











Westchester County, New York

# PLANNING BASE STUDIES

A detailed study of existing conditions

September 2014







Westchester gov.com

Robert P. Astorino, County Executive Edward Buroughs, Commissioner Department of Planning



westchester 2025 /plan together

These Planning Base Studies are a pilot project of *Westchester 2025: Plan Together*, Westchester County's web-based, long range land use planning effort. Staff of the Westchester County Department of Planning has worked with the Town of New Castle to form this "comprehensive plan foundation." Each chapter utilizes county and non-county data and county GIS mapping resources. These materials are traditionally a substantial part of a comprehensive plan project, as well as a large part of the project's cost.

It is intended for the Town to pursue the next steps toward completing a comprehensive plan for New Castle. Interested residents and businesses can access these studies and begin to think about the issues and choices for the Town. Go to <a href="www.westchestergov.com/2025">www.westchestergov.com/2025</a> to visit *Westchester 2025* and find out more about how our local communities are working together to envision our future.

# Town of New Castle

# Westchester County, New York A detailed study of existing conditions

September 2014

### WESTCHESTER COUNTY

Robert P. Astorino, County Executive

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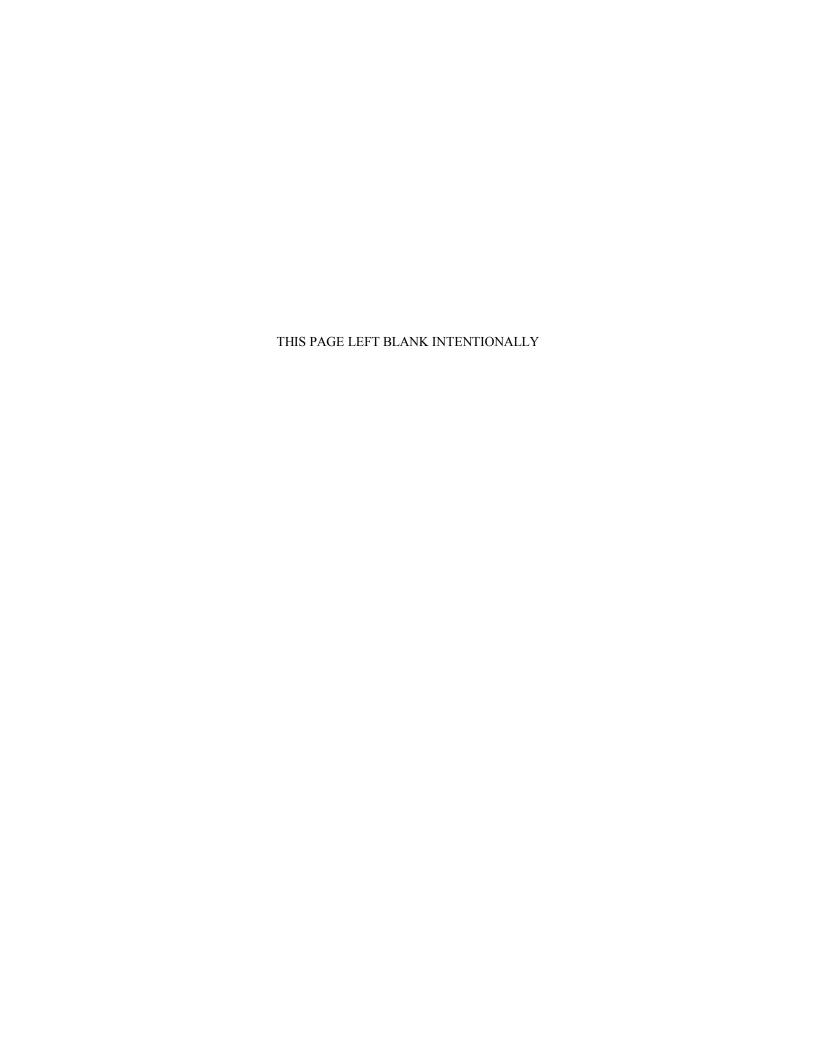
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### **CHAPTER 1 INTRODUCTION**

The Town of New Castle, New York, is located in the north central section of Westchester County and is 23.4 square miles in area (see Map 1-1). It is bordered by eight other municipalities. To the southwest of New Castle are the Towns of Ossining and Mount Pleasant and the Village of Pleasant-ville and to the southeast is the Town of North Castle. It is bordered by the Town of Bedford and the Town/Village of Mount Kisco to the northeast and the Towns of Somers, Yorktown and Cortlandt to the north. The Village of Croton-on-Hudson lies at the far western tip of the Village at the Croton River (see Map 1-1).

Two major north-to-south parkways traverse New Castle and help connect the Town to the region. The Taconic State Parkway runs through the western portion of the Town including access to the hamlet of Millwood. The Saw Mill River Parkway runs through the eastern part of the Town including through the hamlet of Chappaqua. Metro North Railroad's Harlem Line runs parallel to the parkway with the Town's only train station located at Chappaqua. See Chapter 5 for more information on the Town's road and transit infrastructure.

### 1.1 New Castle Today

Many of New Castle's boundaries— for example its school districts, postal zip-codes and fire districts— can be confusing and the topic of much discussion. Chapter 8 has further discussion and maps of these various overlapping boundaries and jurisdictions.





Figure 1-1. Town Hall



Figure 1-2. Gedney Park



Even the Town's long-standing municipal boundary has recently undergone a slight change (see Map 1-1).

While much of the Town's civic life revolves around New Castle, no residents have a "New Castle" mailing address. Community identity can vary between the five school districts serving the Town, the proximity to either the hamlets of Mount Kisco or Millwood, or even just a resident's mailing address (the zip code with the largest area is Chappaqua, while other portions of the Town have an Ossining, Millwood or Mount Kisco address).

With its rolling hills, winding roads and large homes, the Town is one of New York State's wealthiest communities (see Chapter 4 for further discussion on Population Characteristics). The larges hamlet, Chappaqua, supports a picturesque downtown with trendy bistros and boutiques and a Metro North Railroad stop. The smaller commercial center of Millwood, located at the confluence of Routes 100, 133 and the Taconic State Parkway, contains a modest commercial strip mall with a post office and several retail shops and businesses.

New Castle also has undeveloped wooded areas, including large areas of parks and nature preserves (see Chapter 6 for further discussion of natural resources and Chapter 7 for information on recreation and open space).

#### 1.2 Government

Adapted from New Castle website:

The Town is governed by a Supervisor, the chief executive officer who presides over and is a voting member of the Town Board. The Supervisor, elected by the residents for a two-year term, establishes agendas for the Town Board meetings, signs all authorized agreements and contracts and is the chief fiscal officer overseeing budgets and expenditures.

The legislative and policy-making body of New Castle is the four member Town Board. Elected for four-year terms, members adopt and amend local laws, establish policies, adopt the annual Town Budget and establish tax levies. The Town Board meets on the second and fourth Tuesday of each month.

The Town Administrator is appointed by and responsible to the Town Board and acts as the chief administrative officer for the Town. Duties include, but are not limited to, oversight of all day-to-

Source: Westchester County Department of Planning Orange County Putnam County North Salem Somers Ridgefield Peekskill Yorktown Cortlandt Bedford Briarcliff Rockland North/Castle CONNECTICUT County Pleasant Mount Stamford Greenwich Tarrytown Harrison LONG SLAND SOUND New NEW Rochelle JERSEY Long Island **Bronx** Suffolk County Manhartan Nassau MAP SHOWING MUNICIPAL BOUNDARY CHANGE County Regional Location Map Queens

Map 1-1. Regional Location Map

### **Recent Municipal Boundary Change:**

In 2011, at the request of a private residential property owner wishing to tap into the Town of New Castle's water system, a 4.6 acre property was annexed into the Town of New Castle from the Town of Mount Pleasant. New Castle is currently in the process of updating its Official Map to reflect this boundary change. This report reflects this recent annexation.

1 inch = 250 fee

day operations of the Town, recommendations on all personnel matters, including the hiring and firing of employees. The Town Administrator may also be appointed budget officer by the Town Supervisor and prepare the tentative budget for presentation to the Town Board. The Town Administrator is ultimately responsible for implementing policy adopted by the Town Board and providing advice and assistance to the Town Board as requested.

The Town Clerk, appointed for a two-year term by the Town Board, maintains all town records including the Town Board adopted ordinances, minutes and agendas. The Town Clerk's office responds to Freedom of Information Law requests, and provides licenses for marriage, for hunting and for dogs. The office also issues parking permits and oversees the general election process.

The Comptroller's office manages the Town's day-to-day fiscal operations. The Comptroller and the office's staff oversee budget preparation, prepare monthly reports, conduct internal audits, and oversee payroll and accounts payable and receivable.

The Town of New Castle Justice Court addresses all criminal and civil legal issues in the Town, and handles traffic violations and violations of the Town Code. The two Town Judges are elected by the public to serve a four-year term.

The Town of New Castle is located in the 17th United States Congressional, the 40th New York State Senatorial, the 93rd New York State Assembly and the 4th Westchester County Legislative District.

### 1.3 Planning In New Castle

Throughout the years, the Town of New Castle has developed and adopted plans and studies. Listed below is a brief historic timeline of these efforts and links to the applicable documents.

- Millwood Plan July 1977. The purpose of this 31-page report prepared by Frederick P. Clark Associates, Inc. for the New Castle Planning Board is to provide a guide to controlling the future growth and development of the Millwood area. It contains a review and evaluation of existing development patterns and plans and includes a set of recommendations for the hamlet area.
- West End Study Area October 1982. This memo from Fre-

- derick P. Clark Associates, Inc. includes the review and analysis of the planning and development implications of the construction of a combination force main-gravity line sewer along Pinesbridge Road in the west end of New Castle.
- Town Development Plan November 1989. This 238-page comprehensive plan, prepared by Frederick P. Clark Associates, sets forth the future development policy for the Town of New Castle. It is an update of the 1968 Town Plan of Development. The 1968 plan was amended several times: in 1977 with the adoption of the Millwood Plan, in 1979 when the modified Town-wide residential development policy was adopted, and in 1983 with a Plan Map change. The 1989 comprehensive plan owes much to these prior reports.
- <u>Millwood Design Guidelines</u> May 1993, amended March 2, 1999. The guidelines in this 45-page study present a three-dimensional design concept to address the visual quality of the Millwood hamlet area. Prepared by the New Castle Board of Architectural Review and the New Castle Planning Board in consultation with Anderson LaRocca Anderson and Frederick P. Clark Associates, Inc., it contains graphic and written guidelines for streetscapes, signage and architecture.
- Hamlet of Chappaqua Comprehensive Plan-Final (Draft) March 2003. Prepared by Vollmer Associates LLP, this 53-page traffic and parking study addresses the commuter and retail shopping area in the Hamlet of Chappaqua. It incorporates downtown streetscapes, development proposals, as well as retail frontage and design guidelines.
- Croton-to-Highlands Biodiversity Plan 2004. Prepared by the Wildlife Conservation Society's Metropolitan Conservation Alliance, this 42-page report addresses biodiversity in the Croton-Highlands Region, and reports on its connection to land use planning. The region includes the western portion of New Castle, the Towns of Yorktown and Cortlandt as well as the Town of Putnam Valley in Putnam County. The plan includes recommendations for land use planning, future development and economic growth.
- New Castle Recreation & Parks Master Plan (Draft) February 2007. Prepared by Cherbuliez/Munz, PLLC with DeSantis Consulting and Hahn Engineering, this 80-page plan assesses the Town's parks, recreation resources and services, identifies major issues and needs and makes recommendations for facili-

ties, programs, management and finances.

- <u>Downtown Chappaqua A Placemaking Strategy for Revitalization</u> June 2007. Prepared by Project for Public Spaces, Inc., this 74-page report presents a vision to revitalize downtown Chappaqua. It is based on information gathered from the Chappaqua community in Placemaking Workshops.
- Chappaqua Hamlet Streetscape Revitalization September 8, 2008. This 24-page draft concept plan to improve, enhance and revitalize the public areas of downtown Chappaqua was prepared by Pouder Design Group. It creates linkages between the town's architectural features, its streetscapes and pedestrian elements, and encourages the creation of public open spaces and improvements to the aesthetics and functionality of pedestrian and vehicular traffic.
- Hamlet of Chappaqua: Downtown and Streetscape Improvements November 3, 2008 (50% Submission). Prepared by Pouder Design Group, this document contains 51 pages of schematic drawings for the Hamlet of Chappaqua as a follow up to the previous Chappaqua Hamlet Streetscape Revitalization concept plan.
- <u>The Croton Plan for Westchester</u> September 2009. Prepared by the Westchester County Department of Planning, this 205-page Comprehensive Croton Watershed Water Quality Protection Plan assesses conditions in the Croton Watershed, identifies



their impacts on water quality and presents strategies to prevent further water quality degradation.

- Traffic Safety and Operational Assessment, South Greeley Avenue Streetscape Project November 2009. This 45-page report from the Westchester County Department of Public Works provides technical assistance to the Town of New Castle on proposed central business district streetscape improvements for the Hamlet of Chappaqua. It assesses existing traffic and safety operations and proposed redesigns, and presents recommendations for geometric improvements with turning movement analysis.
- Millwood Hamlet Center Zoning Analysis & Area Site Plan Study July 3, 2009. This analysis offers a detailed study, including data and maps of existing land use by parcel and building location in the Millwood Hamlet. The 35-page report was prepared by Frederick P. Clark Associates, Inc.
- Millwood Hamlet Placemaking Plan January 18, 2012 (Phase one). Prepared by the Project for Public Spaces, Inc., this 20-page document summarizes their review of existing planning and zoning documents and includes a Market and Economic Development Analysis, the Economic Benefits of Rail Trails, the findings of the Millwood Task Force's meetings, and their recommendations for next steps.
- Town of New Castle Emergency Operations and Public Information Communications Plan January 8, 2013/Version 1.0. This plan addresses the role of the Town's Emergency Operations and includes the classification of types of emergencies, agency responsibilities and staff training requirements. It offers a Public Information Plan that includes social media, notification systems and preparedness instructions.

#### 1.4 Base Studies Overview

The Town of New Castle Planning Base Studies provides detail and background to assist the Town in identifying key issues, data and tasks towards the completion of a Town-wide Comprehensive Plan. Data, maps, tables and background information has been assembled on a variety of topics from local, county, regional, state and federal sources. Much information was gathered from previous Town plans, studies and reports. Significant data and mapping resources were provided through Westchester County as part of *Westchester 2025: Plan Together*, the County's web-based, long-range planning policies update. These New Castle base studies should be updated,



















Sources: Westchester County



westchester 2025 /plan together a partnership for Westchester's future

added to and amended as the Town pursues its comprehensive plan. The following topic areas are included in the Planning Base Studies:

- 1. Introduction
- 2. External Influences Regional Context
- 3. The Use of Land
- 4. Population Characteristics
- 5. Transportation
- 6. Natural Resources
- 7. Recreation, Open Space and Cultural Resources
- 8. Public Facilities
- 9. Infrastructure and Utilities
- 10.Commercial Development
- 11.Residential Development
- 12. Current Zoning
- 13. "Build Out" Under Current Zoning
- 14. Historic and Cultural Resources

# CHAPTER 2 EXTERNAL INFLUENCES — REGIONAL CONTEXT

### 2.1 External Influences – Regional Context

The Town of New Castle is part of a region, connected in many ways with its neighboring municipalities in Westchester, part of a complex transportation network – roads, rails and trails, part of a natural region of watersheds and wildlife and part of the economy of the tri-state region. It is located in the middle of the northern portion of Westchester County. Map 2-1, Regional Map, identifies

New Castle in the region. The town abuts portions of nine other communities including the Towns of Cortlandt, Yorktown and Somers to the north, the Town/Village of Mount Kisco and Town of Bedford to the east, the Town of North Castle to the southeast and the Town of Mount Pleasant, Village of Pleasantville and Town of Ossining to the south and southwest.

The following is a summary of several other important regional issues, projects and planning efforts impacting the region and New Castle's future. Also included is a discussion of *Westchester 2025: Plan Together*, the County's long-range land use planning policies, as well as a brief description of the communities surrounding New Castle and the status of their recent planning efforts.

### 2.2 Westchester 2025: Plan Together

The New Castle's Planning Base Studies effort is part of *Westchester 2025: Plan Together*, the County's web-based, long-range land use planning policies and "toolbox." The Base Studies help communities more easily develop local comprehensive plans which, in turn, help the County better plan for the future of Westchester County.

Another tool of *Westchester 2025* is the "Zoning Build-Out Analysis," developed by



King Street, Chappaqua Source: Westchester County

### Map 2-1. Regional Map





the Westchester County Department of Planning in cooperation with Town staff. It provides an understanding of local zoning that is not only an important tool for the Town, but is also an important tool for the County to understand existing and potential density county-wide and the many infrastructure issues related to future land development and densities.

For more information on *Westchester 2025*, its array of tools, data, services and efforts to bring our communities together to envision our future, go to the website at: westchester2025.westchestergov.com.

# BEDFORD HISTORICAL SOCIETY

Founded in 1916, the Bedford Historical Society is a non-profit, educational organization committed to preserving the historic Town and original Village Green, educating students of all ages and interpreting its collections for the benefit of residents and visitors alike.

(Source: BedfordHistoricalSociety.org)

### 2.3 Surrounding Communities and Their Plans

While planning the future of New Castle, it is important to understand surrounding communities, their characteristics and their plans for the future. Most New Castle residents visit outside communities regularly – for work, shopping, recreation, etc. Development near the Town's borders may directly impact properties, infrastructure and views within the Town. Following is brief information on the nine communities directly adjacent to New Castle, listed alphabetically.

