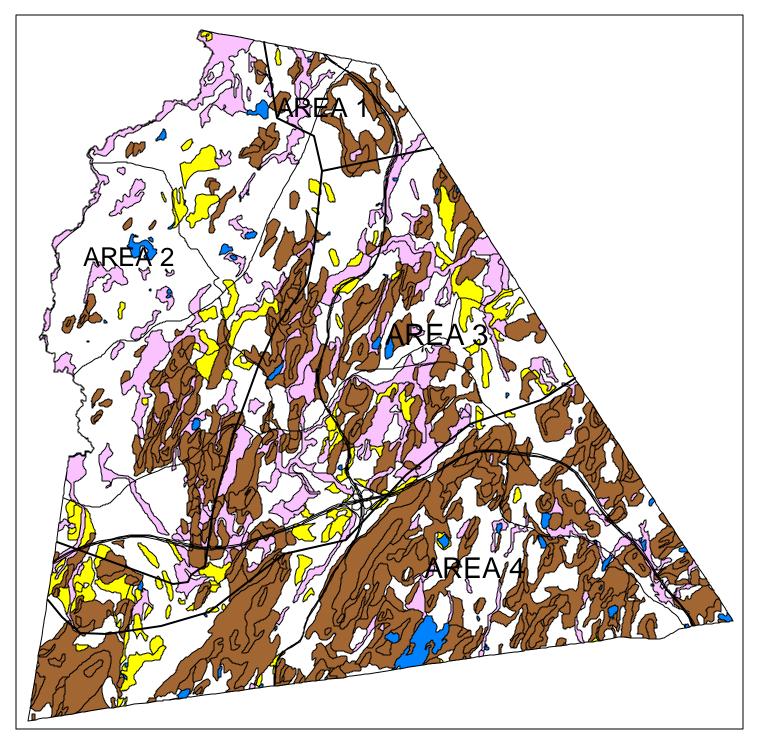
Mapped areas, which delineate shallow depth to bedrock, are mainly in the southern third of the Town (AREA 4). Areas with slow permeability are dispersed throughout the Town.

5.4 Groundwater Resources

East Fishkill has a tremendous amount of groundwater resources. A 1961 US Geological Survey report concluded that "the overall [groundwater] supply is adequate [in Dutchess County] to meet present needs and for much larger withdrawals in the future". According to a 1988 aquifer map prepared by Leggette Brashears & Graham Inc., it appears that groundwater supplies in East Fishkill should be sufficient to support a population of 50,000. East Fishkill has such an abundance of groundwater supplies because of its underlying geologic formations. The Town sits above a number of rock types that allow water to permeate beneath the surface to form aquifers (figure 5.4). Topographically, stream valleys offer the most favorable conditions for groundwater wells. In East Fishkill, these conditions are relatively abundant across the northern portion of Town and they represent significant ground water potential.

Groundwater cannot be taken for granted, however. It is susceptible to contamination and requires replenishment. Contamination can take place from septic fields or industrial spills. All well fields, especially those public or community wells serving a number of households, should be protected by adequate buffers. Likewise, any possible uses that could contaminate the groundwater should be sited to minimize any potential negative and harmful effects.

The groundwater is replenished from rain that percolates through the soil into the ground, and from recharge areas, such as wetlands. Both wetlands and the soil serve to filter the water and make it safe for drinking when it is pumped back to the surface. The quality of the environment on the surface, therefore, affects the quality of the water beneath the surface. Paved areas near recharge areas should be limited in size to allow water to seep into the ground and wetlands should be protected to allow water to collect and percolate beneath the surface for drinking later on.



EAST FISHKILL MASTER PLAN East Fishkill, NY





Figure 5.4 Aquifer

5.5 Environmental Summary

As discussed in the previous chapter (table 4.1), active agricultural land and open space land have decreased considerably within East Fishkill over the past two decades. Much of the Town's remaining open space land contains sensitive environmental lands, such as wetlands and steep slopes, which represent constraints to development. It is because of these constraints that the Plan recommends reducing the development density within steeply sloping areas, wetlands, and floodplains.

Chapter 7, Community Services, discusses the fact that centralized water and sewer systems are becoming more common in East Fishkill. These systems allow greater flexibility for subdivision design and may allow superior developments that protect the environmentally sensitive land while maximizing the developable portions of property. Over 80% of respondents to the 1997 Master Plan survey indicated that they supported increased design and construction standards. Chapter 8 contains a design section (8.4) and advocates for the retention of woodlands, meadows, streams and wetlands, within future developments, to preserve the natural environment and local biodiversity.

The Hudsonia biodiversity study has been completed, and the Town has been provided with a bio-diversity map. The data is in the process of being assembled, to be incorporated into the Town's GIS system.



6.0 Transportation

6.0 TRANSPORTATION

6.1 Introduction

The transportation section of the Master Plan is based upon the East Fishkill Traffic Circulation Plan dated March 2001. The March 2001 traffic study has more extensive information and data to which the reader may refer.

The purpose of a transportation system is to efficiently move people and goods in, out and around an area. A transportation network is comprised of several different components that connect and complement each other. This chapter describes the transportation system and network in the Town of East Fishkill, outlining existing deficiencies and proposing possible improvements.

East Fishkill's transportation network is comprised of highways and streets, public transit routes, railway tracks and sidewalks. However, the Town's rural, multi-center nature, as well as its employment patterns, has favored the growth of auto-related transportation and resulted in a dependence on the automobile. That is to say, most of East Fishkill's residents drive to work, drive to the store, etc.

ISTEA and TEA-21

Two key pieces of transportation legislation were enacted since the 1982 Master Plan. The first was the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, which was designed "to develop a national intermodal transportation system that [was] economically efficient, environmentally sound, provide[d] the foundation for the nation to compete in the global economy and [would] move people and goods in an energy efficient manner."¹ The Act provided funding authorizations for highways, highway safety, and mass transportation for the ensuing six years. Its focus was on maintenance, alternative forms of transportation, and the environment, as opposed to the construction of new roads. In 1998, Congress renewed the 1991 Act by passing the Transportation Equity Act for the 21st Century (TEA-21), which built on the initiatives established by ISTEA.

One of the provisions of both ISTEA and TEA-21 was the establishment of a National Highway System, consisting primarily of existing interstate routes, to focus federal resources on roads that are most important to interstate travel. Those road systems considered most important to the interstate travel network are those classified as "collector" and "arterial." Consequently, state and local governments, including the Poughkeepsie-Dutchess County Transportation Council (PDCTC), were urged to refine their functional classification systems to better accommodate the provisions set forth by ISTEA and TEA-21.

6.2 Existing Roadway System and Traffic Volumes

The Town of East Fishkill is well served by regional highways and has a relatively developed network of local roads. Interstate 84, the Taconic State Parkway and State Routes 52, 82, 216 and 376 traverse the Town. Interstate 84 traverses the Town in an east-west direction and the Taconic State Parkway traverses the Town in a north-south direction. Together these highways form the backbone of East Fishkill's transportation system.

¹ The Intermodal Surface Transportation Efficiency Act of 1991.

Functional classification is the classification of roads into different operational systems, groups, streets and highways according to the level of service they are intended to provide to the road user and the surrounding area. For example, limited access highways are designed for through traffic, higher speeds and greater travel mobility than are local access routes, which are intended to operate at lower speeds and provide direct access to abutting land uses.

The 1982 Master Plan established three classifications of East Fishkill's streets: limited access highway, state highway and county highway. This classification was updated in 1991 by Dutchess County to conform to the ISTEA legislation and established different classifications depending on whether the area is rural or urban, see table 6.1 (for additional information, see Traffic Study).

Table 6.1County Functional Road Classification

Urban	Rural
Interstate	Interstate
Principal Arterial	Principal Arterial
(Expressway)	-
Principal Arterial (Street)	Minor Arterial
Minor Arterial	Major Collector
Collector	

Interstate

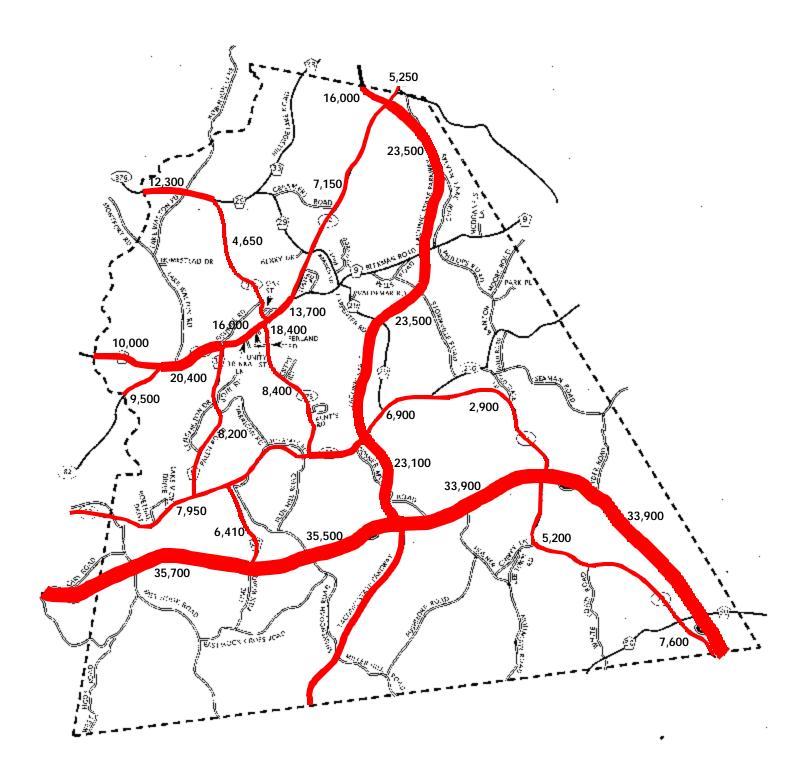
Interstates provide regional access for vehicles traveling to and from East Fishkill. They are high-speed roadways where access is limited to grade separated interchanges.

The only Interstate in East Fishkill is Interstate 84 (I-84), traversing East Fishkill in an east-west direction. Interstate 84 begins in Sturbridge, MA where it connects with Interstate 90, and goes west to Scranton, PA where it connects with Interstate 380. Generally it is a four-lane road with two lanes in both directions. It also has the highest traffic volumes in East Fishkill as can be seen from Figure 6.1, which shows 24-hour traffic volumes for various roadways in East Fishkill.

Principal Arterial (Expressway)

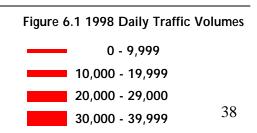
Principal Arterial (Expressway) is similar to the Interstate classification in terms of providing high-speed regional access but differs in terms of the level of access and restrictions on vehicle types.

The only principal arterial in East Fishkill is the Taconic State Parkway. The Taconic State Parkway begins in Westchester County and heads north to Interstate 90, near Albany. The Taconic State Parkway has four lanes in the Town of East Fishkill. No commercial vehicles are allowed on the Taconic State Parkway, though there has been a recent change that allows pickup trucks weighing less than 5,000 pounds and registered as passenger vehicles to use the Parkway.



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Although the Taconic State Parkway is a 55 mile-per-hour expressway, many stretches are below the current design standards. New York State Department of Transportation has an ongoing plan to upgrade the whole parkway to meeting current design standards.

Principal Arterial

Principal arterials provide for traffic movement between East Fishkill and the surrounding towns and also give access to adjacent properties. The major arterial streets in East Fishkill are NYS Routes 82 and 376 as well as NY State Route 52 west of the intersection with the Taconic State Parkway.

Minor Arterials

Minor arterials provide options for alternate traffic movement and may also serve to connect major arterials. Some through service is provided but traffic volumes are lighter than along the major arterials. The minor arterial streets in East Fishkill follow:

Lime Kiln Road (County Route 27) north of Interstate 84
Palen Road (County Route 31)
Beekman Road (County Route 9)
Carpenter Road and Clove Branch Road (County Route 29)
Hillside Lake Road (County Route 33)
Old Hopewell Road (County Route 28)
NYS Route 52 east of the Taconic State Parkway
NYS Route 216

Collector Roads

Collector Roads work as connectors between local roads and arterials, generally they are a little wider than local roads and are better equipped to cope with heavier traffic flows. The collector roads in East Fishkill are as follows:

Robinson Lane
Lake Walton Road
Hosner Mountain Road
Miller Hill Road
Fishkill Road
Shenandoah Road
Fishkill Hook Road

Local Streets

Local streets provide direct access to the properties located along them. All streets in East Fishkill not detailed in the above classifications are considered local streets.

6.3 Park and Ride Lots

There are two park and ride lots in East Fishkill: the first is on Lime Kiln Road just south of I-84 (see photograph 6.3), and the second is at the intersection of the Taconic State Parkway and Route 52 (see photograph 6.4). As part of the Year 2002 Master Plan, the users of each park and ride lot were surveyed. The object of the survey was to identify commuter patterns and to identify improvements that could be made to the park and ride lots.



Photograph 6.1 Lime Kiln Road / I-84 Park and Ride Lot



Photograph 6.2 Taconic State Parkway Park and Ride, Prior to Installation Of Traffic Light.

Users were also asked to suggest improvements that could be made to the park and ride lots. The largest single issue is increasing the number of parking spaces at the Taconic State Parkway park and ride lot where there is a shortage of spaces. Some users also identified a need for increasing the number and quality of telephones at both lots. Since photograph 6.2 was taken, the State DOT signalized the intersection of the Park and Ride Lot, Route 52, and the northbound on/off ramp from the Taconic State Parkway.

6.4 Safety and Circulation Issues

Road Accidents

Vehicle crash records for East Fishkill covering the period 1995-1998 were obtained from New York State Department of Transportation (NYSDOT). The records covered the town Roads as well as the state Roads. BFJ summarized the crash data by location and severity (fatal, injury or property damage only). A total of 1525 crashes were detailed, of these, 721 accidents were at an intersection (47% of all crashes) and 804 occurred on stretches of Rd. (53% of all crashes). Of the intersection accidents, 277 resulted in an injury or fatality (38% of intersection crashes). Of the accidents occurring on road stretches 255 resulted in an injury or a fatality (32% of road stretch crashes). These numbers reflect the rural aspect of East Fishkill, where drivers tend to speed more on open stretches of roads and so increase the risk of crashing.

The total number of accidents is high for a town with the population size of East Fishkill, as is the number of crashes that result in a fatality (5 such crashes). This may be explained by the high dependence on motor vehicles for transport in East Fishkill, the rural nature of the Roads in East Fishkill that result in drivers increasing their speeds, and the presence of four at-grade intersections with the Taconic State Parkway (see discussion after Table 6.3). Additionally, the Town receives a large amount of through traffic, which adds to the volume of cars on the road, and may therefore increase the likelihood of accidents along East Fishkill roadways.

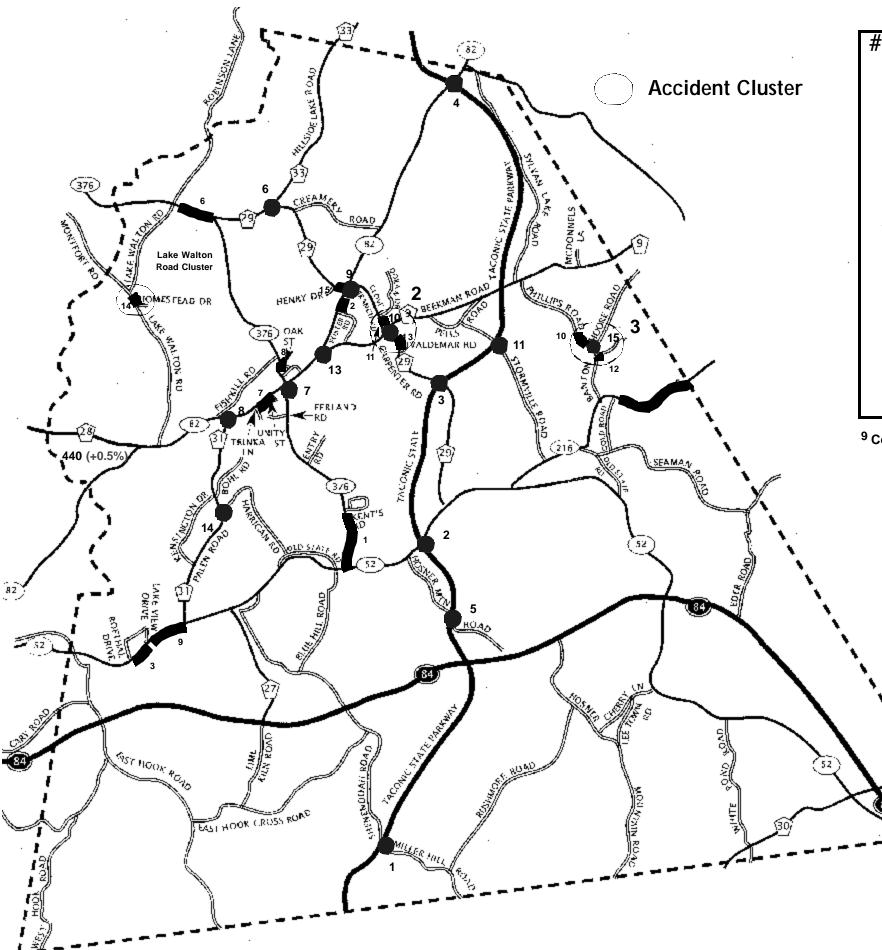
High Accident Locations

In order to concentrate on the most dangerous locations the highest fifteen crash locations were selected for both road stretches and intersections (Table 6.2). From these the intersection accidents were summarized and are detailed in Figure 6.2. It was noticed that there were three areas in East Fishkill where clusters of crash locations formed. These are detailed in Table 6.3.

Map No.	Location	At	Fatal	Injury	Property Damage Only	Total Reportable
1	Taconic State Parkway	Miller Hill Rd*	0	20	24	44
2	Taconic State Parkway	NYS Route 52	0	21	18	39
3	Taconic State Parkway	Carpenter Rd (CR 29)	0	21	13	35
4	Taconic State Parkway	NYS Route 82	0	11	7	18
5	Taconic State Parkway	Hosner Mountain Rd	2	9	6	17
6	Hillside Lake Road (CR 33)	Clove Branch Rd (CR 29)	0	12	5	17
7	NYS Route 82	NYS Route 376	0	7	6	13
8	NYS Route 82	Palen Rd (CR 31)	0	9	2	11
9	NYS Route 82	Clove Branch Rd (CR 29)	0	6	4	10
10	Beekman Rd (CR 9)	Carpenter Rd (CR 29)	0	7	3	10
11	NYS Route 82	Lake Walton Rd	0	7	2	9
12	Taconic State Parkway	Stormville Rd	0	8	1	9
13	Beekman Rd (CR 9)	NYS Route 82	0	4	2	6
14	Palen Rd. (CR 31)	Harrigan Rd.	0	3	1	4
15	Moore Rd.	Philips Rd.	0	4	0	4

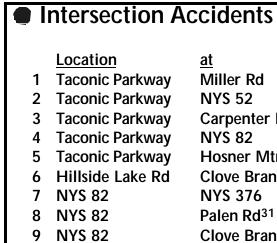
Table 6.2High Intersection Crash Locations (1995-1998)

*Miller Hill intersection was redesigned and rebuilt 1999-2000.



