

3.0 PATTERNS OF DEVELOPMENT

The *1992 Master Plan* describes the Town's setting and historic development within Putnam County. Southeast enjoys many of the benefits of its location along major transportation routes, including access to jobs in the New York City, White Plains, and Danbury areas as well as having its own economic base. Southeast's proximity to these economic centers, combined with its beautiful natural topography and the aesthetic assets of the New York City reservoirs, has made the community a popular place to live. However, this popularity may have a price. The *1992 Master Plan* states:

In addition to its inherent strengths of transportation and buildable land, Southeast lies in the path of regional development. The northward progression of development spilling over from Westchester County and the outward expansion of two employment centers, White Plains and Danbury, has led to development in Southeast. Residential development has been based partly on the town's commutable distance to New York City and the other business centers and office parks. Commercial development has capitalized on the town's strengths and the market to be found in its new demographics, to the extent that Southeast may itself become a major employment center in the next twenty years. (10)

This section of the *Comprehensive Plan* identifies how the "path of regional development" has affected Southeast between 1992 and 2000. Since the *1992 Master Plan* was prepared, a substantial amount of development has occurred in Southeast that has fulfilled a portion of the vision of the *1992 Master Plan*: Southeast is today a center of new residential and commercial development in Putnam County.

3.1 LAND USE TRENDS

The effects of development and the "suburbanization" of the rural landscape in Southeast can be observed through an examination of aerial surveys (prepared by Cornell University for Putnam County in 1968 and 1991), land use data compiled from NYCDEP studies by the Putnam County Department of Planning, and an evaluation of Town of Southeast Tax Parcel data from 2000. During this 33-year period, several trends are apparent:

1. Expansion of residential development not only around older and denser neighborhoods like Tonetta Lake and Brewster Heights, but also in areas that historically have had fewer homes, like the Milltown Road area (see Figures 3-1, 3-2, and 3-5).
2. Expansion of commercial districts along the major roads, especially Route 22 and Route 6. The interchange of Interstate 84 and Route 312 also developed as another node of commercial development—one that is continuing to expand today (see Figures 3-3, 3-4, and 3-6).
3. Decreasing amounts of agricultural and forested land.

CORNELL SURVEYS: 1968 AND 1991

The Cornell Laboratory for Environmental Applications of Remote Sensing (CLEARS) conducted an analysis of changing land use patterns between 1968 and 1991 using aerial photography. This “Putnam County Land Use Dynamics Study” observed county-wide changes in land uses. Land uses were delineated and categorized based on manual interpretation of aerial photographs. Table 3-1 provides a general summary of some of the most relevant data from the Cornell surveys in 1968 and 1991.

Table 3-1
Generalized Land Use Trends: Town of Southeast and Putnam County

	Town of Southeast					Putnam County				
	1968 Acres	Pct.	1991 Acres	Pct.	1968- 1991 Pct.	1968 Acres	Pct.	1991 Acres	Pct.	1968- 1991 Pct.
Residential	1,707	7.7%	3,842	17.3%	125.1%	13,377	8.5%	24,967	15.9%	86.6%
Commercial	118	0.5%	700	3.2%	493.2%	911	0.6%	2,028	1.3%	122.6%
Ag/For/Und/Wet*	19,589	88.0%	16,114	73.0%	-17.7%	136,149	86.5%	124,189	78.9%	-8.8%

Notes: * “Ag/For/Und/Wet” = Agriculture, Forested, Undeveloped, and Wetland. Estimates for this category may not accurately reflect actual use of the land as the estimates were based on aerial reconnaissance and not ground surveys.
Total acreage exceeds total area in Town due to variables inherent to aerial surveys.

Source: Putnam County Land Use Dynamics Study, Cornell Laboratory for Environmental Applications of Remote Sensing, 1993.

Several figures in Table 3-1 are particularly relevant for the Town of Southeast. Residential acreage increased by 125 percent between 1968 and 1991, while the population increased by only 15 percent over a similar period. Much of that may have been attributable to the increased residential development of the 1980s, which tended to favor larger lots. This Town-wide growth in residential land development (125 percent) substantially exceeded the growth experienced throughout Putnam County as a whole (almost 87 percent).