#### A. Town of Bedford

New Castle and Bedford are linked in many ways. New Castle shares its eastern border with Bedford and both municipalities previously had the Village of Mount Kisco within their boundaries until 1978 when Mount Kisco became a Town/Village. Bedford contains three hamlets: Bedford Hills, Bedford Village and Katonah. It

Figure 2-1. Bedford Museum at the 1787 Bedford Court House

Source: Bedford Historical Society



is also home to New York State's largest women's prison, the Bedford Hills Correctional Facility. Bedford Village contains a designated historic district and a number of historic landmarks dating back to the 1700's. Much of Bedford's commercial base is located in the variety of commercial uses along Route 117, north of Mount Kisco.

Bedford updated its comprehensive plan in 2002 in order to continue to plan for changing land use issues associated with continued growth. Issues addressed within that plan include land use and open space protection, traffic congestion, and overall investment within the town.

#### B. Town of Cortlandt

The Town of New Castle shares a northwestern border with the Town of Cortlandt. With a land area of over 34 square miles, Cortlandt includes two incorporated villages, Croton-on-Hudson and Buchanan, as well as the hamlets of Montrose, Crugers and Verplanck. Over 90% of its land area is zoned for residential purposes, however large swaths of land are set aside as New York City Watershed lands, wooded hills and steep slopes, or wetlands.

Cortlandt updated its Master Plan in 2004 and recognizes the need for regional watershed protection. Within their Master Plan, the Town includes policies of the Croton Watershed Plan and also includes a policy for inter-municipal cooperation with the County and its immediate municipal neighbors.

### C. Town/Village of Mount Kisco

The Village of Mount Kisco had been within the Towns of Bedford and New Castle prior to 1978 when it became an independent Town/Village. While only 3.25 square miles in size, the fairly dense and diverse population and variety of housing choices have helped its mixed-use downtown and commercial center to flourish. Mount Kisco is also a stop along the Metro-North's Harlem Line with easy access to New York City. A commercial area along Route 117 in the north end of the Town/Village runs into the Town of Bedford.

Mt. Kisco updated it's Comprehensive Development Plan in 2001 with a focus on creating a more vibrant downtown commercial district and encouraging smaller scale business and retail to flourish.

### D. Town of Mount Pleasant

The Town of Mount Pleasant is located just south of New Castle and extends its border to the Hudson River to the west. The Villages of Pleasantville and Sleepy Hollow are within the town's

Figure 2-2. Photos within the Town of Ossining



Ossining High School Source: Town of Ossining



Ossining Ferry Dock
Source: www.nywaterway.com



**Briarcliff Manor Village Hall** Source: BriarcliffManor.org



**Old Croton Aqueduct Trail** Source: NYS Office of Parks, www.nysparks.com

Figure 2-3. Meahagh Park, Town of Cortlandt





Lake Meahagh Park, located off Westchester Avenue in Verplanck, is a recreational area designated for the enjoyment of many local residents. Covering several acres, the park offers picturesque views of the Hudson River and provides residents with opportunities for fishing, picnicking and ice skating, as well as bird watching. Source: Town of Cortlandt Parks Division

boundaries, as well as a portion of the Village of Briarcliff Manor. Hamlets within Mount Pleasant include Hawthorne, Thornwood, Valhalla and Pocantico Hills. While largely residential, Mount Pleasant also includes office park developments that are home to New York Life Insurance, PepsiCo, Inc., and Fuji Photo Film, and two major medical facilities, the Westchester Medical Center in Valhalla and Phelps Memorial Hospital in Sleepy Hollow.

The Village of Pleasantville is located within the Town of Mount Pleasant. The Village of Pleasantville shares a small boundary with New Castle. Metro-North's Harlem Line has a stop at Pleasantville. The Village has a vibrant business and commercial district, including the Jacob Burns Film Center which draws crowds of film enthusiasts to the downtown shops and restaurants.

#### E. Town of North Castle

The Town of North Castle is located to the southeast of New Castle. The eastern parts of North Castle include low-density, semi-rural residential and open space areas. Low density residential areas and corporate office parks surround the hamlet of Armonk. Protected open spaces surround the Kensico Reservoir just west of the West-chester County Airport and higher density neighborhoods, a Metro-North train station and a commercial district are in North White Plains near the town's southern boundary with the City of White Plains. New Castle residents in the southeast portions of the Town may travel to the shops and restaurants in the hamlet of Armonk or may be employed in the one of the office developments near

Figure 2-4. Main Street, Mount Kisco



Armonk. A mixed use development, Armonk Square, was recently completed in the center of Armonk and includes retail, office and residential components. The Town last updated its comprehensive plan in 1996.

### F. Town of Ossining

The total area of the Town of Ossining is 11.7 square miles of which 3 square miles is within the unincorporated Town of Ossining. The entire Village of Ossining as well as 5.5 square miles of Village of Briarcliff Manor are located within the Town of Ossining. In 2002 the Town updated and adopted a new Comprehensive Plan for the unincorporated areas of the Town with updates to the zoning code in 2011. The Town of Ossining includes a variety of housing types, distributed between single-family, 2-family, multifamily and townhouse type developments. The unincorporated area of the town is bisected north to south by NYS Route 9A.

Within the Town of Ossining lies the 3.2 square mile Village of Ossining. The Village does not directly abut the Town of New Castle. A diverse and historic community, a part of the Village's downtown was recently recognized and listed on the National Register of Historic Places. The Village includes a bustling downtown area including shops, places of worship, businesses and residential development. Aiding in the Village's success is its access to the Hudson River and Metro North Railroad's Hudson Line. The New York

Figure 2-6. Jacob Burns Center, Pleasantville



Figure 2-5. Phelps Memorial Hospital, Mount Pleasant



Phelps Memorial Hospital Center is set on 69 rolling acres overlooking the Hudson River in Sleepy Hollow, New York. The 238-bed, not-for-profit acute care hospital provides medical and mental healthcare to the residents of Westchester and surrounding communities.

Source: http://phelpshospital.org/about-phelps/

Figure 2-7. Armonk, Town of New Castle



Figure 2-8. Somers



Elephant Hotel, Somers. Photo: Somers Historical Society



Mt. Zion Church and Burial Ground, Somers

Photo: Somers Historical Society

Figure 2-9. Yorktown Heights



Waterway ferry operates near the train station and provides ferry connection to Haverstraw, NY.

Ossining is rich in history with one of the most famous prisons in the country, Sing Sing Correctional Facility, located in the Village of Ossining and bordering the Hudson River. The Old Croton Aqueduct Trail runs through the Town and Village as well, which includes over 26 miles of trailway accessible in Westchester County.

The Indian Brook Reservoir, owned by Ossining Village, is part of a watershed shared by New Castle and Cortlandt. The Indian Brook -Croton Gorge Watershed Conservation Action Plan is a comprehensive watershed plan developed for the Croton Bay Watershed, which consists of the Croton Gorge and Indian Brook subwatersheds. The final plan was completed in November 2007. The Westchester County Department of Planning produced the report in close collaboration with the Towns of Cortlandt, New Castle, Ossining and the Villages of Croton-on-Hudson and Ossining (see further discussion below in Section 2.5.B.).

### G. Town of Somers

Located in northern Westchester, the Town of Somers is along the northern border of New Castle. Most of the Town's 33 square miles is within the Croton Watershed, which is part of the New York City reservoir system and subject to development standards set forth by the NYC Department of Environmental Protection (NYC DEP). Due to these restrictions, Somers has a more rural character and includes a number of county owned parks such as Lasdon Park and Muscoot Farm, and the Town-owned Angle Fly Preserve. Several hamlets exist within the Town including Somers, Lincolndale, Shenorock, Granite Springs, Baldwin Place and Amawalk. The town is rich in historical significance and many historic buildings remain within its boundaries. The Elephant Hotel, the Wright Reis Homestead, Mount Zion Church and Burial Ground, and Tomahawk Chapel are just a few properties that hold historical significance to the Town and are open to the public.

### H. Town of Yorktown

Another municipality that shares New Castle's northern border is the Town of Yorktown. This low density community is made up of predominantly single-family homes, and also includes several parks and recreation opportunities such as FDR Park, the Croton Reservoir, Mohansic Park and Golf Course. The North County Trailway continues north from New Castle through Yorktown as well.

Yorktown is also within the Croton Watershed and part of the NYC

DEP regulated watershed land area. It contains several regional shopping centers and five hamlets each with a distinct business center. The largest, Yorktown Heights, serves as a retail center for Yorktown and several surrounding towns.

### 2.4 Regional Transportation Planning

The New York Metropolitan Transportation Council (NYMTC) is the Metropolitan Planning Organization (MPO) for New York City, Long Island and the lower Hudson Valley. NYMTC provides a collaborative planning forum to address transportation-related issues from a regional perspective, undertakes studies for transportation improvements, forecasts future conditions and needs, pools the resources and expertise of its member agencies to plan for transportation and development in the region and makes decisions on the use of Federal transportation funds.

Staff of the Westchester County Departments of Planning and Public Works and Transportation (WCDPWT) represents Westchester's communities and their transportation needs at <a href="NYMTC">NYMTC</a>. For more information, go to the <a href="website">website</a>. Chapter 5, Transportation, includes information on public transportation (bus and rail) and the road network serving New Castle.

### 2.5 Watershed Planning

### A. Croton Watershed

The Croton Watershed includes a series of reservoirs and lakes in both Westchester and Putnam Counties. It is a part of the New York City water supply system. *The Croton Plan for Westchester: The Comprehensive Croton Watershed Quality Protection Plan* (*Croton Plan*) - 2009, is an intermunicipal planning effort of ten municipalities, including New Castle and some of its surrounding communities such as Bedford, Cortlandt, Mount Kisco, North Castle, Somers and Yorktown, as well as the New York City Department of Environmental Protection (NYC DEP) and Westchester County.

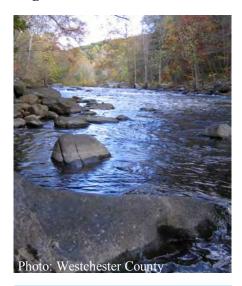
The *Croton Plan* assessed watershed conditions, identified water quality impacts and put forth strategies to reduce impacts, prevent water quality degradation and enhance community character. The Plan also incorporates policies and regulations that have been developed which aim to protect watershed lands and water quality with land acquisition and partnership initiatives.

Figure 2-10. Croton Dam



Photo: Westchester County

Figure 2-11. Croton River



The Croton River begins where the East and West Branches of the Croton River meet downstream from the Croton Falls Reservoir. Shortly downstream, the Croton River, along with its tributary, the Muscoot River, flow into the Muscoot Reservoir, and after flowing through that, it empties into the New Croton Reservoir. The water leaves the spillway at the Croton Dam, and finally empties into the Hudson River at Croton-on-Hudson, New York.

### **B. Indian Brook Croton Gorge**

The <u>Indian Brook - Croton Gorge Watershed Conservation Action Plan</u> - 2008, is a comprehensive plan developed for the Croton Bay watershed, consisting of the Croton Gorge and Indian Brook subwatersheds. The Westchester County Department of Planning worked closely with the Towns of New Castle, Cortlandt, Ossining, and the Villages of Croton-on-Hudson and Ossining to complete the final plan and it includes five major goals:

- Protecting and restoring natural resources, most significantly the Croton River, Indian Brook Reservoir, existing wetlands and groundwater drinking sources;
- Developing and implementing stormwater management practices that will improve water quality;
- Promoting sustainable development through land use and environmental regulations;
- Preserving and protecting fish, wildlife and significant habitat;
- Educating the public.

Prior to the development of this Action Plan, environmental initiatives were limited or fragmented and were based on individual community/project needs and resources. Through analysis of the state of the watershed, recommendations were developed to improve the current water quality conditions and habitat found throughout the watershed. The existing conditions, physical and natural resources, wildlife and habitat, and land uses of the watershed are fully detailed in the Action Plan. Cooperation between the many involved municipalities is needed to continue to improve watershed conditions.

### 2.6 Hudson River Valley Greenway/National Heritage Area

The Hudson River Valley Greenway was created to continue and advance the State's commitment to the preservation, enhancement and development of the world-renowned scenic, natural, historic, cultural and recreational resources of the Hudson River Valley while continuing to emphasize economic development activities and remaining consistent with the tradition of municipal home rule. The Greenway includes most municipalities in Westchester County, including New Castle.

The Hudson River Valley National Heritage Area includes 250 communities in ten counties bordering the Hudson River for 154 miles of tidal estuary. This area is approximately three million acres of Hudson Highlands, Catskill Mountains, rolling farmland and compact towns, small cities and hamlets. The region extends from the confluence of the Mohawk and Hudson Rivers, south to

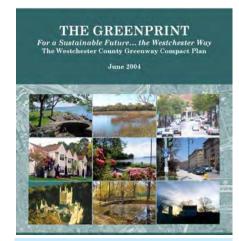
the northern border of New York City.

By Local Law No. 18 of the Year 2006, the Town of New Castle adopted the Westchester County Greenway Compact Plan. The Plan includes a statement of policies, principles, and guides to supplement other established land use policies in the Town. Actions by the Town should take into consideration the statement of policies, principles and guides, as appropriate.

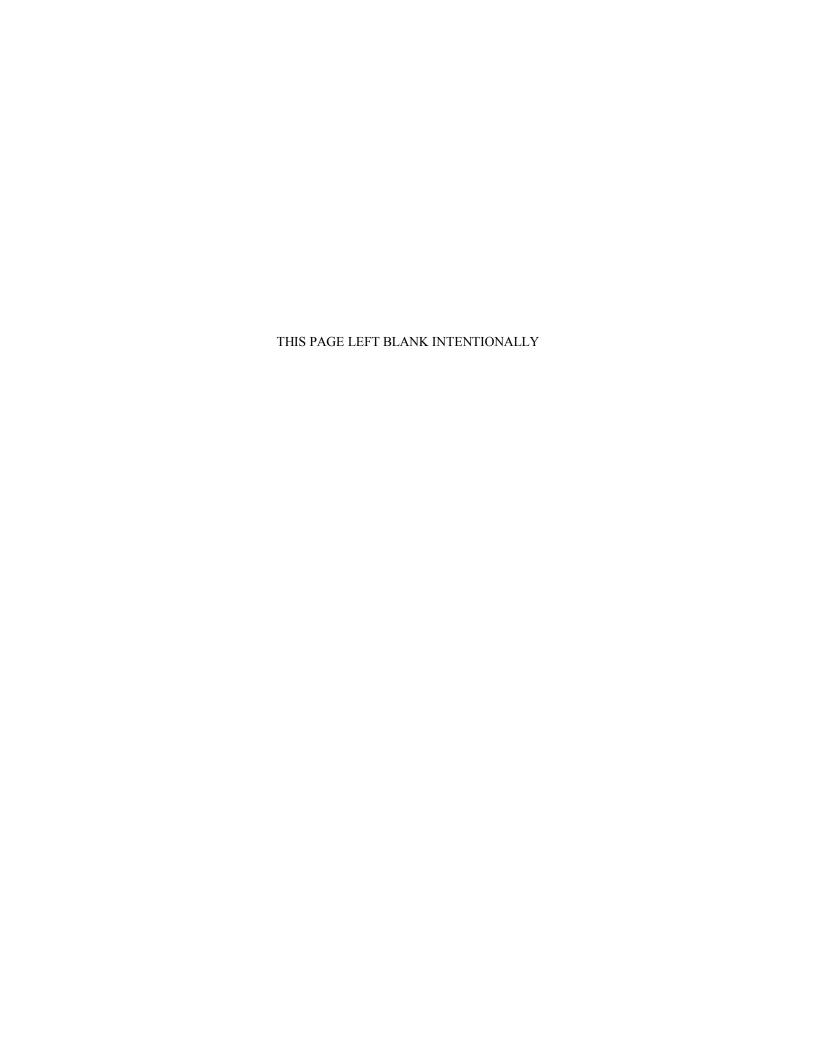
The 1991 Act established the Greenway Council, a New York State Agency, to:

- Work with local government to enhance local land use planning
- Create a voluntary regional planning compact for the Hudson River Valley
- Provide community planning grants, compact grants and technical assistance to help communities develop a vision for their future

For more information, go to the Greenway's website <u>click here</u>.



For more information on Westchester County's Compact Plan, *The Greenprint for a Sustainable Future*Click here



### **CHAPTER 3 THE USE OF LAND**

### 3.1 Importance of Land Use

The understanding of data and information on the present state of land use in a community gives municipal leaders a core set of tools necessary to create sound land use plans and policies. A new, parcel -based land use map for the Town of New Castle was created by the Westchester County Department of Planning in 2009; this map was reviewed, edited and approved by staff of the Town of New Castle. The map also was included as part of a report titled, *Land Use in Westchester, A detailed look at existing conditions and development trends,* (Appendix 3-1) that was prepared by the Westchester County Department of Planning in 2009. In 2013, Town staff reviewed the 2009 land use map and made several updates which are incorporated into Map 3-1, Land Use and Figure 3-2.

