

## SECTION 4: VILLAGE PROFILE

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### GENERAL INFORMATION

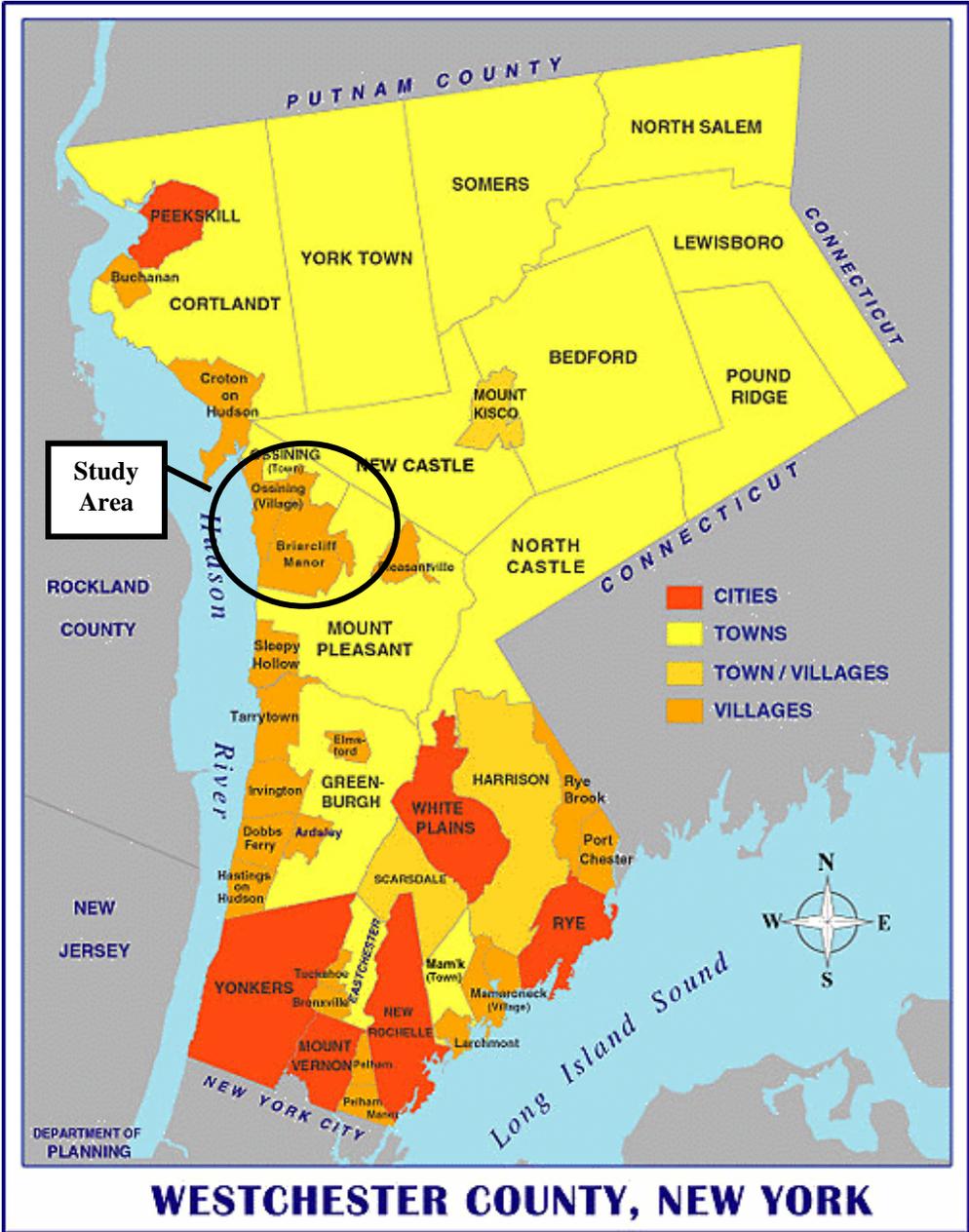
The Village is located at in the central western part of WC, nestled along the historic and scenic Hudson River. Figure 4-1 shows the Village's location. The Village latitude and longitude are: 41°8'39"N, 73°50'29"W (41.144033, -73.841340). The Village is located within the Hudson Valley Region or "Lower Hudson Valley" Region of New York State (NYS). The Village includes 5.96 square miles of land and provides a residential environment within easy commuting distance to Manhattan.

The Village is less than thirty (30) miles north of Manhattan and easy access is available via Route 9, Route 9A, Route 100, and Taconic State Parkway. The Metro-North Railroad makes regular stops at the Village's Scarborough train station and many residents commute to New York City by train. The Village's Central Business District is a quaint, tree-lined commercial area offering shops, restaurants and convenient services. With brick sidewalks, free parking, and period street lighting, the area is one of the most desirable in the region. According to 2005 U.S. Census data, the Village population is 7,938. The Village is situated within the Town of Ossining and the Town of Mount Pleasant, with over 91% of the residents in the Town of Ossining. As shown in Figures 4-1 and 4-2, the Village is bordered by the Town and Village of Ossining to the north-northwest; the Town of Mount Pleasant and the Village of Pleasantville to the east and south; and the Hudson River to the west.

Two public schools districts, Briarcliff Manor and Ossining, serve the Village. Both districts were recognized for their excellence in 2000-2006 by American Town Network LLC and the Briarcliff Manor Middle School was recognized with as a national Blue Ribbon school in 2006. The Village is home to a campus of Pace University and the former King's College [the former site of the exclusive Briarcliff Lodge (early 1900s)]. The Village also includes the Trump National Golf Course (formerly Briar Hall Country Club), owned by real-estate mogul Donald Trump. Two major commercial facilities in the Village are Philips Laboratory and Sony Corporation. The Village motto is "*a Village between Two Rivers.*" The Village, like nearby Chappaqua or Scarsdale, includes wealthy residents and expensive homes.

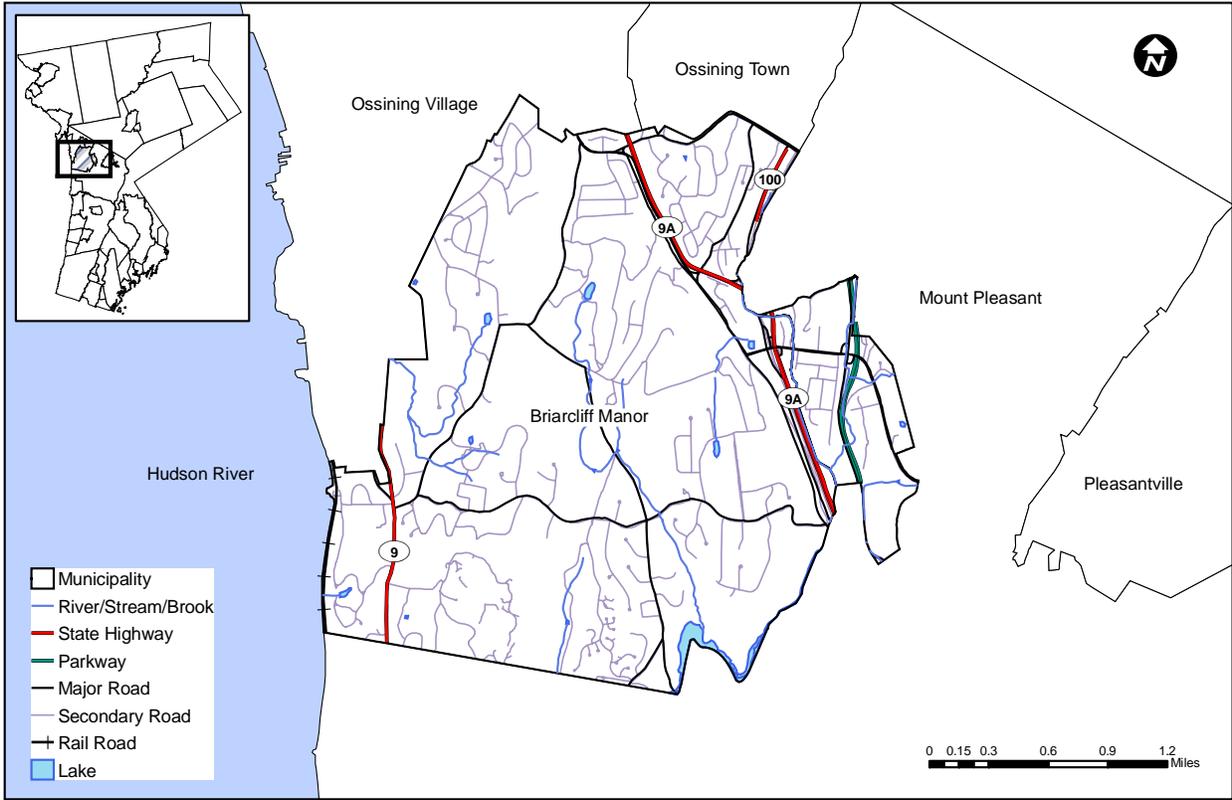
The Village includes rural landscapes, residential areas, business districts, minimal commercial/industrial areas, various transportation systems (local and state roadways, railway, etc.), dramatic terrain and natural features (Caney Brook, Ice Pond, Lodge Pool), 172 acres of local, State and County parks (for example, Pocantico Park, Pine Road Park), and educational facilities. This combination of natural and developed features lays the foundation for Village's vulnerability to natural hazards, both in terms of exposure to hazard events and the potential impact of hazard events.

Figure 4-1. Westchester County, New York



Source: Westchester County Department of Planning  
(<http://www.westchestergov.com/planning/research/Census2000/Oct03Updates/research/censusmaps.htm> )

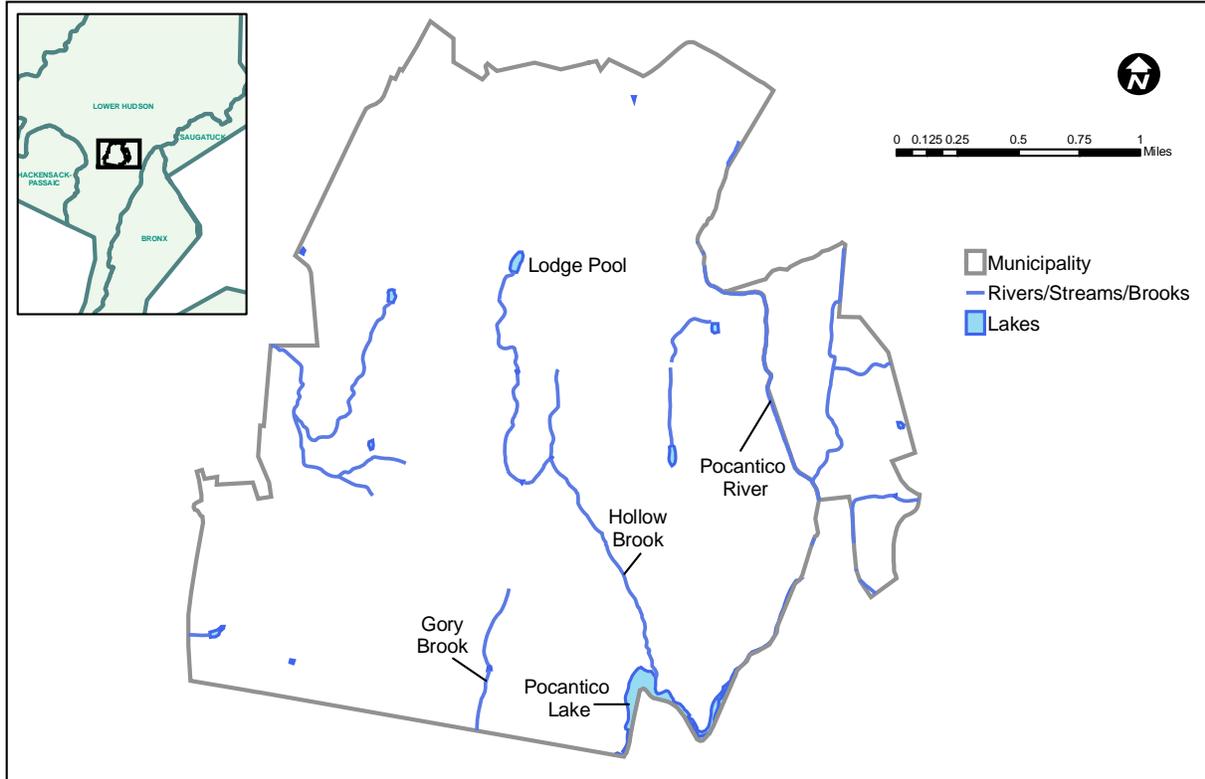
Figure 4-2. Village of Briarcliff Manor Mitigation Plan Area and Surrounding Communities