# R	# Road Stretch Accidents				
	Location	<u>between</u>	and	Total Reportable	
1	NYS 376	NYS 52	Kent Rd	44	
2	NYS 82	Foster Rd	Clove Branch Rd ²⁹	39	
3	NYS 52	Roethel Rd	Lakeview Dr	34	
4	NYS 376	Entry Rd	Ferland Rd	18	
5	CR 216	Gold Rd	Town Line	17	
6	NYS 376	Clove Branch Rd ²⁹	Lake Walton Rd	17	
· 7	NYS 82	Trinka Lane	Unity St	13	
8	NYS 376	Oak St	Fishkill Rd	11	
9	NYS 52	Lakeview Dr	Palen Rd ³¹	10	
10	Philips Rd ⁹	Moore Rd	500m west	10	
11	Clove Branch Rd ²⁹	Doran Brush Dr	Beekman Rd ⁹	9	
12	Philips Rd	Moore Rd	Park Pl	9	
13	Carpenter Rd ⁹	Valdemar Rd	200m north	6	
14	Lake Walton Rd	Montfort Rd	Homestead Dr	4	
15	Clove Branch Rd ²⁹	Henry Dr	NYS 82	4	

⁹ County Road 9; ²⁹ County Road 29; ³¹ County Road 31; ³³ County Road 33



- 10 Beekman Rd⁹
- 11 Taconic Parkv 12 NYS 82
- 13 Beekman Rd⁹
- 14 Palen Rd³¹
- 15 Moore Rd

⁹ County Road 9; ²⁹ County Road 29; ³¹ County Road 31; ³³ County Road 33

	<u>at</u>	Total Reportable
way	Miller Rd	44
way	NYS 52	39
way	Carpenter Rd ²⁹	34
way	NYS 82	18
way	Hosner Mtn Rd	17
e Rd	Clove Branch Rd	17
	NYS 376	13
	Palen Rd ³¹	11
	Clove Branch Rd ²⁹	10
9	Carpenter Rd ²⁹	10
way	Stormville Rd	9
-	Lake Walton Rd	9
9	NYS 82	6
	Harrigan Rd	4
	Philips Rd	4

Figure 6.2 Highest Traffic Accident Locations

Table 6.3High Crash Location Clusters

Cluster 1	Injury	Property Damage Only	Total Reportable Crashes
Lake Walton Rd between Montfort Rd. and Homestead Dr.	4	0	4
Lake Walton Rd at Montfort Rd.	2	1	3
Lake Walton Rd at Homestead Dr	3	0	3
Lake Walton Rd at Brown Rd.	1	0	1
total	10	1	11
Cluster 2			
Carpenter Rd. between Valdemar Rd. and 200m north	4	0	4
Carpenter Rd. between Beekman Rd. and 100m south	0	1	1
Beekman Rd. between Carpenter Rd. and Augusta Dr	1	0	1
Beekman Rd. at Carpenter Rd.	4	2	6
Beekman Rd. between Martin Rd. and Clove Branch Rd.	0	1	1
Clove Branch Rd. at Beekman Rd.	3	1	4
Clove Branch Rd. between Doran Brush Dr. and Beekman Rd.	4	2	6
total	16	7	23
Cluster 3			
Philips Rd. at Park Pl.	2	1	3
Philips Rd. between Moore Rd. and 500m west	2	5	7
Philips Rd. between Moore Rd. and Park Pl.	4	0	4
Moore Rd. at Philips Rd.	4	0	4
Moore Rd. between Philips Rd. and town line	2	0	2
total	18	6	24

Taconic State Parkway At-Grade Intersections

The table shows that the most dangerous intersections in East Fishkill by far were the at-grade intersections with the Taconic State Parkway. However, the NY State Department of Transportation has since closed two of the three intersections, Carpenter Road and Stormville Road, leaving only Hosner Mountain open. The DOT has closed the medians at these two intersections, prohibiting turning movements across the Taconic Parkway. The State has proposed to construct an overpass for Hosner Mountain Road, in order to grade-separate the intersection.

Collectively these intersections account for 105 reportable accidents of which 58 resulted in an injury and 2 resulted in a fatality.

Hopewell Junction

Traffic in the Hopewell Junction Hamlet represents the major circulation issue in East Fishkill. Hopewell Hamlet is the historic center of East Fishkill and today is the commercial and administrative center for the Town. As was shown in the East Fishkill Traffic Study, Hopewell Hamlet has seen the largest increase of traffic in East Fishkill during the last decade and has become more congested. Traffic movements in the Hopewell Hamlet are concentrated around the intersection of NYS Route 376 and NYS Route 82. This has become a congested and unpleasant intersection. This is good neither from a transportation perspective, a commercial perspective, nor an environmental perspective.

An additional circulation problem in Hopewell Hamlet is the commercial strip area on NYS Route 82 near Trinka Lane. As in most commercial strips, each property has its own driveway and to get from one retail establishment to another shoppers often have to drive out one driveway and get in on another driveway. The overall result is one of lack of accessibility and unfriendliness for pedestrians and bicyclists.

Potential solutions to the circulation issues in Hopewell Hamlet are addressed in the Future Road Network section.

6.5 Safety Improvements

Carpenter Road At-Grade Intersection

This intersection was the third-highest crash location between 1995-1998 in East Fishkill. For northbound drivers, the visibility was partially obstructed by vegetation on the central portion of the Taconic State Parkway, see photographs 1 and 2. This obstruction was partially cleared by DOT and a flashing light was added to improve safety at this location. However, the NY State Department of Transportation (DOT) has since closed this median, preventing turning movements from across the Taconic, and through traffic from crossing the Taconic Parkway here. This Master Plan classifies Carpenter Road as a minor collector because of its strategic location within the Town. This closing causes significant dislocation for passenger and non-passenger vehicles, including school buses, fire and rescue services, farm vehicles, and commercial traffic. It requires additional travel distance for all, including children on school buses, and adds traffic through other intersections not equipeed to handle the increased volume. It also makes it more difficult for the Town to provide snow-clearig services in the Stormville area.

The intersection creates issues for northbound traffic turning right, because there is no deceleration lane. Vehicles wanting to turn right off the Taconic are afraid to slow down too much because of the rear-end hazard created by higher speed vehicles. These vehicles then turn too quickly into the side street.



Photograph 6.3 500 feet from Carpenter Road on northbound approach of the Taconic State Parkway

Photograph 6.4 500 feet from Carpenter Road on southbound approach of the Taconic State Parkway

A grade-separated diamond interchange should be swiftly constructed at this location. This interchange would serve central East Fishkill and could possibly provide access to a commuter rail station on the MNR Beacon line. This improvement becomes particularly important if and when the Stormville Road access further north is discontinued (see discussion below).

Hosner Mountain Road At-Grade Intersection

This intersection is the fifth highest in terms of total crashes and the highest in terms of fatalities: two fatalities occurred at this intersection in the period of 1995-1998. This intersection is particularly dangerous as the site distance on the eastern approach is limited both for drivers on the Taconic State Parkway and for drivers on Hosner Mountain Road. New York State DOT has proposed to grade-separate the two roadways, allowing Hosner Mountain to cross over the Taconic State Parkway. If access from the Taconic to Hosner Mountain were eliminated, cars would need to use the Route 52 exit and then turn left onto Hosner Mountain Road. For northbound vehicles on the Taconic, this would require two left turns. More cars would pass through the Route 52 intersection, which already suffers from inadequate sight distance. The amount of vehicles making these two left turns would adversely impact travel along Route 52 and create safety hazards. A full diamond interchange is not needed here, but an offramp for northbound Taconic vehicles to exit onto Hosner Mountain Road would provide an important connection to residents who rely on Hosner Mountain Road for access.

Stormville Road At-Grade Intersection

This intersection was the twelfth highest crash location in East Fishkill with a total of nine crashes in the period of 1995-1998, eight of which resulted in a serious injury. This intersection has been closed and is scheduled to remain so permanently. A new overpass at Carpenter Road should be promptly constructed to provide adequate connections for people on both sides of the Taconic. West of the Taconic the section of Stormville Road between Pellbridge Road and the Taconic can be abandoned, and on the east side a turn-around should be built near the last driveway east of the Taconic.

NYS Route 52 - Taconic State Parkway Intersection

This interchange represents the second highest crash location in town. This grade-separated intersection has been hazardous in the past for two reasons: poor visibility at the end of the on-off ramps and the lack of acceleration and deceleration lanes for vehicles entering and exiting.

New York State DOT has addressed the first problem by installing a signalized light at the on-off locations for both north and southbound travelers. The interchange still lacks acceleration and deceleration lanes for motorists entering the Taconic here and driving north, as well as those exiting and traveling southbound. A long-term solution should be considered for this intersection that would create a full diamond interchange.

NYS Route 82 - Taconic State Parkway Intersection

This interchange represents the fourth highest crash location in town. It is very similar to the interchange with Route 52 and suffers from similar traffic safety problems. As for the Route 52 interchange, we recommend to study the feasibility of modern roundabouts at the two intersections of the Taconic ramps with Route 82. This is an effective traffic control and it avoids the reconstruction of the overpass.

Hopewell Hamlet

A location of concern within Hopewell Hamlet is the Z-bend on NYS Route 376 just north of the intersection with NYS 82. This is a high crash location that includes a fatality in the period 1995-1998. Previous plans have recommended a road re-alignment at this location. Until a re-alignment can be made we recommend that short-term measures such as rumble strips, extra lighting and larger reflectorized warning signage be used to highlight this location as being dangerous. Recently a driveway has been added at this location for the St. Colomba school and church. This driveway is currently one-way outbound at this location.

6.6 New Roadway Segments and Roadway Improvements

This section discusses potential new road segments. These discussions show conceptual locations for the new roads. No precise location will be determined until a detailed planning and environmental review has been completed to assure that any adverse environmental impacts are avoided or mitigated to the maximum extent practicable.

Hopewell Hamlet

Traffic movements in the Hopewell Hamlet are concentrated around the intersection of NYS Route 376 and NYS Route 82. Roads through the hamlet follow historic traffic patterns and are constrained by development patterns and environmental factors such as the proximity of Whortlekill and Fishkill Creeks. As a result, this is a congested intersection and Hopewell Hamlet is percieved as being one of the most congested areas in East Fishkill. To resolve this situation, two by-pass roads are proposed (see Figure 6.3).

The first is a north-south by-pass that allows drivers traveling along Route 376 to avoid the existing Routes 376/82 intersection in Hopewell. Existing traffic movements along Route 376 require maneuvering two 90-degree turns with Route 82 and a z-bend curve within one-quarter mile of each other. The new road will be much straighter and easier to follow. The proposed by-

pass road creates a new intersection with Route 82, west of the existing intersection. Traffic traveling east along Route 82 meets the north-south by-pass west of Hopewell Junction, allowing traffic that is destined for Route 376 to be diverted away from the Hamlet center (this was first outlined in the 1982 Master Plan). The proposed road would cross Route 82 in the vicinity of where the Whortlekill Creek currently passes underneath. The biggest constraint to this new road, therefore, is Whortlekill Creek. Approximately 600 feet of the new roadway would be constructed very close to the stream, necessitating costly construction techniques to minimize any impact to the creek and any associated wetlands.

The second road is an east-west by-pass road that would extend Fishkill Road from its existing terminus at Route 376 east to connect with Route 82 at the intersection with Beekman Road (CR 9). As part of this by-pass, the existing southern terminus of Fishkill Road at its intersection with Route 82 would be re-aligned to connect with Palen Road (CR 31). The east-west by-pass would provide a more efficient route for east-west traffic. Together, the by-pass roads would greatly reduce congestion in Hopewell Hamlet and would also provide the ability to develop greater pedestrian connections within the hamlet.

These additional roads are also proposed. A loop road is proposed behind the commercial buildings fronting along Route 82. This service road would provide customers with an alternative to using Route 82. Customers driving between stores would not have to enter/exit onto Route 82 and disrupt through traffic. Furthermore, a connection from the service road to Route 376, south of the Route 82 intersection, is shown as a way to reduce delays at that congested intersection. It may be possible to connect the service road with the other bypass roads to further enhance traffic movements within the Hamlet and reduce traffic along the existing state roads.

A fourth new road is proposed in the area of Fishkill Creek. This would be an east-west road connecting NYS Route 376 and Palen Road (CR 31). This road would function both as an east-west by-pass road and to provide access to future developments in the local area.

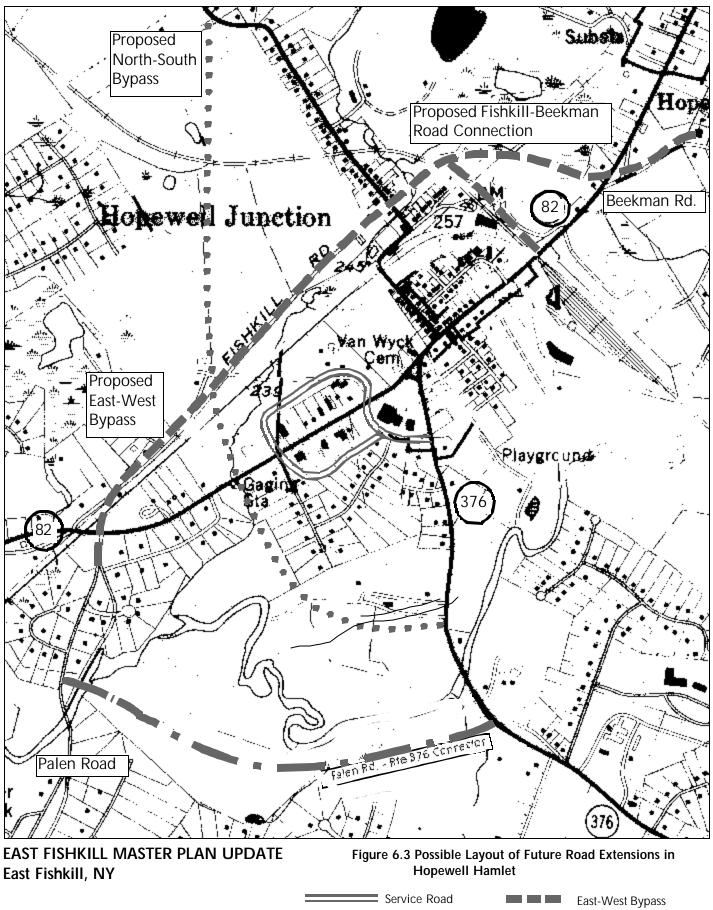
All new roads, except the service road, should be collector roads with 60 foot rights-of-way.

New Stormville Road / Route 216 Link

The 1982 Master Plan proposed a new Stormville Road connection that would link NYS Route 216 in Stormville Hamlet with Hosner Mountain Road just as it goes under I-84. This road would provide more access in the eastern sector of East Fishkill and will help to reinforce Stormville Hamlet as a local center.

Route 52 and Fishkill Hook Road

Fishkill Hook Road branches into two roads as it approaches Route 52. Each branch is controlled by a stop sign at the intersection with Route 52. As for any side street along this stretch of Route 52, turning delays can be quite long. To improve the situation, it is recommended that a traffic signal be installed at the easterly branch of Fishkill Hook Road. Some realignment of this road may be desirable as part of rebuilding the interchange. The intersection of the west branch of Fishkill Hook Road with Route 52 could then be rebuilt to restrict access and turning movements onto/from Route 52, including the possibility of creating a cul-de-sac at the end of the west branch and blocking off the intersection.





6.7 Functional Classification of Future Roadway System

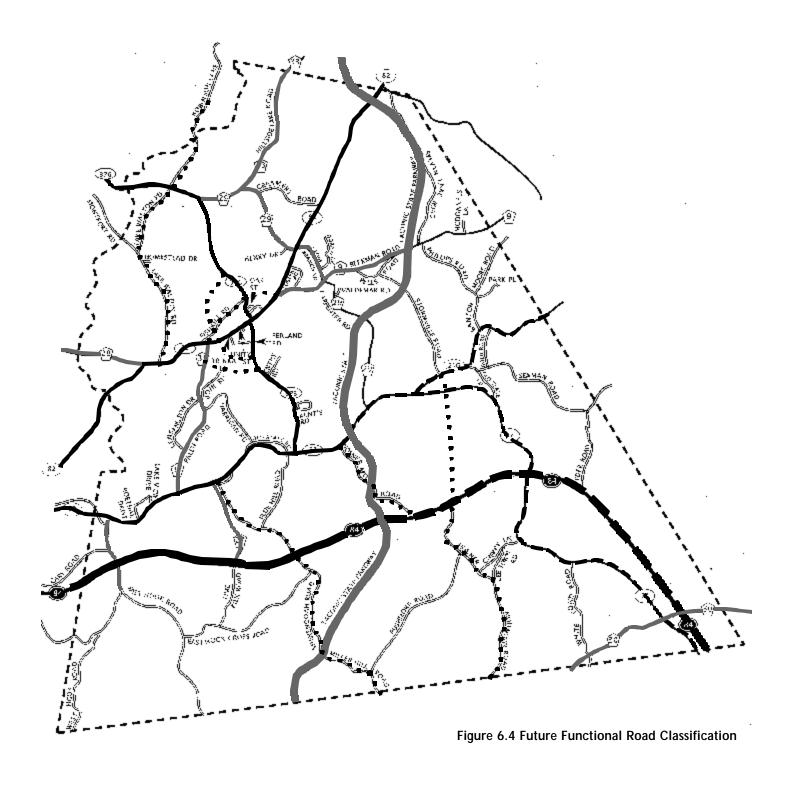
For the future we propose a road classification system that is basically the same as today's except for the new roads and road extension. The extended Fishkill Road is proposed to become a minor arterial, extending two other minor arterials (Beekman Road and Palen Road) and connecting to Rte 376, a principal arterial. Fishkill Road could in effect become an extension of County Route 9 (Beekman Road). The other new roads will all be collector roads, except for the shopping plaza service road in Hopewell hamlet which will be a local road. Figure 6.4 shows the potential future road classification system.

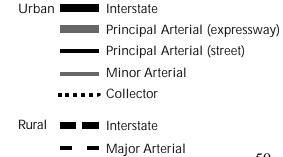
We recommend that the Town pursue a more aggressive control of the functional classification of the road network. Access control along the <u>arterial roads</u> (see page 38) is very critical to provide and should be implemented at every possible level. Access control is important to maintaining safe arterial roadways and reducing conflict points, such as driveways and intersections, that pose potentially hazardous turning movements. The Town has the authority to control access to arterial roads through the master plan, subdivision, and site plan approval mechanisms, even when a project is located on a State Highway. NYSDOT can only refuse a new driveway when the State can prove an overwhelming hazard. The new roadways proposed in the Plan do not alleviate the need to control access along the State highways. They make the access control process easier by providing alternate access points to some of the commercial properties. Creative planning techniques should be used to encourage safe, efficient and realistic access plans. The following actions may be considered:

- allow only partial access (i.e. right-turn-in and right-turn-out only);
- offer connecting routes to other roads either directly or through adjacent properties whenever possible;
- request or require applicants to consolidate or share driveways;
- require a turn around area within a property abutting a county or state highway when the only access to that site is from a county or state highway.
- request applicants to provide easements to adjacent properties in perpetuity, so that in the future, when the neighbor applies for site plan approval combined driveways or interconnections can be provided;
- encourage development of other parallel by-pass roads that can attract the through traffic and thus eliminate part of the conflict.

On the other end of the scale there are situations where heavy through traffic uses local streets and affects the residential quality of those streets. Typically traffic calming measures can be implemented on those streets to limit traffic speeds and the amount of through traffic. Generally traffic calming measures consist of speed humps, pinch points, chicanes, or neckdowns that force drivers to slow down. Neckdowns can be installed on arterials. These other measures would be most appropriate on local streets. Appendix V of the Traffic Study includes more detailed descriptions of traffic calming techniques.

In addition to controlling access along arterial roads, visual impacts, noise, privacy, and safety concerns are important as well. Many of the county and state roads are designed and intended to carry traffic through the town. These roads move large numbers of vehicles, including trucks,





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which create noise and represent a potential safety hazard to children who may wander near the road. To better separate potential traffic from surrounding properties, a one-hundred foot buffer could be enacted from state and county highways, measured from the edge of the existing pavement. This setback would provide a substantial yard setback from the structure to the roadway, limiting noise and environmental impacts, and allowing adequate space for movement and activities on the property. Parking could be allowed within this setback, particularly for commercial buildings. The setback should be landscaped to provide an attractive image for people using the roadway, while also serving as a separation for the property owner.

6.8 Public Transportation

Bus Network

Dutchess County Loop Bus system operates three bus services that pass through East Fishkill. These services have a variety of different origins and destinations (see Figure 6.5). The following table details bus loops.

Service Number/Stop	Origin	Destination
Loop 3A	Galleria Food Court	Wappingers
Loop 4	Hopewell Junction	Dutchess Mall
Loop 8S	Amenia	Poughkeepsie

Table 6.4 Bus Routes

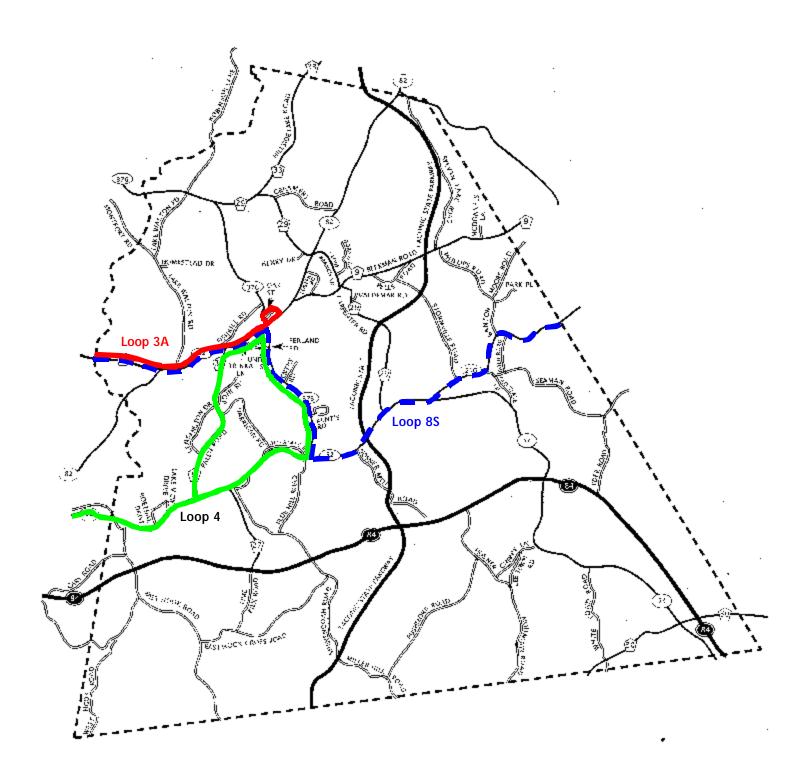
It should be noted that only one of the three routes operates on weekdays, the Loop 4 route. This route provides access to Fishkill where passengers can make connections to buses going to other destinations, specifically the Leprechaun Connection to White Plains and Poughkeepsie. It is of some concern that there are no direct bus connections to either the MNR Harlem Line or the MNR Hudson Line.