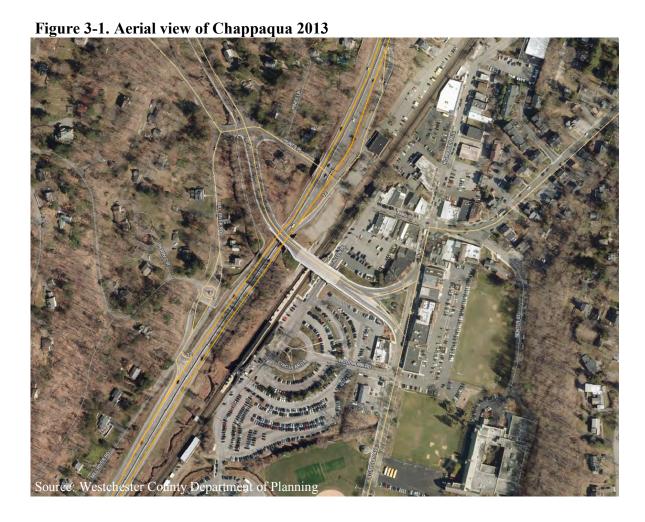


Figure 3-2. Town of New Castle Land Use

Land Use Category	Acres
Agricultural Uses - Farms, Stables, Nurseries	36
Cemeteries	13
Commercial and Retail	47
Common Land Homeowners Association	200
Condominiums, Apartments, Multi-Family	214
County Parks and Parkway Lands	323
Estate and Rural Residential	1,086
Institutional and Public Assembly	739
Local Parks and Open Space	1,110
Manufacturing, Industrial and Warehousing	36
Mixed Use	9
Nature Preserves	220
Office and Research	118
Private Recreation	460
Single Family Residential	6,558
Single Family with Accessory Apartment	83
State Park and Parkway Lands	490
Transportation Uses, Road Right of Way	993
Two/Three Family, Multi-Structure Properties	270
Utilities	235
Vacant/Undeveloped	1,372
Water Supply Lands*	394
TOTAL ACRES	15,003

Source: Westchester County Department of Planning

<sup>\*</sup> Also includes land area under reservoirs.

### 3.2 Methodology, Analysis and Classification System

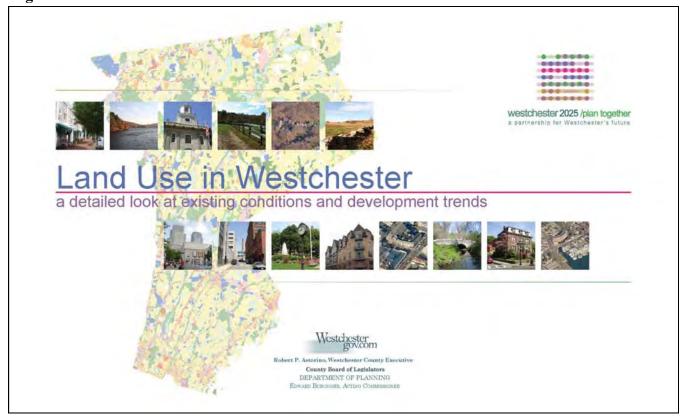
To conduct a land use inventory on a parcel-by-parcel basis, data from the local assessor's office, using a standard use classification system developed by the New York State Office of Real Property Services (RPS), was joined to the County's digital parcel maps. The data was refined into standard land use categories used in planning practice. Aerial photography, County government reports and various digital resources were used along with extensive review by local officials.

The 250 RPS codes were categorized into 60 land use categories. The resulting categories were again categorized into 22 generalized land use categories, such as residential and commercial. More detail on the methodology of the data collection, analysis and land use classification system can be found in Appendix 3-1 in the <u>Land Use</u> <u>in Westchester</u> report.



The New York State Office of Real Property Services (RPS) website has been integrated into the New York State Department of Taxation and Finance website. <a href="https://www.tax.ny.gov">www.tax.ny.gov</a>

Figure 3-3. Land Use in Westchester



Source: Westchester County Department of Planning

### 3.3 Land Use in New Castle

Like most municipalities in northern Westchester, the Town of New Castle contains a wide range of land use types. The Town is largely built-out -1,372 acres, or 9% of the Town's area, are categorized as vacant. Many of these vacant properties, scattered around Town, include constraints to development such as steep slopes and wetlands.

A concentration of vacant property exists in an area that is known as Kisco Park. Kisco Park was a subdivision that was filed with the County Clerk in 1896, see Figure 3-4. During this time, it was common practice to layout a grid street pattern with no regard to topography or wetlands. As a result, at times municipalities have been left with inaccessible lots on paper streets. These paper streets re-

Figure 3-4. Mt. Kisco Park, 1896 Source: Westchester County Clerk

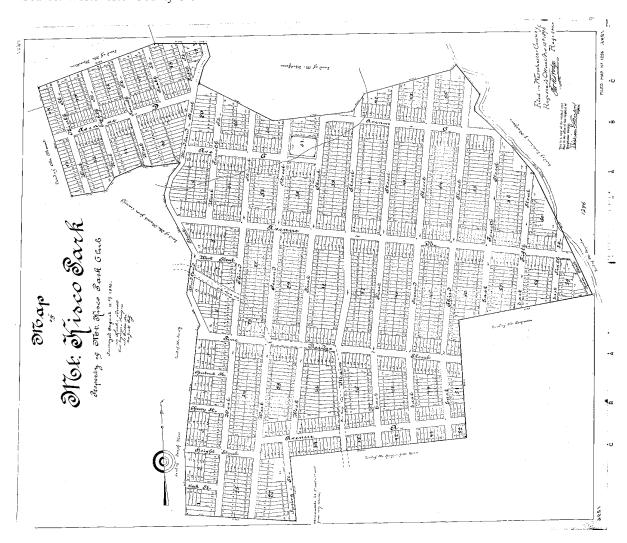
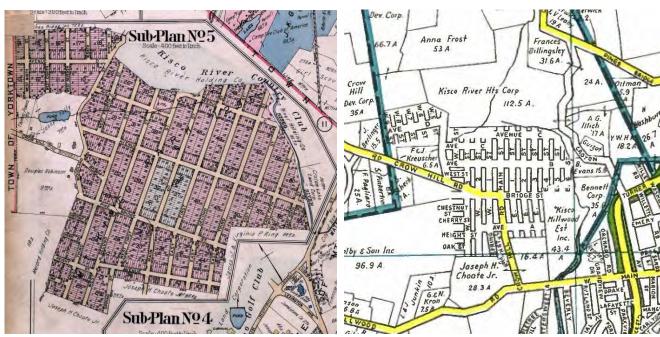


Figure 3-5. Kisco Park, Paper Streets



1930s Atlas Map. Source: Westchester County Archives

Atlas of Westchester County, Hagstrom, 1953



2010 aerial photo of Kisco Park area. Source: Westchester County



2010 aerial photo of Kisco Park area with steep slopes and wetlands. Source: Westchester County

### **Paper Streets**

A "paper street" is a street that is shown on an approved subdivision, tax maps and/or official map but has not been constructed. As a result, these paper streets exist only as lines on a map.

Overzealous land development practices decades ago or sometimes a century past have left some communities burdened with poorly planned and partially undeveloped residential subdivisions.

main non-taxable acreage and parcels that frontage only on paper streets become a challenge as to what can be done with them.

In the Kisco Park area, there are many small non-conforming lots that front on paper streets and continue to be inaccessible due to steep slopes and wetlands, see Figure 3-5. A challenge to the Town of New Castle will be how to best deal with such areas as Kisco Park and to perhaps encourage the most appropriate development, if any, while protecting the area's sensitive features.

New Castle's primary land use is Single Family Residential. However, many large and small commercial, open space and transportation-related properties are found within the 15,003 acre Town.

As mentioned previously, and as shown on the Figure 3-2, the largest land use in the Town is single family dwellings, totaling 7,727 acres, or 51 percent of the Town's land area. This total includes larger "Estate and Rural Residential" properties and "Single Family with Accessory Apartment" properties, as shown on Map 3-1.

Two/Three-Family and Multi-Structure Properties and Condominium, Apartments, Multi-Family uses make up 484 acres, or three percent of the Town. (See Chapter 11 for further discussion of residential development in the Town).

The lands associated with the Con Edison electric power lines in the western end of Town, including significant portions of the hamlet of Millwood, significantly contribute to the acres categorized as



Figure 3-6. Birdseye of Millwood

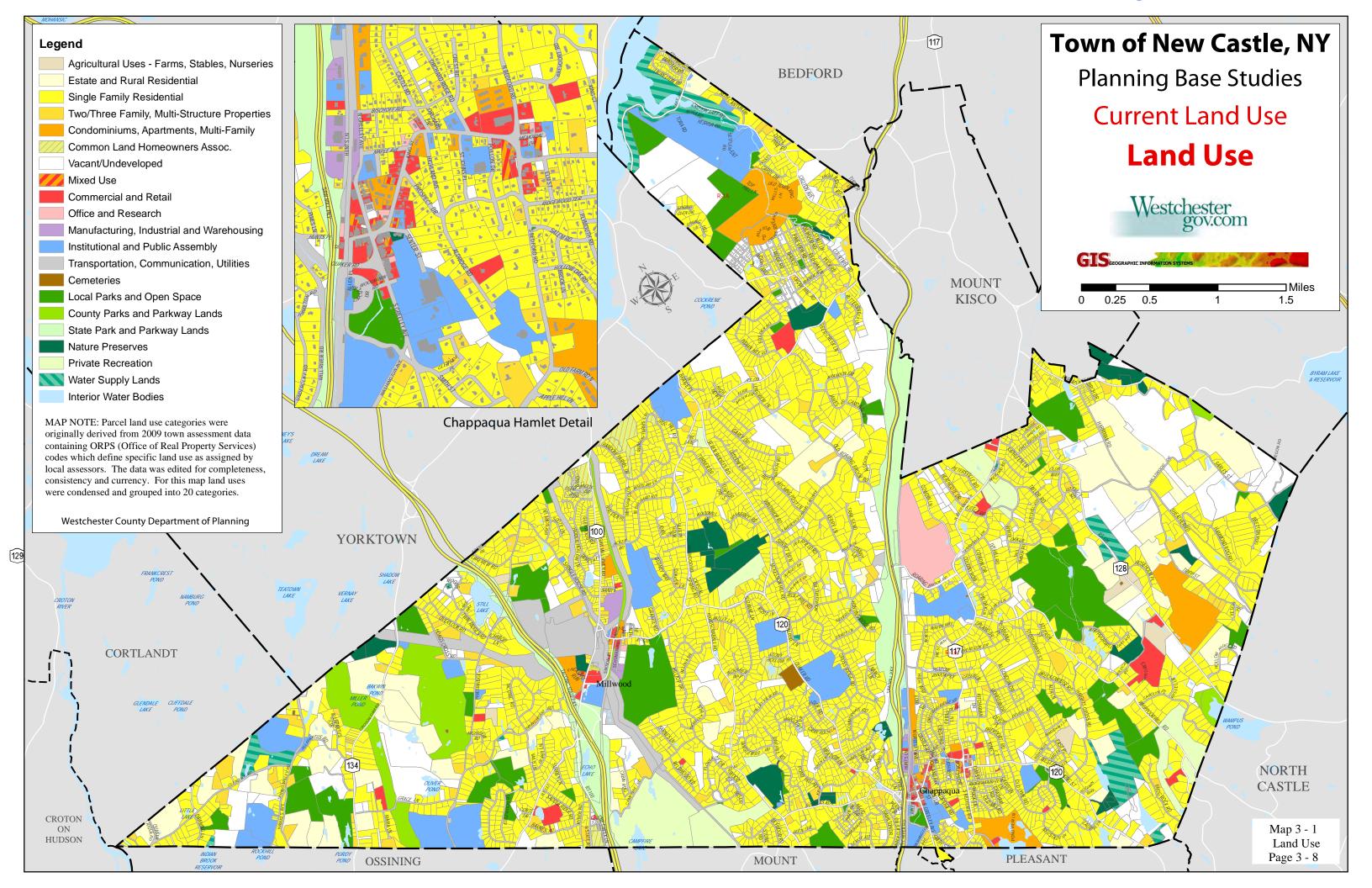
Figure 3-7. Birdseye of Reader's Digest



Transportation, Communications and Utilities.

Commercial and Retail uses, totaling 47 acres, are concentrated in and around downtown Chappaqua and Millwood. Institutional and Public Assembly uses, including schools, government, religious and social/health services uses, account for 739 acres. The 118 acres identified as Office and Research are almost completely attributed to the former Readers Digest property, now known as Chappaqua Crossing and proposed for a mixed use redevelopment (See Chapter 10 for further discussion of commercial development in the Town).

Open Space and Recreation uses account for 3,197 acres, or 21 percent of the Town's land uses. These uses include County Parks and Parkway Lands, Local Parks and Open Space, Nature Preserves, Private Recreation, State Park and Parkway Lands and Water Supply Lands (See Chapter 7 for further discussion of open space and recreation). Several parcels identified as Agricultural uses include both vegetative nursery operations and private horse stables and related equestrian activities.



### **CHAPTER 4 POPULATION CHARACTERISTICS**

#### 4.1 Overview

Note: The <u>US Census Bureau</u> conducts a decennial census of the population every ten years. While previous censuses have included a "long form" sent to a sample of the population, the Census Bureau split this program into the <u>American Community Survey</u> (ACS) beginning in 2005. Many common topics then were not included in the 2010 Census, which was based entirely on "100% data" from the simple 10-question form sent to every housing unit in the country. For this chapter, unless otherwise noted, data is from the decennial census.

New Castle began the 20th century with a population of only 2,401 people in 1900; then the Town's population nearly doubled between 1940 and 1960, increasing from 7,903 to 14,388 people in twenty years. The years following 1960 have seen much slower population growth, with the Town only adding 78 net new residents (0.4% growth) in the last decade and increasing the 2010 Census population to 17,569.

This population change in New Castle follows Westchester County's population trends to an extent, although New Castle's growth has been more stable. The county experienced its biggest intercensal growth of the century between 1950 and 1960, growing 29% to 808,891. The only decade during which the county's population declined, 1970 to 1980, New Castle grew by 5%. Figures 4-1 and 4-2

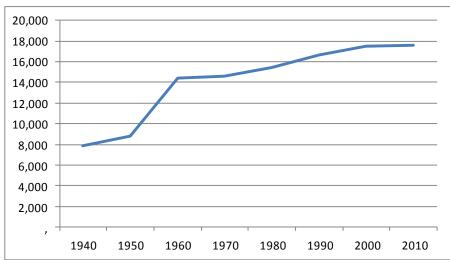


Figure 4-1. Town of New Castle Population

Source: U.S. Census, Decennial Census Summary File 1; Prepared by Westchester County Department of Planning

Figure 4-2. Total Population and Population Change by Municipality, 1940-2010

Westchester County	Yorktown	Somers	Pleasantville	Ossining Town	North Castle	New Castle	Mount Pleasant	Mount Kisco	Cortlandt	Bedford	Municipality	
573,558	3,642	2,406	4,454	1,468	3,306	7,903	10,497	5,941	5,573	6,807	y Total	19
10%	34%	59%	-2%	43%	30%	16%	21%	16%	0%	1%	Percent Change	1940
625,816	4,731	3,159	4,861	1,952	3,855	8,802	12,014	5,907	7,489	8,471	Total	1950
9%	30%	31%	9%	33%	17%	11%	14%	-1%	34%	24%	Percent Change	50
808,891	16,453	5,468	5,877	2,967	6,797	14,388	19,725	6,805	17,505	12,076	Total	1960
29%	248%	73%	21%	52%	76%	63%	64%	15%	134%	43%	Percent Change	00
894,104	28,064	9,402	7,110	4,846	9,591	14,642	22,462	8,172	24,760	15,309	Total	1970
11%	71%	72%	21%	63%	41%	2%	14%	20%	41%	27%	Percent Change	70
866,599	31,988	13,133	6,749	4,164	9,467	15,425	23,760	8,025	26,775	15,137	Total	1980
-3%	14%	40%	-5%	-14%	-1%	5%	6%	-2%	8%	-1%	Percent Change	80
874,866	33,467	16,216	6,592	5,076	10,061	16,648	25,242	9,108	28,369	16,906	Total	1990
1%	5%	23%	-2%	22%	6%	8%	6%	13%	6%	12%	Percent Change	06
923,459	36,318	18,346	7,172	5,514	10,849	17,491	26,151	9,983	28,672	18,133	Total	2000
6%	9%	13%	9%	9%	8%	5%	4%	10%	1%	7%	Percent Change	00
949,113	36,081	20,434	7,019	5,406	11,841	17,569	26,176	10,877	31,292	17,335	Total	2010
3%	-1%	11%	-2%	-2%	9%	0%	0%	9%	9%	-4%	Percent Change	10

Source: U.S. Census, Decennial Census Summary File 1; Prepared by Westchester County Department of Planning

show these changes for New Castle, Westchester County and surrounding communities.

### 4.2 Density

New Castle's population density as of 2010 was 761 people per square mile, which was similar to most towns in Northern Westchester but less densely populated than Pleasantville and Mount Kisco. Figure 4-3 and Map 4-1 show population density in the Town and surrounding communities.