Source: HAZUS-MH (FEMA 2005) and Westchester County – GIS

The Village is a part of the Lower Hudson River Drainage Basin, which ultimately leads to the Hudson River, west-southwest of the Village. The major streams within the Village include Caney Brook which is centrally located, extending from north to south into Pocantico Lake in the Town of Mount Pleasant; Pocantico River and Sparta Brook. As shown in Figure 4-3, surface-water bodies within the Village include Lodge Pool and Ice Pond. The southwestern corner of the Village is located directly along the Hudson River. Elevations within the Village range from less than 100 feet above mean sea level (amsl) near the Hudson River (Scarborough area) to approximately 500 feet amsl around the center and eastern areas of the Village.

Figure 4-3. Regional Hydrology and Watershed



Source: HAZUS-MH and Westchester County GIS Department.

Water resources are abundant in the Village. All Village residents rely on supplied municipal water from the Village water distribution system. This system is primarily tied into the New Croton Aqueduct (NCA) which extends through the Village from the New Croton Reservoir in Yorktown, NY. Long Hill Road East, Round Hill Drive, Old Sleepy Hollow Road, Ridgecrest Road and Chappaqua Road Water Pump stations have a maximum demand of 3.4 million gallons of water per day (American Town Network, LLC, 2006).

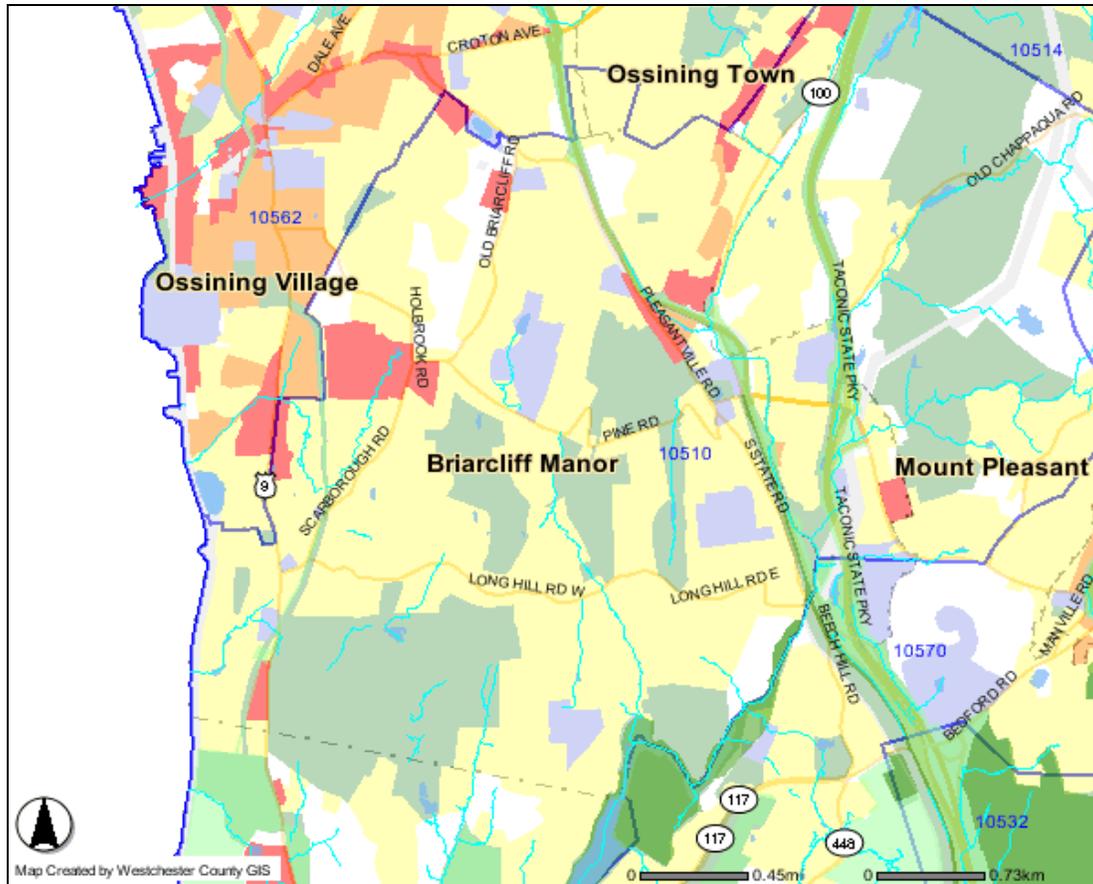
Land use regulatory authority is vested in NYS's towns, villages, and cities. However, many development and preservation issues transcend local political boundaries. Table 4-1 and Figure 4-4 show that the Village is predominantly residential, with open land generally limited to the central and southern areas. Open space (open and undeveloped land) represents approximately 30% of the land area in the Village. The WC Databook identifies 1,209 acres of open space in the Village in 2004, an increase of 37% from 1994. The Old Croton Aqueduct State Trail (unpaved) and the North County Trailway (paved) paths run north to south in the eastern and western areas of the Village, respectively (WC Databook, 2005).

Table 4-1. Current Land Use in the Village of Briarcliff Manor

Land Area (acres)	Land Use Classification (acres / percent of land)				
	Residential	Commercial	Public/Semi-Public	Undeveloped	Roadway
3,680	1,383 / 37.6	168 / 5.0	996 / 27.1	617 / 16.7	126 / 3.4

Source: Briarcliff Manor Comprehensive Plan – May 2007. Note: This source uses a basis of 5.75 square miles as the total land area of the Village.

Figure 4-4. Land Use in the Village of Briarcliff Manor



Source: Westchester County GIS Department (<http://giswww.westchestergov.com/westchester/emap/wc1.htm>)



Figure 4-4. Land Use in the Village of Briarcliff Manor

The Village zoning districts are as follows:

1. Single-Family Residence Districts: There are nine single-family zoning districts (R60A, R40A, R40B, R30A, R20A, R20B, R12B, R10B, and RT4B) in the Village. These districts are characterized by private residences, townhouses, vacant or undeveloped land, neighborhood parks, schools, churches, and the Trump Golf Course.
2. Multifamily Residence District: One multifamily residential district (R30M) is located in the northern portion of the Village and is mainly characterized by garden apartments and attached multifamily units.

3. Business Districts: The three business districts located in the Village include: (1) Retail Business District (B1), (2) General Business District (B2), and (3) Planned Office Building and Laboratory District (B). These districts are occupied by retail and service businesses and light industrial and general commercial/office space.

The WC Department of Planning prepared *Patterns of Westchester: The Land and the People*. This plan was adopted by the County Planning Board in December 1995 and provides the County's long-range planning document policy. It focuses on redevelopment and investment in centers and downtowns, reshaping existing corridors, and sustaining and enhancing open space. In addition, the plan sets forth recommended levels of development density and types of open space throughout WC. The WC Planning Department and the WC Planning Board promote appropriate and sustainable development of land in coordination with transportation and infrastructure, guided by the goals, policies and strategies outlined in *Patterns of Westchester: The Land and the People*.

The Village adopted the Greenway Compact Plan in 2004. The Hudson River Valley Greenway (Greenway) is a voluntary regional cooperative effort, including counties bordering the Hudson River. The Greenway was created to facilitate a voluntary regional strategy for preserving scenic, natural, historic, cultural, and recreational resources along the Hudson River. Participation qualifies the Village for a number of important benefits including technical and funding assistance from Greenway and possible scoring preference over non-compact communities in the evaluation of applications for State Grants. The Village was also one of the first communities to adopt *Greenprint* policies. Becoming a Compact Community requires that a municipality adopt a local law amending the local zoning ordinance to state that consideration will be given to *Greenprint* policies when certain land use decisions are made. In June 2005, the Hudson River Valley Greenway approved the WC Greenway Compact Plan, *The Greenprint for a Sustainable Future*. The plan was prepared by the WC Department of Planning as part of the Hudson River Valley Greenway initiatives and was adopted by the WC Planning Board on June 2, 2004.

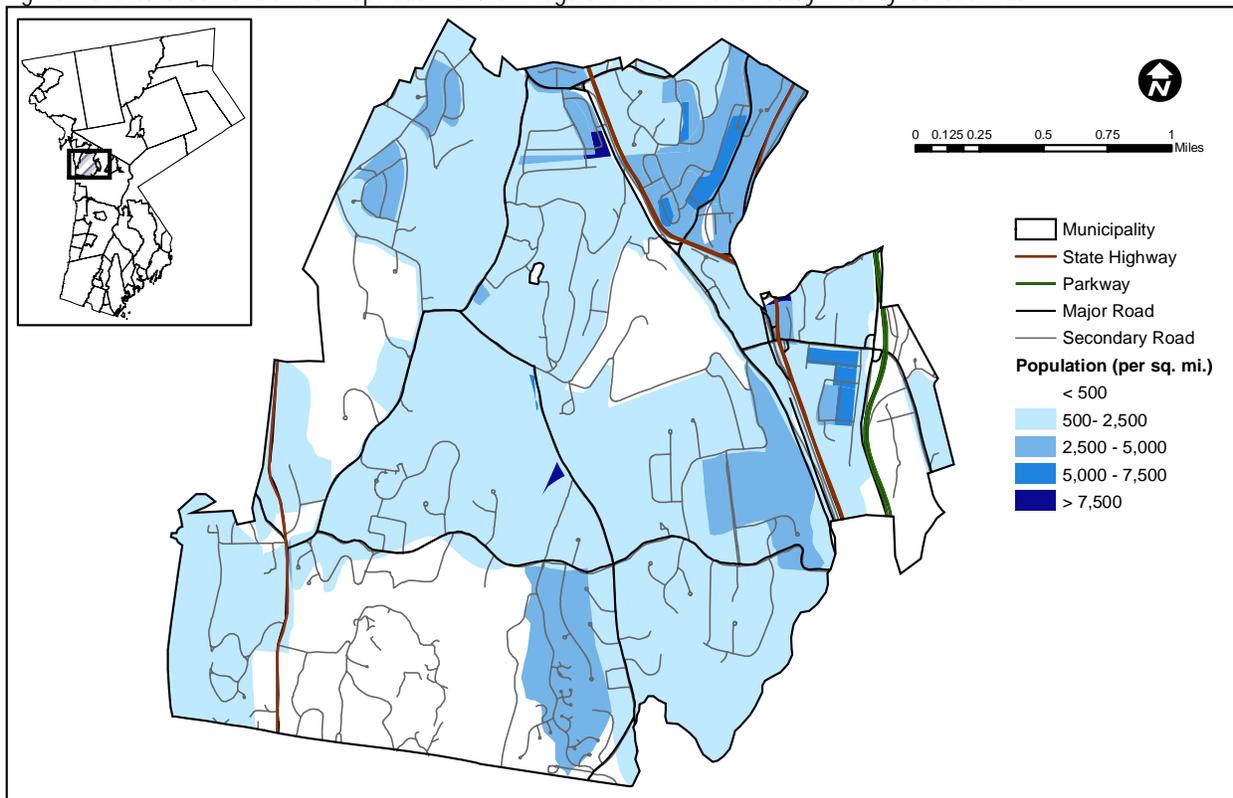
The Village recently adopted the "Comprehensive Plan – Village of Briarcliff Manor, May 2007". As described in the introduction to the plan, the plan "updates the Village of Briarcliff Manor's previous plan which dates back to 1988...the purpose of this plan is the change and adjust the existing plan and to respond to new development issues and concerns that have arisen within the village since 1988."