Rail Network

East Fishkill, especially Hopewell Junction, was the center of regional rail activity for many years in the late 1800's / early 1900's. In total, four railroad lines came together in East Fishkill:

- the Dutchess and Columbia Railroad,
- the Dutchess County Railroad,
- the New York and New England Railroad and
- the Clove Valley Railroad.

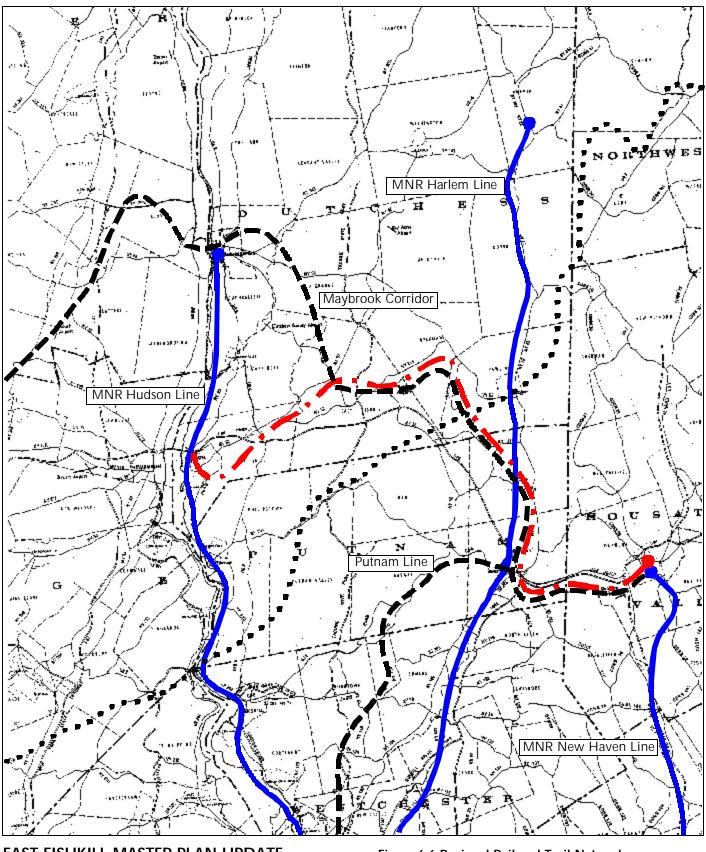
As a result, a number of railroad right-of-ways, most notably the Maybrook Corridor (formerly the Dutchess County Railroad) and the Beacon Line (formerly the New York and New England Railroad), still pass through East Fishkill, see Figures 6.6 and 6.7. The Maybrook Corridor was actively used for freight rail service until 1974 when a fire damaged the Poughkeepsie Railroad Bridge. It was then lightly used until its abandonment in 1983. At this point, Dutchess County acquired the 13-mile segment of the Maybrook Corridor within Dutchess County. After studying various possibilities, the County recently concluded to move forward with a rail-to-trail conversion that will create a linear trail between Hopewell Junction and Poughkeepsie.



EAST FISHKILL MASTER PLAN UPDATE East Fishkill, NY

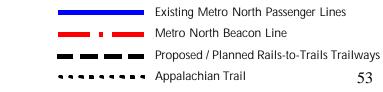


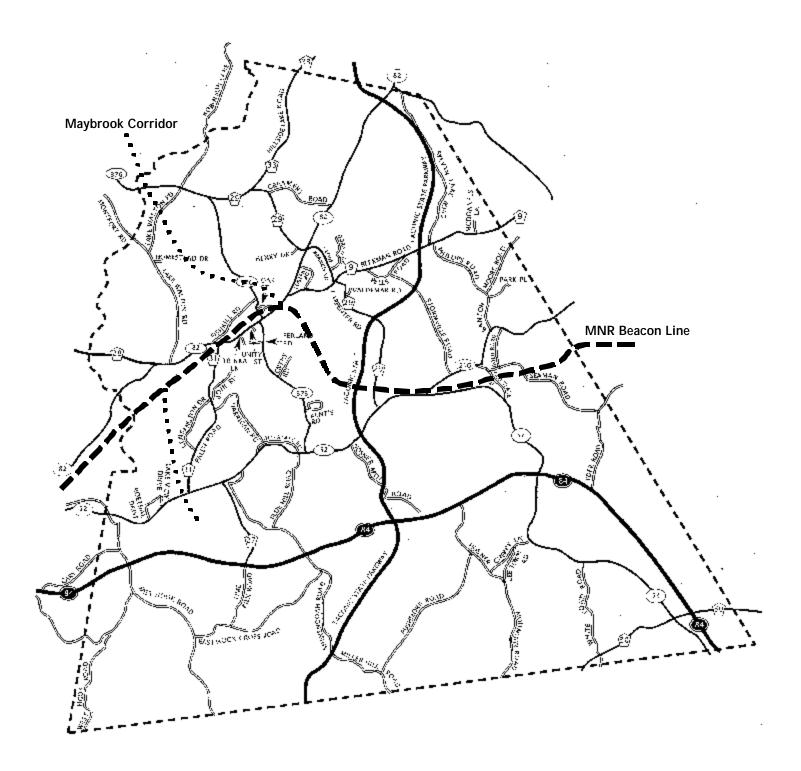












EAST FISHKILL MASTER PLAN UPDATE East Fishkill, NY



Figure 6.7 Local Rail Map

Useable
Abandoned

54

The Metropolitan Transportation Authority (MTA) recently purchased the Beacon Line from Danbury Terminal Railroad Company (DTRC). Metro-North recently abandoned the rail line for freight purposes, but continues to retain the rights for passenger service. This 47-mile rail line connects the City of Beacon, NY in the west with the City of Danbury, CT in the east. As such, the Beacon Line could provide a connection between MTA's commuter rail lines - the Hudson, Harlem, and New Haven lines. The Housatonic Railroad has rights to provide freight service between Beekman, Danbury, and Pittsfield, MA. The Housatonic Railroad, in late 2001, was investigating the possibility of providing limited freight service over this route.

MTA and its commuter rail division - Metro-North Railroads (MNR) – studied the feasibility of initiating passenger rail service between East Fishkill and Brewster North along the Beacon Line. The report concluded that extending passenger service would not be practical due in part to various infrastructure improvements that would have to be made before the rail line could be effectively used. These include: track rehabilitation, activation of grade crossings, repairs to bridges and culverts, and clearing of right-of-way. In the future, if MTA should decide that providing passenger rail servic e along this line is feasible and warranted, then a railroad station would be appropriately located within the Town of East Fishkill. One possible location for such a station would be outside of Hopewell Junction, near the Taconic State Parkway.

It should be noted that Putnam County currently plans to construct a trailway parallel to the Beacon Line between Brewster and the Dutchess County-line. A shared bikeway and active rail line may not be the most ideal situation, but there are currently no plans to run trains along the rail line. Should that change in the future to accommodate a growing commuting population, the number of trains is estimated to be infrequent enough to allow pleasurable use of the trailway. The trailway would be built on the second track (the beacon line has two tracks) and would be built in three phases:

Phase 1NYS Route 164 to Dutchess County Line Phase 2Brewster then to Danbury, CT Phase 3NYS Route 164 to Brewster

Since the study concluded that passenger rail service is not feasible at this time, the Town should actively promote a trailway along the Beacon Line that would connect with the proposed trailway in Putnam County. If built, this trailway would connect Poughkeepsie with Putnam County and points south, into New York City.

6.9 *Pedestrian Policy*

Sidewalks are usually not needed in the types of low-density areas that predominate throughout East Fishkill. However in areas of mixed use such as Hopewell Junction, sidewalks can encourage safe pedestrian movement and increase the life and vibrancy of the commercial areas. The Town of East Fishkill and Dutchess County Planning Department have completed a pedestrian study for the Hopewell Hamlet. This pedestrian study will complement this plan's future vision for Hopewell Hamlet that foresees pedestrian-oriented, mixed-use, developments. Implementation began in the first half of 2002.

6.10 Bicycle Policy

In March, 1996 the Poughkeepsie-Dutchess County Transportation Council (PDCTC) adopted a Bicycle and Pedestrian Plan as part of the County's Transportation Plan. The plan was developed in response to the federal ISTEA regulations and its purpose was to complete separate plans for bicycle and pedestrian issues. The plan,

"identifies projects and actions needed to increase the number and improve the condition of sidewalks, crosswalks, paths, walkways, bike lanes, shoulders and other facilities used for non-motorized transportation."

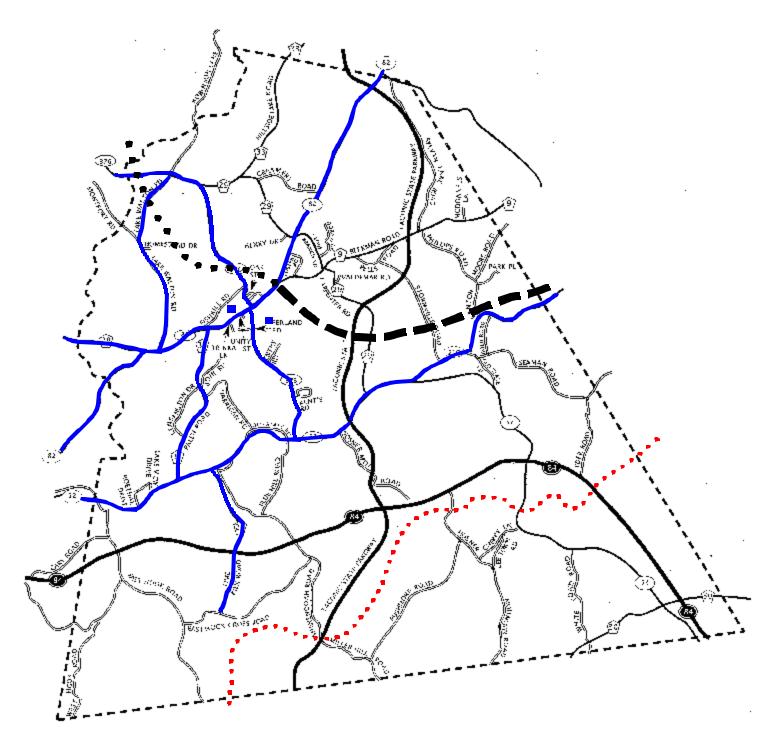
This chapter is based on the findings and recommendations laid out in the PDCTC Bicycle and Pedestrian Plan, but also adds more recommendations specific to East Fishkill. Figure 6.8 shows the bicycle network as proposed by the PDCTC plan and also bicycle improvements proposed as part of this master plan. The PDCTC plan designates eight roads in East Fishkill as being part of the County bicycle network these are: NYS Route 52; NYS Route 82; NYS Route 216; NYS Route 376; Lime Kiln Road (CR 27); Clove Branch Road (CR 29); Palen Road (CR 31) and Lake Walton Road. A number of engineering improvements were recommended as part of the plan, these are detailed in Table 6.5.

Road	Recommended Improvement	Funding Source	
NYS Route 52, 82	Widen Shoulders		
	Make Signalized Intersections Bicycle Sensitive	State	
	Install Bicycle Friendly Drainage Gratings		
NYS Route 216			
NYS Route 376	Widen Shoulders	State	
	Make Signalized Intersections Bicycle Sensitive		
County Routes 27, 28, 29	Widen Shoulders		
and 31	Make Signalized Intersections Bicycle Sensitive	State, County	
Lake Walton Road	Resurfaced in 2001	State, County, Town	
	Make Signalized Intersections Bicycle Sensitive		

Table 6.5Recommended Bicycle Road Improvements

The plan also designates the Maybrook Corridor as a potential rails-to-trails route. This route goes from Hopewell Junction to Maybrook in Orange County passing through Poughkeepsie and will be both a good recreational trail and a potential commuter route for dedicated cyclists.

A further local improvement would be to install bicycle -parking facilities at the Hopewell Junction commercial area, Town Hall, the town park-and-ride lots and town recreational areas such as the Hopewell Recreation Area. Bicycle parking facilities are usually located in visible, well-lit areas and as a minimum include some form of identification signage and a bike rack.



EAST FISHKILL MASTER PLAN UPDATE East Fishkill, NY





- Proposed Rail Trail (Beacon Line)
- Proposed Rail Trail (Maybrook Line) Designated Bike Routes in Dutchess County Transportation Plan





Proposed Hopewell Hamlet Pedestrian Zone With Proposed Bicycle Parking Facilities in the Commercial Area and Town Hall 57



7.0 Community Services

7.0 COMMUNITY SERVICES

As East Fishkill's population continues to grow and to change, its anticipated needs must be taken into account to ensure availability of proper levels of community services. Those services currently available to the Town are discussed below.

7.1 Town Government

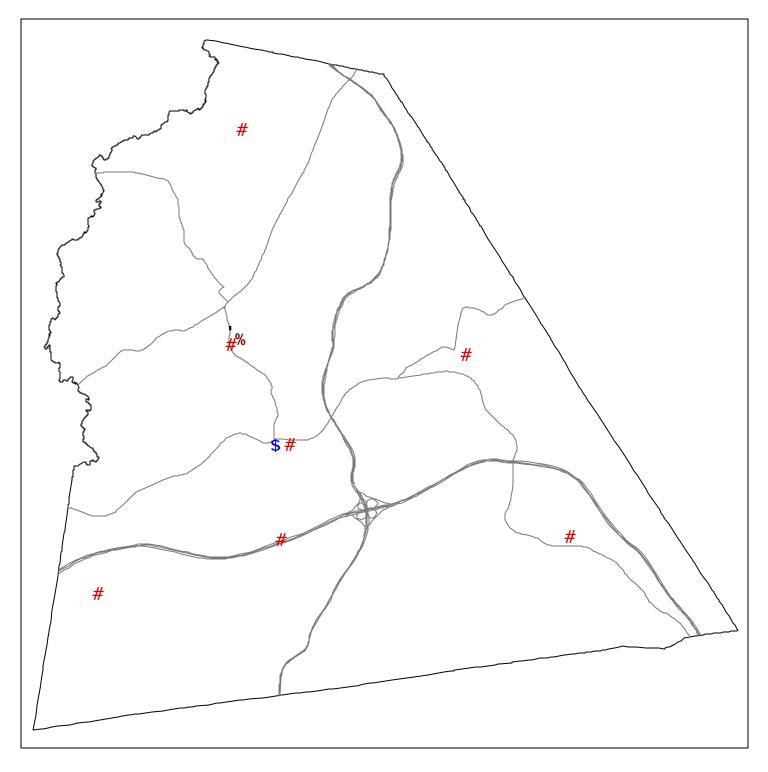
The East Fishkill Town Hall is located on Route 376, at the southern edge of Hopewell Junction. The present building was built in 1967 and houses a number of town offices. It also serves as the courthouse. One of four fire departments in town, the Hopewell Hose fire house, is situated on land adjoining the Town Hall while the Police Department is located a few miles to the south at the intersection of Routes 376 and 52. Figure 1 illustrates the various locations of the town's police, fire, town hall, and library.

The increase in the town's population has brought about a greater demand in the number of services and personnel needed in the town. Given the expected level of growth in East Fishkill over the next 10 years, it is unlikely that the current Town Hall facility will be able to accommodate the increased demand for Town services and personnel. The Town Board is currently considering ways in which this future demand can be met. Present facilities could be expanded or a new site identified. This Plan recommends that any new site option continue to be in the Hopewell Junction area, if possible, because of its central location.

7.2 Library

The East Fishkill Community Library was first chartered in 1938 to serve the people of the hamlet of Fishkill Plains. It was originally staffed entirely by volunteers and was housed in the community chapel on Route 376 at Fishkill Plains. As the area grew, it was clear that a larger facility was needed to meet the library needs of the community. In 1979 the Library moved to a town owned building at the intersection of Routes 52 and 376. The library used the second story of this facility. By 1983 the charter had been revised to include the entire Town of East Fishkill and this facility was no longer adequate. In 1984 a building drive was initiated, and in September 1988 the Library moved to its present location next to the East Fishkill Town Hall on Route 376. A 5,000 square foot addition was completed in 2001, resulting in the current 12,400 sq. ft. building. The expansion accommodates future acquisitions, provides an additional conference room and reading room, and allows the library to place computers and new technology in a more suitable, comfortable, and accessible area to patrons. The library is completely accessible to the handicapped.

The Library is chartered by The University of the State of New York under the Education Department to provide library service to the people of the Town of East Fishkill. The Library is a member of the Mid Hudson Library System and is an association library governed by a nine person Board of Trustees elected by the members of the association, who are adult cardholders of the Library. The Town provides ninety percent of the funding for the Library. Meetings of the Board of Trustees are held monthly and meeting notices are posted on the library bulletin board. All members are invited to attend.



EAST FISHKILL MASTER PLAN East Fishkill, NY



Map Scale 1:7000

BFJ Buckhurst Fish & Jacquemart, Inc.

Figure 7.1 Public Facilities

- % Town Hall
- Library
- \$ Police
- # Fire

The library has a collection of over 1,200 audio recordings of fiction and non-fiction materials, 1,600 videos of feature films, children's films, and non-fiction, and more than 52,000 books. In 2001, the library had 139,275 visits, 148,513 transactions, and answered 10,076 reference questions. There are 18,264 registered borrowers. Measured according to book holdings, this is the second largest library in Dutchess County, after Poughkeepsie's.

The Library has a paid staff with many active volunteers. Both the Staff and the Trustees encourage all persons who are interested in volunteering to do so. It is through the continuing support of the community that the Library can serve its patrons with the friendliness and efficiency that has been its hallmark since 1938.

7.3 Police Protection

The East Fishkill Police is a fully accredited municipal police department in Dutchess County responsible for covering the entire town of East Fishkill, which is home to approximately 26,000 residents. The Town is made up of over 180 miles of State, County, and Town roads. The Town of East Fishkill Police Department is comprised of 25 sworn officers. This includes a Chief, two lieutenants, four sergeants, two detectives, and sixteen patrol officers. The law enforcement function is supported by nine civilian employees, which handle the 24-hour dispatching responsibilities, plus the necessary administrative support that is needed to run a professionally modern Police Department. The East Fishkill Police Department utilizes ten marked patrol vehicles, two unmarked patrol vehicles, two marked 4-wheel drive patrol vehicles, and four unmarked 4-wheel drive vehicles, all of which are fully equipped to service the community in its law enforcement role. The Department also has an emergency services vehicle, which is capable of providing crime scene, accident scene, and disaster support.

The Department headquarters are located on Route 52, at the intersection of Route 376, where the department receives an average of eighteen hundred calls/month for service, which are recorded and dispatched by the police assistants to the on-duty officers. The department is in the process of equipping the patrol division with mobile data terminals. These will enable the patrol and detective divisions to access the department's databases while out in the field. All complaints, investigations, vehicle stops, traffic tickets, arrests, and incidents are recorded by the staff in the department's updated computerized network system.

The Police Assistants are trained in the use of the New York State Police Information Network and in the department's updated records management computer network. The Department's civilian staff handles many tasks, from answering phones to recording information, completing federal and state mandated forms, and supplying information to many different courts. They also perform tasks associated with any organization or business, such as payroll, supplies, and maintenance.

The Town of East Fishkill Police Department has been accredited by the NYS Bureau of Municipal Police for over 10 years. To achieve accreditation status, the department had to meet the required standards covering Administration, Training, and the Patrol function, which ensures a professionally operating law enforcement agency. The department has a firm commitment to the training of its 25 officers. There are eight certified police instructors, six bicycle patrol officers, five FBI National Academy graduates, four certified DARE instructors, three certified accident investigators, three scuba qualified officers, two certified EMT, two resource officers. All members are trained to operate three department defibrillators plus officers are trained in many other aspects of the law enforcement field. This is all part of a commitment to maintain the

highest level of professionalism, resulting in quality law enforcement service to the citizens of East Fishkill.

7.4 Fire District

The Volunteer East Fishkill Fire Department provides firefighting, rescue squad, and fire police protection. The Department is organized in accordance with the New York State Fire District Regulations. There are special organizations within the District, including rescue squad, fire police squad, fire investigation unit, F.A.S.T. Team, Fire Prevention Group and Support Group in each fire company.

The Town is divided into four districts, each with their own firehouse. These include Hopewell Hose, Stormville, Hillside Lake, and Wiccopee Fire Companies. Two fire substations have also been added at Stormville Mountain and I-84 at Shenandoah Road. Sloper Willen Ambulance Service responds to certain calls along with our ambulances to provide paramedic service to the residents of East Fishkill.

There is a training center located at the Headquarters site on Route 52. The training center includes classroom, live burn tower, live burn pad, and a breathing air fill system.