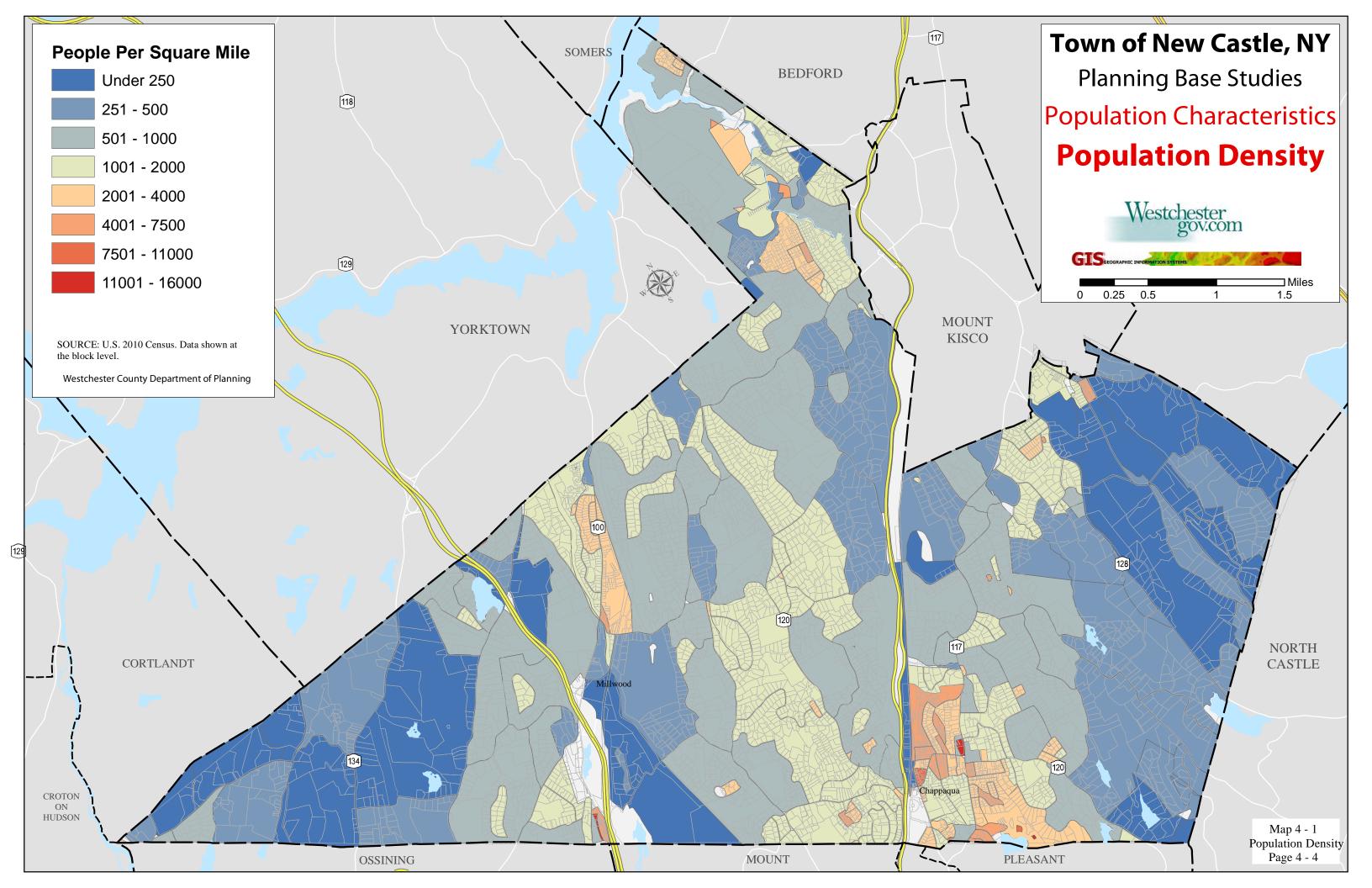
### 4.3 Age Characteristics

The age characteristics of New Castle's population have remained fairly stable between 1980 and 2010, with the primary change being a reduction of the population in the 30 to 39 year cohort (cohort is a group of people having a common factor — such as age group or sex — in common) and growth in the population between 50 and 64 years of age. Several factors contribute to this aging population — people are living longer, many households with young children in the 1960's and 1970's have aged in place, and high housing prices, coupled with the uncertainty of the housing recession have limited

Figure 4-3. Population Density by Municipality, Westchester County, 2010 Census

Municipality	Square Miles	2010 Population	2010 People per Sq. Mile	2010 Density Rank
Cortlandt	34.7	31,292	902	36
Mount Kisco	3.1	10,877	3,509	21
Mount Pleasant	24.1	26,931	1,117	34
New Castle	23.1	17,569	761	37
North Castle	26.2	11,841	452	39
Ossining Town	3.0	5,406	1,802	29
Somers	32.1	20,434	637	38
Yorktown	39.5	36,081	913	35
Pleasantville	1.8	7,019	3,899	19
Westchester County	448.0	949,113	2,119	N/A

Source: U.S. Census, Decennial Census Summary File 1; Prepared by Westchester County Department of Planning



### Seven things that you should know about Westchester County's population

In March of 2013, Joseph Salvo, the Director of the New York City Department of City Planning's Population Division, made a key **presentation at the 2013 Land Use Training Institute** (link to presentation online), hosted by the Westchester Municipal Planning Federation. Mr. Salvo and his team of demographers developed a list of seven things land use decision makers should know about the population of Westchester County. The following is just a brief summary of the points Mr. Salvo made in that presentation. The seven points included:

### 1. Westchester County is large and dynamic

- There are over 3,100 counties in the U.S. and Westchester is 44<sup>the</sup> in size of population.
- If Westchester was considered a city, it would rank 9<sup>th</sup> in the nation in size.
- People leave the county, but others arrive. Many of the newcomers are from other countries, others from other parts of the United States.
- Other counties and cities would envy Westchester's dynamic shifts of populations.

### 2. The county possesses ethnic diversity, which is highest in the younger age groups

- Immigration is fueling a more diverse racial and ethnic mix in the county.
- The county's increase in Hispanics is also happening in New York City and all over the U.S.
- These new residents are younger.

### 3. It is becoming more diverse through immigration and births

- Like New York City and other "inner ring" counties surrounding the city, a growing proportion of residents are foreignborn (NYC at 37%, Westchester 24%)
- Many are from Latin America (38%), and these are from a variety of countries (e.g. Mexico, Dominican Republic, Guatemala, Colombia and Peru).
- Hispanic immigrants have the highest rate of births among immigrants.
- Foreign-born residents can be found in communities throughout Westchester.

#### 4. It has a socioeconomic mix

- The proportion of adults over the age of 25 in the county with a Bachelor's degree or higher is 45%. New York City is 33%.
- Household income is also high compared with other areas.
- Some of those with lower education and income are clustered in some communities.
- A third of all workers in Westchester are foreign born; and they work in a variety of occupations.

### 5. It is projected to grow at a modest pace

- Projections for the county's population show modest growth over the coming decades.
- Such modest growth should be considered a positive.

#### 6. It has an aging population

- Westchester's population is older than the general population of the U.S., which is a concern.
- The aging population is seen in communities throughout the county.

### 7. Putting it all together: Decisions that are demographically informed

- Immigrants have a very high employment rate. Some are at the bottom of the income ranges, while others are not.
- People are migrating into Westchester, while others migrate out of Westchester. Much of this is back and forth to New York City.
- While 9% of those leaving the county go to Florida, almost 8% of those coming from within the United States are from Florida.
- Overall, the "ins" and "outs" are almost equal.
- Migration is largely a phenomenon of the young.

Figure 4-4. Town of New Castle Age Characteristics, 1980-2010

Age Cohort	1980	Percent	1990	Percent	2000	Percent	2010	Percent
Under 5 years	930	6.0%	1,253	7.5%	1,398	8.0%	1,058	6.0%
5 to 9 years	1,336	8.7%	1,286	7.7%	1,755	10.0%	1,658	9.4%
10 to 14	1,861	12.1%	1,339	8.0%	1,619	9.3%	1,744	9.9%
15 to 19	1,695	11.0%	1,149	6.9%	1,056	6.0%	1,474	8.4%
20 to 24	651	4.2%	741	4.5%	384	2.2%	449	2.6%
25 to 29	540	3.5%	717	4.3%	412	2.4%	323	1.8%
30 to 34	1,113	7.2%	1,050	6.3%	871	5.0%	488	2.8%
35 to 39	1,480	9.6%	1,505	9.0%	1,459	8.3%	961	5.5%
40 to 44	1,265	8.2%	1,758	10.6%	1,705	9.7%	1,470	8.4%
45 to 49	1,188	7.7%	1,625	9.8%	1,813	10.4%	1,726	9.8%
50 to 54	1,082	7.0%	1,109	6.7%	1,544	8.8%	1,698	9.7%
55 to 59	803	5.2%	917	5.5%	1,120	6.4%	1,433	8.2%
60 to 64	508	3.3%	800	4.8%	747	4.3%	1,088	6.2%
65 to 69	331	2.1%	537	3.2%	559	3.2%	711	4.0%
70 to 74	286	1.9%	316	1.9%	498	2.8%	478	2.7%
75 to 79	171	1.1%	211	1.3%	299	1.7%	339	1.9%
80 to 84	101	0.7%	183	1.1%	142	0.8%	270	1.5%
85 years and over	84	0.5%	152	0.9%	110	0.6%	201	1.1%
Total	15,425	100.0%	16,648	100.0%	17,491	100.0%	17,569	100.0%

Source: US Census Decennial Census Summary File 1; Prepared by Westchester County Department of Planning

Figure 4-5. Age Characteristics, Town of New Castle and Westchester County, 2000-2010

A Calassa		New	Castle			Westches	ter Count	y
Age Cohort	2000	Percent	2010	Percent	2000	Percent	2010	Percent
Under 5 years	1,398	8.0%	1,058	6.0%	64,242	7.0%	57,199	6.0%
5 to 9 years	1,755	10.0%	1,658	9.4%	67,993	7.4%	63,212	6.7%
10 to 14	1,619	9.3%	1,744	9.9%	63,757	6.9%	65,680	6.9%
15 to 19	1,056	6.0%	1,474	8.4%	54,363	5.9%	65,316	6.9%
20 to 24	384	2.2%	449	2.6%	46,962	5.1%	53,580	5.6%
25 to 34	1,283	7.3%	811	4.6%	123,467	13.4%	108,013	11.4%
35 to 44	3,164	18.1%	2,431	13.8%	157,033	17.0%	132,984	14.0%
45 to 54	3,357	19.2%	3,424	19.5%	129,998	14.1%	149,032	15.7%
55 to 64	1,867	10.7%	2,521	14.3%	86,680	9.4%	114,975	12.1%
65 to 74	1,057	6.0%	1,189	6.8%	66,785	7.2%	68,766	7.2%
75 years and over	551	3.2%	810	4.6%	62,179	6.7%	70,356	7.4%

Source: US Census Decennial Census Summary File 1; Prepared by Westchester County Department of Planning

### **DataBook**

The <u>Westchester County Databook</u>, features over 200 pages of descriptive data covering more than a dozen broad subject categories, ranging from Westchester's physical attributes and municipal organization to demographic and business statistics.

The Databook has proven to be a reliable statistical resource for government officials, new and expanding businesses, not-for-profit organizations and individuals interested in either specific or general information regarding Westchester County. You can access the information by individual chapters below or you can view the entire 2010 Databook in PDF format with bookmarks.



# Databook

Westchester County, New York

<u>Introduction and Credits</u> <u>Transportation</u>

History, Geography and Land Use Utilities

Government Education

Population Child Care

Housing Senior Programs and Services

<u>Labor Force</u> <u>Health and Emergency Services</u>

Business, Office and Retail Culture and Tourism

<u>Income and Prices</u> <u>Recreation</u>

Taxes Economic Development

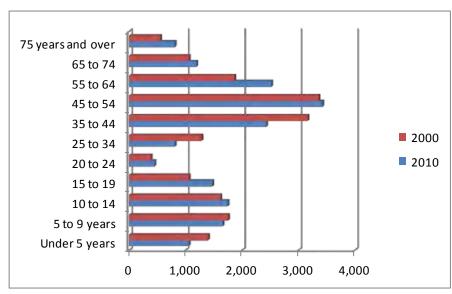
**Programs** 

Figure 4-6. Change in Age Distribution, Town of New Castle and Westchester County, 2000-2010

Age Cohort	New Castle Change, 2000-2010			ter Change, 0-2010
Under 5 years	-340	-24.3%	-7,043	-11.0%
5 to 9 years	-97	-5.5%	-4,781	-7.0%
10 to 14	125	7.7%	1,923	3.0%
15 to 19	418	39.6%	10,953	20.1%
20 to 24	65	16.9%	6,618	14.1%
25 to 34	-472	-36.8%	-15,454	-12.5%
35 to 44	-733	-23.2%	-24,049	-15.3%
45 to 54	67	2.0%	19,034	14.6%
55 to 64	654	35.0%	28,295	32.6%
65 to 74	132	12.5%	1,981	3.0%
75 years and over	259	47.0%	8,177	13.2%

Source: US Census Decennial Census Summary File 1; Prepared by Westchester County Department of Planning

Figure 4-7: Town of New Castle Age Distribution, 2000 and 2010



Source: US Census Decennial Census Summary File 1; Prepared by Westchester County Department of Planning

75 years and over
65 to 74
55 to 64
45 to 54
35 to 44
25 to 34
20 to 24
15 to 19
10 to 14
5 to 9 years
Under 5 years

0 50,000 100,000 150,000 200,000

Figure 4-8. Westchester County Age Distribution, 2000 and 2010

Source: US Census Decennial Census Summary File 1; Prepared by Westchester County Department of Planning

the opportunities for younger families to purchase homes in the Town. Figure 4-4 shows age characteristics changes in New Castle from 1980 to 2010. Figures 4-5, 4-6, 4-7 and 4-8 show age characteristics changes in New Castle from 2000 to 2010 compared with Westchester County.

### 4.4 Race and Ethnicity

New Castle, like most of the municipalities it borders, has remained a predominantly white community with a higher proportion of non-Hispanic white population (86%) than the county as a whole (57%) as seen in Figure 4-9, Race and Hispanic Origin. Both the Hispanic and Asian populations in New Castle increased marginally, amounting to approximately a percentage point increase each—to 4% and 7% respectively—between 2000 and 2010. Approximately 35% of residents in Mount Kisco identified as Hispanic or Latino in the 2010 Census; no other neighboring municipalities had a Hispanic population above 13% of the total population.

### 4.5 Place of Birth

According to the American Community Survey (ACS), 2,299 of 15,208 New Castle residents (13%) were estimated to be foreign born for the years between 2007 and 2011. This is below the county average of 25% and significantly below that of Mount Kisco at 33%. The proportion of foreign born residents in New Castle is similar to that of many nearby communities such as Bedford and

### **Municipal Profiles**

There are one-page summaries are located at:

### <u>planning.westchestergov.com/</u> <u>municipal-profiles</u>

of Westchester County and all 43 municipalities, including New Castle. They have been assembled, showing various data from the Census Bureau's sample data program, the American Community Survey (ACS). Note that the ACS is now a separate program from the decennial Census, and is subject to a margin of error.

The Census Bureau provides data for small geographies by including sample data from five years of surveys (e.g. 2005 to 2009) to reduce this margin of error. Single-year ACS data is available for larger geographies (with greater than 65,000 people) at the Census Bureau's American FactFinder website.

Figure 4-9. Race and Hispanic Origin

Town of New Castle				
Race and Hispanic Origin, 2000 and 2010 Census	2000	Percent	2010	Percent
Total population	17,491	100%	17,569	100%
Hispanic or Latino	487	2.8%	710	4.0%
Not Hispanic or Latino	17,004	97.2%	16,859	96.0%
White alone	15,625	89.3%	15,013	85.5%
Black or African American alone	231	1.3%	263	1.5%
American Indian and Alaska Native alone	5	0.0%	3	0.0%
Asian alone	969	5.5%	1,283	7.3%
Native Hawaiian and Other Pacific Islander alone	3	0.0%	0	0.0%
Some Other Race alone	15	0.1%	43	0.2%
Two or More Races	156	0.9%	254	1.4%
Westchester County				
Race and Hispanic Origin, 2000 and 2010 Census				
Total population	923,459	100.0%	949,113	100.0%
Hispanic or Latino	144,124	15.6%	207,032	21.8%
Not Hispanic or Latino	779,335	84.4%	742,081	78.2%
White alone	591,776	64.1%	544,563	57.4%
Black or African American alone	125,227	13.6%	126,585	13.3%
American Indian and Alaska Native alone	1,072	0.1%	1,141	0.1%
Asian alone	40,941	4.4%	51,123	5.4%
Native Hawaiian and Other Pacific Islander alone	232	0.0%	218	0.0%
Some Other Race alone	3,081	0.3%	3,757	0.4%
Two or More Races	17,006	1.8%	14,694	1.5%
	1	I .	1	1

Source: US Census, Decennial Census Summary File 1; Prepared by Westchester County Department of Planning

Figure 4-10. Foreign-born Population

	Native			Foreign-Bo	rn	
Municipality	Estimate	Margin of Error (+/-)	Percent	Estimate	Margin of Error (+/-)	Percent
Bedford	14,963	460	86%	2,423	462	14%
Cortlandt	34,853	643	85%	6,354	654	15%
Mount Pleasant	34,354	669	79%	9,231	669	21%
New Castle	15,208	294	87%	2,299	288	13%
North Castle	10,414	280	89%	1,290	281	11%
Ossining Town	4,543	201	84%	840	198	16%
Somers	17,980	330	89%	2,186	332	11%
Yorktown	31,740	551	88%	4,265	544	12%
Mount Kisco	7,203	543	67%	3,557	543	33%
Pleasantville	6,071	299	87%	946	297	14%
Westchester County	711,781	3,984	75%	232,468	3,984	25%

Source: American Community Survey 2007-2011, US Census Bureau; Prepared by Westchester County Department of Planning

Pleasantville (14% each), while North Castle and Somers have a lower proportion of foreign-born residents (11%). Figure 4-10, Foreign-born Population, compares these populations in New Castle with Westchester County and other nearby municipalities.

#### 4.6 Income

New Castle has a higher median household income than any of its neighboring communities, with the most recent estimate at \$188,113 according to the 2007-2011 American Community Survey (ACS). This compares with surrounding municipalities where median incomes span from \$66,111 in Mount Kisco to \$141,576 in North Castle.

The American Community Survey estimates that approximately 8.5-9.3% of residents in New Castle had income below the poverty level between 2007 and 2011.

Figure 4-11, Median Household Income, 2007-2011 shows these income figures for New Castle, Westchester County and surrounding communities.

Figure 4-11. Median Household Income 2007-2011 (in 2011 Dollars)

Municipality	Households	Families
Bedford	\$109,042	\$139,112
Cortlandt	\$95,446	\$111,980
Mount Kisco	\$66,111	\$77,220
Mount Pleasant	\$104,695	\$129,375
New Castle	\$188,113	\$205,109
North Castle	\$141,576	\$155,313
Ossining Town	\$115,265	\$138,265
Pleasantville	\$110,368	\$148,304
Somers	\$115,713	\$133,507
Yorktown	\$104,235	\$119,331
Westchester County	\$80,725	\$102,621

### 4.7 Educational Attainment

New Castle is a highly educated community. According to the American Community Survey (ACS), New Castle residents have higher levels of educational attainment then any of the town's surrounding communities and the county average. As shown in Figure 4-12, only 2.8% of New Castle residents over 25 do not have a high school diploma or GED, and the county average is 12.7%. More than three-quarters (76.8%) of New Castle residents have a bachelor's degree or higher, while only 44.5% of county residents have a bachelor's degree.