## POPULATION AND DEMOGRAPHICS

According to the 2000 U.S. Census, the Village had a population of 7,696 people. This is in agreement with the data included in HAZUS-MH (2000 census population of 7,696), and thus it was determined that HAZUS-MH population data would be used without modification for this plan. It should be noted that the 2005 U.S. Census update estimated the population at 7,938. Figure 4-5 shows the distribution of the general population density (persons per square mile) by Census block.

Please note the Census blocks and tracts in HAZUS-MH do not align with the Village boundary provided by WC-GIS. The Census blocks and tracts are shifted west (into the Hudson River) and south. This does not significantly affect or change the results presented in this section. All figures in this section illustrate the Village boundary (study region) as generated by HAZUS-MH.

Figure 4-5. Distribution of General Population for the Village of Briarcliff Manor Study Area by Census Block



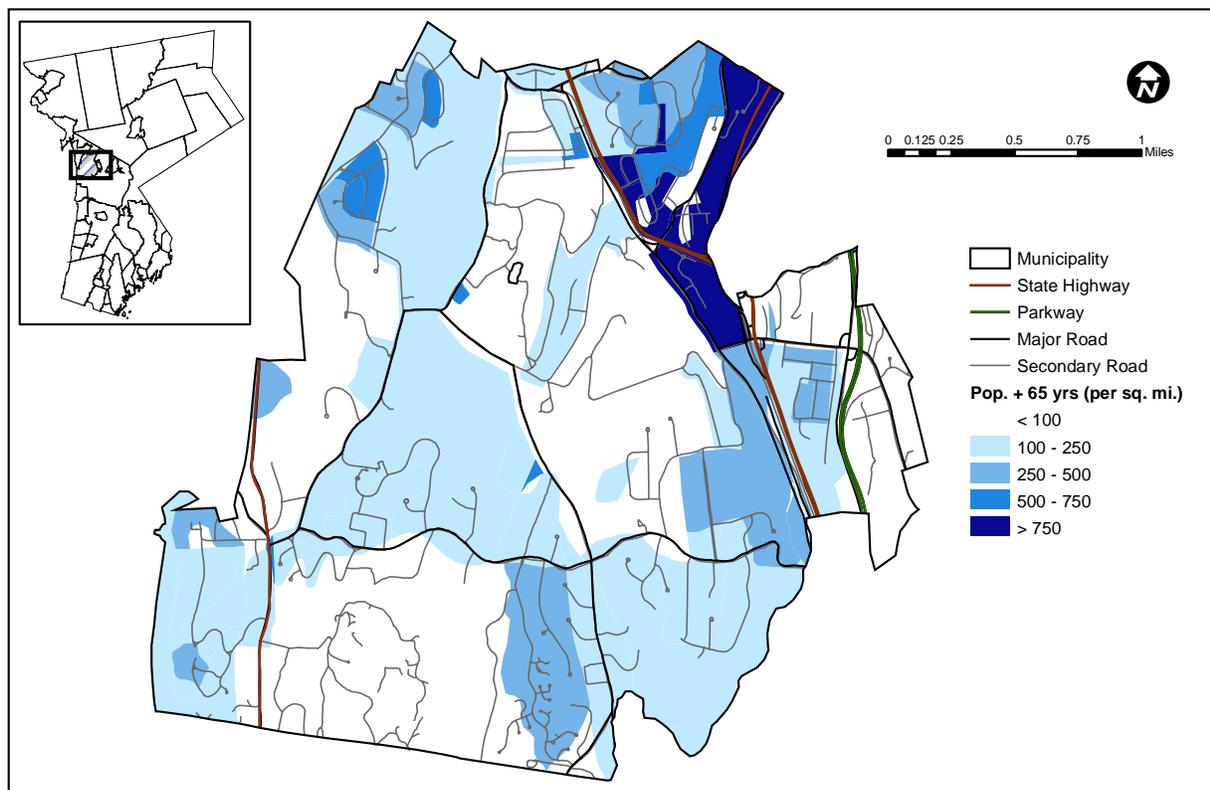
Note: The municipality boundary is the study area generated in HAZUS-MH based on Census blocks and tracts.

Source: HAZUS-MH

DMA 2000 requires that HMPs consider socially vulnerable populations. These populations can be more susceptible to hazard events, based on a number of factors including their physical and financial ability to react or respond during a hazard and the location and construction quality of their housing. This HMP considers two socially vulnerable population groups, (1) the elderly (persons over the age of 65) and (2) low-income (household annual income below \$20,000 per year).

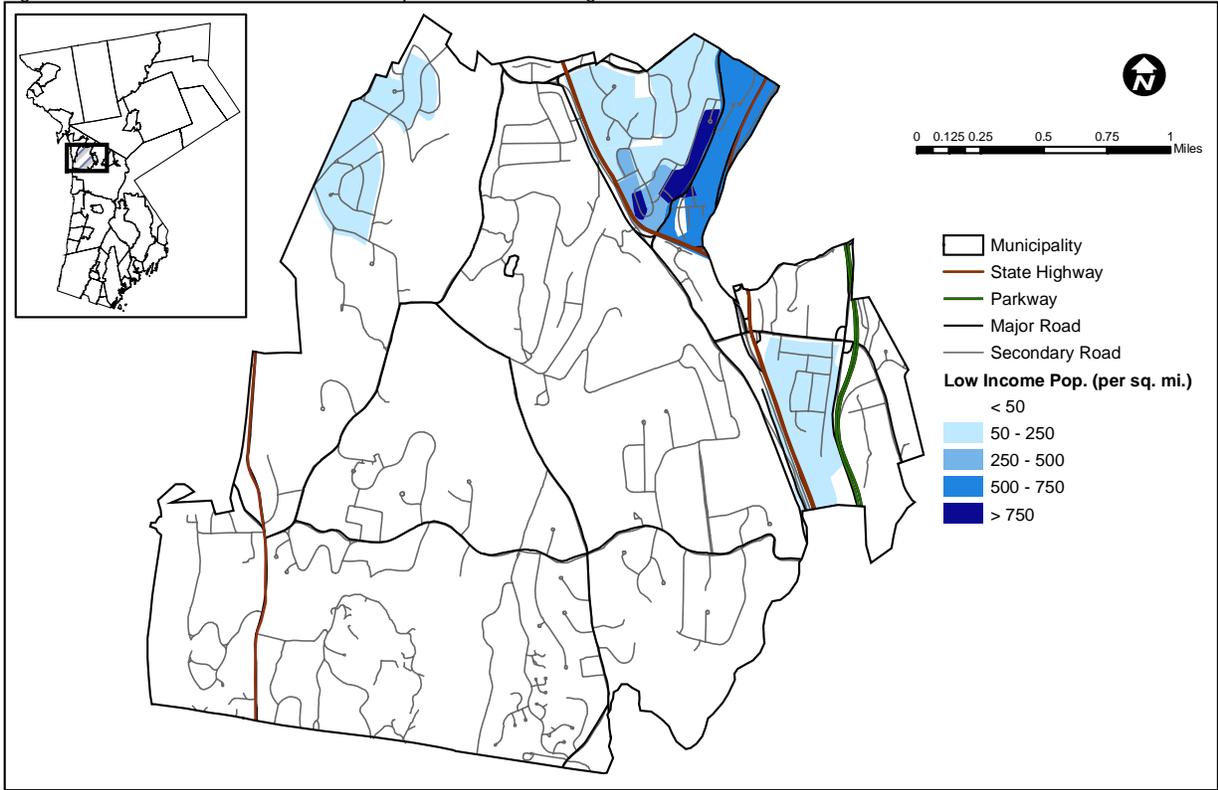
According to the 2000 Census, the Village included 1,128 persons 65 years of age and above (14.7% of total population). The 2000 Census data also identified 242 of the 2,425 households as having an annual income of \$20K or less. The 2000 U.S. Census data indicates a total of 172 persons living in households below the poverty level (3%). Figure 4-6 shows the distribution of persons over age 65 in the Village, while Figure 4-7 shows the distribution of low income persons.

Figure 4-6. Distribution of Persons over the Age of 65 in the Village of Briarcliff Manor



Note: The municipality boundary is the study area generated in HAZUS-MH based on Census blocks and tracts. Source: HAZUS-MH

Figure 4-7. Distribution of Low-Income Population in the Village of Briarcliff Manor



Note: The municipality boundary is the study area generated in HAZUS-MH based on Census blocks and tracts. Source: HAZUS-MH

According to the 1990, 2000 and 2005 Census data, the Village experienced an 8.8 % increase in total population, from 7,070 in 1990 to 7,696 in 2000 and an approximate 3% increased in total population from 7,696 in 2000 to 7,938 in 2005. The Village population increase from 1990 to 2000 exceeded the county-wide population growth of 5.6% during the same period. The 2000 population density was cited in the WC Databook at 1,283 people per square mile.

## GENERAL BUILDING STOCK

The 2000 Census data identifies 2,425 households in the Village. The Census data identified 2,501 housing units in the Village in 2000, an increase of 14% from 1990. The median price of a single family home in the Village was estimated at \$745,000 in 2004, compared to \$645,000 for the entire county in 2004 (WC Databook, 2005).

The data in HAZUS-MH estimates that there are 2,433 structures in the Village, with a total building replacement value (structure and content) of nearly \$1.2 billion. Approximately 99% of the buildings and 87% of the building stock structural value are associated with residential housing. WC GIS data indicates there are a total of 2,568 structures in the Village. Table 4-2 presents Building Stock Statistics by Occupancy Class for the Village, based on HAZUS-MH provided data.