The Department has about 250-300 active members, though it has an enrollment of around 400. Our membership is growing constantly due to a service award program and an aggressive membership drive. The districts respond to approximately 2,000 calls/year. The fire district has a variety of equipment, including:

eleven pumpers – each carrying approximately 1,000 gallons of water three tankers – each carrying approximately 2,500 gallons of water one aerial truck with a 95-foot ladder four utility trucks one hose truck one squad truck one rescue van one fire investigation van one fire polic e van one hazardous materials transport two ambulances

Fully adequate fire protection is provided for the entire town, including the IBM plant, which has its own fire department and water storage tank on-site. Though no major problems have been cited, on-going concerns include:

- •Response Time. The firehouses and sub-stations are centrally located to service the entire town. It takes about 5-7 minutes to arrive at the scene after a call has been placed.
- The Fire District is aggressively pursuing a reduction in the ISO (Insurance Service Offices) rating, which would directly affect the fire insurance rates that the businesses and residents of the Town of East Fishkill pay.

7.5 School Facilities

An educational system of high quality is one of the greatest assets of a residential community. Planning for and operating the school system is the function of the school district, not the Town government. However, it is important for the Town to consider these plans and operations in its land use plans. Both agencies need to be aware of the goals, policies, and trends of the other in order to function together.

The Town of East Fishkill is serviced by four school districts: Wappinger Central, Arlington, Carmel, and Pawling School District. Most of the Town lies within the Wappinger Central School District and most school-age children attend its schools. The Arlington School District occupies portions of the northern edge of town while the Carmel School District includes part of the southern portion of East Fishkill. Only a few households in the extreme southeastern corner of East Fishkill are included in the Pawling District. In addition to the public schools, East Fishkill has St. Columba's Catholic School in Hopewell Junction and the Bethel Christian Academy south of Interstate 84.

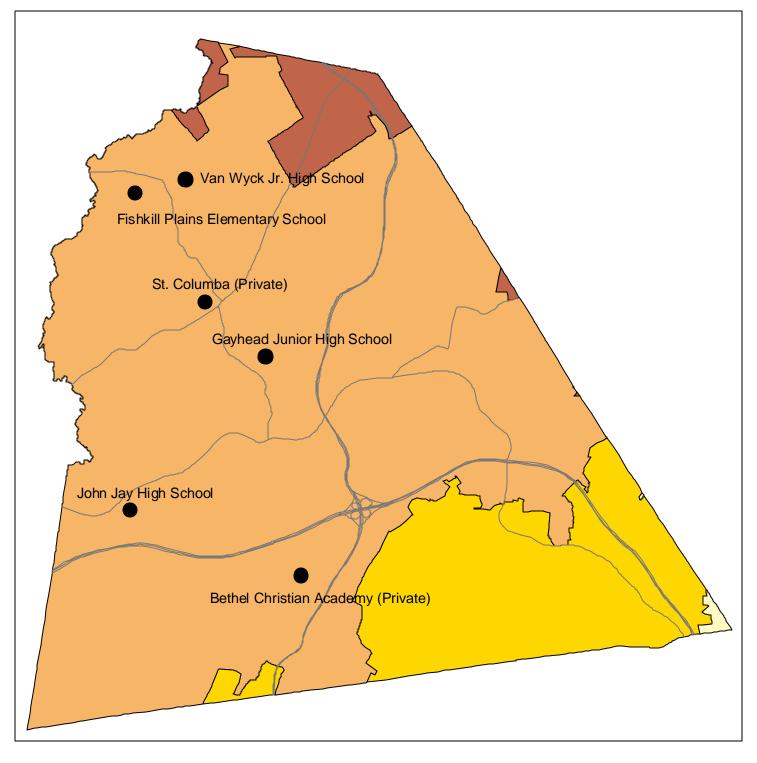
The table below shows the enrollment for the four public school districts that serve East Fishkill residents.

School District Em omnents					
Enrollments					
School District	1984-85	1996-97	1999-2000		
Arlington	6,955	8,130	9,276		
Carmel	4,502	4,428	4,715		
Pawling	N/A	1,234	1,278		
Wappingers	12,090	10,849	11,639*		
TOTAL	11,457	24,641	15,269		

Table 7.1School District Enrollments

*2001-02 BEDS data: 11,906 students

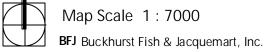
The Wappinger School District has fewer students than it did fifteen years ago. Although there has been a rise in enrollment since 1996, the school population appears to be leveling off, growing only 2% in the past three years. These enrollment increases are in agreement with the population projections of the school districts and the projected trend for the school district is for enrollments to decline over the coming years. Although there has been steady residential growth within the District over the past fifteen years, the census data shows that the average number of people per household has fallen. Many people moving to East Fishkill are commuters with few, if any children. The Arlington District has shown an appreciable increase in the number of children attending its schools and appears to be short of classroom space. The growth in the Arlington District is likely due to high residential growth rates in Beekman and LaGrange, which have larger parts of town in the Arlington District.



EAST FISHKILL MASTER PLAN East Fishkill, NY

Figure 7.2 School Districts





Neither Pawling, Arlington, nor Carmel School Districts have schools within the boundaries of East Fishkill. Only the Wappingers School District maintains a physical presence within the Town (see Figure 2). Table 7.2 lists the four public schools located in East Fishkill and gives attendance figures as of April, 2002.

School	Year of Construction	Use Capacity	April, 2002
Gayhead Elementary	1965	1,096	1,111
Fishkill Plains Elem.	1956	672	620
Van Wyck, Jr. H.S.	1965	1,237	1,369
John Jay High School	1969	1,874	1,865

Table 7.2Local School Characteristics

For the 1996-97 school year, the Arlington, Wappingers, and Pawling School Districts all spent about the same amount of money per student, roughly \$5,000. This was slightly under the state average of \$5,335. Carmel, however, spent about 50% more per student - \$7,393.*

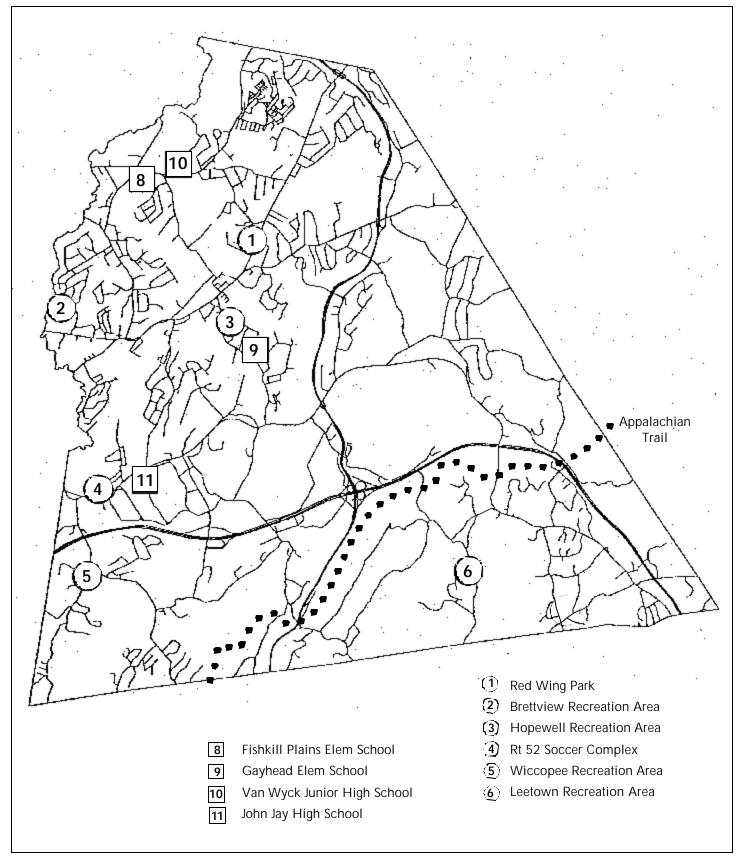
East Fishkill, LaGrange, Beekman, and other neighboring towns within these three districts are all experiencing population growth. The school districts that serve these towns have seen a recent trend of rapid growth in the number of school-age children enrolling each year. Based upon the number of building permits being issued in these towns and the number of families moving there with school-age children, attendance figures are expected to increase further.

7.6 Recreation

East Fishkill has a wide variety of public, quasi-public, and private recreational facilities available to its residents. Public facilities include neighborhood parks and public recreational areas that serve the entire community. Quasi-public facilities include those provided by the Wappingers School District. Private facilities range from tennis courts and other facilities that are reserved for the residents of specific subdivisions to golf and tennis clubs. This section provides a review of the public facilities in East Fishkill and the recreational opportunities they offer all residents. Figure 7.3 illustrates the location of the six recreation areas currently operated by the Town. The facilities are:

Hopewell Recreation Area Red Wing Park Route 52 Soccer Complex Brettview Leetown Road Wiccopee

^{*}Financial figures from the New York State School Report Card Fiscal Accountability Supplement. These figures represent the costs of general education and do not take into account special education costs.



EAST FISHKILL MASTER PLAN UPDATE East Fishkill, NY

Figure 7.3 Recreation Facilities

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Hopewell Recreation Area

The Hopewell Recreation Area is the centerpiece of the East Fishkill system of parks. The recreational area serves the entire community and is the most frequently used park within the Town. The park is located on Route 376 in Hopewell Junction immediately north of the Town Hall. A wide variety of facilities are located within the park, including ball-



Hopewell Recreation Area

fields, basketball courts, tennis courts, in-line skating rink, play areas, picnic facilities, an ice skating pond, and an entertainment pavilion. Fishing opportunities are also available in the Fishkill Creek that borders the recreation area to the east. A privately operated concession stand is located in the park. Field One received a major upgrade that included extending the outfield as well as new lighting and fencing. A skateboard park will be open in the summer 2002. Additional fencing, a tennis backstop, a new playground, and landscaping enhancements are all proposed for the park

Programmed activities at the park include fishing, summer playground, and Friday night entertainment. Baseball, softball, football, basketball, volleyball and roller hockey leagues also are held in the park throughout the year. A community center is located within the recreation area that offers programs for seniors and meeting space for community groups. The current facility provides seasonal recreational opportunities. There is growing demand and need for a year-round facility, and efforts are underway to consider the feasibility of a 30,000 square foot field house behind the community center, in the old gravel pit.

The Town recently completed a paved, three-quarter mile trail. This trail circles the park and follows the trail used by the utility and maintenance trucks. Another trail system is proposed and under construction through the wooded part of the park, offering residents the opportunity to walk down by the creek and amongst the vegetation. This trail will not be paved. A new access road into the park has been completed from Route 376. This new road has been paved and includes 60 paved parking spots. To facilitate access and in conjunction with the recent pedestrian study of Hopewell Junction, a sidewalk provides convenient access to the park for pedestrians.

Red Wing Park

Red Wing Park is the only public swimming facility within the Town of East Fishkill. It is located on Old Farm Road off Route 82 in Hopewell Junction. The main feature of the park is an eight-acre lake with swimming beach. Accompanying facilities include a bathhouse with restrooms, a playground, picnic areas and pavilion, and volleyball and basketball courts. Parking for over 200 vehicles can be accommodated on site. The park is open late May through early September. Season passes to the park are required. Passes are available on an individual or family basis. The park is primarily for the use of Town residents, but a limited number of non-resident passes are sold each year.

Programmed activities at the park include swim instruction, fishing, occasional summer concerts, and a swim team. The park is also available for family picnics and business parties on a rental basis. The Recreation Department organizes summer fishing groups on Wednesday nights and Sunday mornings in the summer.



Red Wing Park

Route 52 Recreation Complex

The Route 52 Recreation Complex is the main facility for soccer programs in East Fishkill. The 40-acre complex is located on Route 52 in the southwestern portion of the Town. The Soccer Complex is divided into three distinct areas: East Field, Back East Field and West Field. These areas surround an old farmhouse. The farmhouse will be deeded to the Town in the future and will eventually be converted for recreational use. The East Field contains four soccer fields and is not irrigated. The four soccer fields are used on a rotating basis to prevent overuse and deterioration of the grass. The Back East Field, located behind the farmhouse, is newly developed. Irrigation equipment has been installed and a new soccer field constructed. The West Field, which is not irrigated, has one full-size soccer field and several micro-fields used on a rotating basis. The micro-fields are for children from 5 - 8 years old. Parking capacity for the Soccer Complex is approximately 130 spaces. The main lot on the east side holds 97 cars. There are an additional 20 to 30 undesignated spaces located in a lower lot adjacent to the West Field. The Complex also has a bathroom and concession stand. The town is studying the feasibility of adding lights to at least one of the fields here. A new playground and pavilion are planned for this facility.

The Soccer Club sponsors an annual summer camp as well as a seasonal intramural soccer program. In addition, the Soccer Club organizes two tournaments, the Annual Memorial Day Invitational Soccer Tournament and the Dutchess Cup Intramural Tournament every June.

Brettview

Brettview Recreation Area is located on Nineham Avenue in the northwest portion of Town. The 13.85-acre recreational area contains a variety of passive and active facilities. There are four baseball fields available for community use. Two of the fields have been set aside for "Pee Wee" use. Two basketball courts are also located nearby. The playground has two sets of swings. Other

facilities on the site include a small storage building and portable toilets. Drainage problems may limit the use of the baseball and peewee fields of this facility.

The Sprout Creek creates the western border of the Brettview Recreation Area. A generous greenway, which is available for fishing and walking, runs next to the Creek the length of the park.

Leetown Road

The Leetown Road Recreation Area is a five-acre neighborhood park surrounded by a residential neighborhood in the southeast portion of Town. A section of the former Appalachian Trail followed Leetown Road through the park until it was moved in 1991. The Park contains one basketball court, one soccer field, and one unlit baseball field in addition to open space. The playground has a large sandbox, a swing set and two seesaws.

Wiccopee

The Wiccopee Recreation Area is comprised of four acres located on West Hook Road. The park contains one softball field and accompanying bleachers. There is also a children's playground here. The field has a picturesque view of nearby Honness Mountain. One Port-o-San Toilet is available for the public use on the grounds. A small memorial is also located within the recreation area. The park facilities are in good condition.



Wiccopee Recreation Area

Appalachian Trail

In addition to the above facilities, the Appalachian National Scenic Trail is a regional recreational facility located in East Fishkill. The Appalachian Trail is a 2,100-mile, continuously marked trail, which traverses the Appalachian Mountain chain between Georgia and Maine. Well over 3 million people use the Trail each year. Public and private efforts to develop and maintain the entire Appalachian Trail are coordinated by the Appalachian Trail Conference. In East Fishkill, the entire trail was, until 1991, a patchwork of local roads. Now, a new Trail (with a 500-foot wide protected corridor) has been inaugurated.

Schools

There are four public schools located within the Town of East Fishkill, all of which are part of the Wappingers Central School District. These facilities provide limited recreational opportunities to the Town's residents because the use of District's facilities must be authorized first. Recreational facilities typically found at the schools include baseball, soccer and football fields, and basketball courts. Playground equipment is also located at the elementary schools within the Town.

The Town of East Fishkill has initiated a program with the Wappinger Central School District whereby the Town and the District would share recreational facilities. The first phase of the program allows the schools to use the Route 52 soccer complex and the lacrosse team to practice on the football field within the Hopewell Recreation area. The town's t-ball program uses the fields at Gayhead Elementary. Phase two will include additional sharing of facilities at Fishkill Plains and Van Wyck. Rather than spend money to buy and build athletic fields, the Town would upgrade the school facilities, such as soccer and ball fields at the elementary schools, and continue to maintain them. Town programs would then be able to use these fields during the evenings or afternoons, when the school does not use them, and scheduling conflicts don't arise. The Town is also considering lighting the John Jay ballfield in return for the right to use it.

Organized Recreation

The Town's athletic director reports that the facilities are being heavily utilized by Town residents and provided the following figures. Although some residents may be involved in more than one activity listed below, approximately 15-20% of the town partakes of organized recreational opportunities offered.

Table 7 2

Table 7.3Recreation Enrollment				
Activity	Participants			
Babe Ruth Baseball	750			
Pop Warner Football	400			
Girls' Softball	450			
Women's Softball	225			
Men's Softball	300			
Soccer	1,200			
Roller Hockey	415			
Volleyball	80			
Summer Camp	600			
Basketball Summer Camp	100			
Swimming Lessons	250			
Golf Lessons	250			
Tennis Lessons	350			
TOTAL	5,370			

In addition to organized sports and activities, there are many other recreational opportunities for residents, such as walking the Appalachian Trail, fishing, and picnicking, that the people of East Fishkill enjoy and participate in.

7.7 Cultural Resources

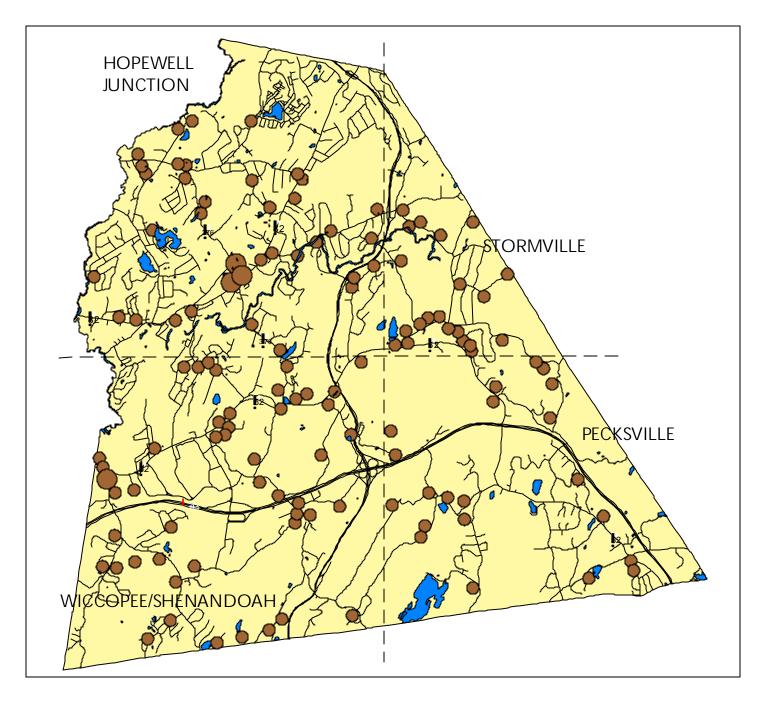
East Fishkill is in the process of becoming suburbanized; but its roots, and architectural heritage belong to an 18th century farming district. East Fishkill's most important historic resources are outlying farm buildings. Figure 7.4 shows that the Town has numerous buildings of architectural and historic significance that are worth saving. Many of these buildings may be eligible for listing on the National Register of Historic Places.

The individual farm buildings have survived intact better than the older buildings found in the historic centers of Hopewell Junction and Stormville. The older buildings in town centers have frequently been altered so that the cultural and historic quality of the structure has been lost. However, the scale, architectural features, and setting are worthy of preservation; and, in fact, many buildings have undergone successful "adaptive reuse."

There are several preservation strategies that the Town has pursued to preserve East Fishkill's historic buildings. These include:

- A Town Map of historic facilities showing historic buildings. The Town Planning Board may seek to preserve these while reviewing subdivision, highway, and other plans.
- Special permits for listed structures with regard to use or number of accessory units.
- An Architectural Review Board to advise the Planning and Town Boards on planned modifications to historic structures.

East Fishkill enjoys a variety of 18th, 19th, and 20th century architecturally significant styles. In order to preserve this rich cultural heritage, and to remember its agrarian roots, the Town has undertaken an update to the 1984 *Historic Structures Survey*. This report was completed in 2001 and should continue to encourage the reuse and preservation of the Town's historic legacy. The Town hired a consultant to photograph and document the historic homes within East Fishkill. The consultant reviewed the 1984 report, visited each historic property in town, and documented the architectural style of each building. Outbuildings were included when deemed to be of historic interest. The interiors of some homes were documented as well as part of the 2001 report. The 2001 report continues the format of the 1984 report to provide continuity between the two documents. The 2001 report has been further updated with the cooperation of the East Fishkill Historical Society.



EAST FISHKILL MASTER PLAN East Fishkill, NY

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Figure 7.4 Historic Properties Map



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7000

7.8 Water and Sewer Districts

Water

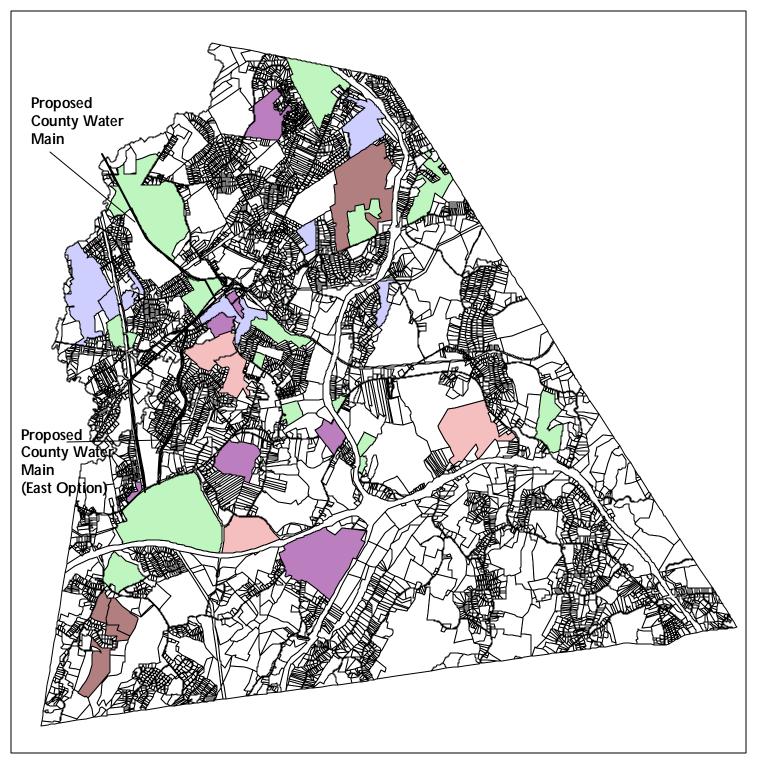
The Town of East Fishkill benefits from an abundant supply of groundwater from aquifers that generally follow the surface watercourses: Fishkill Creek, Sprout Creek, Whortlekill Creek, and Wiccopee Creek. Most residents rely on these aquifers to supply water to their individual wells. A growing number of new developments, however, are installing central water systems that the homes will hook up to (Figure 7.5). Development pressures have forced the town to rethink the policy of multiple, individual wells versus a number of community wells serving a wide geographic area of the town. Confronted with a number of smaller water systems and individual wells, the Town has acquired five independent water systems: Hopewell Hamlet, Pinewood Knolls, Little Switzerland, Brettview, and Dogwood Knolls. The town is now looking into the possible expansion of the Hopewell Hamlet water system to connect that system to the surrounding service areas and to connect the water systems into one large, central system.