For commercial land, the increase is even more dramatic. Between 1968 and 1991, commercial acreage in the Town of Southeast increased by almost 500 percent, whereas Putnam County’s increase was 123 percent. Much of the increase in commercial land was experienced along Route 22 where service-oriented retail establishments were built to serve the growing residential population and travelers along Route 22. In addition, as the competitive advantages of Southeast’s access to interstate highways became apparent to the expanding metropolitan market, new office and light industrial development began to appear in areas such as Fields Lane, Route 6 east of the Village of Brewster, and at the interchange of Interstate 84 and Route 312.

The net result of the increase in residential and commercial development is a marked decrease in agricultural land, forests, wetland areas, and other undeveloped land. In Southeast, between 1968 and 1991, there was a loss of 18 percent of this undeveloped land, double the rate of loss in Putnam County as a whole. Since a significant amount of the acreage in this category includes New York City watershed lands and reservoirs, the effective acreage of undeveloped land lost is greater than this figure suggests.

LAND USE ESTIMATES: 1993 AND 2000

Two separate analyses of land uses within Southeast have been prepared using New York State Office of Real Property Services (RPS) tax parcel data. The 1993 data were obtained from the County’s *Phase I Planning Analysis* for the Croton Plan which replicated data from the Final Generic Environmental Impact Statement on the Watershed Regulations prepared by NYCDEP. These data are aggregated into broad categories, but are not defined by specific RPS codes. Tax parcel data current to 2000 were obtained from the Town of Southeast’s Tax Assessor specifically for use in this document. Once again, individual RPS classifications were aggregated into larger categories.

It is important to note that these two sets of data should not be directly compared to determine trends in land use because the data sources and analyses are likely different. For example, commercial and industrial land uses in 1993 occupy significantly more acreage than in 2000. This is likely the result of an uncorrected reporting of 1993 land uses which may show some vacant or residential (condominium ownership) land as commercial. The 2000 data were field checked for accuracy and corrected in some cases. (This does not imply that the underlying RPS classification is in error; rather, that RPS classifications and land use classifications are not directly comparable.)

Estimates of land uses in the Town of Southeast for 1993 and 2000 are summarized in Table 3-2. The estimates are presented together in Table 3-2 in order to provide a *general* overview of land uses at two points in time. The current residential and commercial land uses are illustrated in Figures 3-5 and 3-6, respectively.

**Table 3-2
Land Use in Southeast, 1993 and 2000**

Land Use	1993		2000	
	Acres	Percentage	Acres	Percentage
Agriculture	693.21	3.5%	283	1.5%
Residential*	3,512.69	21.3%	6,277	33.2%
Commercial/Industrial**	1,026.83	5.2%	702	3.7%
Government/Institution	499.76	2.5%	1,077	5.7%
Industrial***	298.64	1.5%	—	—
Vacant	11,729.33	59.7%	6,379	33.7%
Open Space	1,205.21	6.1%	1,237	6.5%
Water Supply****	—	—	2,950	15.6%
Total	18,966	100.0%	18,905	100.0%

Notes: * Approximately 5,960 acres (31.5 pct. of total land area) is single-family residential.
 ** The 1993 data represent commercial land use only.
 *** Industrial land use data for 2000 are combined with commercial land uses, above.
 **** The 1993 data do not include a classification for water supply land.
Sources: 1993—Putnam County, *Comprehensive Croton System Water Quality Protection Plan: Phase I Planning Analysis*. October 1998, Revised November, 2000.
 2000—Town of Southeast Tax Assessor.

While the data between 1993 and 2000 should not be directly compared, certain trends and the current land use pattern in 2000 are worth noting. Following the earlier land use trends identified between 1968 and 1991, residential development between 1993 and 2000 increased by

approximately 2,085 acres and currently represents about 33 percent of the Town's overall land use inventory. A visual comparison of Figures 3-4 and 3-6 indicate significant growth in commercial and light industrial uses along the existing commercial corridors (Route 22 and Route 6) and in new areas such as Fields Lane and the interchange of I-84 and Route 312. Government and other institutional land uses have approximately doubled since 1993. Accordingly, agricultural and vacant lands have decreased substantially during the seven-year period.

Between 1990 and 1997, development of housing followed a different pattern from what was seen during the last five years of the 1980s, when several hundred residential building permits were being issued each year. Following the economic downturn of the late 1980s and concern over the effect of the watershed regulations, new building permits in the 1990s followed a flatter pattern, with years when only 50 or 75 units were constructed punctuated by two years (1993 and 1994) when several hundred units were constructed. This pattern is typical of a community whose neighborhoods have largely been developed or "built out" and whose remaining open parcels, though difficult to build on because of environmental constraints, are being considered for large subdivisions.