Table 4-2. Building Stock Statistics by Occupancy Class

Building Occupancy Class	Number of Buildings	Exposure Value	Percent of Total Exposure Value
Residential	2,406	\$1,044,542,000	87.4
Commercial	34	\$116,225,000	9.7
Industrial	0	\$10,756,000	0.9
Agricultural	0	\$624,000	0.05
Religious	1	\$6,226,000	0.5
Government	2	\$4,506,000	0.4
Educational*	0	\$12,856,000	1.05
<b>Total</b>	<b>2,443</b>	<b>\$1,195,735,000</b>	<b>100</b>

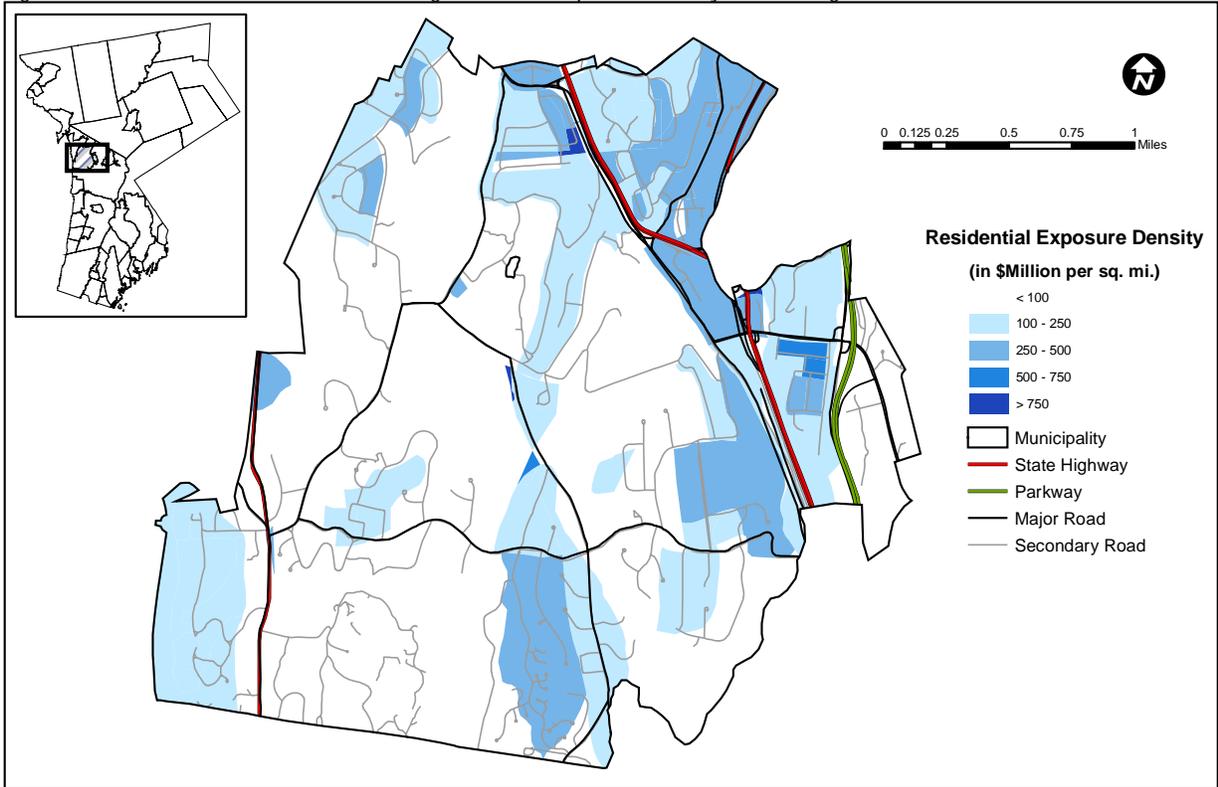
Source: HAZUS-MH provided data (2005). Notes: Exposure value reflects the building structure and contents. \*HAZUS-MH provided data indicate there are no educational buildings in the Village; however, an exposure value of greater than \$12 million is assigned to this occupancy class. Based on local data provided for this plan, there are 6 schools located in the Village.

The 2000 Census data identified that the majority of housing units (85.3%) in the Village are single family detached or attached units. The 2001 U.S. Census Bureau's County Business Patterns data identified 378 business establishments employing 3,463 people in the Village. The majority (83%) of these establishments employed less than 10 employees. The WC Databook identifies the Chilmark at 1856-1924 Pleasantville Road as a major retail facility in the Village (80,000 ft<sup>2</sup>).

Figure 4-8 shows the distribution and exposure density of residential buildings in the Village. Exposure density is the dollar value of structures per unit area, exclusive of the building content value. The densities are shown in units of \$1,000,000 (\$M) per square mile. HAZUS-MH indicates there is only one manufactured home located in the Village. The 2000 U.S. Census of Population and Housing data, accessed on the NYS Data Center website, indicates that there are 5 manufactured homes in the Village.

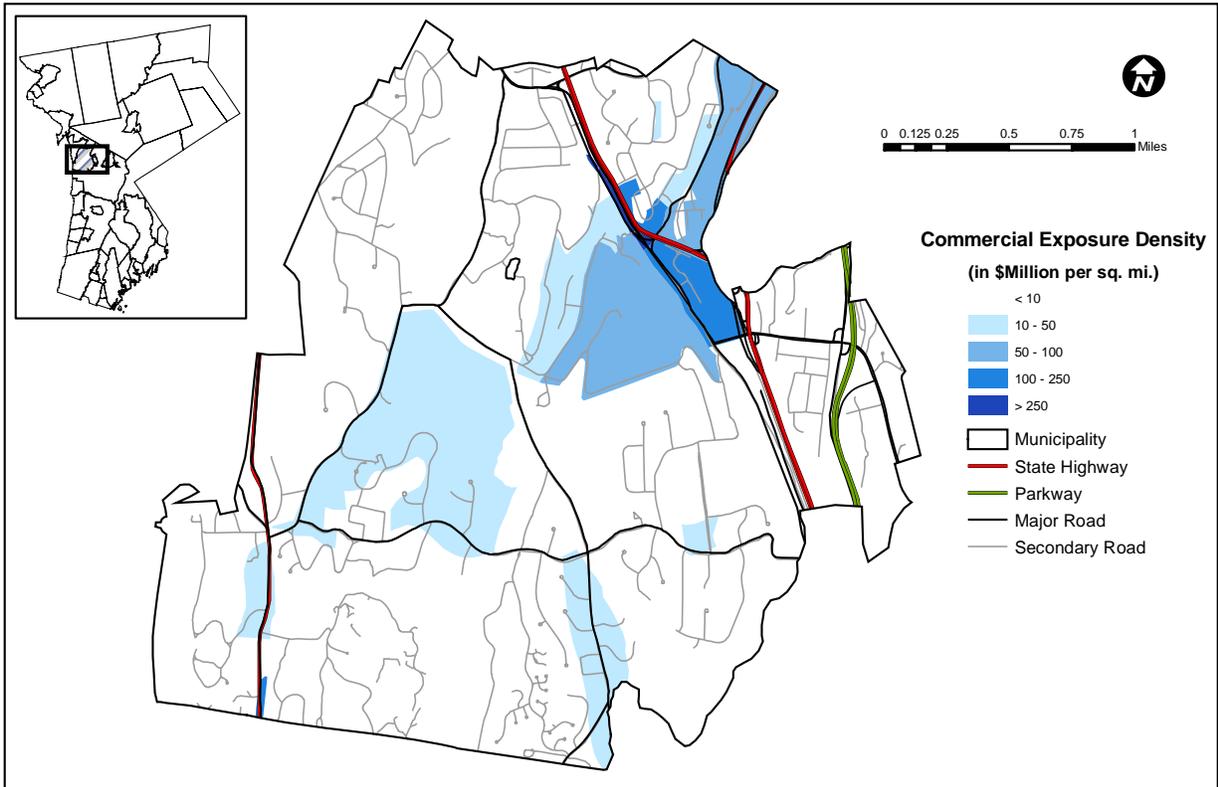
Figure 4-9 shows the distribution and exposure density of buildings in the commercial occupancy category. Large commercial/industrial facilities located in the Village include Sony Corporation of America and Philips Research. Viewing exposure distribution maps such as Figures 4-8 and 4-9 can assist communities in visualizing areas of high exposure and in evaluating aspects of the study area in relation to the specific hazard risks.

Figure 4-8. Distribution of Residential Building Stock and Exposure Density in the Village of Briarcliff Manor



Note: The municipality boundary is the study area generated in HAZUS-MH based on Census blocks and tracts. Source: HAZUS-MH

Figure 4-9. Distribution of Commercial Building Stock and Exposure Density in the Village of Briarcliff Manor



Note: The municipality boundary is the study area generated in HAZUS-MH based on Census blocks and tracts. Source: HAZUS-MH

## CRITICAL AND ESSENTIAL FACILITIES

Critical facilities include essential facilities, transportation systems, lifeline utility systems, and high potential loss facilities. Transportation systems include roadways, bridges, tunnel, airways, and waterways. Lifelines utility systems include potable water, wastewater, oil, natural gas, electric power facilities, and emergency communication systems.

A comprehensive inventory of essential facilities in the Village is being developed from various sources including HAZUS-MH provided data, WC GIS data, various datasets accessed on the NYS GIS Data Clearinghouse web site, and input from the Planning Committee. The inventory of essential facilities presented in this section represents the current state of this effort at the time of publication of the draft HMP. The risk assessment results presented in Section 5 are based on Level 1 HAZUS-MH inventory data (provided with HAZUS-MH), enhanced where practical with local data. The inventory and risk assessment will be updated in the final version of the HMP to include the best available inventory assembled from this ongoing effort.

**Critical Facilities** are those facilities considered critical to the health and welfare of the population and that are especially important following a hazard. Critical facilities include essential facilities, transportation systems, lifeline utility systems, high-potential loss facilities, and hazardous material facilities. As defined for the Village risk assessment, this category includes police stations, fire and/or EMS stations, major medical care facilities and emergency communications.

**Essential facilities** include those facilities that are important to ensure a full recovery following the occurrence of a hazard event. For the Village risk assessment, this category was defined to include schools, colleges, shelters, adult living and adult care facilities, medical facilities and health clinics, hospitals.

### Essential Facilities

This section provides information on emergency facilities, hospital and medical facilities, shelters, schools, and senior care and living facilities.

### Emergency Facilities

The Village emergency facilities are located within the general municipal complex. The entire Village is served by the Briarcliff Manor Police Department and the Briarcliff Manor Fire Departments (Pleasantville Road and Scarborough Road). EMS service is provided by the Village of Briarcliff Manor Fire Department Ambulance Corps (VFDAC). Table 4-3 provides an inventory of the police station, fire station and EMS facility located in the Village. Figure 4-10 shows the location of these facilities.