Source: U.S. Census Bureau American Community Survey 2007-2011.

Data is based on a sample and contains a margin of error; Prepared by the Westchester County Department of Planning

Figure 4-12. Educational Attainment for the Population 25 and Over, 2007-2011

Municipality	Pop. 25 years and over	No high school diploma	High school/ GED	Bachelor's or higher	Master's or higher
Bedford	11,653	9.7%	18.1%	53.9%	25.5%
Cortlandt	28,358	8.9%	21.6%	44.0%	21.5%
Mount Kisco	7,373	16.4%	19.7%	42.0%	17.7%
Mount Pleasant	28,346	10.8%	19.4%	48.8%	23.2%
New Castle	11,412	2.8%	6.7%	76.8%	43.8%
North Castle	7,488	4.2%	15.8%	63.7%	32.2%
Ossining Town	4,120	5.4%	29.2%	65.4%	32.6%
Pleasantville	4,602	6.3%	14.1%	62.7%	29.4%
Somers	14,213	3.7%	20.3%	53.7%	26.0%
Yorktown	24,375	6.7%	23.8%	45.2%	22.0%
Westchester County	640,046	12.7%	22.4%	44.5%	22.0%

Source: U.S. Census Bureau American Community Survey 2007-2011.

Data is based on a sample and contains a margin of error;

Prepared by the Westchester County Department of Planning

### **CHAPTER 5 TRANSPORTATION**

This chapter provides background on transportation elements affecting residents, commuters and businesses in the Town of New Castle. These elements include the road system, public transportation, and Westchester County Airport (HPN). The moving of people and goods is essential for any community. Community transportation assets, traffic conditions and census data are presented here to illustrate a complete picture of transportation in the Town of New Castle.

### 5.1 Road System

The road system in the Town of New Castle includes principal arterials, minor arterials, major collector roadways, and local streets. Each roadway is designed to serve a different function to move people and goods in an efficient manner. Although some roads in New Castle may appear rural in character, all roads in the Town of New Castle and Westchester County are considered urban roads from a transportation planning classification standpoint. Map 5-1 Road Network on page 5-2 shows roadways in the Town.

### A. Principal Arterial

In New Castle, principal arterials consist of limited access roadways that do not have many access points except at major roadway intersections, or in the case of interstates or parkways, only have access through controlled interchanges. Some of these roadways exclude certain vehicles, such as commercial trucks and/or buses. There are two limited access roadways in the Town of New Castle:

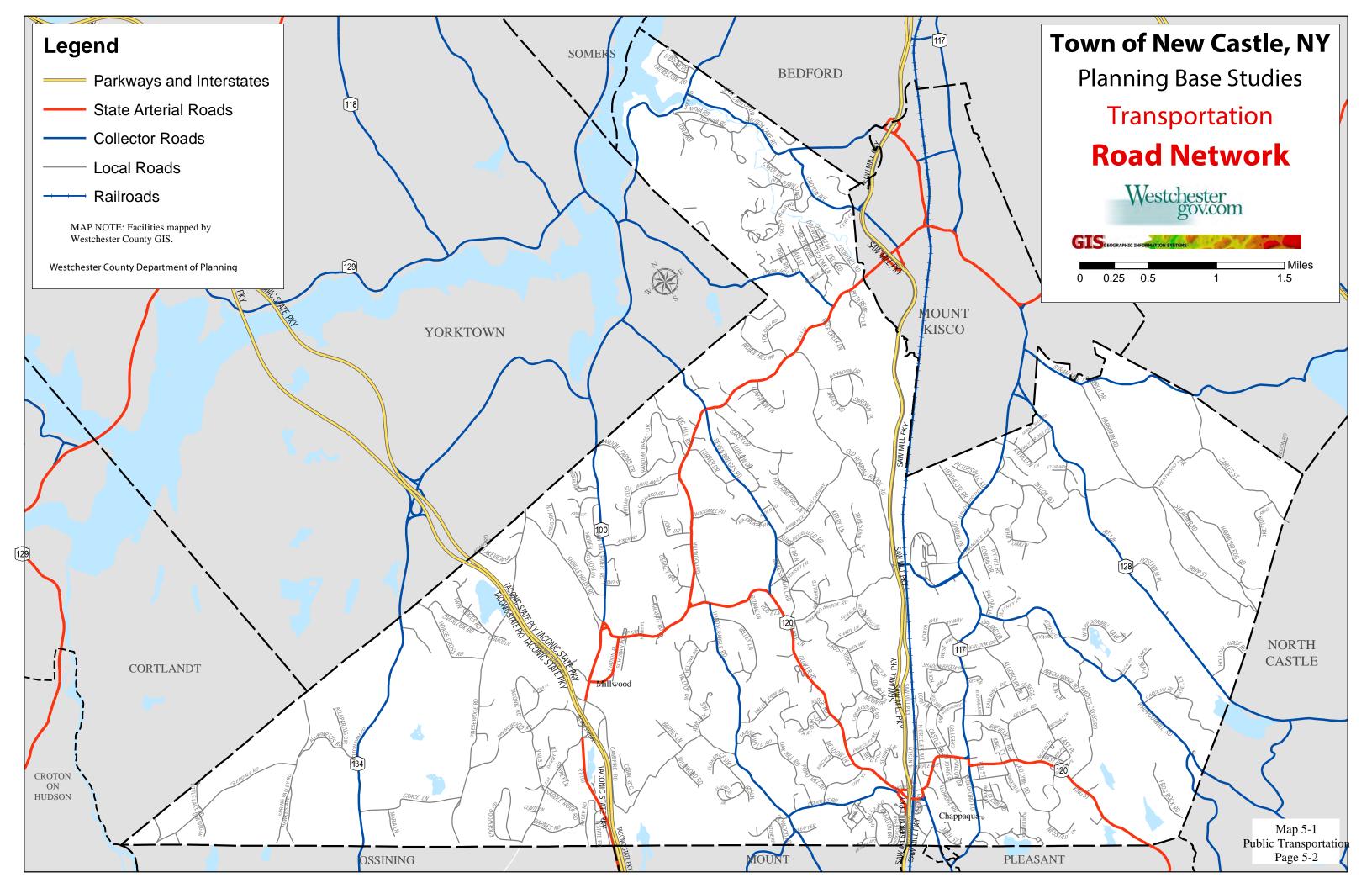
a. Taconic State Parkway - is an north-south limited access New York State (NYS) touring route that follows a path midway between the NYS border and the Hudson River. The Taconic State Parkway – the Taconic or TSP – was listed on the National Register of Historic Places in 2005 and is also designated as a New York State Scenic Byway. The Taconic is administratively known as New York State Route 987G. The 103.5 mile Taconic State Parkway commences at the Kensico Dam Plaza in Westchester County and has a northern terminus at the Berkshire spur of the NYS Thruway (Interstate 90) in Columbia County. Throughout the Town, the north and south lanes of the Taconic are separated by a



## Highway Touring and Reference Routes

The Interstate (I) and Federal (US) touring route systems are numbered by the American Association of State Highway and Transportation Officials upon recommendations of the State (NYS). NYS *Touring route* and *Reference route* number systems are numbered by the NYS Department of Transportation (NYSDOT). *Touring routes* are signed with route markers. *Reference routes* are not generally signed with route markers.

~ NYSDOT



### What is a Scenic Byway?

A scenic byway is a road, but not just a road. It's a road with a story to tell. A scenic byway might offer magnificent views or fascinating historical sites or amazing wildlife. It might offer access to an exhilarating array of outdoor activities or reveal captivating cultures, spellbinding art or spectacular structures. Whether a scenic byway offers one or many of these things, it always offers a great experience.

A scenic byway is a "win/win" arrangement for the travelers who use it and the communities that adjoin it. Travelers are treated to an uncommonly exciting, educational or entertaining trek. Communities profit by an organized management plan that protects and enhances the byway corridor while encouraging increased tourism. To learn more about these wonderful locations, visit <u>Lists of NYS Byways</u>.

https://www.dot.ny.gov/display/programs/scenic-byways

landscaped median. The Taconic is the most heavily travelled road in New Castle, although there is only one exit in the Town. Access to the Taconic in New Castle is via exit NY-100/NY-133/Briarcliff Manor/Millwood (exits for the Taconic are not numbered). A detailed description of the history and construction of the parkway can be found in Appendix 5-1, the Taconic State Parkway National Register of Historic Places Registration Form.

- **b.** Saw Mill River Parkway is primarily a limited access north-south NYS touring route, except that in New Castle the road has an at-grade signalized intersection at Roaring Brook Road. The Saw Mill River Parkway is also referred to as the Saw Mill or SRP and is administratively known as New York State Route 987D. The only exit in New Castle is Exit 32 that provides access to Route 120 in Chappaqua.
- c. NYS Route 117 (South and North Bedford Road) western terminus is located in Sleepy Hollow at Route 9 (North Broadway) and extends northeasterly to the eastern terminus located in Bedford at I-684. NYS Route 117 is 15.5 miles long with 3.3 miles in New Castle. For much of the route in New Castle it runs somewhat parallel to the Saw Mill River Parkway connecting the hamlets and villages of Sleepy Hollow, Pleasantville, Chappaqua, Mount Kisco,

Figure 5-1. Taconic State Parkway



Source: Westchester County Department of Planning

Figure 5-2. Saw Mill River Parkway







Source: Westchester County Department of Planning



Figure 5-3. Intersection of NYS Route 133 and 120

Bedford Hills and Katonah. The road is painted with a double yellow center line and edge of lane white lines. At some busier intersections, turning lanes exist. The speed limit in New Castle is 35 miles per hour (MPH).

## Figure 5-4. View North of NYS Route 117 in Chappaqua.



Source: Westchester County

### **B.** Minor Arterial

Minor arterial roadways serve as principal through roads that connect routes, areas or principal traffic generation sources and are accessible to both passenger cars and commercial vehicles. There are six minor arterial roadways in New Castle:

a. NYS Route 133 (Millwood Road and Somerstown Road) — is an east-west route with a terminus in Ossining and Mount Kisco. The road is also known as Croton Avenue in Ossining. East of Route 9, the route becomes Somerstown Road. At Millwood, Route 133 continues eastward on Millwood Road until the Mount Kisco border. From the Mount Kisco border to its terminus at the intersection with NYS Route 117, the road is also known as West Main Street. The road is 8.5 miles long with 5.5 miles located in New Castle. The road is painted with a double yellow center line and edge of lane white lines. At some busier intersections, turning lanes exist. In New Castle, the speed limit varies from 30-40 MPH.

**b.** NYS Route 100 (Saw Mill River Road and Somerstown Turnpike) — The southern terminus of NYS Route 100 is located in the City of Yonkers at the junction of the Cross County Parkway and the road extends to a northern terminus in the Town of Somers

at Route 202. The road is 32.3 miles long with 3 miles passing through New Castle. In New Castle, the road extends from the Town of Ossining to Yorktown, passing through Millwood. The road is known as Saw Mill River Road from the southern Town line until the intersection with Station Place. The road is a 4-lane road in most of this section and the shoulder of portions of the road are used for the North County Trailway. There are no residential driveways that access this section of the road.

The road is known as Somerstown Turnpike from the intersection with Station Place to the northern Town line. The road is a two lane road in this section. There are some sections with many residential driveways accessing the road. The road is painted with a double yellow center line and white at the edge of lane. At some busier intersections, turning lanes exist.

c. NYS Route 134 (Croton Dam Road and Kitchawan Road) — the southern terminus of NYS Route 134 is in the Village of Ossining at NYS Route 133 (Croton Avenue) and the road continues northeast to the northwest corner of the Town. The road ends at the intersection with NYS Route 100 in the Town of Yorktown. NYS Route 134 connects NYS Route 9A, the Taconic State Parkway and Route 100. Route 134 is connected to the Taconic State Parkway by the NY-100/NY-133/Briarcliff Manor/Millwood exit. Hudson Hills County Golf Course and Sunny Ridge Nature Preserve are located on Route 134 in New Castle, but the primary land use fronting on Route 134 is residential. The Peekskill/Briarcliff Trailway crosses the highway, however, there is no trail access parking.

The relatively straight road is painted with a double yellow center line and white at the edge of lane. The speed limit is 40 MPH in New Castle. The shoulders vary from zero to two feet.

**d. NYS Route 128 (Armonk Road)** — the southern terminus of NYS Route 128 begins at the intersection with NY Route 22 in Armonk in the Town of North Castle. In North Castle, Route 128 is known as North Main Street and Armonk-Mount Kisco Road. In New Castle, the road is simply known as Armonk Road and continues as such to its northern terminus at NYS Route 117 in Mount Kisco. The road connects the Village of Mount Kisco and the hamlet of Armonk, which both serve as commercial centers for the residents in southeast areas of New Castle.

The road is painted with a double yellow center line and white at the edge of lane. The speed limit varies from 35 to 45 MPH in New Castle. The shoulders vary from zero to five feet.

Figure 5-5. NYS Route 100 looking south towards intersection with NYS Route 133



Source: Westchester County

Figure 5-6. NYS Route 134



Source: Westchester County

### Figure 5-7. NYS Route 128



Source: Westchester County

### e. NYS Route 120 (King Street, Quaker Road, Millwood Road)

— the southern terminus is located in the Village of Rye Brook at the intersection with NYS Route 1. The road is also know as King Street until it become Quaker Road in Chappaqua. NYS Route 120's northern terminus is at the intersection with NYS Route 100 in Millwood. The road is co-aligned with NYS Route 133 from the intersection of Quaker and Millwood Road to NYS Route 100. The road serves as a direct route for residents of the Town to the West-chester County Airport which is located on NYS Route 120 about 8 miles south of the main hamlet area of Chappaqua. Just north of the hamlet area of Chappaqua, a portion of NYS Route 120 is part of the Old Chappaqua Historic District that is listed on the National Register of Historic Places.

**f. Greeley Street** — is a 1.2 mile north-south route that changes from South to North Greeley Street at the intersection with King Street in Chappaqua. Greeley Street is a busy commercial road and is co-aligned with NYS Route 120 for a short portion in Chappaqua. Intersections are controlled with stop signs. Within the commercial hamlet area, sidewalks and parallel parking flanks both sides of the road. The road is painted with a double yellow center line and has curbs at the edge. Even though Greeley Street is short in length, it experiences high volumes of traffic and is classified as a minor arterial by the New York State Department of Transportation. The speed limit is 25 MPH.

### C. Major Collector Roadways

Major collector roadways serve as links between major and local roadways. Within New Castle, these roadways primarily move traffic within residential and commercial areas. Some streets constructed as local streets, have since developed into 'short cuts' re-

Figure 5-8. NYS Route 120



Source: Google Maps

sulting in heavy traffic for a local street. The 'short cut' local streets that carry traffic that rival some major collector roads include Croton Lake Road, Crow Hill Road, Douglas Road and Roaring Brook Road. Common characteristics of these roads include narrow lanes with little or no shoulder. Local streets often have many single family homes and driveways. The major collector roadways in New Castle are:

- **a. Seven Bridges Road's** southern terminus intersects with NYS Route 133 and its northern terminus intersects with NYS Route 100 in the Town of Yorktown. In New Castle, Seven Bridges Road is a County Road. Seven Bridges Road is a busy road as indicated by the Annual Average Daily Traffic (AADT) counts. Seven Bridges Road, along with Crow Hill Road and Croton Lake Road, serves as a short cut for those travelling between New Castle and Mount Kisco to areas of Yorktown and Somers.
- **b. Pinesbridge Road's** southwestern terminus intersects with NYS Route 9A in the Town of Ossining. The northeastern terminus intersects with NYS Route 134 in the Town of Ossining. In Ossining and New Castle the road is a County road. Pinesbridge Road also intersects with the Taconic Parkway. The connection to Pinesbridge Road is an entrance ramp to the southbound Taconic and exit from the northbound Taconic only. The IBM Watson Research facility in Yorktown has a main entrance on Pinesbridge Road. According to Westchester County Archives, portions of Pinesbridge Road were once known as Old Sing Sing Road and appeared on maps as early as 1814.
- **c. Hardscrabble Road's** northern terminus intersects with NYS Route 120. The southern terminus intersects with Pleasantville Road in the Town of Mount Pleasant. This intersection is just a few minutes drive to either the Taconic State Parkway or the Saw Mill River Parkway.
- **d. Roaring Brook Road's** eastern terminus intersects with NYS Route 117. The southwestern terminus intersects with NYS Route 120. The road also intersects with the Saw Mill River Parkway at an at grade intersection. Roaring Brook Road is only 1.6 miles long and it is narrow and windy. Horace Greeley High School and the Reader's Digest site have entrances on Roaring Brook Road. Roaring Brook Road is painted with a double yellow center line with no edge of lane white line. The speed limit is 25 MPH.
- **e.** Crow Hill Road's eastern terminus is at NYS Route 117. The western southern terminus intersects with NYS Route 120. The

Figure 5-9. Seven Bridges Road



Photo Source: Westchester County

road also intersects with the Saw Mill River Parkway at an at grade intersection. The road is painted with a double yellow center line with no edge of lane white line.