According to the Town's Engineer, the advantages of a central water system include greater reliability and improved fire protection. The threat of groundwater contamination further lends support to the idea of a central system with multiple wells so that a few can be shut down if contamination occurs, without disrupting service to all residents. The additional demands of new development will require additional well fields and these should be consciously planned and developed to protect the water supply.

The Town's Engineer, Morris Associates, in conjunction with Hazen and Sawyer, conducted a Water Plan for the town in 1988. In 1992, the Town prepared a report for the establishment of an East Fishkill Water Improvement Area. The 1992 study proposed a phased approach to supplying water in East Fishkill. Figure 7.6 illustrates the different phases and the various built and proposed water service systems in Town.

The first phase would include many of the existing water systems and would include a majority of residents within Hopewell Junction and Hillside Lake. All areas in Phase I would have direct access to the water main. Phase I would have excess capacity for future expansion of the water system and would be constructed to accommodate future expansion, both within Phase I and to Phases II and III. Phase I would extend from the northern boundary of East Fishkill to the Hudson Valley Research Park. The Hudson Valley Research Park currently has its own water system but will require additional water to satisfy planned process needs. Phase II would benefit from a nearby central water system. Phase II would benefit from excess and storage capacity within Phase I, so it would not be necessary to initially provide all of its own wells or storage tanks. Phase III will not initially be serviced by water, but water may be expanded to this phase after completion of Phase II.

Complementing the above studies, East Fishkill and Dutchess County have formed a Task Force consisting of representatives of the County Government, the County Water and Wastewater Authority, local municipalities and interested private users to review the feasibility of developing a pipeline along the County-owned, former rail corridor running from Poughkeepsie to East Fishkill (see Figure 7.7). The goal is to transport excess water from the jointly owned City/Town of Poughkeepsie water plant on the Hudson River to public and private water systems within towns, including East Fishkill, along the former rail corridor. This could include the Hudson Valley Research Park. The Poughkeepsie plant has indicated that it may have 4.0 million gallons of existing capacity for the project with the possibility of additional capacity in the future.



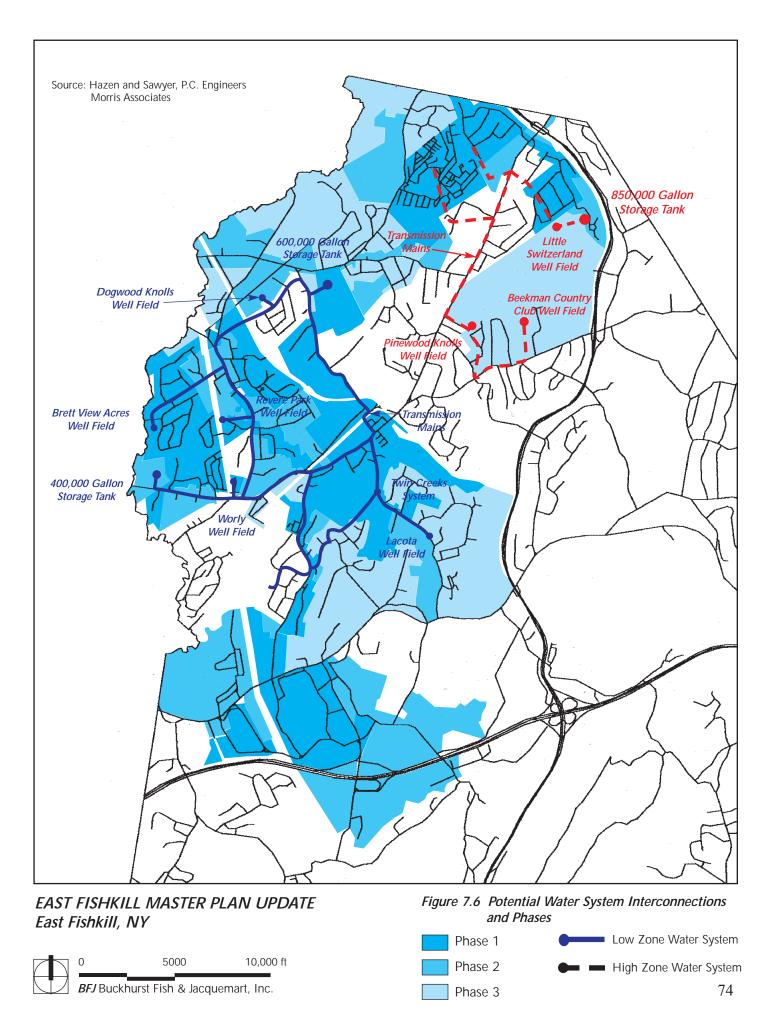
EAST FISHKILL MASTER PLAN East Fishkill , NY

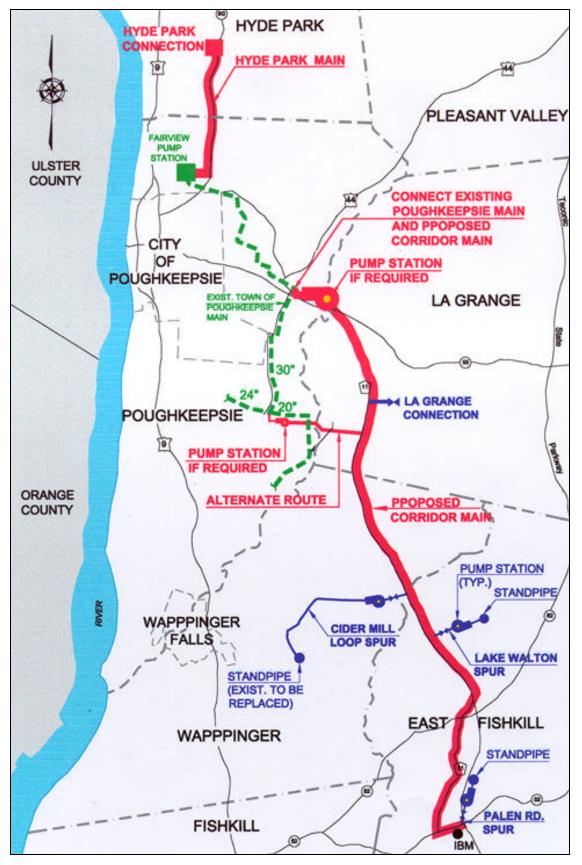
Figure 7.5 Water Systems



 0
 6000
 12000
 18000
 Feet

 BFJ Buckhurst Fish & Jacquemart, Inc.





EAST FISHKILL MASTER PLAN UPDATE East Fishkill, NY

Figure 7.7. Dutchess County Central Utility Corridor Water Supply Project

NTS

If the pipeline is constructed, it could connect directly into the Low Zone proposed in the 1988 study. The 1988 study indicated a projected average daily demand for the Low Zone users of 1.8 million gallons with a maximum one-day demand of 4.07 million gallons. The Town of East Fishkill is considering

The Dutchess County Water and Wastewater Plan of 1992 notes that

"The Town of East Fishkill should develop a groundwater system to ultimately serve as a water supply for the Towns of East Fishkill and Beekman. Linkages with Fishkill, LaGrange, and Wappinger should also be provided. East Fishkill should be a participant in any efforts to develop a southern Dutchess regional water system."

Sewer

Similar to the water supply, most residents rely on individual septic systems to treat their effluent. Very few community sewage systems exist in East Fishkill (Figure 7.8). Currently Wildflower Hills, Beekman Country Club, and Sagamor and Forest Hills have wastewater systems, while some other proposed developments, such as Twin Creeks, have proposed central sewer systems. IBM (Hudson Valley Research Park) also has a very large wastewater treatment facility. As development expands in East Fishkill and more homes are built, discharging more waste into the ground, the potential for groundwater contamination increases. There are localized areas within the town where problems with the quality of the groundwater have already arisen. A municipal wastewater system offers advantages over many individual systems including reliability and possible environmentalbenefits.

The creation of a municipal wastewater system requires the location of a discharge point for the treated effluent. In 1988, the Town's Engineers prepared a Wastewater Plan that examined the possibility of connecting a sewer system to existing treatment facilities in Beacon or Wappinger. The 1988 Wastewater Plan service area also considered discharging effluent into the Fishkill Creek and its principal tributaries, namely Shenandoah Creek, Whortlekill Creek, Wiccopee Creek, and along the Sprout Creek, which forms part of the western Town boundary. A current option now under study involves a proposal by the Dutchess County Water and Wastewater Authority to run sewer pipes to a new treatment facility with the proposed effluent discharged into the Hudson River.

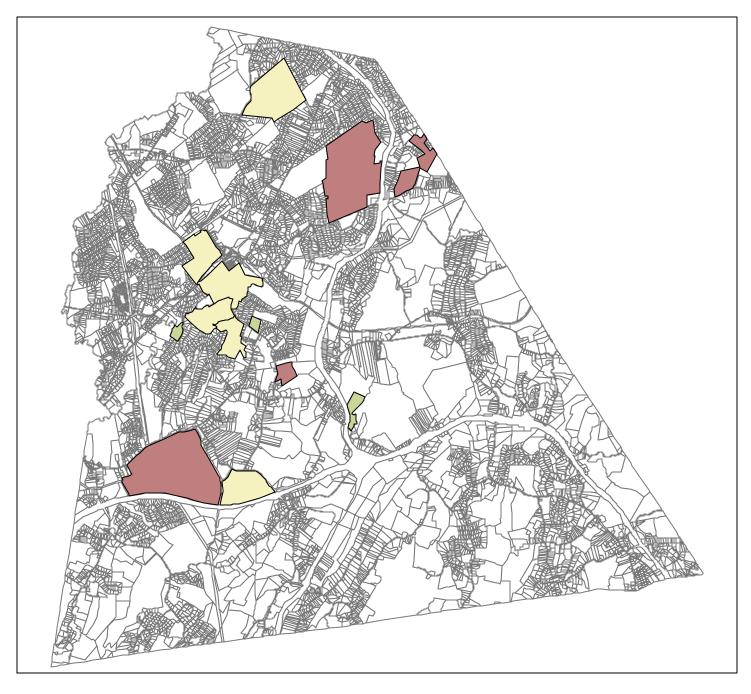
Since the 1988 Wastewater Plan was prepared, development patterns have changed. Housing demand is putting development pressure on lands with relatively poor soil conditions to the east of the Taconic State Parkway, and to some extend south of Interstate 84. Development in these parts of Town has resulted in the construction of small service area sewage collection and treatment systems. The portion of East Fishkill in the NYC watershed faces additional constraints to satisfy the water pollution prevention requirements of the New York City Department of Environmental Protection (NYCDEP). The NYCDEP requirements are typically more stringent than Dutchess County Department of Health. It is therefore increasingly likely that central sewers will be constructed in all parts of East Fishkill, but the core areas along the Fishkill Creek are the most likely systems for connection to a trunk line and a large wastewater treatment plant.

The most important area for consideration of central sewers is the hamlet area of Hopewell Junction because of the population concentration and the proposed development in the hamlet. The Town Board has asked the Town Engineer to develop a proposed plan to provide central sewers for Hopewell Junction.

In more outlying areas, the Town Board has requested that all new subdivisions should be laid out with the individual lot septic drainfield system in the front yard, in order to facilitate connection to any future sewage collection system installed along the frontage road. Lacking a mandate to design for future central sewers, typical engineering practice has been to site the drainfield on the lot wherever there is suitable soil (for an underground leach field) or a suitable space (for an aboveground fill pad leach field). The subdivision designs do not consider any potential sewage collection system trunk and collection line layout.

Each development in East Fishkill should give consideration to the limited life span of the septic drainfield system (SDS) and its leach field. In recognition of the limited life span of the SDS for the last several years, the DCDOH has required a 100% reserve area on each lot for construction of a replacement leach field. An SDS should be considered a temporary measure until the development density in some potential service area can economically support a central sewage collection system and treatment facility. An important contribution to the Plan for future needs would be to establish the most logical layout for sewer trunk and collection lines and to establish utility easements for the Town to use if central facilities are constructed.

When a central sewage system is proposed for a commercial property or subdivision and the treatment plant is the first facility in the neighborhood, the plant and collection system should be designed to connect to and serve future development of adjacent and nearby land. A modular treatment plant design could accommodate both the present as well as future needs. Similarly, when a commercial development or subdivision is proposed near an existing sewage treatment plant, every effort should be made to connect to (and upgrade if required) the existing plant.

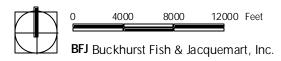


EAST FISHKILL MASTER PLAN East Fishkill, NY

Figure 7.8 Sewer Systems



Existing Sewage Treatment Plant Existing Sewage Disposal System Anticipated Sewage Treatment Plant





8.0 Master Plan

8.0 MASTER PLAN

The 2002 Master Plan seeks to adjust and fine-tune the existing 1982 plan to better reflect the Town's present planning context. There are three major underlying concepts of this plan: 1) centers, 2) clusters, and 3) conservation.

- Centers To maintain community identity and to prevent strip development, community retail services should be concentrated in centers at convenient locations, especially Hopewell Junction and, to a lesser extent, other historic hamlets. Industrial and major office development should be concentrated in discreet, marketable areas with good highway access, such as along I-84.
- Clusters To increase energy efficiency, to preserve open space and environmentally sensitive lands, and to provide for future needs cluster housing development should be encouraged, as discussed in section 8.3. Subdivision and site standards can be formulated to encourage development consistent with East Fishkill's character.
- Conservation The best features of the Town's built and natural environment should be preserved to a significant degree. Further growth should be channeled into the land that can best accommodate it so as to minimize adverse environmental impacts to the Town.

The purpose of the Master Plan process has been to provide a framework for the future development and improvement of the Town of East Fishkill. This plan began with a community-wide survey in 1997 and continued throughout 2000 involving public meetings.

East Fishkill residents have participated in these meetings and their comments have been incorporated into this report. These comments can be grouped into nine categories: growth, environment, transportation, utilities, housing, shopping/services, industry/offices, public facilities/recreation, and historic preservation. These categories form the framework of the Master Plan. Each category has been further broken down into findings and goals that are based upon the issues, studies, and findings raised in the preceding chapters.

The findings and goals are represented visually on the future land use plan map. Compared to the 1982 map, this map includes significant revisions such as lower densities and new roads. Hopewell Junction has been a major focus of this report and a section devoted to East Fishkill's town center has been added.

8.1 Findings and Goals

The following is a list of specific goals and policies for the Town to consider over the coming years. These goals reflect the results of the Master Plan Survey, comments from citizens, and from Town Board and Committee members.

Town Growth

Findings: East Fishkill currently has a population of approximately 25,000. Present residential building activity indicates that the population is increasing. If all residential land in Town were

built out, the population could increase by 20,000 people for a total population of 45,000. The results of the Master Plan survey and comments at the public workshop indicate that potential growth should be managed to minimize potential adverse impacts such as traffic, views, design, and the environment.

Goals: A major goal of the Master Plan is to adjust allowable densities within the Town, in keeping with land characteristics, while at the same time providing for a reasonable mix of land uses. Ordinances that offer greater design flexibility will enable the Town to better preserve its local character through the careful control of densities and architectural elements.

- Create Scenic/Conservation Overlays that establish design guidelines and setbacks.
- Establish new residential R-3 zone for Hosner Mountain/NYC watershed area.
- Establish R-1.5 zone for properties zoned R-1. Areas which could be considered for such a designation would include the areas south of interstate 84 (not otherwise zoned R-2 or R-3) and areas east of the Taconic State Parkway (not otherwise zoned R-2 or R-3).

Environment

Findings: East Fishkill has 14,000 acres of vacant, open space, or agricultural land (see table 4.1, page 18 for a breakdown of this acreage). Steep slopes, wetlands, and floodplains limit the development potential of these parcels. These open spaces provide a rural character that attracts people to East Fishkill and enhances the small-town charm. Agricultural practices retain large tracts of open land and tie residents to the Town's rural past. The Town Board adopted the Active Farm Overlay law to recognize and support properties under cultivation. This Master Plan is consistent with *Greenway Connections: Greenway Compact Program and Guides for Dutchess County Communities*, as specified in the design section 8.4, in seeking to support preservation of agriculture as available land use where possible.

Goals: Environmentally sensitive places shall be carefully regulated in the subdivision and site plan process. Regulations shall recognize the suitability of the land for development, as well as the underlying zoning. Land uses, such as agriculture, summer camps, and recreation, that preserve East Fishkill's open space and natural resource lands, shall be encouraged .

- Reduce allowable densities in wetland and steep slope areas (over 20%) by 50%.
- Acquire development rights and conservation easements to preserve open space land.
- Continue to encourage farming as a viable land use.
- Encourage Cluster Development

Transportation

Findings: Residents desire an efficient circulation system and seek ways to improve the existing road system. There is significant traffic in East Fishkill and there are many intersections with significant deficiencies.

Goals: New roads shall be planned and designed to improve traffic flow within East Fishkill and intersections shall be upgraded where appropriate to relieve delays and enhance movement within the Town. A comprehensive circulation system shall include alternative forms of transportation including rail, pedestrian, and bicycle paths. The Town shall strive for an interconnected pedestrian and bicycle network with other towns and counties.

- Create an official Town Map showing the location of proposed new roads within East Fishkill.
- Construct service roads behind commercial buildings within Hopewell Junction.
- Upgrade major and minor arterials to appropriate standards to improve traffic movement and safety along roadways.
- Consider access management along county and state roads to limit access points.
- Establish 100-foot setback from state and county roadways for new construction.

Utilities

Findings: East Fishkill has adequate groundwater resources for current and future population projections. There are a number of community water systems but most of the Town relies on individual wells and septic systems. Some contamination of private wells has occurred within the Town. Community/public water systems offer a measure of protection against contamination because there are multiple well sites. The Town is moving forward with public water and sewer systems for areas of Town that can support them.

Goals: East Fishkill's adequate groundwater resources need to be protected from contamination. . New developments shall anticipate future utility connections and install appropriate pipes and infrastructure where necessary. Public water/sewer systems shall be designed to accommodate current and projected future needs.

- Identify location of future water systems, placement of water tanks, and well fields.
- Land along streams and creeks shall be considered for the possible location of treatment plants.
- Utility lines shall be buried wherever possible.

Housing

Findings: Since the last Master Plan, more than 7,000 acres have been converted to residential uses. During the past decade, over 1,500 homes have been constructed In East Fishkill. The resurgent economy has resulted in a strong labor market that has invigorated the local housing market. This has reinforced concerns over suburban sprawl and lack of open space, design quality of the subdivisions, and environmental impacts.

Goals: Maintain diverse housing environments and options within East Fishkill, such as village centers, suburban homes, and rural homesteads. The Town seeks to offer housing choices to a wide array of households so affordable housing provisions shall be studied for inclusion into the subdivision regulations. Subdivision regulations shall provide greater design standards, offer a variety of housing types, and preserve scenic view corridors and environmentally sensitive land. Cluster housing shall be considered preferable to standard subdivisions where there are clear benefits to clustering, such as the preservation of large tracts of open space, views, and environmentally sensitive lands.

- The CRD zone should allow multi-family and affordable housing.
- Cluster housing should be encouraged wherever possible but especially within large subdivisions.
- An affordable housing ordinance should be adopted to maintain a diverse population
- Senior citizen housing alternatives should be considered by the Town.

Shopping / Offices

Findings: Strip shopping areas and isolated professional offices have developed along major arterials within Town. Many of these developments have not invested in adequate landscaping. Traffic volumes and a lack of interconnected parcels along Routes 376 and 82 in Hopewell Junction can make shopping within the center difficult. The strong economy and the town's population increase will result in greater demand for commercial services.

Goals: Discourage strip development to preserve open space networks, community character, and to conserve energy. Focus future local commercial development in hamlet centers to build variety and density of services. Integrate pedestrian and bicycle transportation into commercial developments. Commercial development as part of larger residential projects shall be considered in order to reduce the need for some convenience shopping in Hopewell Junction. The design guidelines of *Greenway Connections* are consistent with the Town's design policies and should be considered during the site plan review process.