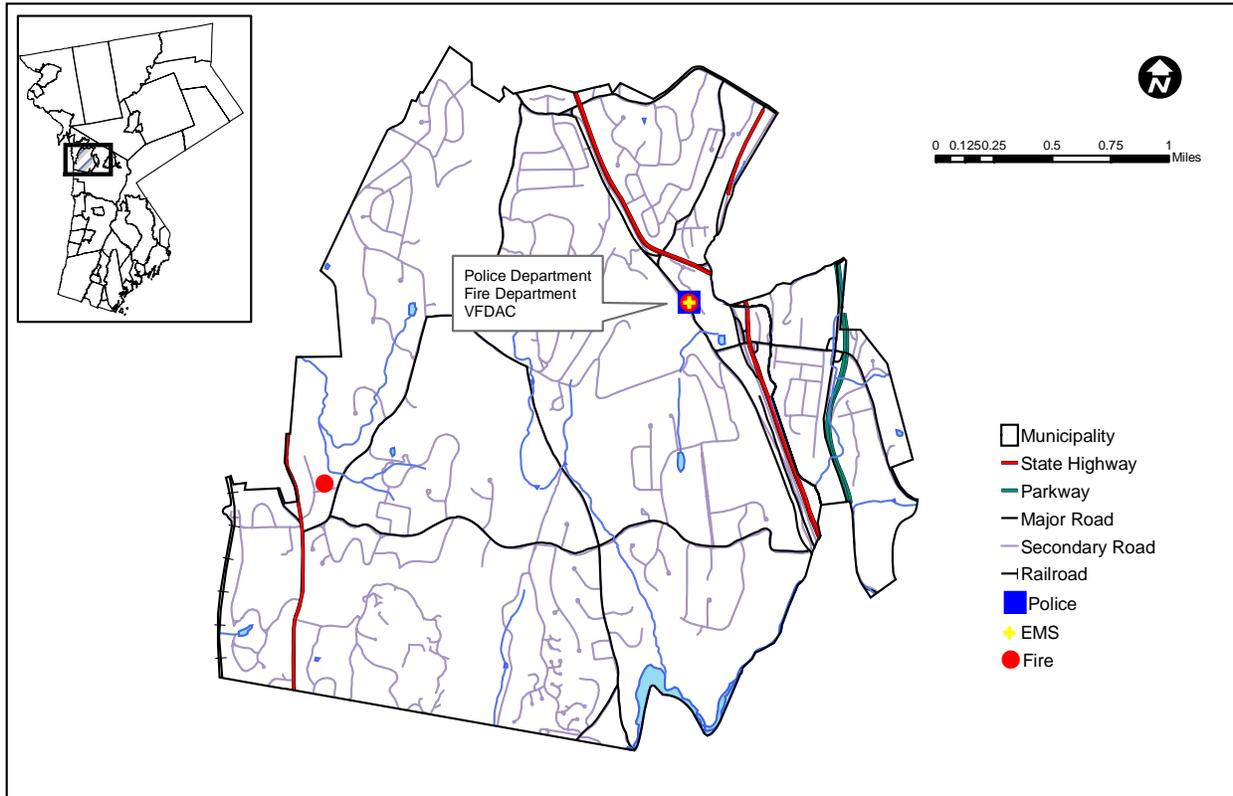
Table 4-3. Emergency Facilities in the Village of Briarcliff Manor

Facility Name	Address	Structural Value	Building Type	Backup Power (Y/N)	EMS Capability (Y/N/NA)		
					Ambulatory	Non-Transport	Level of Care
Briarcliff Manor Police Department	1111 Pleasantville Road	\$3,964,900	Concrete	Y	NA	NA	NA
Briarcliff Manor Fire Department	Same facility as above				NA	NA	NA
Briarcliff Manor VFDAC (EMS)	Same facility as above				Y	N	N
Briarcliff Manor Fire Department	Scarborough Road	\$243,900	Concrete	Y			

Source: Local data and HAZUS-MH provided data (value, type). Notes: TBD = To be determined; Y = Yes; N = No; NA = Not applicable. The structural value includes the building structure, but not the building contents, as established by the Village 4/18/07.



Figure 4-10. Emergency Facilities in the Village of Briarcliff Manor



Source: Local data and HAZUS-MH provided data.

The WC Department of Emergency Services, located in Valhalla, NY provides comprehensive training for fire and EMS personnel in the operation of the Hazardous Material Response (HAZMAT) Team.

The Village's Police, Fire, and EMS have channels to communicate during emergencies. In addition, an emergency communications transmitter is located on the water tower at the Old Kings College property and is equipped with backup power.

### *Hospitals and Medical Centers*

There are no hospitals or medical centers in the Village. The closest hospitals and medical centers to the Village include Phelps Memorial Hospital Center (an acute care hospital in Sleepy Hollow), Westchester Medical Center (a regional tertiary and Level 1 trauma center in Valhalla), and Northern Westchester Hospital Center (a general hospital in Mount Kisco).

### *Shelters*

There are no ARC shelters in the Village. According to the Village Fire Chief, the Middle and High Schools were used as shelters during Tropical Storm Floyd. In addition, the Village has an agreement with the Brandywine Nursing Home to provide cots for sheltering during an emergency situation. The ARC Chapter for the Village is the WC Chapter located in White Plains, New York ([www.redcross.org](http://www.redcross.org)). During Tropical Storm Floyd, the ARC was unable to get into the Village; therefore, the Village needs to be self-sufficient during such hazard events.

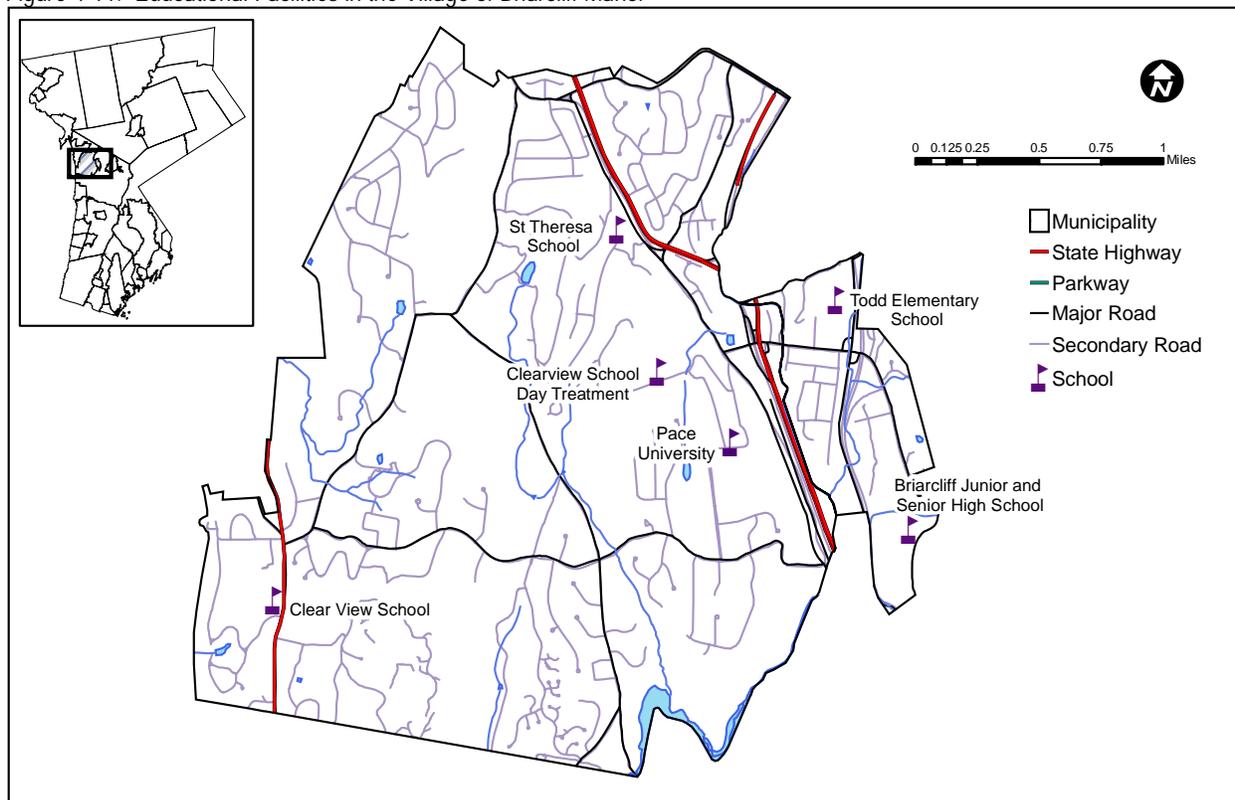
### Schools

Approximately seventy percent (70%) of the Village is served by the Briarcliff Manor Union Free School District, while the remaining thirty percent (30%), located in the north and west portion of the Village, is served by the Ossining Union Free School District (Databook, 2005). There are two public schools (Todd Elementary School and Briarcliff Junior and Senior High School) and three private schools (Clear View School, St. Theresa School, and Clearview School Day Treatment) located in the Village. Pace University's Briarcliff campus is also located in the Village.

Figure 4-11 displays the locations of schools in the Village.

Table 4-4 inventories schools in the Village identified by WC GIS data and/or HAZUS-MH provided data.

Figure 4-11. Educational Facilities in the Village of Briarcliff Manor



Source: WC GIS Data and HAZUS-MH provided data.

### Senior Care and Senior Living Facilities

The WC Department of Senior Programs and Services (previously known as the Office of Aging) has assisted seniors and their families since 1974. There are five senior facilities located in the Village (Atria Assisted Living, Brandywine Adult Home, Inc., Brandywine Nursing Home, and the North Hill Apartments) (WC Databook, 2005; Jamin, 2006: WC GIS). Table 4-5 provides an inventory of senior facilities in the Village. Figure 4-12 shows the location of these facilities.

Table 4-4. Educational Facilities in the Village of Briarcliff Manor

Facility Name	Address	Type of Facility	Enrollment	Designated Shelter (Y/N)	Shelter Capacity	Structural Value	Bldg. Type	Backup Power (Y/N)
Todd Elementary School	45 Ingham Road	Public	771	TBD	TBD	\$590,000	Masonry	TBD
Briarcliff Middle and Senior High School	444 Pleasantville Road	Public	922	Y	TBD	\$590,000	Masonry	TBD
Clear View School	550 Albany Post Road	Private		TBD	TBD	TBD	Masonry	TBD
St. Theresa School	300 Dalmeny Road	Private	256	TBD	TBD	\$590,000	Masonry	TBD
Clearview School Day Treatment	River Road	Private	114	TBD	TBD	\$590,000	Masonry	TBD
Pace University	235 Elm Road	State	TBD	TBD	TBD	TBD	TBD	TBD

Sources: HAZUS-MH provided data (structural value, building type); WC GIS data. Notes: Bldg = Building; N = No; TBD=To be determined; Y=Yes.

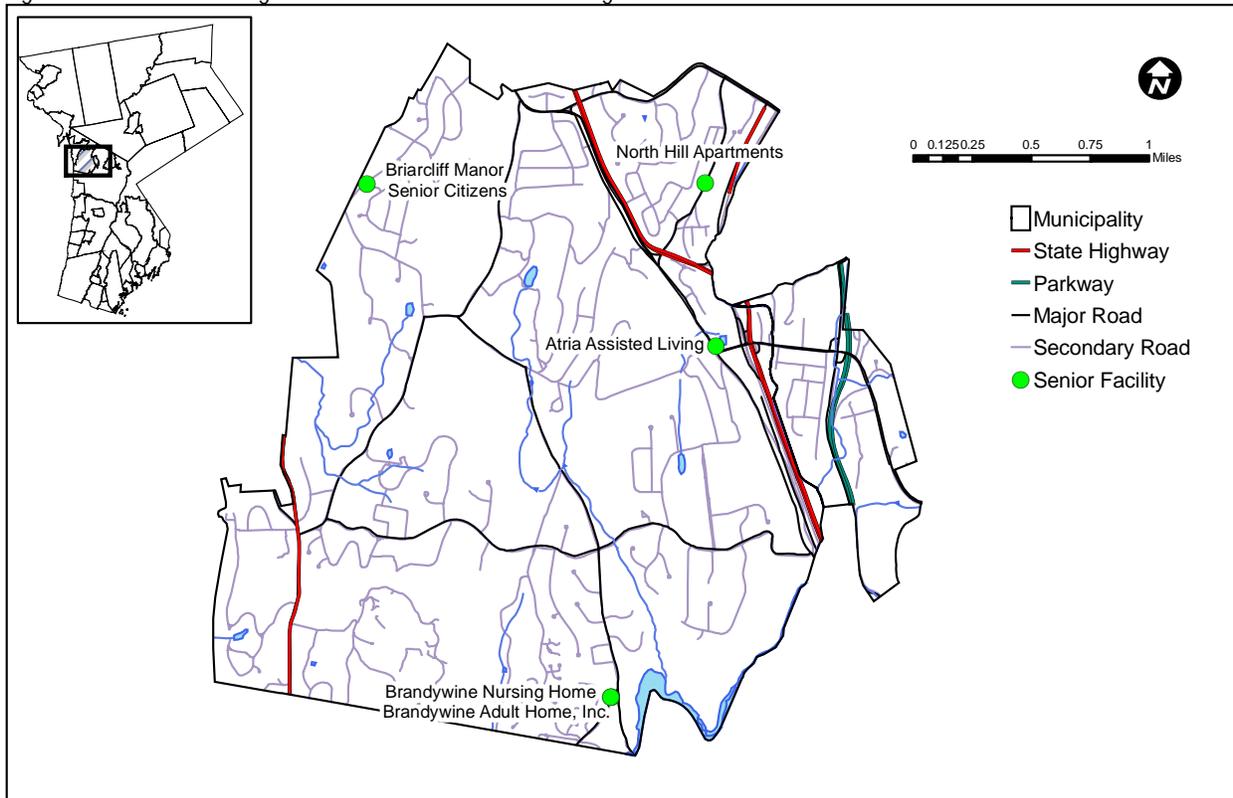
Table 4-5. Senior Living / Senior Care Facilities in the Village of Briarcliff Manor