- **f. Croton Lake/Lake Road** is part of a 3 mile north-south route that connects Kisco Avenue and the Saw Mill River Parkway in Mount Kisco to NYS Route 100 in Yorktown. The portion in New Castle is 2 miles long. Croton Lake and Lake Road are painted with a double yellow center line with no edge of lane white line.
- **g. Douglas Road's** eastern terminus intersects with NYS Route 120 near an entrance ramp of the Saw Mill River Parkway. The western terminus intersects with Hardscrabble Road. Douglas Road is painted with a double yellow center line with no edge of lane white line.
- **h. Shingle House Road** runs parallel and is about half mile east to the Taconic State Parkway. The northern terminus ends at Pinesbridge Road and the southern terminus ends at NYS Route 100/Somerstown Road in Millwood. The northern terminus is in close proximity to the IBM Watson facility in Yorktown. The road is painted with a double yellow center line with no edge of lane white line.
- i. North State Road runs semi-parallel to NYS Route 100. The northern terminus ends at NYS Route 100 and southern terminus ends at Pleasantville Road in Briarcliff Manor. The road is 2.1 miles long with 0.3 miles in New Castle. The road passes through a commercial area of the Town of Ossining.

Figure 5-10. Roaring Brook Road, New Castle



Figure 5-11. Crow Hill Road



### **D. Local Streets**

Connecting to the collector roadways, local streets serve as direct vehicular and pedestrian access to most properties in the Town. The majority of the roadways in the Town are local residential streets. These roads are often narrow and have no shoulder.

### **5.2 Current Traffic Conditions**

### A. Traffic Growth and Trends

Figures 5-12 and 5-14 provide data on the Annual Average Daily Traffic Counts for certain roads in the Town. The Taconic State Parkway is by far the busiest road in New Castle. Traffic counts decreased during the beginning of the recession in 2008. By 2010, the numbers began to increase again.

#### **B.** Traffic Volume

Traffic volume is graphically shown in Map 5-2. The Annual Average Daily Traffic (AADT) count shows that traffic is heaviest on the portion of the Taconic State Parkway that goes from NYS Route 133 north to the Town border with Yorktown. Many of the Town Roads have traffic counts that rival those of State and County roads in the Town. For a further breakdown of AADT traffic counts see Figure 5-14.

The U.S. Department of Transportation Federal Highway Administration published highway guidelines for road classifications in the 2013 report, *Highway Functional Classification Concepts, Criteria and Procedures* (see Appendix 5-2), that is summarized in Figure 5-13. The chart provides guidance on the physical characteristics and capacity ranges for road function classifications.

The NYSDOT defines road function classification as "the process by which roads, streets, and highways are grouped into classes according to the character of service they provide." Functional classification is also used to determine which roads are eligible for project funding under the Surface Transportation Program (STP) administered by the Federal Highway Administration. In Westchester County, all roads are classified as Urban Roads.

### C. Traffic Safety

The 1989 *Town Development Plan* reviewed traffic data for a two year period from 1985-1987 and there were 180 accidents per year. The Town's traffic accident history from January 2011 to June 2013 was obtained from the New Castle Police Department. Data in the traffic accident reports was compiled into a single spreadsheet that can be found in Appendix 5-3. There were 536 accidents during this time period which averages out to 214 per year, which is an overall increase of 34 accidents per year from 25 years ago.

Accidents from January 2011 to June 2013 are summarized in Figure 5-15. New York State highways were found to have the highest number of accidents in New Castle with NYS Route 120 having the highest number of accidents for this time period. Roaring Brook Road had the highest number of accidents for a non-State road.

As part of the data compilation, the traffic accidents were broken down into three general cause categories: driver error, road conditions and collisions with animals. Driver error was by far the most common cause of accidents in the Town. Of the 536 accidents, 440

Figure 5-12. County and Town Roadway Annual Average Daily Traffic (AADT) Counts

<b>County Roadway</b>	Beginning Point	End Point	AADT
Hawkes Rd.	Ossining T/L	Spring Valley Rd.	2,900
Spring Valley Rd.	Hawkes Rd.	Yorktown T/L	2,900
Seven Bridges Rd.	NYS Rt. 133	Yorktown T/L	3,169
Seven Bridges Rd.	NYS Rt. 120	NYS Rt. 133	3,977
Washington Ave.	Mt. Pleasant T/L	Greeley Ave.	2,375
Greeley Ave.	Mt. Pleasant T/L	NYS Rt. 120	5,257
Pines Bridge Rd.	Ossining T/L	Yorktown T/L	1,483
N. State Rd.	Ossining T/L	NYS Rt. 100	5,585
<u> </u>	C		,
Town Roadway	Beginning Point	End Point	AADT
	-	End Point Saw Mill River Parkway	·
Town Roadway	Beginning Point		AADT
Town Roadway Roaring Brook Road	Beginning Point NYS Rt. 117	Saw Mill River Parkway	<b>AADT</b> 9,655
Town Roadway  Roaring Brook Road  Roaring Brook Road	Beginning Point  NYS Rt. 117  Saw Mill River Parkway	Saw Mill River Parkway NYS Rt. 120	9,655 2,632
Town Roadway  Roaring Brook Road  Roaring Brook Road  Douglass Road	Beginning Point  NYS Rt. 117  Saw Mill River Parkway  NYS Rt. 120	Saw Mill River Parkway  NYS Rt. 120  Hardscrabble Road	9,655 2,632 3,371
Town Roadway  Roaring Brook Road  Roaring Brook Road  Douglass Road  Seven Bridges Rd.	Beginning Point  NYS Rt. 117  Saw Mill River Parkway  NYS Rt. 120  NYS Rt. 120	Saw Mill River Parkway  NYS Rt. 120  Hardscrabble Road  NYS Rt. 133	9,655 2,632 3,371 3,977
Town Roadway  Roaring Brook Road  Roaring Brook Road  Douglass Road  Seven Bridges Rd.  Shingle House Road	Beginning Point  NYS Rt. 117  Saw Mill River Parkway  NYS Rt. 120  NYS Rt. 120  NYS Rt. 100	Saw Mill River Parkway  NYS Rt. 120  Hardscrabble Road  NYS Rt. 133  Pines Bridge Road	9,655 2,632 3,371 3,977 1,204

Notes: AADT = Average Annual Daily Traffic, T/L = Town Line, V/L = TownLine, S/L = State Line Sources: http://publicworks.westchestergov.com/new-castle

and NYS DOT website: http://gis.dot.ny.gov/tdv/ on October 25, 2013

accidents were caused by driver error, 80 accidents by road conditions and 16 by collisions with animals—primarily deer.

The general cause category referred to as "driver error" included accidents caused by falling asleep at the wheel, distracted driver, error in judgment, tailgating and DWI/DUI. As indicated in Figure 5-16, of the 440 accidents, error in judgment is by far the most common cause of accidents. Ten accidents involved a pedestrian or bicyclist.

Snow/ice was by far the most common cause of accidents caused by road conditions. 49 accidents were caused by winter weather. A significant number of accidents were caused by debris in the road and flooding. Several major weather events—such as Hurricane Sandy —

occurred during the data period and many of these accidents occurred during or after these storms. Appendix 5-4 includes detailed information about the traffic accident data by road.

For roads with more than 10 accidents during the data period, the facts were broken down into further detail by location on road. The ten roads that had more than 10 accidents (see Figure 5-17) include:

- North Greeley Avenue
- South Greeley Avenue
- NYS Rt. 100 Saw Mill River Road, Somerstown Turnpike
- NYS Rt. 117 Bedford Road, South Bedford Road
- NYS Rt. 120 King Street, Quaker Road, Millwood Road
- NYS Route 128 Armonk Road
- NYS Rt. 133 Millwood Road, Somerstown Road
- NYS Rt. 134, Croton Dam Road, Kitchawan Road
- Roaring Brook Road
- Whippoorwill Road

Appendix 5-5 includes further breakdown of traffic accidents on each road. Certain areas on these roads appear to be "hot spots" and may warrant further study.

- Greeley Avenue along the commercial area of Chappaqua
- Roaring Brook Road
- NYS Rt. 117 intersection with NYS Rt. 120
- NYS Rt. 117 intersection with Roaring Brook Road
- NYS Rt. 120 intersection with Marcourt Drive
- NYS Rt. 120 intersection with Poillon Drive
- NYS Rt. 120 intersection with South Greeley Avenue
- NYS Rt. 120 intersection with NYS Rt. 117
- Whippoorwill Road intersection with Whippoorwill Crossing
- NYS Rt. 100 intersections with NYS Rt. 133
- NYS Rt. 100 intersection with Campfire Road
- NYS Rt. 100 intersection with North State Road
- NYS Rt. 133 intersections with Seven Bridges Road
- NYS Rt. 133 intersection with Indian Hill Road
- NYS Rt. 134 intersection with Allapartus Road

At first glance there appears to be some common elements of the apparent "hot spots" which include:

- Roads with little or no shoulders
- Narrow roads
- Limited visibility at intersections due to trees, shrubs, utility poles, fences and signage
- High traffic volume

Some roads like Roaring Brook Road and Whippoorwill Road are old local roads that have become short cuts. The roads have evolved over the years. Some roads were constructed as narrow roads and

Figure 5-12. Highway Guidelines by Function Class, U.S. Department of Transportation Federal Highway Administration

			ARTERIALS		COLLEC	TOR	
Typical Characteristics	Interstate	Freeway & Expressway	Principal Arterial	Minor Arterial	Major	Minor	LOCAL
Lane Width	12 feet	11-12 feet	11 - 12 feet	10 - 12 feet	10 - 12 feet	10 - 11 feet	8 - 10 feet
Inside Shoulder Width*	4 - 12 feet	0- 6 feet	0 feet	NA	NA	NA	NA
Outside Shoulder Width	10 -12 feet	8 -12 feet	8 - 12 feet	4 - 8 feet	1 - 6 feet	1 - 4 feet	0 - 2 feet
AADT Rural	12,000 - 34,000	4,000 -18,500	2,000 - 8,500	1,500 - 6,000	300 - 3,600	150 - 1,110	15 - 400
AADT Urban	35,000-129,000	13,000 - 55,000	7,000 - 27,000	3,000 - 14,000	1,100 - 6,300	1,100 - 6,300	80 - 700
Divided/Undivided	Divided	Undivided/Divided	Undivided/Divided	Undivided	Undivided	Undivided	Undivided
Access	Fully Controlled	Partially/ Fully Controlled	Partially/ Uncontrolled	Uncontrolled	Uncontrolled	Uncontrolled	Uncontrolled
Qualitative Description - Urban	residential, and co • Penetrate residentances	access and traffic circulate ommercial/industrial areas ntial neighborhoods, ofter hannel trips between local	for significant dis-	<ul> <li>Interconnect with and augment the principal arterials</li> <li>Serve trips of moderate length at a somewhat lower level of travel mobility than principal arterials</li> <li>Distribute traffic to smaller geographic areas than those served by principal arterials</li> <li>Provide more land access than principal arterials without penetrating identifiable neighborhoods</li> <li>Provide urban connections for rural collectors</li> </ul>	<ul> <li>Serve both land access and traffic circulation in higher density residential, and commercial/industrial areas</li> <li>Penetrate residential neighborhoods, often for significant distances</li> <li>Distribute and channel trips between local streets and arterials, usually over a distance of greater than three-quarters of a mile</li> </ul>	<ul> <li>Serve both land access and traffic circulation in lower density residential, and commercial/industrial areas</li> <li>Penetrate residential neighborhoods, often only for a short distance</li> <li>Distribute and channel trips between local streets and arterials, usually over a distance of less than three-quarters of a mile</li> </ul>	<ul> <li>Provide direct access to adjacent land</li> <li>Provide access to higher systems</li> <li>Carry no through traffic movement</li> </ul>
Qualitative Description - Rural	characteristics ind travel • Serve all or near urban clusters are	novements having trip lendicative of substantial state. It all urbanized areas and as with 25,000 and over parated network of continuous lends)	a large majority of opulation	<ul> <li>Link cities and larger towns (and other major destinations such as resorts capable of attracting travel over long distances) and form an integrated network providing interstate and inter-county service</li> <li>Spaced at intervals, consistent with population density, so that all developed areas within the State are within a reasonable distance of an arterial roadway</li> <li>Provide service to corridors with trip lengths and travel density greater than those served by rural collectors and local roads and with relatively high travel speeds and minimum interference to through movement</li> </ul>	<ul> <li>Provide service to any county seat not on an arterial route, to the larger towns not directly served by the higher systems, and to other traffic generators of equivalent intra-county importance such as consolidated schools, shipping points, county parks, important mining and agricultural areas</li> <li>Link these places with nearby larger towns and cities or with arterial routes</li> <li>Serve the most important intracounty travel corridors</li> </ul>	Be spaced at intervals, consistent with population density, to collect traffic from local roads and bring all developed areas within reasonable distance of a minor collector     Provide service to smaller communities not served by a higher class facility     Link locally important traffic generators with their rural hinterlands	<ul> <li>Serve primarily to provide access to adjacent land</li> <li>Provide service to travel over short distances as compared to higher classification categories</li> <li>Constitute the mileage not classified as part of the arterial and collectors systems</li> </ul>

Figure 5-14. Annual Average Daily Traffic Counts for State Roads in New Castle, Selected Years 1997-2010

								Year							%
Route Number	Section Ends At:	1997	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	CHANGE
Route 117	End of Route 120 OLAP				10,420			11,550			10,390			10,610	1.82%
Route 117	Start of Route 120 OLAP					7,920			7,270			7,080		7,180	-9.34%
Route 120	Saw Mill River Parkway			13,020			13,580			14,160				14,400	10.60%
Route 120	Seven Bridges Road (CR21)						8,810			6,970			7,780	7,820	-11.24%
Route 120	Start of Route 133 OLAP						7,400			7,130			6,210	6,240	-15.68%
Route 120	End of Route 133 OLAP					11,850			12,780			11,290		11,390	-3.88%
Route 120	Route 100 end of Route 120			2,180			2,740					2,320		2,340	7.34%
Route 128	Route 117 end 128						4,780			4,590			4,380	4,400	-8.64%
Route 133	Start Route 100 OLAP						7,450			7,600			6,790	6,820	-8.46%
Route 133	ACC Taconic State Parkway		17,040			18,500			19,870					20,290	19.07%
Route 133	End of Rote 100 OLAP		17,580			20,280				21,640				22,010	25.20%
Route 133	Seven Bridges Road (CR5)						6,300			7,100			6,190	6,210	-1.43%
Route 134	ACC Taconic State Park- way						7,040			6,270			6,440	6,470	-8.10%
Taconic State Parkway (987G)	Route 100 & 133 Off Ramp	54,440		58,120					68,780					74,810	27.23%

Source: 2010 Traffic Volume Report, New York State Department of Transportation. Prepared by Westchester County Department of Planning. Notes: AADT = Annual Average Daily Traffic Count.

Map 5-2. Annual Average Daily Traffic Counts

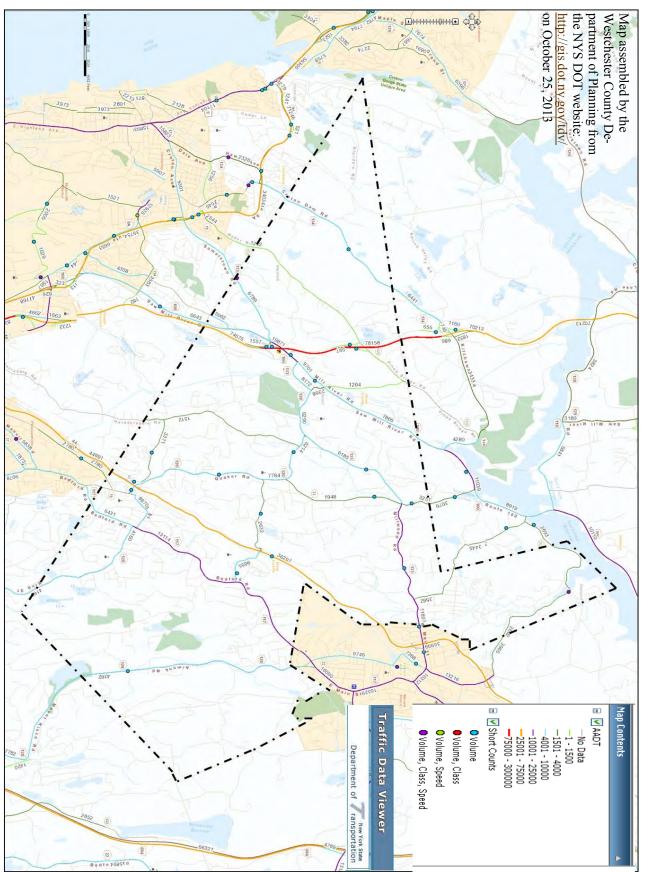


Figure 5-15. Traffic Accident History: January 2011 - June 2013

Road	Total Accidents	Length in NWC	Total Length
Allapartus Road	3	0.6	0.6
Annandale Road	2	0.8	0.8
Campfire Road	2	1.8	1.8
Croton Avenue	4	0.7	1.2
Croton Lake Road	3	1	1.6
Crow Hill Road	4	0.8	1.9
Hardscrabble Road	5	2.1	4.1
Hunts Lane/Place	4	0.7	0.7
Lake Road	5	1.2	1.6
N. Greeley Avenue	15	0.7	0.7
North State Road	2	0.3	2.1
Old Roaring Brook Road	4	3.4	3.4
Pinesbridge Road	6	2.6	4.2
Roaring Brook Road	36	1	1
S. Greeley Avenue	24	0.5	0.6
Seven Bridges Road	5	2.3	2.3
Sheather Road	2	1.7	1.7
Spring Valley Road	3	3	3
NYS Rt. 100	92	3	32.3
NYS Rt. 117	76	3.3	15.5
NYS Rt. 120	108	5.7	17.5
NYS Rt. 128	15	2.7	5.4
NYS Rt. 133	77	5.5	8.5
NYS Rt. 134	17	1.8	6.4
Stony Hollow	2	0.3	0.3
Whippoorwill Crossing	3	0.4	1.6
Whippoorwill Road	13	2.3	4.8
Woodburn Avenue	4	<500 feet	<500 feet

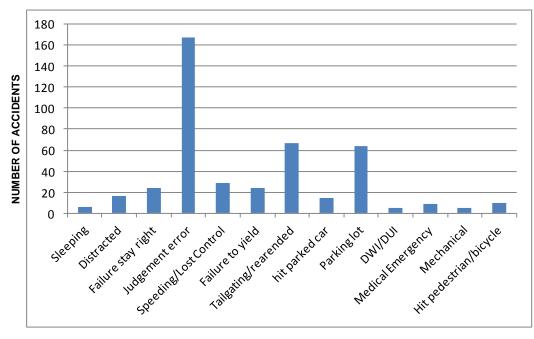


Figure 5-16. Accidents Caused by Driver Error: January 2011 - June 2013

only a few parcels had access to them. Over the years, development occured dividing larger parcels into numerous small parcels increasing the number of driveways that had direct access to the road. Trees and shrubs over time can begin to fill in and encroach on the paved area narrowing the roads.