3.2 DEMOGRAPHIC AND EMPLOYMENT TRENDS

Driving the consumption of undeveloped land is the intense pressure placed on the Town by an increasing residential population (see Table 3-3). The populations of Southeast and surrounding communities in Putnam County have been growing quickly over the last few decades. In the post-war decades from 1940 to 1970, Southeast's population increases lagged behind several of the other communities—such as Kent, Carmel, and Patterson—where population increases averaged 67 percent over the three decades. Growth rates between 1970 and 1980 in Putnam County towns were lower than the initial post-war boom but were still exceptionally high averaging 44 percent. During the same period, the villages in the County averaged only 0.6 percent growth, with the Village of Nelsonville losing 2.7 percent of its population. Between 1970 and 1980, the County as a whole increased in population by 36.2 percent. This trend reflects the suburbanization of the New York metropolitan region during this period and appears to have concentrated in Carmel, Kent, and Patterson more than in Southeast.

Between 1980 and 1990, however, Southeast's growth rate surpassed the surrounding communities and the County as a whole. The Town's population increased by nearly 31 percent, more than triple the rate of Putnam County and significantly greater than that of surrounding towns. This disparity is a result of the decreasing availability of land in other towns. After land consumption peaked in the other communities during the previous three decades, Southeast became more attractive for development during the 1980s.

Between 1990 and 2000, Southeast's population growth continued to exceed growth throughout Putnam County and that of other municipalities, with the exception of Patterson. Patterson led the growth in the County with a rate of 30.3 percent, similar to what Southeast had experienced during the 1980s (see Table 3-3, above). Meanwhile, Southeast's population increased by 16 percent while the County's population increased by about 14.1 percent. Putnam County's growth rate between 1990 and 2000 surpassed all counties in the lower and middle Hudson River valley, including Westchester (5.6 percent), Dutchess (8.0 percent), Rockland (8.0 percent), and Orange (11 percent) counties.

Employment in Southeast has also increased between 1980 and 2000. New commercial development is evident in locations such as Mt. Ebo Corporate Park, Route 22, Fields Lane, and

the interchange of Route 84 and Route 312. These areas remain ripe for additional commercial development, as will be discussed in later sections. As shown in Table 3-4, below, employers in Southeast provided 3,924 jobs in 1997, representing 35 percent of the County’s job base. The largest industry sectors in Southeast included manufacturing, retail trade, and health care/social services. The manufacturing industry in Southeast provided almost half of the County’s manufacturing jobs. Wholesale trade in Southeast accounted for more than half of the County-wide supply of such jobs. Concentration of these types of industries in Southeast is probably due to the Town’s accessible location near major transportation routes.

**Table 3-3
Population Trends in Putnam County**

Town	Population				Percentage Change		
	1970	1980	1990	2000	1970-80	1980-90	1990-2000
Putnam County	56,696	77,193	83,941	95,745	36.2%	8.7%	14.1%
Town of Southeast	9,901	11,416	14,927	17,316	15.3%	30.8%	16.0%
Town of Carmel	21,639	27,948	28,816	33,006	29.2%	3.1%	14.5%
Town of Kent	8,106	12,433	13,183	14,009	53.4%	6.0%	6.3%
Town of Patterson	4,124	7,247	8,679	11,306	75.7%	19.8%	30.3%

Source: Putnam County Division of Planning, U.S. Bureau of the Census.

**Table 3-4
1997 Employment by Industry**

Industry	Putnam County		Town of Southeast	
	Number of Establishments	Number of Employees	Number of Establishments	Number of Employees
Manufacturing	74	1,595	27	789
Wholesale Trade	126	729	52	391
Retail Trade	320	2,707	88	728
Real Estate, Rental & Leasing	107	251	38	76
Professional, Scientific, & Technical Services	248	853	73	388
Administrative, Support, Waste Management & Remediation Services	92	768	25	344
Educational Services	17	50	3	N.A.
Health Care & Social Services	189	1,999	50	517
Arts, Entertainment & Recreation	34	377	12	61
Accommodation & Food Services	144	1,207	44	431
Other Services (except Public Administration)	168	670	40	199
Total	1,519	11,206	452	3,924

Source: U.S. Census Bureau, 1997 Economic Census.
N.A. Not available since this sector employs under 20 employees.