Name	Address	Cost (Structural Value)	Building Type	Type	Capacity	Backup Power (Y/N)
Briarcliff Manor Senior Citizens	48 Macy Road	TBD	TBD	Recreation Center	132*	TBD
Atria Assisted Living	1025 Pleasantville Road	TBD	TBD	Assisted Living	130	TBD
Brandywine Adult Home, Inc.	620 Sleepy Hollow Road	TBD	TBD	Assisted Living	131	TBD
Brandywine Nursing Home	621 Sleepy Hollow Road	TBD	TBD	Adult Care	48	TBD
North Hill Apartments	345 North State Road	TBD	TBD	Apartment Complex	TBD	TBD

Notes: Bldg=Building; N=No; TBD=To be determined; Y=Yes. \* This recreation center can accommodate 89 people for dining and 132 for assembly.

Sources: Data provided by WC Department of Planning Databook (2005); HAZUS-MH; H. Jamin of Recreation and Parks Department (Jamin), and the May 2007 Comprehensive Plan – Village of Briarcliff Manor.

Figure 4-12. Senior Living / Senior Care Facilities in the Village of Briarcliff Manor



Sources: WC Databook, 2005; Jamin, 2006; WC GIS; HAZUS-MH provided data.

### Transportation Systems

This section presents available inventory data for highways, roadways, railways and associated systems. Figure 4-13 shows regional transportation lines serving WC. Figure 4-14 shows the local transportation lines, major roadways, associated bridges and rail-way that serve the Village.

State Highway 9 runs north-south along the west side of the county, through the Village. Route 9 is an Interstate in the northern part of the county, becoming a state highway in Ossining where Route 9A splits off to the east-southeast. Route 9A runs through the north and eastern portions of the Village, where it connect to the Taconic State Parkway just south of the Village. Pleasantville Road is located in the northeastern portion of the Village and provides access to the Taconic State Parkway, Routes 9A and 100. According to the *Pleasantville Road Bridge Enhancement Project* application prepared by the Village, Pleasantville Road, Todd Lane and Carleton Avenue are flood-prone roadways.

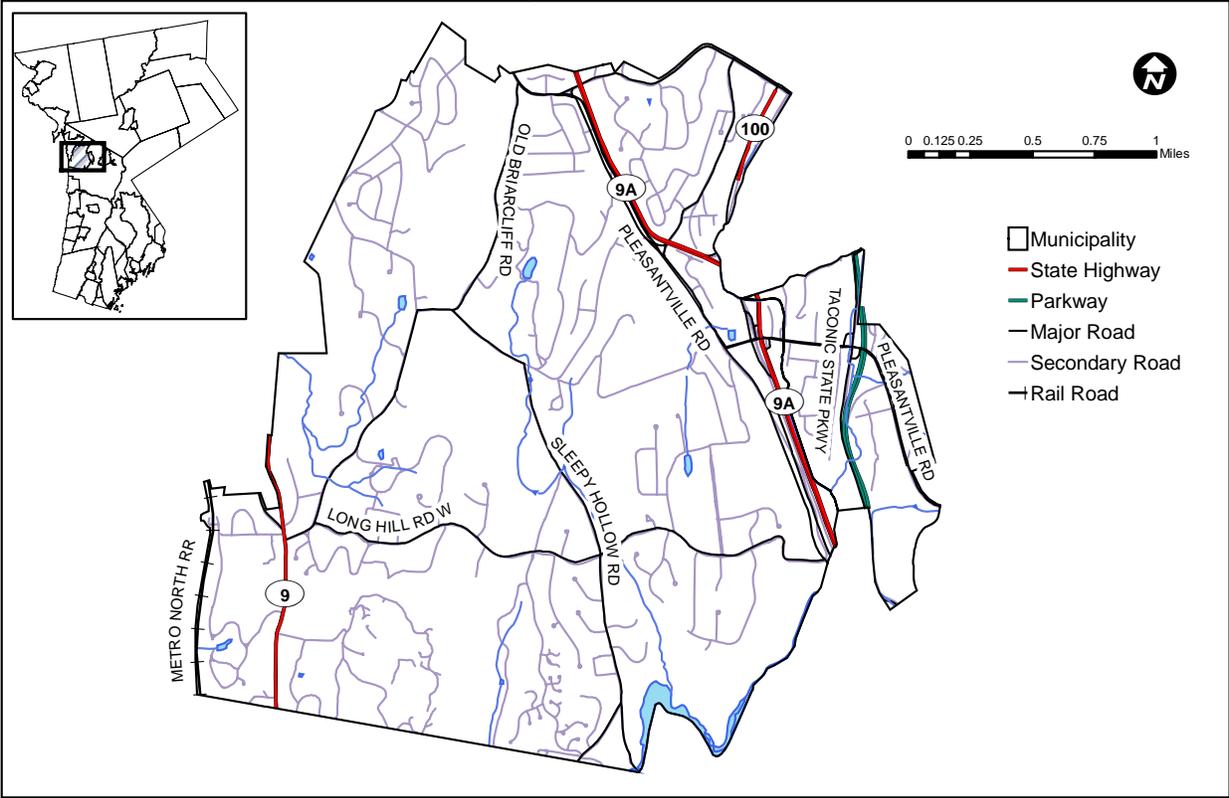
According to the WC website, the WC Department of Public Works maintains 175.5 miles of roads, 186 bridges, and 71 traffic signals under County jurisdiction. The Department operates and maintains a traffic engineering and safety program to minimize crashes, provides education programs, and enforces regulations. The Village Department of Public Works maintains Village roads, including street light maintenance and cleaning of gutters, catch basins and the storm sewer system. The annual road-paving program includes paving 2 to 3 miles of roads and the winter snow removal program addresses 41 miles of roadways (American Towns, 2006).

Figure 4-13. Regional Transportation in Westchester County



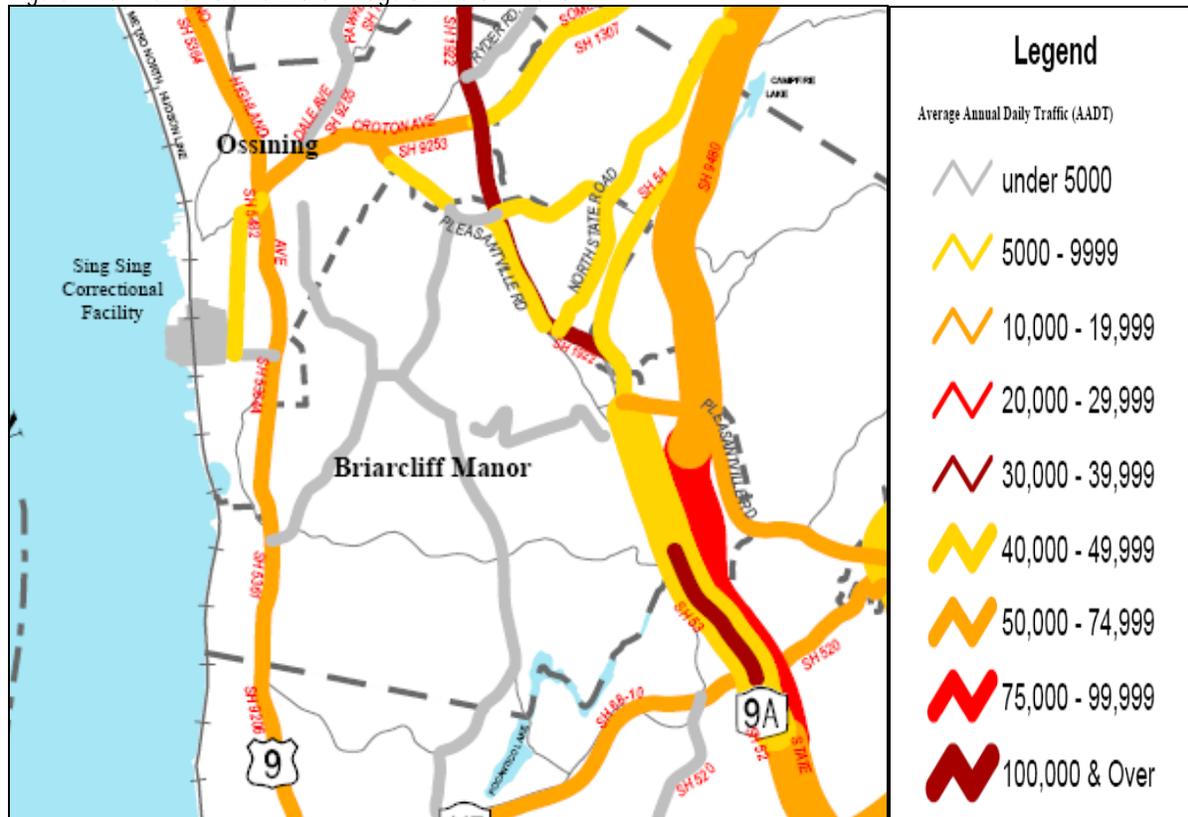
Source: Westchester County Planning Department (<http://www.co.westchester.ny.us/patterns/MAP/maps.htm>)

Figure 4-14. Local Transportation Lifelines in the Village of Briarcliff Manor



According to the WC Department of Planning, Routes 9 and 9A appear to experience the heaviest traffic volume in the Village. Pleasantville Road, which extends to the Town of Mount Pleasant line to the east and the Ossining Village line to the north-northwest, also appears to experience heavy traffic, with an annual average daily traffic amount between 1999 and 2002 of 19,389 vehicles. Figure 4-15 presents a summary of vehicular traffic rates (Westchester County DPW, 2006).