Road standards and elements in the road right-of-way that contribute to traffic safety can include:

- Lane width standards
- Shoulder width standards
- Visibility sight triangles
- Signage standards

Local laws that can have a direct impact on traffic safety include subdivision, site plan review and sign regulations. The Town's local laws regarding roads are found in Chapter 113 Subdivision of Land, a Appendix I Design Standards for Streets and Chapter 60-420.C (6), Visibility at Intersections (a full copy of the laws are found in Appendix 5-6). The design standards include provisions for lane width, grade, right of way and horizontal curves. In addition, all American Association of State Highway and Transportation Officials (AASHTO) design guidelines must be met.

Although some roads may appear rural in character, all roads in Westchester County are classified as Urban Roads based on the level of development in the County. AASHTO's *A Policy on Geometric Design of Highways and Streets* created guidelines for a

#### **Highway Functional Classification**

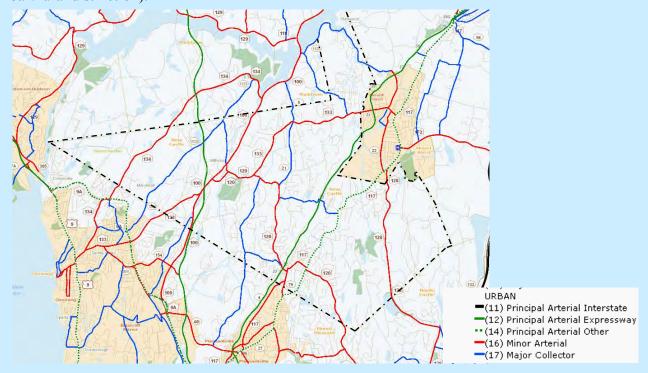
Functional classification is the process by which roads, streets, and highways are grouped into classes according to the character of service they provide. Individual roads and streets do not serve travel independently but as part of a network of roads through which the traffic moves. Functional classification defines the nature of this movement by defining the part that any particular road or street should play in serving the flow of trips through a highway network and the type of access it provides to adjacent properties. Functional classification describes the importance of a particular road or network of roads to the overall system and, therefore, is critical in assigning priorities to



Urbanized Area

projects and establishing the appropriate highway design standards to meet the needs of the traffic served. Functional classification is also used to determine which roads are eligible for project funding under the Surface Transportation Program (STP) administered by the Federal Highway Administration.

There are currently seven functional classifications which are further distinguished as urban and rural yielding fourteen distinct designations. All of the classifications are Federal Aid eligible except three: Urban Local, Rural Minor Collector, and Rural Local (codes 19, 08, and 09, respectively). Federal Aid (STP) may also be used for projects on Rural Minor Collectors (08) although they are not typically considered to be part of the Federal Aid eligible system. The respective classes and codes are shown below (the FHWA codes do not contain the urban/rural distinction).



range of lane and shoulder widths for various types of roadways (see Figure 5-13 and 5-19). Most roads under the jurisdiction of the Town would be classified as "Collector" or "Local" roads.

The Town has laws that set the speed limit for motor vehicles on county roads and Town highways at 30 miles per hour. There are certain roads that have speed limits of 25 miles per hour. (See Figure 5-20).

#### **D.** Goods Movement

The Town also has laws that exclude trucks that exceed 5,000 pounds from certain streets (See Figure 5-21). Exceptions are made for trucks making local deliveries and emergency vehicles. Large SUVs and some luxury cars exceed the 5,000 pound weight limit.

The movement of goods in Westchester is dependent upon truck deliveries. Trucks are permitted to drive on all county and state roads. Any commercial land use is usually dependent on truck access. Trucks that are delivering goods are getting larger and consideration should be given to how trucks navigate through the Town and the greater region. See Maps 5-3 and 5-4.

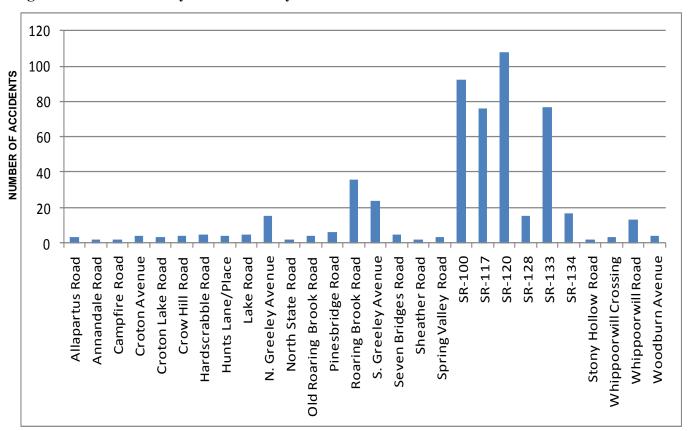


Figure 5-17. Accidents by Road: January 2011 - June 2013

Trucks also carry heating oil and other large goods to homes. They are also continuously used for property maintenance in the Town. Figure 5-22 provides a visual representation of truck types and their typical weight classes.

#### E. Mass Transit Growth

Trends for the railroad (Metro-North Railroad) serving the Town via nearby rail stations show growth trends. Metro-North estimates it lost 1.8 million rides in 2012 due to Super Storm Sandy. Had Sandy not occurred the railroad was on track for a new record of 84.9 million rides, surpassing the previous system peak in 2008 when the system peaked at 83 million passengers. to 2009, the 2010 passenger count of 81 million passengers was the second highest year on record. With continued use of the commuter rail in the Town and the region, future congestion can be curbed or even reversed by encouraging drivers to take the train. For points not located between the Town and New York City, encouraging use of the Bee-Line bus service could also serve to reduce congestion. (Source: Metro-North Statistics)

#### **5.4 Commuter Vehicle Characteristics**

#### A. Mode Share

Mode share describes the number or percentage of travelers using a particular type of transportation. According to recent U.S. Census data, 60% of New Castle residents traveling to work do so by driving alone. This is the percentage of all Westchester County residents. Carpooling accounts for 3% of the way people got to work. Approximately 24% of Town residents took either a train or bus to work which is slightly higher than the 20% of Westchester County residents taking public transportation to work. About 11% of residents work at home and 2% of residents walked to work.

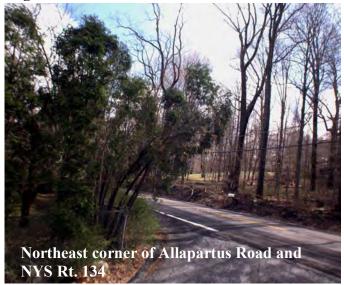
#### **B.** Vehicle Ownership

In New Castle, 99% of owner-occupied housing units have at least one or more vehicles available for the household, according to U.S. Census figures. The percentage of renter occupied households having at least one car is 95%, which is 15% higher than Westchester County as a whole. Households in New Castle with no vehicle available are a small percentage, but appear to be limited to those householders under the age of 35 and over 65. See Figure 5-23, Vehicle Ownership.

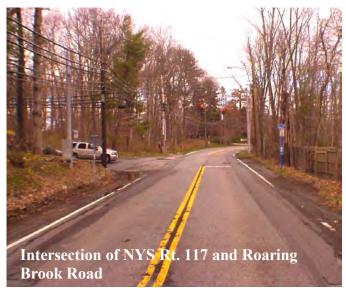
#### C. Commute Time

About 50% of workers over 16 years of age in the Town of New Castle commute to work in 29 minutes or less, according to U.S. Census data. Over 28% of workers face a commute of an hour or longer. This compares to over 52% of Westchester County's workforce having a com-

Figure 5-18. Road intersections in New Castle

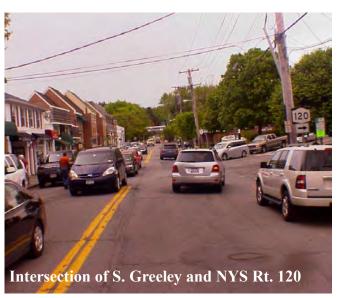










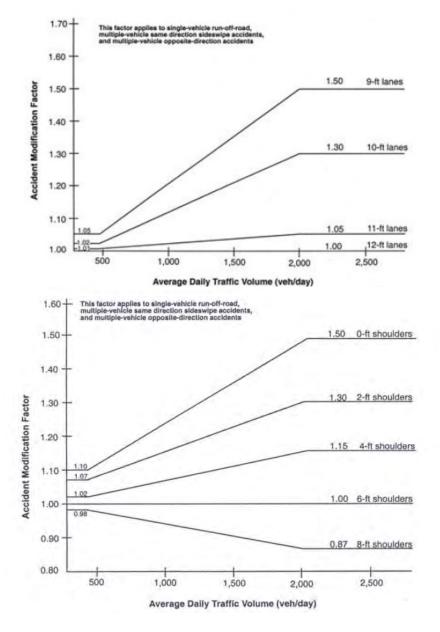


mute of 29 minutes or less and over 17% facing a commute of an hour or longer. This data shows that the Town's workforce is further from its place of employment than the county's workforce as a whole (see Figure 5-24).

#### **5.5 Public Transportation**

Public transportation in the Town of New Castle consists of two Westchester County Bee-Line bus routes that stop in the Town and the Metro-North Railroad (See Map 5-6 on page 5-36). An express bus route, that does not stop in the Town, runs along the Taconic

Figure 5-19. Accident Modification Factors













#### **Shoulder Width**

Shoulders provide a number of important functions:

- Shoulders provide an area for drivers to maneuver to avoid crashes. Shoulders increase safety by providing a stable, clear recovery area for drivers who have left the travel lane. If a driver inadvertently leaves the lane or is attempting to avoid a crash or an object in the lane ahead, a firm, stable shoulder greatly increases the chance of safe recovery. However, areas with pavement edge drop-offs can be a significant safety risk. Edge drop-offs occur where gravel or earth material is adjacent to the paved lane or shoulder. This material can settle or erode at the pavement edge, creating a drop-off that can make it difficult for a driver to safely recover after driving off the paved portion of the roadway. The drop-off can contribute to a loss of control as the driver tries to bring the vehicle back onto the roadway, especially if the driver does not reduce speed before attempting to recover.
- Shoulders provide space for emergency storage of disabled vehicles. The ability to move a disabled vehicle off the travel lanes reduces the risk of rear-end crashes and can prevent a lane from being closed, which can cause severe congestion and safety problems.
- Shoulders provide space for enforcement activities. This is particularly important for the outside shoulder because law enforcement personnel prefer to conduct enforcement activities in this location. Shoulder widths of approximately 8 feet or greater are normally required for this function.
- Shoulders provide space for maintenance activities. If routine
  maintenance work can be conducted without closing a travel
  lane, both safety and operations will be improved. Shoulder
  widths of approximately 8 feet or greater are normally required
  for this function. In northern regions, shoulders also provide
  space for storing snow that has been cleared from the travel
  lanes.
- Shoulders improve bicycle accommodation. For most roads, cyclists are legally allowed to ride on the travel lanes. A paved or partially paved shoulder offers cyclists an alternative to ride with some separation from vehicular traffic. This type of shoulder can also reduce risky passing maneuvers by drivers.

safety.fhwa.dot.gov/geometric/pubs/mitigationstrategies/chapter3/3\_shoulderwidth.htm

Garey Drive

Granite Road

Haights Cross Road

#### Figure 5-20. Town Law Regarding Speed Limits

#### Article IV: Speed Regulations, § 123-17 Maximum speed limits established.

[Amended 11-14-1983 by L.L. No. 11-1983]

No motor vehicle, motorcycle or other vehicle of any description whatever shall be run, driven or operated upon county roads and Town highways within the Town of New Castle at a rate of speed greater than the rates of speed hereinafter specified:

- A. The speed limit for motor vehicles, motorcycles and other vehicles on all county roads and Town highways located within the Town of New Castle is established at 30 miles per hour, except as provided in Subsection B hereof.
- B. The speed limit for motor vehicles, motorcycles and other vehicles is established at 25 miles per hour on the following streets:

Annandale Drive Hitching Post Lane Pine View Street Avenue A Horseshoe Road Red Oak Lane Berrybrook Circle Inningwood Road Ridge Road Bischoff Avenue Ivy Hill Road Roaring Brook Road **Buttonhook Road** Rockwood Hill Ivy Ridge Court Castle Road Kathleen Lane Smith Street Circle Drive Kerry Lane Tall Timbers Club Way Kisco Park Drive Taylor Road Colony Row Kitchel Road Trail's End Cottage Road Kipp Street Turner Drive Cowdin Circle Whippoorwill Road Kittle Road Crow Hill Road Lawrence Farms Crossway White Oak Lane Willow Lane Daly Cross Road Main Street Danny Lane Marcourt Drive Woodland Street Dogwood Road McKesson Hill Road Frog Rock Road Old Road Lane

Old Roaring Brook Road

Orchard Ridge Road

Paula Place

State Parkway on its way from Carmel and Yorktown in the north to White Plains.

The commuter rail is accessible along the Harlem Line of the Metro North Railroad at the Chappaqua station. Others in the northeast portion of Town may use the Mount Kisco station, also on the Harlem Line. The Ossining and Croton-Harmon stations, on the Hudson Line, may serve some residents in the western portion of the Town.

#### Vehicle Weight

The average **vehicle weight** of different models for some of the more common classes of cars:

- Compact cars (Honda Civic) should weigh between 3,000 and 4,500 pounds.
- Midsize cars (Ford Taurus) usually weigh between 4,500 and 5,500 pounds.
- Full size cars (Mercedes S Class) average between 5,000 and 6,000 pounds.
- Minivans or Crossovers (Dodge Caravan) mostly fall between 5,500 and 6,500 pounds.
- Light trucks and SUV's (Ford Explorer) can weigh between 5,000 and 7,000 pounds.
- Full size pickups and SUV's (Toyota Tundra) can weigh between 7,500 and 12,000 pounds.

#### Figure 5-21. Town Law Excluding Trucks from Certain Roads

Trucks excluded from certain streets; exceptions.

A. No trucks or vehicles in excess of five tons shall be operated along and over the following streets in the Town of New Castle, except for local domestic delivery and authorized maintenance and emergency vehicles:

Name of Street

Crow Hill Road[Added 11-10-1981 by L.L. No. 13-1981]

Glendale Road

Grace Lane [Added 9-23-1986 by L.L. No. 14-1986]

Hoag Cross Road[Added 9-23-1986 by L.L. No. 14-1986]

Inningwood Road[Added 9-23-1986 by L.L. No. 14-1986]
Orchard Ridge Road

Vails Lane [Added 9-23-1986 by L.L. No. 14-1986]

B. No trucks in excess of 5,000 pounds' gross weight, while fully loaded or unloaded, shall be operated along and over the following streets in the Town of New Castle, except for the delivery or pickup of merchandise or other property along said roadway or use by authorized maintenance and emergency vehicles:[Added 7-15-1975 by L.L. No. 6-1975]

Name of Street

Bischoff Avenue[Added 6-28-1983 by L.L. No. 7-1983]

Castle Road[Added 6-28-1983 by L.L. No. 7-1983]

Maple Avenue

Roaring Brook Road, between its intersection with Old Roaring Brook Road and its intersection with Kerry Lane[Added 11-13-1990 by L.L. No. 39-1990]

#### A. Bus Transportation

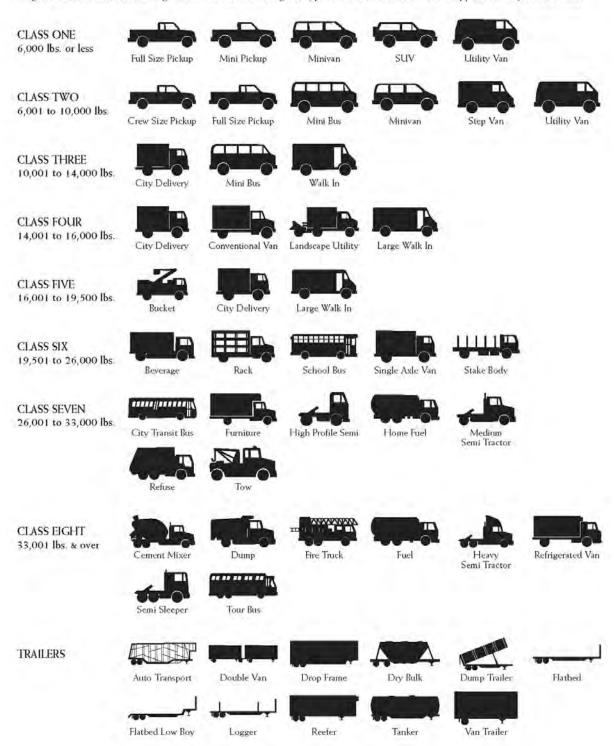
Bus service in the Town of New Castle is provided by Westchester County's Bee-Line which serves Westchester County with limited service also in the Bronx, Manhattan and Putnam County. Riders of the Bee-Line in the Town are a mix of residents traveling to work, shopping, schools and train stations. Other riders enter the Town to travel to shopping, schools, commercial establishments (office, retail, restaurants) and residences (visitors and domestic and medical employees).