- Hopewell Hamlet Pedestrian Plan.
- Reduce number of curb cuts and encourage shared driveways.
- Encourage placement of buildings near the street with parking in back.

Industry

Findings: The number of developed industrial acres has risen from 637 (according to the 1982 Master Plan) to 1,060 acres (according to East Fishkill's 2002 GIS zoning layer), plus another 370 acres, which has been reserved for utility rights-of-way. However, much of the industrial zoned land in the northern part of town has remained vacant since 1982. In 2000, East Fishkill commissioned an industrial zoning study of the entire Town. As a result of that study, the Town retained approximately 200 vacant, industrial-zoned acres and rezoned 457 industrial-zoned acres to residential uses. The rezoned lands are in the Hopewell Junction and Stormville vicinity, along railroad tracks that have been abandoned for freight service. The growth of industry and offices has occurred near Interstate 84. As originally stated in the 1982 Plan, the I-84 corridor is an appropriate location for industrial development.

Goals: Identify land with marketable sites and good interstate highway access in order to attract high-value industry. Industrial zoning shall continue to be maintained near the interstate and reduced near the railroads.

- Permitted uses within industrial zones shall be reviewed and updated.
- Ensure traffic impacts are compatible with roadways.

Public Facilities

Findings: The current Town Hall is inadequate to accommodate the growth in town services and personnel. The library has recently completed an expansion. School districts have seen increases in student populations in the past few years and expansion within East Fishkill is anticipated. Additional schools and churches may become necessary as the population continues to increase. Other public services are adequate for the foreseeable future.

Goals: Expand public facilities as needed to meet local service needs. Public facilities, schools, and churches shall be sited to support the quality of life in East Fishkill.

• Locate any new Town Hall facility near population center to bolster center and to encourage availability of services there.

Open Space / Recreation

Findings: Open space is being lost at a significant rate (23% since 1980). The loss of open space has coincided with an increase in the demand for recreational areas. Surrounding towns in Dutchess and Putnam County have plans to convert existing rail beds into bicycle and pedestrian trails. These trails could pass through East Fishkill and form an extended trail network. The Taconic State Parkway has been designated a New York State Scenic Byway and creates a linear park-like setting through East Fishkill. The State DOT is currently conducting a corridor management plan for the Taconic.

Goals: Encourage the acquisition of open space land through outright purchases or the acquisition of development rights and provide for long-term open space networks with more recreational facilities. The Town is especially interested in preserving and protecting its water bodies. The Town shall encourage land along streams, creeks, and lakes to be preserved and possibly incorporated into open space networks. There shall be a policy of creating large, centralized recreational complexes and a move away from creating small recreational areas disbursed throughout the Town, as discussed in the 1999 *Recreation Study*. As more land is developed, the Town shall seek more imaginative planning of new developments so as to preserve open space, and create open space buffers. Developments near the Taconic State Parkway shall take into account the scenic byway designation. Views along the Taconic shall be protected including ridgeline vistas. The Town shall encourage intergovernmental cooperation and participation regarding a corridor management plan for the Taconic State Parkway.

- Easements for passive recreation should continue to be sought along waterways.
- Establish 100-foot setback for structures and parking along the length of the Taconic State Parkway and Interstate 84.
- Coordinate with other Towns and County to build and extend bike trails.

Historic Preservation

Findings: East Fishkill has lost some of its older buildings through lack of financial investment or development pressures. Many of the older buildings in Hopewell Junction have undergone alterations that have compromised their historic integrity. The Historic Structures survey was updated in 2001.

Goals: Preserve the best examples of East Fishkill's historic built environment, particularly structures visible from public roads. Encourage the private maintenance and restoration of these buildings. Encourage the establishment of historic districts.

- Continue to update Historic Structures Survey and monitor historic properties.
- Investigate funding sources for restoration/maintenance of historic properties.

8.2 Future Land Use Plan

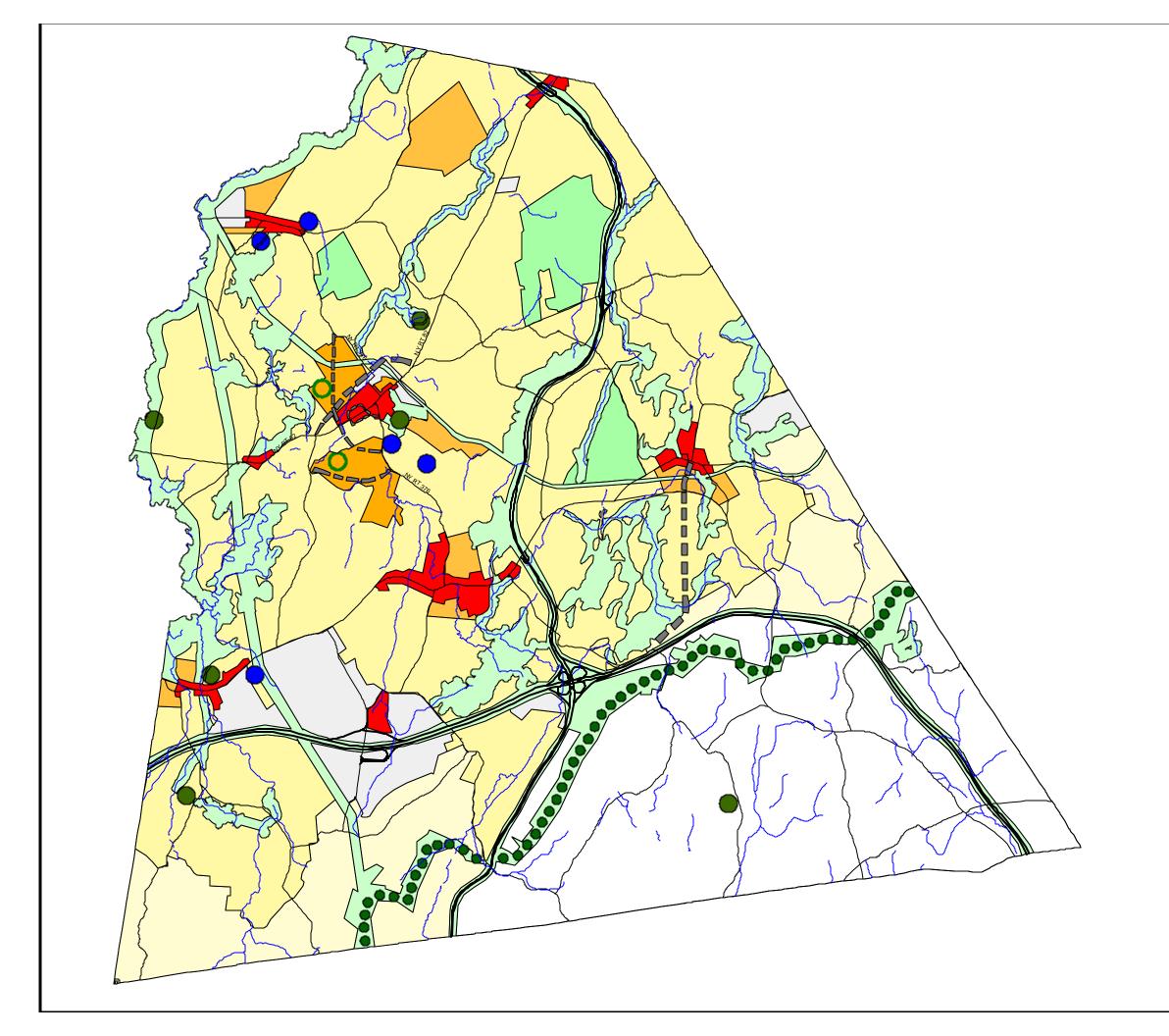
The land use plan (figure 8.1) is a conceptual map of East Fishkill that illustrates future development potential throughout the town. The Plan incorporates the goals of the previous section. In order to be effective, the Plan must recognize existing land uses, zoning, environmental constraints, development trends, and proposed infrastructure. However, the land use plan is general in nature, recognizing generally defined areas and a range of densities, not individual lot lines and site-specific development.

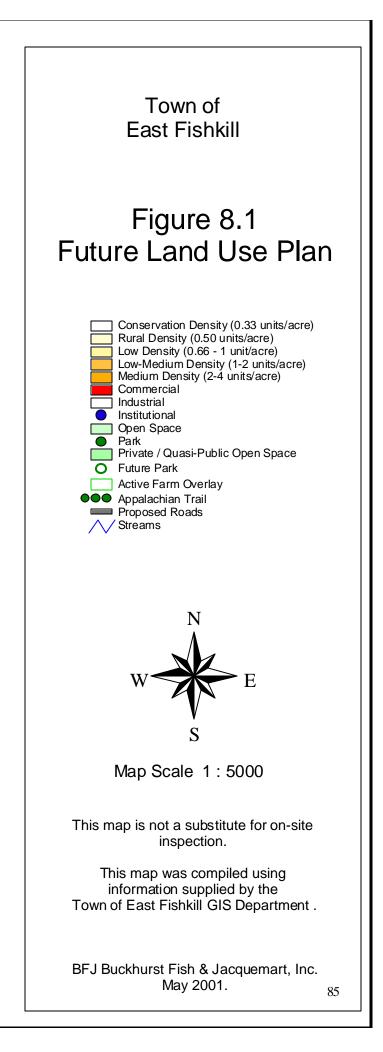
The most important change from the 1982 Plan is that the centers have been changed to reduce the number of developable dwelling units. Parts of Hopewell Junction had a mapped density of 4-6 dwelling units to the acre; this plan lowers that figure to 2-4 units/acre, a density in keeping with the CRD zone, adopted 1988. Much of the land around Hopewell Junction is also environmentally sensitive and will require creative developments, of a lesser magnitude, in order to preserve and protect the sensitive lands near the center. The outlying centers (Stormville, Gayhead, Fishkill Plains, and Wiccopee) have been reduced from 2-4 units/acre to 1-2 units/acre. In addition, a new center, Arthursburg, has been added at the intersection of the Taconic State Parkway and Route 82.

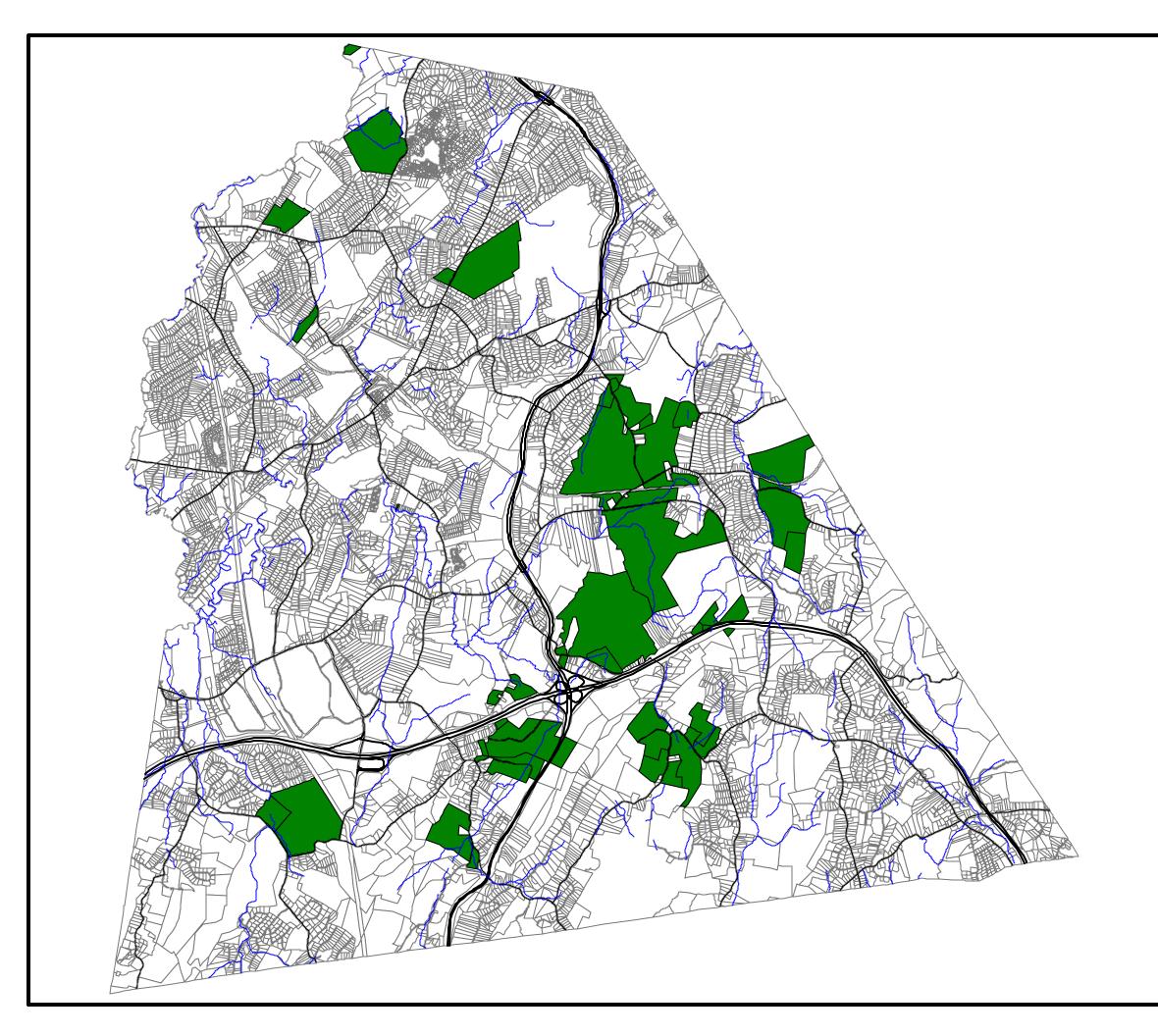
This Land Use Plan suggests that industrial uses belong primarily near the interstate highway system. The old Maybrook freightline, which brought rail freight through East Fishkill and over the old Poughkeepsie rail bridge, has not been operational for a decade. Dutchess County is now converting the rail line between Poughkeepsie and Hopewell Junction into a walking and bicycling trail. Thus, industry in East Fishkill is now primarily dependent upon truck traffic, which can most easily access the Town from Interstate 84. Low-impact and smaller industrial users, however, may be appropriate for the hamlets and existing locations along state roads, such as Ryan Drive, when their impacts do not exceed those of commercial users and their presence would bolster the center or existing uses.

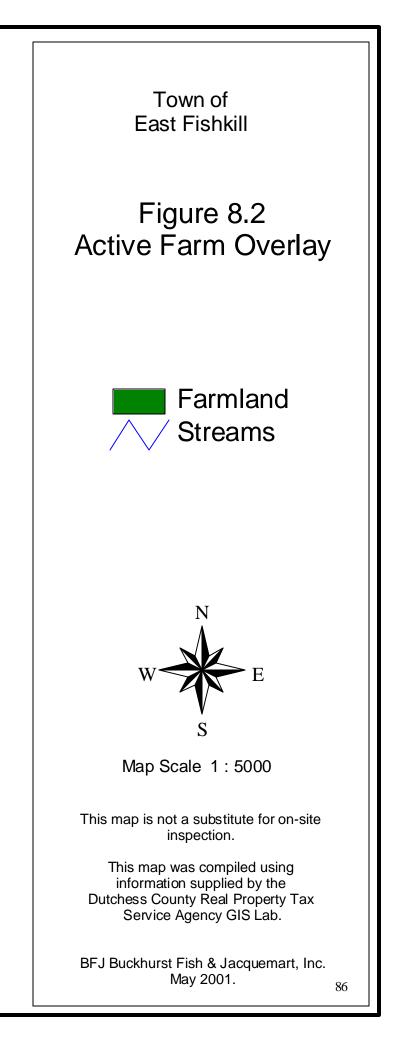
Commercial areas remain the same as in the 1982 Plan. Although businesses have appeared along some arterials, this Plan recommends that commercial activities coalesce near existing centers. Stores that are in close proximity to each other can save residents' time and energy by reducing the number and length of trips to run errands.

This plan adds two new zones not contained in the 1982 Plan and one new category. First is a conservation density area (requiring 3 acres of land per home), which covers the southeast part of Town. This area includes the New York City watershed lands, the Appalachian Trail, and Stormville Mountain. Second, the Plan calls for a 1^{1/2}-acre zone. Areas which could be considered for this zone include the existing R-1 lands east of the Taconic and south of Interstate 84. These parts of town contain significant areas of undeveloped land. Rezoning the land will better enable developers to use the cluster ordinance and preserve one-third of the site as open space, while still allowing homeowners to have on-site septics and individual wells. Agricultural preservation areas have been added as a result of a 1999 study of farmland within East Fishkill. These areas are outlined in green on the Future Land Use Plan and shown separately in Figure 8.2. In other areas of the Town, the Plan maintains the 1-3 acres/unit densities. The density, however, says nothing about the particular type of development. This land use map should not be read as a zoning map encouraging the sprawl of one or two acre lots. Rather, the plan is meant to illustrate low residential densities throughout most of the town and higher densities in the centers. Development within low residential areas should be carried out through the implementation of cluster development (see section 8.3) where deemed appropriate by the Planning and Town Boards.









and Use		Acres	% of Town
Conservation Density		7,500	20.5%
Rural Density		3,400	9.2%
Low Density		14,100	38.3%
Low-Medium Density		750	2.0%
Medium Density		400	1.0%
	Total Residential	26,150	71.0%
Commercial		700	1.9%
Industrial		1450	3.9%
Public/Institutional		550	1.5%
Parks		2,500	6.8%
Open Space		5,500	14.9%
	Total Non-Residential	10,670	29.0%
	TOTAL	36,850	100.0%

Table 8.1Future Land Use Plan Distribution

With a growing appreciation of the need to conserve environmental resources, rising construction and land costs, limited energy resources, and the trend towards smaller families, forms of housing other than the standard subdivision are becoming desirable in the region.

8.3 Elements of the Plan

The Land Use Plan maps a variety of uses and densities throughout East Fishkill. This section discusses the various components of the Plan and how they fit together.

Residential

The Land Use Plan shows a range of housing densities. This Land Use Plan advocates the highest residential densities in Hopewell Junction with lower residential densities in outlying areas, but it also encourages greater design controls, creative housing types and subdivisions, and environmental protection.

Conservation Density and Rural Density

The intent of these two zones is to preserve the environmentally sensitive lands in this part of East Fishkill, the rural character, and to preserve historic views of the mountains. Development potential should relate to the suitability of the land to accommodate development (wells and septic systems), as well as to protection of the environment and safe drinking water. The Conservation Density (R-3) zone is suggested for the southeast portion of Town. This would represent a new zone corresponding with the area east of the Taconic State Parkway and south and east of Interstate 84. The Rural Density (R-2) zone would remain across the remainder of the existing R-2 lands, which corresponds with the Taconic Mountain Range.

Agricultural Preservation Area

These designations reflect a study of active farms within the Town that was completed in 2000. Some farms are located in areas under consideration for the R-1.5 district. This designation reflects the desire of the Town to preserve active farms and to support agricultural districts and tax deductions for active farms.

Low Density

The vast majority of the Town retains its one dwelling unit per acre designation, though a new low density zone, R-1.5 is recommended. This zone could be considered for areas south of I-84 and east of the Taconic State Parkway (not otherwise zoned R-2 or R-3). These lands constitute 21% of the town's acreage. One acre per lot is the principal land use in Town and allows a lot to have individual wells and on-site septic systems. Engineering requirements to place a septic system and well within one acre do not allow excess land to be set aside as open space, however. The low-density zone has been amended from one unit per acre to 0.66-1 unit per acre. The purpose of creating and mapping this zone would be to better protect the rural atmosphere and character of the Town of East Fishkill by creating a residential zone that allows properties in areas of town that are not serviced by central water or central sewer facilities to continue to have individual wells and septic systems but to be able to also provide dedicated open space. Properties within the R-1.5 zone could cluster down to one acre lots and preserve one-third of the site as open space, enhancing the town's rural character.

Low-Medium Density

This designation applies to outlying hamlet centers. The previous plan allowed a density of 2-3 units / acre but consistent comment indicated that that level of density was too high for the historic hamlets. The purpose of the zone is to allow denser developments in older hamlets where there is a clear benefit to the Town in terms of open space (perhaps a "village green"), aesthetics, infrastructure and environmental protection.

Medium Density

The area around Hopewell Junction has been designated for residential densities of 2-4 units / acre. This area meets the following criteria: near major arterials and planned new roads, available and suitable land for development, and similar housing patterns and densities and the planned provision of public water and sewer.

Commercial Areas

The Land Use Plan continues the placement of commercial areas in Hopewell Junction and nearby hamlets. Hopewell Junction is the primary center in East Fishkill due to its size, central location, and proximity to populated areas. A mix of uses – parks/recreation, town services, and medium density housing - is proposed to enhance the center's commerce and services.