Figure 4-15. Traffic Volume in the Village of Briarcliff Manor

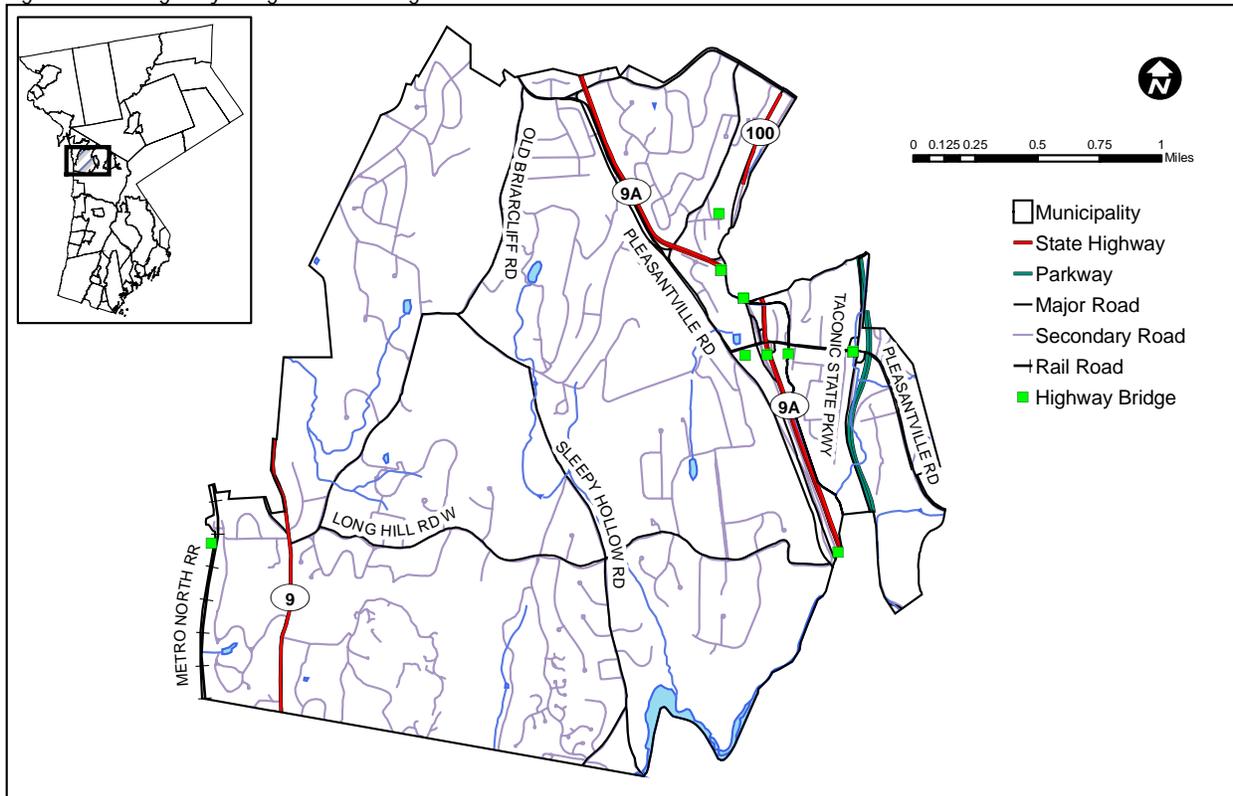


Source: WC Department of Planning, February 2006, "Traffic Volume"

The NYS Department of Transportation reports that the Village roads network includes 46.1 miles (State and local roads) (NYSDOT, 2004). According to HAZUS-MH, the default replacement value for Routes 9 and 9A is over \$51.5 million. HAZUS-MH does not provide replacement values for other highway segments located in the Village.

HAZUS-MH provided data includes twelve (12) highway bridges in the Village with a net replacement value of over \$54 million. Of these 12 bridges, ten (10) are identified as State-owned, one is County-owned, and one is owned by the railroad. The one County-owned bridge, also identified in the WC Department of Works 2005 Annual Report, is the Pleasantville Road Bridge over the Pocantico River. Figure 4-16 shows highway bridges located in the Village.

Figure 4-16. Highway Bridges in the Village of Briarcliff Manor



Source: Local Data and HAZUS-MH, 2005.

In 2000, the Village submitted an application to FEMA under the HMGP to replace an existing, undersized arch culvert at the Pleasantville Road crossing over the Pocantico River. This project would improve stream flow in the Pocantico River and reduce the potential for overflow (Village of Briarcliff Manor, 2000). The Village did not receive funding to support this project.

The Metro-North Commuter Railroad lines run along the Hudson, through the Village, with a stop at the Scarborough station. No other railroads transect the Village.

There are no commercial airport facilities in the Village. The nearest airport certified for carrier operations is the WC airport in White Plains. Other public airports in the vicinity include the Haverstraw Airport (Haverstraw, NY) and Peekskill Airport (Peekskill, NY).

### *Lifeline Utility Systems*

Due to heightened security concerns, local utility data sufficient to complete the analysis have only partially been obtained. Utility system data that were available through HAZUS-MH were not considered sufficient to support accurate loss estimates. The Department of Public Works provided data for potable water tanks and pumping stations and sanitary sewer stations; however this dataset only provided location without attribution for valuation.

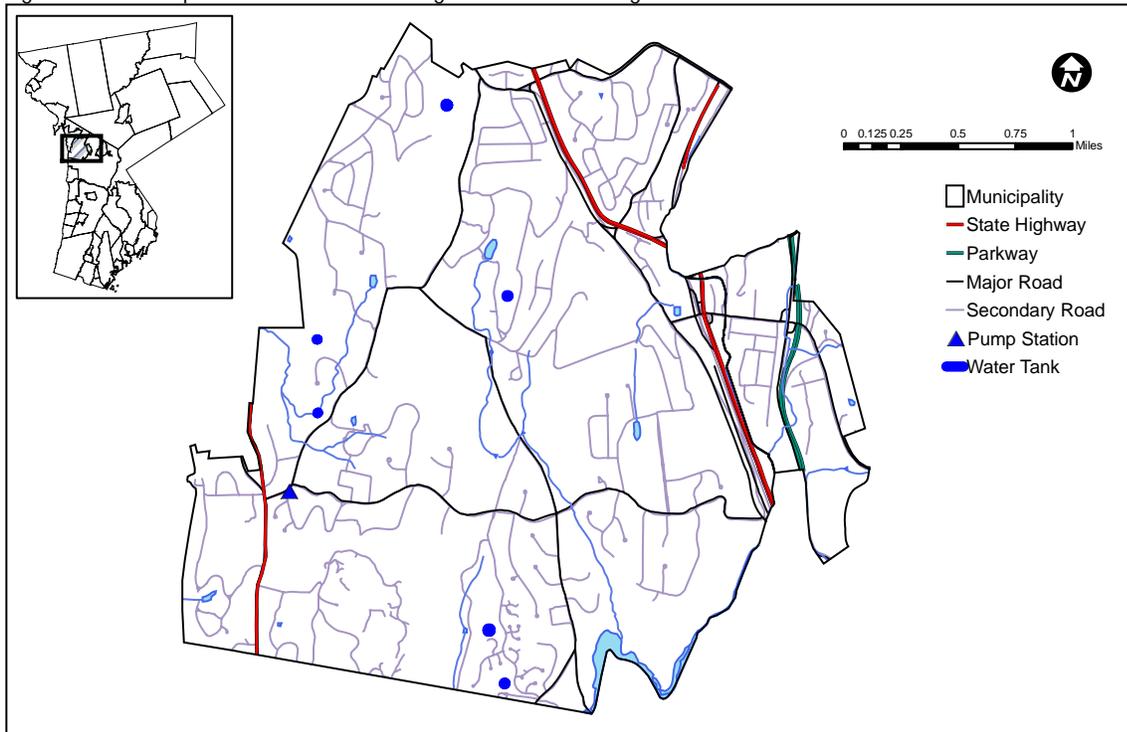
### *Potable Water Supply*

The Village has its own municipal water supply system. The Department of Public Works (Water Department) operates the Long Hill Road water treatment plant located in Ossining, operates pump stations in the Village, and maintains the water distribution system. The average daily water supply demand is 1.45

million gallons per day (MGD) with a peak demand of 3.5 MGD (2005 values). The Croton Aqueduct, which runs through the Village from the Croton Reservoir in Yorktown, supplies the Long Hill Road pump house located in the Village. The Long Hill Road pump house is the primary water supply for the Village with supply capacity exceeding 3.5 MGD (DPW, 2006).

There are four water storage tanks (Rosecliff, Farm Road, Kings College and Edith May Conference Center) and two pump stations (Long Hill Road pump house, Dalmeny Road pump station) located in the Village (DPW, 2006). Only the Long Hill Road pump house was included in the HAZUS-MH analysis for this draft Plan. An assessment of the Dalmeny Road pump station (location not provided) and water tanks will be included in a revised version of this plan. Figure 4-17 illustrates the location of the Long Hill Road pump house and the water storage tanks. Table 4-6 inventories the Village Water District's water tanks and pump stations.

Figure 4-17. Pump Station and Water Storage Tanks in the Village of Briarcliff Manor



Source: Local Data and HAZUS-MH, 2005.

Table 4-6. Village of Briarcliff Manor Potable Water Tanks and Pump Stations

Water Storage Tank	Capacity (gallons)	Fed By (Pump Station)	Supply Capacity	Backup Power (Y/N)
Edith May	Tank (300,000)			TBD
Rosecliff	Tank (3 million)	Long Hill Road East and all emergency pump stations	3.5-3.7 MGD to system	TBD
Farm Road	Tank (1 million)	Long Hill Road East and all emergency pump stations	3.5-3.7 MGD to system	TBD
Kings College	Tank (150,000)	Dalmeny Road	300-400 GPM to tank	TBD
		Round Hill Drive (New Castle)	100 GPM to top of hill	TBD

Source: Village of Briarcliff Manor Department of Public Works, 2006. Notes: MGD=millions of gallons per day; TBD=to be determined. Y=Yes; N=No.

The Village of Sleepy Hollow, Village of Ossining, Village of Pleasantville, and the Town of New Castle provide emergency/alternative water supplies to the Village of Briarcliff Manor, as needed (DPW, 2006).

The Croton Aqueduct runs through the Village, carrying water from the Croton Reservoir in Yorktown south to New York City. HAZUS-MH provided data identified no potable water infrastructure in the Village.

### *Wastewater Facilities*

The Department of Public Works, (Highway and Water Departments) maintains the sanitary sewer system, including cleaning and repairing the collection system and maintaining the sewer pump stations (American Towns, 2006). The western half of the Village lies within the Ossining Sewer District, served by a 7.5 MGD county-owned secondary treatment plant in Ossining. The eastern half of the Village is within the Saw Mill Sewer District, served by the 120 MGD Yonkers Joint secondary treatment facility. There are no wastewater treatment plants located in the Village.

HAZUS-MH provided data identified no wastewater infrastructure in the Village. According to a Department of Public Works October 2006 tour agenda, there are eight (8) sewer pump stations in the Village (DPW, 2006). However, the GIS data provided by the DPW includes twelve (12) pump stations, as shown on Figure 4-18. Table 4-7 provides an inventory of sewer pump stations in the Village.

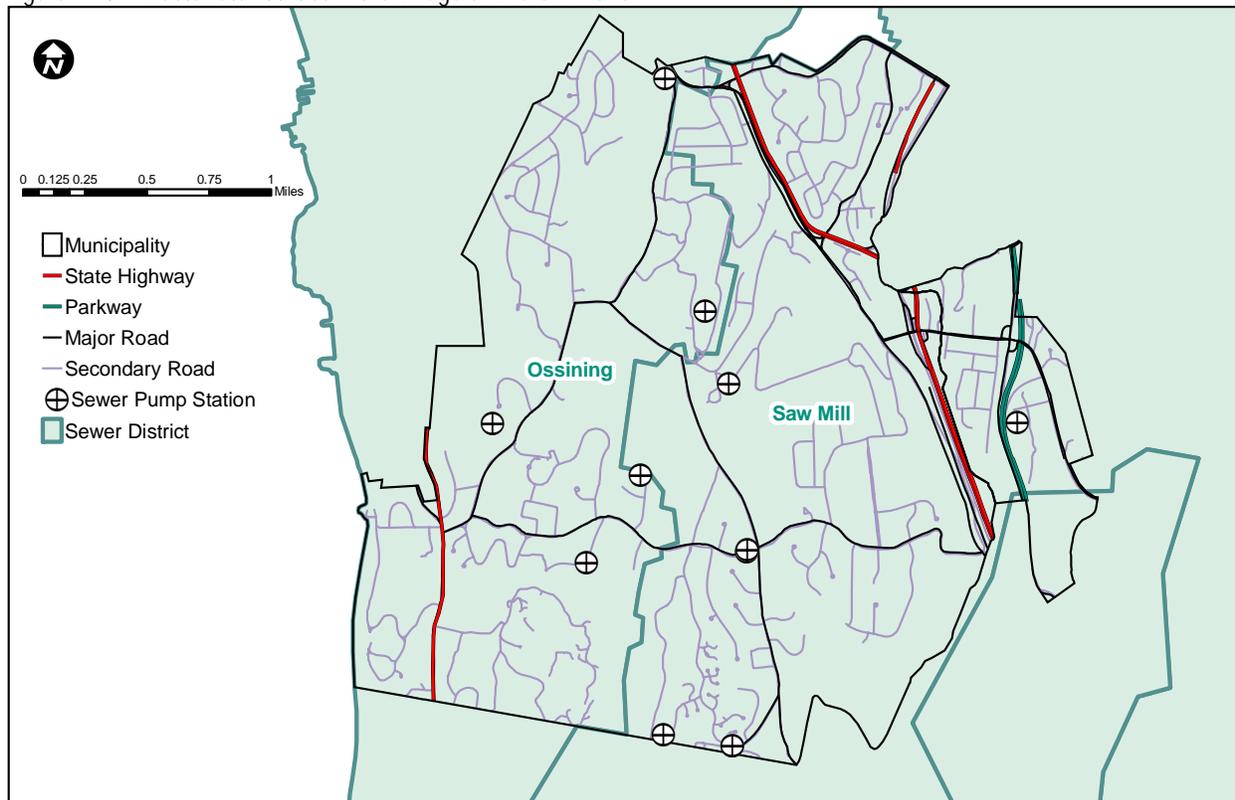
Table 4-7. Village of Briarcliff Manor Sewer Pump Stations

Name	Service Area	Structural Value	Rate (GPM)	Backup Power (Y/N)
Long Hill Road	Sleepy Hollow Road; Hall Road; Long Hill Road; Hirst Road; Hollow Tree Road	\$ 46,500	180	Y
Pine Road	Pine Road; Scarborough Road; Dalmeny Road; Cherry Hill Court; Fountain Road; Trump	\$ 10,816	200	Y
Brookwood	Brookwood Drive	\$ 16,711	100	Y
Rosecliff (Wilderness Way)	Westside of Rosecliff	\$ 11,140	120	Y
Rosecliff (Lewiston Court)	Eastside of Rosecliff	\$ 18,816	120	Y
Cottonwood Lane	Cottonwood Lane, Purdy Court	\$ 11,140	100	Y
Holly Place	Holly Place	\$ 16,711	50	Y
Buckhout Road	DPW Garage	TBD	50	N

Source: Village of Briarcliff Manor DPW (2006). Values from Briarcliff Assessor noted as of 4/18/07.

Notes: GPM=gallons per minute; TBD=to be determined.

Figure 4-18. Wastewater Utilities in the Village of Briarcliff Manor



Source: Village of Briarcliff DPW, 2006.

### *Electrical Power Facilities*

Electric power is transmitted and distributed by Consolidated Edison (Con Ed) throughout most of WC and all of the Village. Con Ed's Northern Region (serving the Bronx and Westchester) is headquartered in Rye, New York. The New York Power Authority sells electricity to Con Ed. The HAZUS-MH provided data identifies no electric substations in the Village; there are no electrical power generating facilities in the Village.

### *Fuel and Natural Gas Pipelines*

Con Ed supplies natural gas to the Village. HAZUS-MH provided data do not identify any fuel or natural gas pipeline infrastructure in the Village.

### *High-Potential Loss Facilities*

High-potential loss facilities include dams, levees, nuclear power plants and military installations. The HAZUS-MH provided data do not identify any high-potential loss facilities within the Village.

“Major Dams” data was obtained from the National Inventory of Dams (NID), which is produced by the U.S. Army Corps of Engineers (USACE) in cooperation with FEMA's National Dam Safety Program. The NID includes dams of 50 feet or more in height, with a normal storage capacity of 5,000 acre-feet or more, or with a maximum storage capacity of 25,000 acre-feet or more. This data set does not identify any “major” dams in the Village. In addition, there are no levees in the Village.

The Indian Point Power Plant is a nuclear power plant facility and is located in Buchanan, WC, New York. The northeastern portion of the Village is located within 10 miles (emergency planning zone) of this plant. The WC Government Website provides communities with step-by-step emergency planning information regarding the Indian Point Power Plant (<http://www.westchestergov.com/indianpoint/>).

### *HAZMAT Facilities*

HAZUS-MH provided data do not identify any hazardous materials (HAZMAT) facilities in the Village. The U.S. Environmental Protection Agency's (EPA) Toxics Release Inventory (TRI) database also does not identify TRI facilities in the Village. TRI facilities are those required to report on chemical storage and use based on particular volumes of specified chemicals stored and used.

## POPULATION AND LAND USE TRENDS

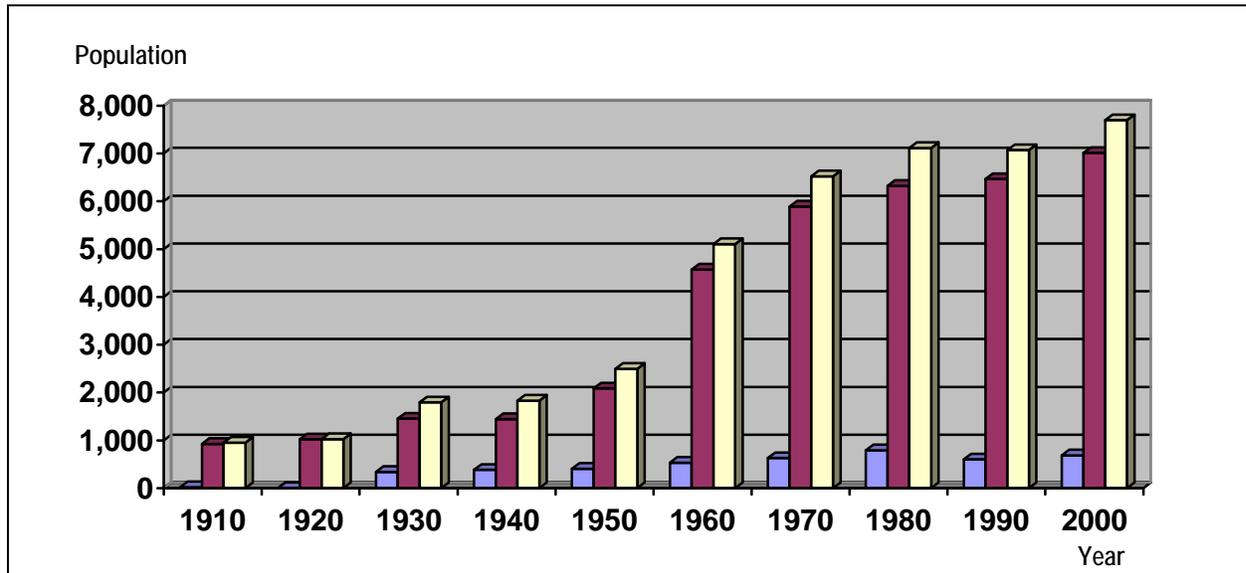
Land use regulatory authority is vested in NYS towns, villages, and cities. However, many development and preservation issues transcend local political boundaries. DMA 2000 requires that communities consider land use trends, which can impact the need for, and priority of, mitigation options. Land use trends can significantly impact exposure and vulnerability to various hazards.

This section considers trends in population and land use in the study area. An understanding of these development trends can assist in planning for further development and ensuring that appropriate mitigation, planning and preparedness measures are in place to protect human health and community infrastructure.

In regards to population trends, the WC Department of Planning Databook provides information for population from 1900 through 2005. Figure 4-19 shows the population of the Village for the portion in Town of Mount Pleasant, the portion in the Town of Ossining, and the total for the Village. As the chart shows, the Village population increased rapidly from 1910 to 1960 but population growth has since slowed. The WC Databook also provides some analysis of population density, which has increased from 1,178 persons per square mile in 1990 to 1,283 persons per square mile.

The Comprehensive Plan – Village of Briarcliff Manor (May 2007) identified land use change in the Village from 1977 and 2004, and noted that “land use has remained fairly consistent, with the exception of a notable 17% increase in total residential development.”

Figure 4-19. Population Trends for Village of Briarcliff Manor



Source: WC Databook (2005). Notes: Purple=Mount Pleasant Town; Burgundy=Ossining; and Yellow=Total for Village.

As discussed previously, current land use in the Village is predominantly residential, with open land generally limited to the central and southern areas. Open space (open and undeveloped land) represents over 30% of the land area in the Village. The WC Databook identifies 1,209 acres of open space in the Village in 2004, an increase of 37% from 1994.

## FUTURE DEVELOPMENT

A 2004 land use survey indicated that there were 617 undeveloped acres in the village representing 17% of the total land area. Per the May 2007 “Comprehensive Plan for Briarcliff Manor”, half of the land in the Village that is currently undeveloped or underdeveloped (e.g. can be subdivided) is located in large parcels within an area referred to as the Scarborough Road Corridor (see Figure 4-20). The Scarborough Road Corridor (“Corridor”) is a 2-1/2 mile area that includes Pine and Dalameny, snaking in a generally east-west plan across the Village. Parcels along Holbrook and Old Briarcliff Roads are considered within this Corridor, although to a lesser extent. Zoning along the Corridor is primarily single family residential (1 to 1-1/2 acre lots), and to a much lesser extent, business. The 2007 Plan notes that “further significant development” will likely occur within the Corridor.

The July 2001 “Scarborough Road Corridor Study” determined that, under current zoning at that time, some 244 to 295 new residential units were possible in the Corridor. A full residential build-out of the Corridor was estimated to add 1,000 new residents to the Village.

The majority of the corridor is characterized as dry and varies topographically, ranging from a relatively level valley basin to ridgelines with slopes in excess of 25%. While there are some wetland areas, Lodge Pond and Goose Pond, and several streams (Caney Hollow Brook and Sparta Brook) within the area, it appears that none of the developable lands include recognized floodways and floodplains. Existing residents in the western, lower portion of the Corridor have complained of flooding problems.

With respect to stormwater, the 2001 Study indicated that “above ground ditches, swales and the local creek and river systems provide the only stormwater runoff facilities in the corridor...as development has

increased, properties in lower elevations on the corridor have experience increased problems with runoff”. Thus, stormwater drainage improvements were cited as being a necessary factor in development of the Corridor.

Other major pending development in the Village includes a continuing care retirement community (CCRC) on the 58 acre former site of King’s College (see Figure 4-20). This proposed development would accommodate up to 550 seniors within 288 apartment style buildings, 27 “villa-style” independent living units, 20 assisted living units, and a 30-bed skilled nursing facility.

Figure 4-20. Scarborough Road Corridor and Major Undeveloped Parcels