Other centers (i.e. Arthursburg, Fishkill Plains, Gayhead, Stormville, and Wiccopee) have a mix of homes and some commercial enterprises and shall be encouraged to grow and to provide convenience retail to service population areas. These retail areas will support, rather than detract from, more specialized retail in Hopewell Junction. A significant goal of encouraging retail within these hamlets is to reduce the number of convenience shopping trips into Hopewell Junction to reduce the levels of traffic there and to increase mobility throughout the Junction.

As stated earlier, this plan is not a map of existing land uses. This plan does not show the number of strip retail developments that have cropped up, particularly along Route 52. This plan has the goal of encouraging development within existing centers.

This plan serves to encourage and support commercial establishments in centers by encouraging a higher density of housing in those areas, thus encouraging a larger potential market. It also seeks to provide convenient transportation access to these areas. The automobile is the most prevalent form of transportation, but this plan strives to provide convenient pedestrian connections and safe bicycle routes so that people have various options to comfortably arrive at the center and shop.

Industry

Industry is shown along Interstate 84 around the current Hudson Valley Research Park. This area attracts high value industrial, research and development space as well as office uses because it meets the most important location criteria: 1) highway visibility, 2) interstate highway access, and 3) relatively flat large parcels of land. Areas of environmental constraint, such as wetlands, may limit the extent of development on particular sites.

A smaller industrial area is shown at the southwest corner of Interstate 84 and the Taconic State Parkway. This is suggested as an area for less intensive industry because of limited road access. Local access requires passing through established residential neighborhoods and expansion of the area is partly contained by existing housing developments. Visual issues are also important because of views from Interstate 84 and the Taconic State Parkway.

Open Space and Recreation

The Land Use Plan shows a long-term program for preservation of open space and designation of active and passive recreation sites. East Fishkill contains a number of linear parks / open spaces, namely: the landscaped areas along the Taconic State Parkway, the Appalachian Trail, abandoned railroad beds, and stream corridors and floodplains. With careful planning and foresight, these disparate pieces can link to one another in order to form a continuous and integrated open space network connecting different land uses and offering a variety of recreational opportunities. The network can connect schools, centers, residential areas, employment locations, and larger recreational facilities.

Active recreation areas, with sports facilities and organized activities, belong in areas 1) next to or very near major arterials for ready access, 2) near hamlets and higher density housing to provide activity space and a central "common", and 3) near schools in order to avoid unnecessary duplication of facilities.

Road System

The Land Use Plan shows a number of existing and proposed roads in Town. New roads are particularly needed around Hopewell Junction so that people can move safely and efficiently through this area. Major improvements in Hopewell Junction include an east-west bypass road as well as a north-south one. In addition, a circular rear service road behind the existing commercial area will greatly relieve congestion along Route 82 and aid turning movements. Many public comments have focused on the danger and delays of turning left onto Route 82 from the parking areas.

The east-west bypass road will intersect Route 82 and Palen Road and result in the construction of a new intersection at that location. The bypass will then use the existing Fishkill Road, though road improvements to the existing street will be necessary to accommodate the increase in traffic. An extension of Fishkill Road will connect to Beekman Road (County Route 9). The north-south bypass will run along a corridor west of Hopewell Junction and represents a series of new roads. Construction of these roads may be difficult due to the amount of extensive wetlands in the vicinity of the proposed crossing with Route 82. A detailed environmental study would precede any decision on exact road location, and proper steps would be implemented to avoid or to mitigate any adverse environmental impacts.

In addition to roads in the Hopewell area, the Master Plan recommends a proposed east-west road connecting Palen Road and Route 376. The future Land Use Plan also identifies a new road between Hosner Mountain Road and Stormville. This road would provide an alternative travel route for residents to reach other parts of East Fishkill as well as another access to the area for emergency vehicles.

The Town must also ensure sufficient access to the Taconic State Parkway so that drivers do not overburden the road network with too few access points. Carpenter Road is an example of this and should be kept open, ideally grade separated, to ensure that surrounding access points do not become unnecessarily congested. Allowing some sort of access from the Taconic to Hosner Mountain, should that become grade separated, should also be considered.

8.4 Design

The Future Plan does not attempt to control development lot-by-lot within East Fishkill. The Future Land Use Plan offers broad categories and general policy strategies in order to allow flexibility and creativity to specific proposals. The Plan recognizes that land with good soils could be developed differently than land with poor soils, and vacant land abutting a commercial area has different issues than farmland. Therefore, it offers a range of densities and recognizes different development patterns throughout East Fishkill. However, the Plan acknowledges that growth affects community character and the attractiveness of the community. The Future Plan calls for greater design controls and standards for developments within East Fishkill.

Two new residential zones (R-1.5 and R-3) are proposed here which would allow developers to cluster projects. Clustering presents greater design options than the traditional subdivision, increasing the likelihood to have more attractive and pleasing developments. The Plan also advocates the consideration of gateway or scenic overlays that would have additional design controls for land that is visually sensitive to the community. The recommendations of this plan are consistent with the *Greenway Connections* program, which contains design suggestions for local communities. And the Plan advocates design improvements for Hopewell Junction to make the hamlet more attractive, and pedestrian friendly, drawing more people to the area and improving the commercial environment there. The Future Land Use Plan recommends land use decisions that incorporate design strategies to enhance development and make it more beneficial to the community.

8.4.1 Cluster Subdivisions

Cluster subdivision provides an alternative to the standard subdivision, yet the standard subdivision is what most people are familiar with. Figure 8.3 illustrates the development of a traditional subdivision. It shows the parcel before development, the site plan, and what the land looks like after build out of the traditional subdivision. The lots in a standard subdivision are typically of the same size and conform to the underlying zoning. Environmentally sensitive lands are divided by individual property lines, the subdivision provides little common open space, no walking trails, and only a few lots have unobstructed views of the surrounding hills and forests.

However, New York State law does allow for other types of subdivisions and has defined cluster development as "an alternative method for the layout, configuration and design of lots, buildings and structures, roads, utility lines and other infrastructure, parks, and landscaping in order to preserve the natural and scenic qualities of open lands" (NY State Town Law Section 278 1(a)). Figure 8.4 illustrates the same land as in figure 8.3, but this time presents a cluster development. All drawings in figure 8.3 and 8.4 are courtesy of Randall Arendt. The cluster development contains the same number of building lots as the traditional subdivision. The lots are smaller, but the configuration and design of the lots, and placement of the homes, provides expansive views, preserves open space, offers walking trails, and thus provides the homeowner with a park-like setting. More importantly, it preserves, significant open space and avoids the appearance of suburban sprawl.

The purpose of a cluster subdivision is to allow flexibility of design in order to preserve and protect the scenic and natural resources of the land (figure 8.5). The cluster subdivisions advocated by this Master Plan support the same density as a conventional subdivision in East Fishkill, but the cluster principle allows flexibility of lot design in order to maintain the scenic and natural resources of the land. Frequently, the scenic and natural resources of the land, such as woodlands, steep slopes, and wetlands help to define the character of the community. A new cluster-zoning ordinance, therefore, would allow East Fishkill to "protect what is important to [the] community, while encouraging…development that is compatible in character".¹

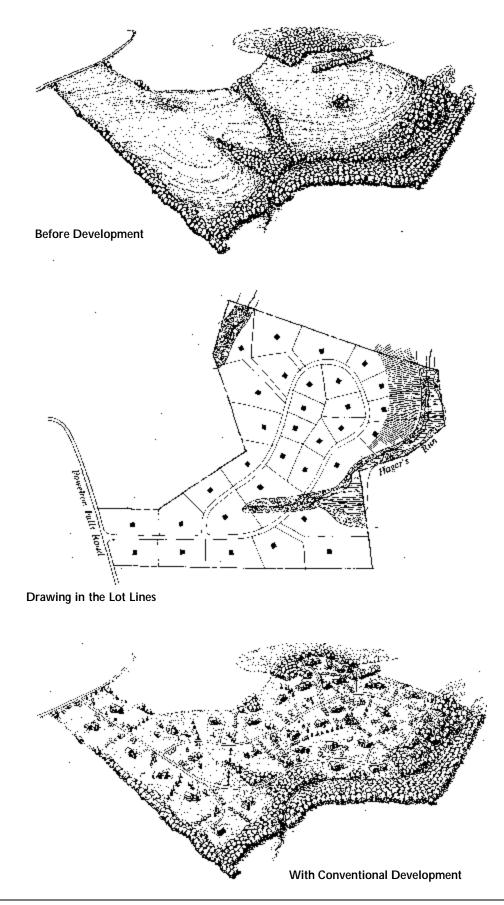
The open spaces associated with cluster developments provide environmental benefits as well. These undisturbed areas act as buffers to help filter stormwater runoff. Greenways offer habitat for a variety of species, increasing homeowners' contact with nature and bolstering the feel of a rural area. Over time, these open spaces, both meadows and forested areas, can become interconnected wildlife corridors offering opportunities for numerous species to dwell there or to move through. Traditional subdivisions do not provide common space and often do not respect the natural characteristics of the site.

Cluster developments offer economic advantages over the conventional subdivision. Streets are frequently shorter in cluster developments, saving on engineering and construction costs. Utilities also have shorter runs, decreasing their costs as well. Preserving more of the site as open space and undeveloped land will also cut down on erosion, storm water runoff, and their associated expenses. Finally, cluster developments offer amenities not found in traditional subdivisions, more lots have "rural views" of open space, woodlands, or hills, and therefore often sell at prices equal to or higher than conventional subdivisions.² Economic benefits do not belong solely to the developer however. Shorter streets and utilities can reduce the municipality's maintenance costs.

A major constraint on the development of open space or cluster subdivisions is the necessity to provide sufficient land for septic fields. For this reason, the application of cluster developments can be more readily achieved in very low densities (3, 2, or 1.5 acres per unit) where individual house lots can be ³/₄ of an acre to 1-acre and still have functioning septic fields. Cluster development is feasible at higher densities but usually requires common septic or a sewage treatment system. This is the reason for allowing 2-4 units per acre in Hopewell Junction. This plan foresees a public sewage system to serve the hamlet in the future.

¹ Dutchess County Planning Department, Rural Development Guidelines, October 1994, p. 3.

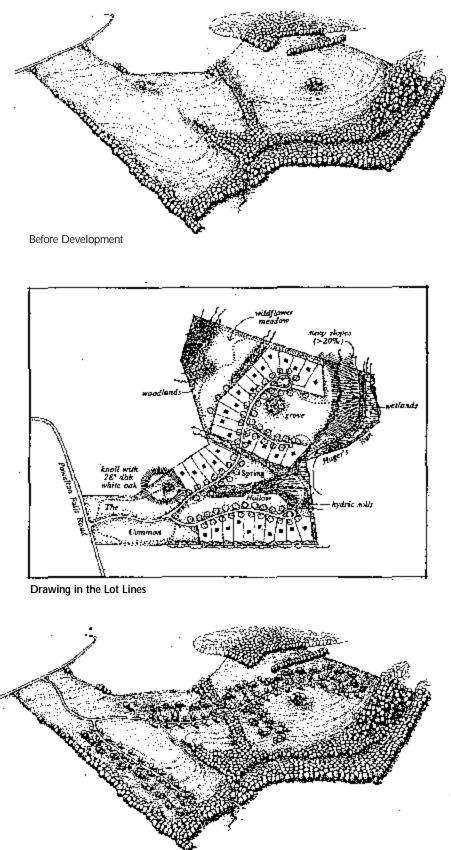
² Arendt, Randall. *Designing Open Space Subdivisions*. Natural Lands Trust, Media, PA, 1994, p. 7-8. 91



Photos courtesy of Randall Arendt

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Figure 8.3 Traditional Development



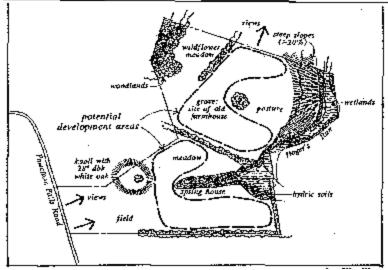
With Open Space Design

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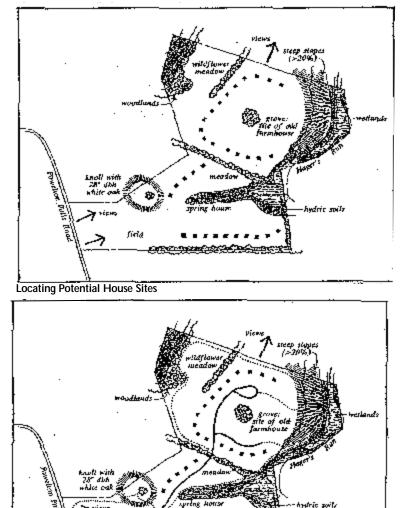
Figure 8.4 Cluster Subdivision

Source: Designing Open Space Subdivisions: A Practical Step-by-Step Approach. Randall Arendt, MRTPI 93

BFJ Buckhurst Fish & Jacquemart, Inc.



Identifying Potential Development Areas



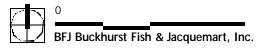
and a set of the set

Designing Road Alignment and Trail Links

field

EAST FISHKILL MASTER PLAN UPDATE East Fishkill, NY

Figure 8.5 Cluster Subdivision Principles



Source: Designing Open Space Subdivisions: A Practical Step-by-Step Approach. Randall Arendt, MRTPI Design shall be a consideration of the cluster ordinance. Good site planning and design can create a livable and attractive housing development. Potential development areas, views, lot layouts, roads, and driveways need to be identified (figure 8.5 illustrates how to apply these principles). Some key issues are noted below:

- Building Arrangements. The form and layout can be designed to ensure that the development retains a character and quality similar to conventional single-family housing areas. Housing groupings should be kept small to reduce the perceived density of the development. Townhouses can be limited to a maximum of six units to a row, and mixed with two to four unit blocks, duplexes and quads. Layouts should provide for staggered setbacks and variety in the treatment of different units.
- Roads. The planning and design of the main access or collector roads, together with lighting, signage, and appropriate landscaping should contribute to the overall image and character of the development. Roads should be limited in width and provide for connections where appropriate. Curvilinear roads help to reduce traffic speed.
- Open Space. An effective open space system should unify a number of diverse recreational activity areas, strengthen a sense of community and help to define neighborhoods. Existing features such as major tree or water areas should be preserved. Footpaths and bike routes help spread open space among residents, while at the same time creating a pedestrian linkage system safe from vehicular traffic. Open space buffers can preserve vistas from roads and privacy between developments.

Cluster subdivisions represent a distinct contrast to the traditional subdivision that has been the development status quo in East Fishkill for decades. This plan recognizes that cluster developments need careful review because lot sizes will need to be adequate for septic fields, or common sewer systems will need to be provided.

8.4.2 Gateway and Scenic Overlays

Gateway and scenic overlay districts represent land use techniques that have been used in other communities to protect important characteristics and qualities. The purpose of the overlay districts is not to prohibit development, but rather to establish specific design controls that minimize potential adverse impacts from development. Some design controls may include architectural styles, landscaping, size of structures, and/or building setbacks. Any regulations in the overlay districts would be specific to the district and supplement existing regulations.

The 2002 Future Plan does not map potential overlay areas. Specific areas should be decided by the Town Board, with appropriate design regulations that reflect the special character of the area to be protected. Areas of Town that may qualify for gateway or scenic overlays include, but are not limited to, historic farmlands, creeks and water bodies, roads, or the slopes of the Taconic Mountains, such as Hosner and Stormville Mountains. No exhaustive study of potential overlay zones has been conducted, but the 1982 Master Plan discussed the image-making quality of the Taconic Parkway-Interstate 84 intersection and the need to control the aesthetics of new development visible from the Interstate. The Jackson Farm, Bailey Farm, the Taconic Parkway, I-84/Taconic Parkway interchange, and Hosner Mountain have been mentioned throughout the 2002 Master Plan process as possible locations for overlay districts.

8.4.3 Greenway Connections

In March 2000, the Hudson River Valley Greenway Communities Council approved *Greenway Connections* for Dutchess County. The Greenway Compact Program believes that economic development can be improved throughout the region through better protection of the natural resources, increased design, and integration with the surrounding area. The Program champions "design principles that emphasize trail connections, waterway access, farmland and open space protection, tree-lined streets, and compact, walkable centers based on traditional settlement patterns embedded in the area's history and landscape."³

Under the Program, the region is divided between rural, suburban, and hamlet or urban centers. The Greenway Program provides site-sensitive guides for new development so that it fits the appropriate context. Guidelines show how to redesign residential subdivisions to protect open space, minimize visual impacts, help retain farmlands and meadows and support existing centers. There are recommendations for commercial areas to improve the visual appearance of strip developments through the increased use of street trees, access management, better architectural design, and redesigned parking lots. Connections within centers are an important theme for the Program. Pedestrian connections should link different stores and walkways should be clean, attractive, and pleasant. The Program also discusses ways to turn major roads into boulevards and to redesign intersections to make them more pedestrian-friendly. There are also recommendations for natural areas such as stream corridors.

The recommendations of this Plan are consistent with the *Greenway Connections*' guidelines, as are the proposed laws recommended to implement the Plan. The Town will formally become a member of the compact as part of the laws that accompany adoption of the Plan and implement many of the policies suggested in the Plan.

8.4.4 Hopewell Junction

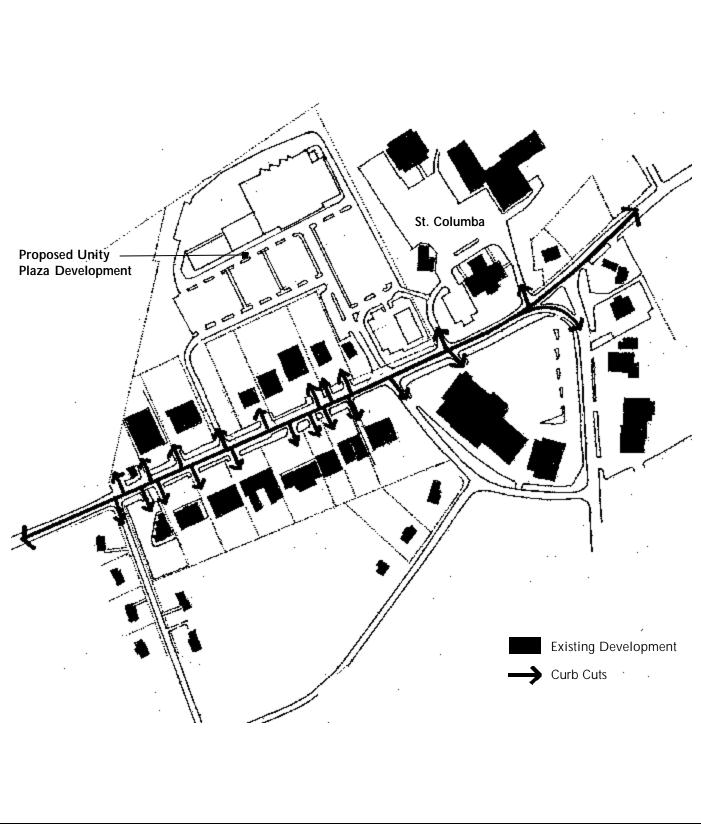
Hopewell Junction is the largest commercial center in the Town, with retail stores and other businesses concentrated on both sides of Routes 82 and 376. The St. Columba Church and School are strategically located at the junction of Route 82 and 376. The main retail section along Route 82 involves a series of continuous, small-scale shopping plazas including Park Plaza, Jeffwood Plaza, Heritage Plaza and the Trinka Lane Plaza. The Post Office occupies a central location on the north side of Route 82. The shopping plazas provide a mix of retail, restaurant and personnel service establishments. Also along Route 376 is a gas station, the Hopewell Auto Parts building and a bank.

The individual treatment of the various businesses along Route 82 results in a series of vehicular entry and exit points along both sides of the street (Figure 8.5). Vehicle's entering and leaving the frontage lots interfere with passing traffic and contribute to the congested traffic conditions that often occur along this stretch of Route 82.



Pedestrian negotiating traffic on Route 82.

³ Hudson River Valley Greenway Communities Council. *Greenway Connections, Greenway Compact Program and Guides for Dutchess County Communities*, March 2001, p.3.



HOPEWELL JUNCTION East Fishkill, NY

Figure 8.6 Hopewell Junction Existing Conditions



(1) Overhead utility lines and large scale signage dominate views along Route 82.

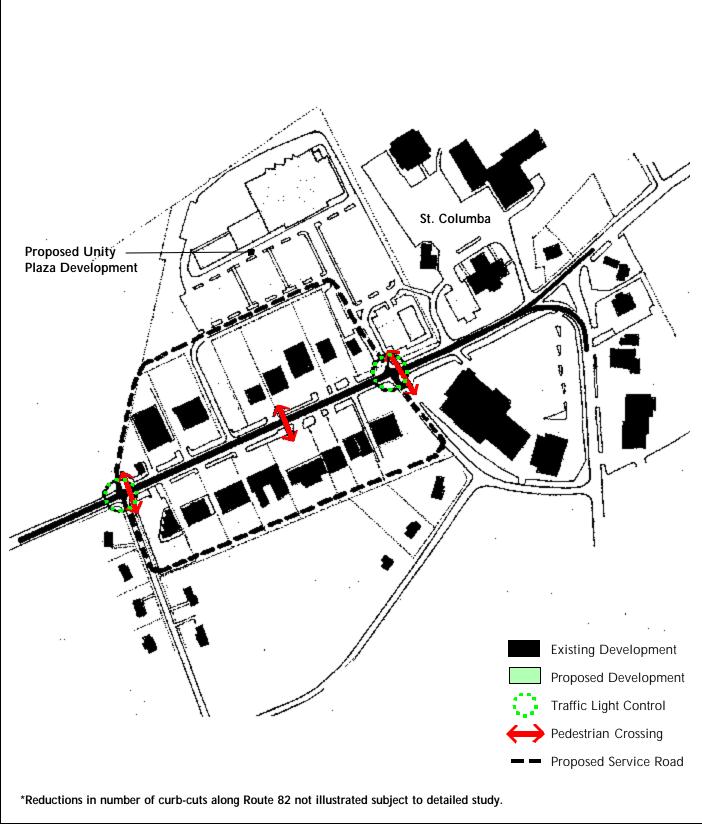


(2). Unscreened parking located along Route 82.



(3) Underused parking areas to the rear of stores.

Figure 8.7



HOPEWELL JUNCTION East Fishkill, NY

Figure 8.8 Hopewell Junction Proposed Improvements

Sidewalks for pedestrian use occur on only the north side of Route 82. There are no marked pedestrian crossings across Route 82. In general, The Hopewell Junction business district does not present a positive image for shoppers or for motorists passing through the area. Individual buildings and storefronts represent a range of architectural styles and scales with little visual cohesion or design unity. The strip of open parking lots, the variety of signs, overhead utility lines and the lack of a coordinated landscape treatment all combine to project an untidy and fragmented image. An exception is the bagel store and landscaped lot at the southern entry to the district.

Proposed Improvements

The proposed development of Unity Plaza, including a supermarket, to the rear of stores on the north side of Route 82 provides a unique opportunity to improve the service circulation of businesses in this section of Hopewell Junction. As shown on Figure 8.7, the proposed service access loop could be extended westward before connecting with Route 82 opposite Trinka Lane. A similar service loop could also be constructed to connect businesses on the south side of Route 82, connecting Trinka Lane with Unity Street. This loop road would utilize the service and parking areas that exist to the rear of existing businesses (see photo (3), Figure 8.6). Both of these proposed loop roads would facilitate auto access between individual properties.

As a result, the number of curb cuts along Route 82 could be significantly reduced, allowing for additional landscape treatment that would improve the streetscape quality of this stretch of Route 82. Figure 8.7 also indicates possible locations for marked pedestrian crossings. These would be designed to encourage pedestrian movement between businesses on either side of Route 82 rather than relying on auto trips within this area.

8.5 Conclusion

The Master Plan provides an outline for future development and improvement of East Fishkill. The Future Land Use Plan is a visual representation of the general strategies and implementation policies outlined in the Plan. Many of the goals discussed in Section 8.1 are not site-specific, however, so they are not shown on the Future Plan. Some of the goals are more easily implemented than others. An update of the 1984 Historic Buildings Survey has been accomplished, while building a service road around the commercial buildings in Hopewell Hamlet will take a much longer timeframe. There are a number of goals that the Town Board could consider implementing soon after adopting the Master Plan. Some of these recommendations include:

- Establishing the R-1.5/R-3 residential zones
- Reducing allowable densities of wetlands and steep slopes
- Implement affordable housing guidelines
- Revise CRD zone to incorporate multi-family dwellings
- Establish a 100-foot buffer along the Taconic State Parkway and I-84.

Long-term goals will require more time to plan, finance, and/or implement and include:

- New bypass roads
- Create access management plan for arterials
- Revise allowable uses within Industrial zones
- Coordinate future water systems and treatment plants
- Acquire additional open space/recreation parcels

These goals, particularly the long-term ones, will also need to be revisited from time to time to make sure that they are still appropriate. This Plan seeks to find ways to accommodate future growth while maintaining and enhancing East Fishkill's community character. This plan suggests areas for residential, commercial, and industrial growth while at the same time promoting design controls, better traffic circulation, and recreational facilities. By connecting aesthetics, scale, density, and site planning with new development, this Plan strives to accommodate future growth while preserving the attributes and characteristics that attract people and business to East Fishkill.



9.0 Plan Implementation

9.0 IMPLEMENTATION

The Master Plan has made findings and listed goals, offered recommendations, and suggested courses of action. By itself, however, the Plan does not change zoning or assure implementation of the goals in the preceding chapter. A necessary first step in putting the Master Plan to work is for the Town Board to adopt the Master Plan as its recommendations for the future growth and improvement of the Town. Once adopted there are many strategies that the Town can utilize to implement the individual components of the Plan. These components include roads, zoning/subdivision controls, utilities, environment, and open space and agricultural protection. Some strategies are already in place to enact changes, others need to be further developed and adopted to ensure enforcement and implementation. Once adopted, however, the Master Plan is not meant to be a rigid document. By its nature, the Master Plan recognizes and is a proponent of change within the community. But the policies, findings, and goals within the Plan reflect a snapshot of the Town at the time the Plan is adopted. In order to maintain the integrity and viability of the Plan, it will have to change along with the changes in the community. Therefore, the Master Plan shall be updated periodically to guarantee that the existing Plan serves the needs and values of residents.

9.1 Official Town Map

This Master Plan conceptually identifies a number of new roads for different areas of the Town. These potential road locations shall be considered by developers and County and State agencies in future planning. Some of the bypass roads around Hopewell Junction may take many years before they are completed. Other roads, such as the service roads behind the existing commercial buildings in Hopewell Junction may be finished sooner but they will need a private/public effort between the local owners and the Town Board.

At the time these roads are specifically located, after appropriate environmental study, they could be placed on an official town map.

9.2 Zoning/Subdivision Regulations

Zoning controls the way that land is used and developed. Subdivision regulations guide the layout and design of new roads, lots, and buildings. Following the adoption of the Master Plan, revisions to the zoning and subdivision regulations should be considered in order to ensure that its provisions remain in accordance with the Town's development policies, as established in this Plan. Zoning and subdivision regulations serve as a major instrument in carrying out the recommendations of the Plan and the Plan acts as a firm base on which to justify specific provisions of the regulations.

Land Use

R-1.5 and R-3

This Master Plan recommends the creation of two new residential zones in East Fishkill. The first proposed zone, R-1.5, sets a minimum lot size of 1.5 acres per dwelling unit. This zone would be appropriate for agricultural land or other rural lands outside of the hamlet centers. The purpose of this zone is not to create large, single-family lots but to be able to effectively design cluster subdivisions where homes rely on the suitability of the land for septic systems and individual wells. Therefore, this zone is suggested for large, undeveloped lands, such as farms and rural tracts, where clustering, as opposed to the traditional subdivision, would provide

flexibility as well as superior design, environmental, and open space benefits to the Town. There are extensive agricultural parcels in East Fishkill as shown on Figure 8.2.

The second recommendation is for an R-3 zone, which would have a minimum lot size of 3 acres per dwelling unit. This zone is suggested for application to the southern part of East Fishkill covered by the Taconic Mountain range and the New York City watershed. The purpose of the R-3 zone is to recognize the environmentally sensitive lands throughout the mountains and the limitation of the soils to support individual wells and septic systems. In addition, the R-3 zone recognizes the need to protect the quality of storm water run-off that flows into the watershed. Unlike aquifers, which draw water from the ground and benefit from soil filtration, watersheds rely on surface water, which is easily contaminated, to recharge reservoirs.

Planned Residential Development (PRD) Zone

This plan recommends that the Town Board eliminate the PRD zone and rezone all PRD land to Conservation Residential Development (CRD). The maximum development density of the PRD zone (6 units/acre) is inconsistent with the land use policies of this plan. The PRD zone is currently mapped on the Twin Creeks property (former Hercer) parcel.

Conservation Residential Development (CRD) Zone

The Conservation Residential Development (CRD) Zone is presently allowed solely within the Hopewell Junction area, on land parcels greater than 100 acres in size. The Mulford Farm site (also known as Deer Run) is the only property currently zoned CRD. Any development considered for the CRD zone shall connect to a central water and sewer system. As part of a comprehensive plan to allow a variety of housing types in Town, multi-family housing should be considered for inclusion within the CRD zone and lot sizes for detached single -family homes could be established on lots no smaller than 7,500 square feet per unit, with lesser sizes for attached and semi-detached units. Overall CRD densities should be reduced somewhat to be limited to 2 dwelling units/acre unless public benefits accrue to the Town such as new roads, parks, and affordable housing. In this case, the Town Board may permit up to four units per acre.

Cluster Subdivisions

It is the conclusion of this Plan that cluster subdivisions are preferable to traditional subdivisions within hamlet areas, on subdivisions of large acreage, and in low-density areas because they can preserve open space, protect environmentally sensitive lands, and preserve views and rural, scenic characteristics. One advantage to clustering is that it allows houses to be set back from the road and screened from view. Not all subdivisions are ideal for clustering, however. For example, some soil types won't support septic systems that are placed close together. This Plan advocates the use of clustering where there are identifiable benefits, e.g. aesthetic design, open space, scenic views, etc.

Average-Density Subdivisions

According to East Fishkill Section 67-13.1, subdivisions in the R-2 zone may employ lot size averaging when designing subdivisions. This technique allows minimum lot sizes in the R-2 zone equal to one acre. The purpose of establishing the R-2 zone was to provide greater protection of environmentally sensitive areas along the southern portion of East Fishkill affected by the steep slopes of the Taconic Mountain Range, the historic Appalachian Trail, and the sensitive nature of the New York City watershed. One-acre lots were not considered adequate to protect the sensitive nature of the southern tier of the town, so two-acre zoning was enacted. Average density subdivisions that allow one-acre lots, therefore, do not support the original intent behind the rezone to R-2. Therefore, the Master Plan recommends that the Town remove this provision from its codes and require that all conventional subdivisions in the R-2 zone have a minimum lot size of 2 acres. Lots in the R-3 zone, however, may continue to utilize average density subdivisions provided that the minimum lot size in the subdivision is two acres.

Purchase of Development Rights and/or Transfer of Development Rights

This approach is particularly suited to farmland and lands of particular ecological importance. Purchase of Development Rights (PDR) implies that the town would utilize either its capital budget or special funds to acquire some or all of the development rights from owners of sensitive property who for estate or tax reasons may wish to utilize this option. Transfer of Development Rights (TDR) permits the transfer of building rights between separated parcels of land. The owner of an open space area could transfer the development rights from that area (the sending area) to another parcel of land (the receiving area). Thus, more intense development would take place on land more suited for it. One option for a receiving area is the Conservation Residential Development (CRD) Zone, which is currently a zone that could be applied in Hopewell Junction.

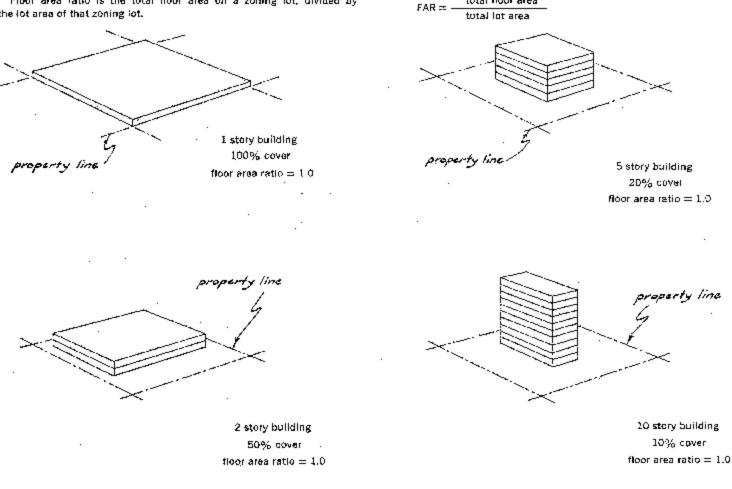
Reduction in FAR

This plan recommends a Floor Area Ratio (FAR) control for all commercial development. Floor area ratio is explained on the accompanying chart (See Figure 9.1 for an understanding of Floor Area Ratio). A FAR of 0.30 is recommended for the B1 and B2 zones. A FAR of 0.25 is recommended for the PCP and the PRDP zones and all industrial zones. The Plan recommends deleting the PBN zone, which has never been mapped.

9.3 Natural Resource Protection

Scenic Resource or Conservation Overlay

Throughout the Master Plan, many have spoken out in favor of protecting East Fishkill's scenic resources. To further these goals, the Town Board may want to add a chapter to East Fishkill's Zoning Code to include Scenic Resource or Conservation Overlays. The list of scenic resources or conservation areas could include: roadways, slopes, ridgelines, farms, fields and meadows, streams and water bodies, cultural places, and trees or stands of trees. This chapter would identify the various scenic resource categories, the process by which areas would be designated as scenic, and the regulations that development of these areas must follow. Areas of particular interest include the Taconic Parkway (particularly the area around the interchange with Interstate 84), Interstate 84, the land between the Fishkill and Sprout Creek, various farms, and the Taconic



total floor area

Floor area (atio is the total floor area on a zoning lot, divided by the lot area of that zoning lot.

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Figure 9.1 Floor Area Ratio

Mountain ridgeline. Scenic overlays could require a 100-foot landscaped buffer between development and the protected resource (e.g. the Taconic State Parkway and Interstate 84). This list is not exhaustive of possible scenic regions, but it does represent areas that have been discussed for scenic or conservation overlays.

Environmentally Sensitive Areas

Zoning codes can provide that wetlands, floodplains, or steep slopes be assigned a reduced value in calculating required lot area or FAR, because of their reduced development potential. This Plan recommends limiting the development capacity of sensitive areas to 50% of the allowable development capacity permitted by zoning. All acreage in slopes greater than 20%, floodplains, and wetlands shall not count more than 50% towards development density. These regulations would apply to all new subdivisions and site plans in East Fishkill and within all zones. This Plan recommends a reduction of 50% because wetlands and steep slopes are typically not fully developable. For instance, wet soils and steep slopes generally do not support septic fields. To apply the formula, if a 100-acre property in a one-acre zone had 10 acres of slopes greater than 20% and another 20 acres of wetlands, then the development density permitted would equal:

(10 acres x 50%) + (20 acres x 50%) + 70 acres = 85 developable acres

Imposing a restriction on the developable capacity of environmentally sensitive land reduces total development potential. In the above example, the application of reducing the density by 50% lowers the potential number of homes by 15.

Subdivision Regulations

Wetlands and Stream Buffers, Aquifer Protection, Drainage Controls, and Erosion-Sedimentation Controls are already regulated through the subdivision and the SEQR process. This Plan recommends amending the subdivision code to regulate flag lots in East Fishkill. A flag lot is a lot that has its developable portion of land set back from the road, usually behind another lot, and connected to the road by a narrow strip of land that includes the driveway. The Plan recommends that the "flagpole" acreage not be counted in calculating minimum required lot area, and that the Planning Board have the authority to require screening to promote privacy between lots.

Affordable Housing

Although there have been a number of new subdivisions in East Fishkill, many residents can not afford to buy new homes in their own community. This Plan recommends that affordable housing provisions shall be encouraged within all residential zones in East Fishkill, by providing a density bonus in the form of allowing 1 additional market-rate unit for every affordable unit constructed. The Plan also recommends that the Town consider requiring affordable housing within the CRD zone. The affordable units shall be constructed to the same standards as the market rate units, be visually indistinguishable from other units in the same subdivision, and be evenly distributed throughout the development.

Historic Overlays

Historic overlay zones can apply to historic districts or individual parcels, depending on the number of properties in an area. Historic overlay controls usually strongly control the architectural style, setting, and integrity of the building(s). This may be appropriate in an area that has an existing built pattern or on a farm that is undergoing conversion but the town wants to preserve the old farmhouse and its setting. Historic and cultural resources shall be catalogued on the Town's GIS database to facilitate the establishment of overlay zones. The 2001 Historic Structures Inventory will be updated in 2002 to include historic structures not identified in the 2001 report. Once mapped, the updated information may suggest areas that may be suitable for an overlay district.

9.4 Capital Improvements Program / Land Transaction

Public investment has a major effect upon the development of the Town. Parks, recreational facilities, open space, schools, roads, utilities, and municipal buildings are all examples of public investment. Which projects get funded go a long way towards shaping the character of a community.

East Fishkill may undertake a public or capital improvement program to list and prioritize the projects that the Town will undertake and fund over a specified period of years. This is a systematic scheduling of projects based upon need, available financing, and community benefits. Six to ten years is a common projection period in use by many municipalities. Projects scheduled for the first year should be incorporated into the Town's proposed budget for the next fiscal year. Each year the program would be restudied to determine the appropriateness of funding in that fiscal year. Such a program would provide a continuously updated picture of estimated future improvement needs and costs facing the Town. It could also help to give greater stability to the tax rate by spreading improvement costs systematically over a period of years.

Although the Town has no control over the School Boards, State Agencies, Counties, or surrounding Towns, cooperation between these boards and levels of government shall be encouraged to the benefit of all.

Acquisition

Acquisition is one component of a Capital Improvements Program. The East Fishkill Town Board is very sensitive to the need for acquisition, be it for open space, parkland, agricultural properties, road improvements, or municipal buildings. Alternative acquisition strategies are described below in further detail.

Direct Acquisition

Direct acquisition is the most direct and effective method of obtaining open space. It is also the most expensive. The Town shall look into using grant money to help purchase land whenever possible. Confronted with a greater need than the budget allows, acquisition by the Towns are most advisable for agricultural lands, scenic areas, active and passive recreation, or of critical environmental concern.

Easements

An easement is a property right that frequently allows one to use or pass through a piece of property without actually owning the land that the easement describes. Conservation easements can be a particularly beneficial way for the Town to preserve open space, historic properties, or scenic vistas. In conveying a conservation easement to the Town (perhaps for a fee), the owner of a property agrees to restrict the activities that can take place on the land. The Town does not acquire or own the land, however. The property remains in private ownership, but the easement guarantees that the land will benefit a public purpose.

If property owners establish easements and covenants on their property, as described above, assessors can take such agreements into account when establishing the assessed value of this property. The owner will continue to pay taxes, but the real estate taxes could be adjusted downward to reflect any reduction in the development value of the property.

First Refusal Option

A first refusal option means that at the time a property comes up for sale, the Town has the first opportunity to acquire the land. Of course the Town must pay full market value for that land. This approach works well when the Town wishes to obtain specific parcels of land that will benefit the entire town. Some examples where a first refusal option might be warranted include land adjacent to established parks, land that will be necessary for roadway improvements, or land currently used for private recreational purposes.

Information Technology Systems

East Fishkill has undertaken a capital improvement program to computerize its governmental functions. Geographic Information Systems have been purchased to track land use changes within the town. The Town plans to continue its investment in high technology to the extent fiscally feasible so as to provide efficient service to residents.

Subdivision Set-Asides

The recreation fee program in East Fishkill continues to fund the acquisition of high-quality, centralized park and recreational facilities as discussed in the 1999 *Recreation* Study. The amount of the fee should be updated periodically to keep pace with rising land values and therefore acquisition costs.

9.5 Real Estate Tax Inducements

Owners of large land holdings frequently find that these increasing costs become prohibitive and are forced to sell their land for development purposes sooner than they might otherwise have. Farms, with their large expanse of land ideal for development, are particularly susceptible to these pressures, as are historic properties on large acreage. One means of reducing burdensome real estate taxes on large parcels is described below:

Agricultural Districts

Under the New York State enabling legislation, Dutchess County farmers can, as a group, petition the County legislature to form an Agricultural District. County farms did petition and create Agricultural District 22 in the 1970s. Many of East Fishkill farms are included within the District. The primary benefit of an Agricultural District designation is a reduction in property taxes. Should an owner seek this designation and then develop the property, that owner would face a tax penalty equal to the tax that was forgiven over the past five years. The District designation also hinders the town from acquiring the property through eminent domain, assessing taxes for capital improvements (such as sewer or water lines), and from restricting common agricultural practices through zoning. Under the legislation, the districts must be reviewed every eight years.

9.6 *Private Development and Philanthropy*

The great bulk of development in East Fishkill has been and will continue to be carried out by private individuals and organizations. Therefore, it is private action that is the most important element in developing the community, guided and regulated by the Town as described earlier.

Neither the Town Plan, zoning or subdivision regulations, nor the Town agencies that administer these regulations can force any private individual to develop a particular piece of land for a particular use. But where there is a good Master Plan, and it is continually followed, reviewed, and updated, private enterprises have a more reliable foundation upon which to plan and build. This encourages good development, as well as helps to accomplish some of the specific recommendations of the Town Plan.

The active solicitation of donations of property easements to a private land trust is an increasingly successful open space and landmark preservation implementation device. For many landowners, such donations can be the source of a significant tax credit. Also, donations and easements can guarantee the property owner that the land will remain as they wish it to be preserved.

Private organizations such as the Dutchess Land Conservancy, the Trust for Public Land, the Nature Conservancy, and the Audubon Society have played an active role in open space and landmark preservation in many communities by seeking land or easement donations or, alternatively, by purchasing properties. Locally, the Nature Conservancy and Scenic Hudson own and administer a number of parcels for the benefit of the general public.

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