There are a number of local, limited and express buses. In addition to accepting a \$2.25 (2012) cash fare for local buses and \$7.50 (2012) for express buses, the Bee-Line Bus System uses the MTA

Figure 5-22. Truck Type and Weight Class

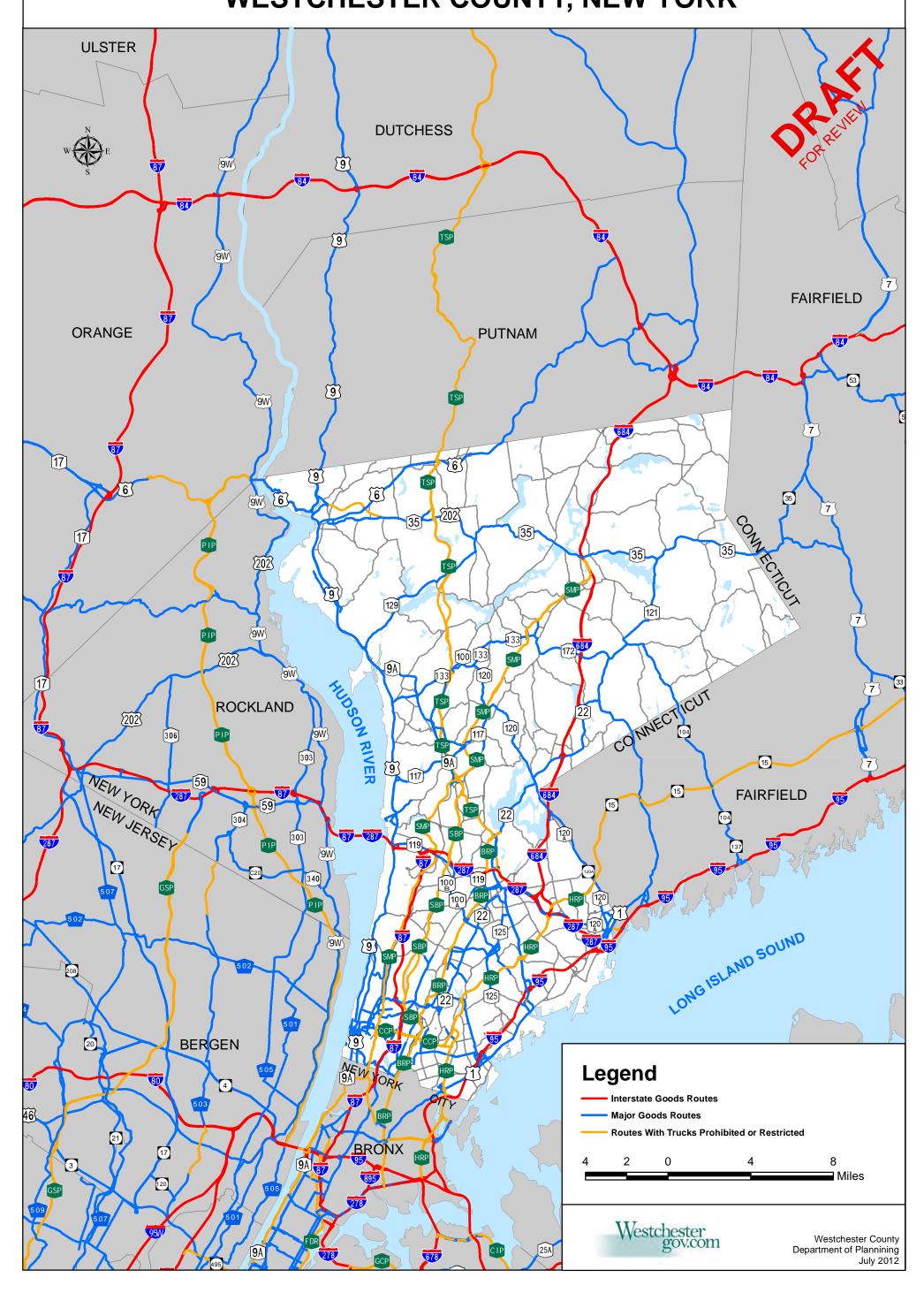
#### TRUCK TYPE AND WEIGHT CLASS

The vehicle icons on the following page depict examples of vehicles in each DOT classification 1-8 with corresponding load ranges. These classifications are guidelines in understanding the type of vehicle used for different applications by vehicle class.



Source: http://www.goodyeartrucktires.com/

# Regional Goods Movement WESTCHESTER COUNTY, NEW YORK



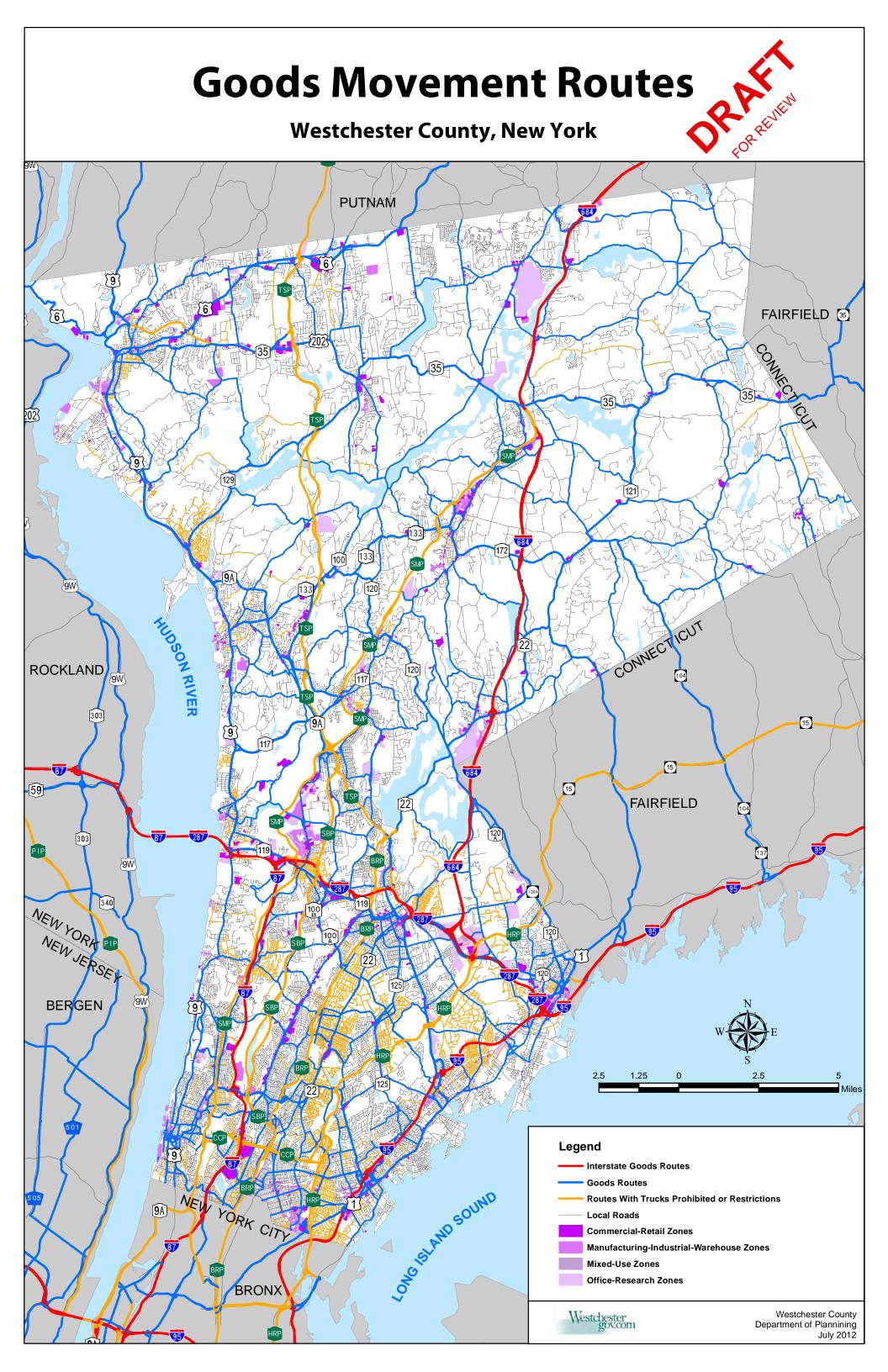




Figure 5-22. Bee-Line Buses





Photo source: Westchester County





MetroCard for payments allowing for several types of fare payments (which are subject to change):

#### Pay Per Ride Metro Card (2014)

- \$2.50 Regular Fare
- \$1.25 Senior/Disabled

#### **Unlimited Ride 7 Day (2012)**

- \$30.00 Regular Fare
- \$15.00 Senior/Disabled

#### **Unlimited Ride 30 Day (2012)**

- \$112.00 Regular Fare
- \$56.00 Senior/Disabled

Additionally, paper transfers are available on all Bee-Line Bus Routes and MetroCard transfers are offered on pay-per-ride (within two hours of initial boarding) and 7 Day/30 Day cards to all Bee-Line Buses and NYCT Bus and Subway Routes allowing easy and seamless connections. All Bee-Line Bus Routes serving the Town operate seven days a week; these routes are as follows:

- **a.** Local Bus Route 15 is a route that travels from Peekskill, through Yorktown and into the Millwood hamlet via Saw Mill River Road/Route 100. From Millwood the route travels through Briarcliff, Pleasanville, Hawthorne, Valhalla and then onto White Plains.
- **b. Local Bus Route 19** is a route that travels from the Ossining train station to the station at Katonah in the Town of Bedford. After leaving Ossining, the route travels through Briarcliff Manor, to the Pleasantville train station and into the Town of New Castle via Route 117, entering downtown Chappaqua along South Greeley Avenue. After travelling along King Street, the route follows North Bedford Road/Route 117 into Mount Kisco, then to Bedford Hills and Katonah train stations.

Figure 5-25 shows the average number of riders expected for a typical weekday, Saturday and Sunday, entering and exiting buses at the 33 bus stops within the Town. These numbers are based on counts conducted in 2008 by the Westchester County Department of Transportation and were accessed from the County Geographic Information System (GIS). (Source: Westchester County Bee-Line Bus)

Figure 5-23. Vehicle Ownership (New Castle and Westchester County), 2008-2012

Vahiala Oromanahin	New	Castle	Westchester County		
Vehicle Ownership	Estimate	MoE	Estimate	MoE	
Total:	5,846	+/-159	344,875	+/-1,410	
Owner occupied:	5,469	+/-181	214,097	+/-1,761	
No vehicle available:	34	+/-32	10,261	+/-657	
Householder 15 to 34 years	0	+/-19	407	+/-150	
Householder 35 to 64 years	8	+/-14	3,805	+/-368	
Householder 65 years and over	26	+/-29	6,049	+/-506	
1 or more vehicles available:	5,435	+/-179	203,836	+/-1,792	
Householder 15 to 34 years	212	+/-109	12,063	+/-638	
Householder 35 to 64 years	4,119	+/-158	136,369	+/-1,412	
Householder 65 years and over	1,104	+/-143	55,404	+/-922	
Renter occupied:	377	+/-111	130,778	+/-1,882	
No vehicle available:	18	+/-29	39,673	+/-1,253	
Householder 15 to 34 years	18	+/-29	9,479	+/-712	
Householder 35 to 64 years	0	+/-19	18,815	+/-842	
Householder 65 years and over	0	+/-19	11,379	+/-640	
1 or more vehicles available:	359	+/-109	91,105	+/-1,920	
Householder 15 to 34 years	11	+/-20	23,351	+/-1,058	
Householder 35 to 64 years	279	+/-103	56,037	+/-1,571	
Householder 65 years and over	69	+/-50	11,717	+/-680	

Source: U.S. Census Bureau, 2008-2012 American Community Survey MoE denotes margin of error.

Figure 5-24. Commute Time to Work (New Castle and Westchester County)

	Chappaqua				nainder o ew Castle		Westchester County		
Commute time for Commuter 16 Years or Older	Estimate	Percent of Total	MOE +/-	Estimate		MOE +/-	Estimate	Percent of Total	MOE +/-
Less than 5 minutes	61	10%	81	110	2%	73	8,956	2%	803
5 to 9 minutes	59	10%	66	505	7%	175	34,962	8%	1,417
10 to 14 minutes	125	21%	86	455	7%	125	50,359	12%	1,606
15 to 19 minutes	12	2%	19	681	10%	197	53,065	13%	1,557
20 to 24 minutes	46	8%	42	832	12%	183	50,788	12%	1,495
25 to 29 minutes	0	0%	12	506	7%	146	22,240	5%	1,178
30 to 34 minutes	63	11%	32	568	8%	133	55,228	13%	1,694
35 to 39 minutes	0	0%	12	414	6%	141	11,761	3%	837
40 to 44 minutes	24	4%	26	286	4%	100	18,732	4%	960
45 to 59 minutes	35	6%	27	542	8%	187	39,852	9%	1,262
60 to 89 minutes	75	13%	46	1,439	21%	197	56,581	13%	1,642
90 + minutes	87	15%	60	612	9%	189	20,567	5%	1
Total:	587	100%	184	6,950	100%	399	423,091	100%	3,000

Source: US Census Bureau 2012 American Community Survey, B08301. Means of Transportation to Work - Universe: Workers 16 Years and Over

**c. ParaTransit** — For those persons unable to ride fixed-route Bee-Line buses, Bee-Line ParaTransit provides service in the Town of New Castle. This service, a result of the 1990 Americans with Disabilities Act (ADA), is "required to provide origin-to-destination, curb-to-curb, demand-responsive ParaTransit service that 'mirrors' fixed-route service in terms of service times and areas." In order to use the service, prospective users must apply and be approved by the Westchester County Office of the Disabled. For additional information call (914) 995-2959.

ParaTransit requires advance reservations which can be made up to a week in advance, allowing Town residents to plan ahead. Service is provided throughout the Town from 6AM – 7PM Monday – Friday and 8AM to 7PM on Saturdays. For those residents living within 3/4 mile of fixed lines (Routes 15 and 19) additional service is provided Monday – Friday from 7PM – 11PM, Saturdays 6AM – 8AM/7PM – 11PM and Sundays 8AM – 8PM. Holiday service is

Figure 5-25. Bee-Line Bus Ridership Statistics Within Town of New Castle, 2008

	Weel	k Day	Saturday		Sunday	
Stop Name	ON	OFF	ON	OFF	ON	OFF
BEDFORD RD @ OLD BEDFORD RD	5	2	1	3	0	0
BEDFORD RD @ KITTLE RD	1	3	2	0	0	0
BEDFORD RD @ READERS DIGEST	0	2	0	0	0	0
BEDFORD RD @ WHIPPOORWILL RD	2	4	0	1	0	0
BEDFORD RD @ SHADOWBROOK PKWY	0	0	0	0	0	0
BEDFORD RD @ ORCHARD RIDGE RD	0	1	3	0	0	0
S GREELEY AVE @ WASHINGTON AVE	3	1	0	3	0	0
S GREELEY AVE @ WOODBURN AVE	3	0	0	1	0	0
KING ST @ N GREELEY AVE	1	7	0	7	0	0
KING ST @ POILLON RD	5	4	2	2	0	0
BEDFORD RD @ BREVOORT RD	1	3	1	1	0	0
BEDFORD RD @ ORCHARD RIDGE RD	0	1	0	0	0	0
BEDFORD RD @ OLD HOUSE LA	0	1	0	0	0	0
BEDFORD RD @ WHIPPOORWILL RD	2	1	0	0	0	0
BEDFORD RD @ ROARING BROOK RD		7	0	1	0	0
BEDFORD RD @ KITTLE RD	0	2	0	0	0	0
BEDFORD RD @ OLD BEDFORD RD	3	2	0	4	0	0
BEDFORD RD @ BREVOORT RD	0	4	1	0	0	0
KING ST @ POILLON RD	1	8	0	3	0	0
KING ST @ S GREELEY AVE	3	4	0	1	0	0
S GREELEY AVE @ WOODBURN AVE	2	1	0	3	0	0
S GREELEY AVE @ WASHINGTON AVE	1	2	0	0	0	0
N STATE RD @ SAW MILL RIVER RD	0	0	0	0	0	0
SAW MILL RIVER RD @ STATION RD	3	3	1	1	0	0
SAW MILL RIVER RD @ SHINGLEHOUSE	0	0	1	0	0	0
SAW MILL RIVER RD @ LEDGEWOOD COMM	0	0	1	2	0	0
SAW MILL RIVER RD @ GLENWOOD RD		1	0	0	0	0
SAW MILL RIVER RD @ GLENWOOD DR		0	0	0	0	0
SAW MILL RIVER RD @ PAMELA PL		0	1	0	0	0
SAW MILL RIVER RD @ MILLWOOD RD		1	0	0	0	0
SAW MILL RIVER RD @ PHEASANT RUN	4	2	0	0	0	0
N STATE RD @ RYDER RD	2	0	0	0	0	0
BEDFORD RD @ READERS DIGEST RD	0	1	0	0	0	0

Source: Westchester County Department of Public Works & Transportation passenger counts from 2008

provided for residents within ¾ mile of fixed routes on New Year's Day, Independence Day, Memorial Day and Labor Day. There is no ParaTransit service on Thanksgiving Day or Christmas Day.

The fare for ParaTransit is set at \$4.00 each way for trips. Companions are able to travel with riders for \$4.00. Personal care attendants (if required for travel) and children under the age of five are able to travel for free.

#### Map 5-5. Amtrak-Northeast Routes



Source: //www.amtrak.com/

#### **B.** Rail Transportation

One rail station is located within the Town. The Chappaqua station is on the Harlem Line of the MTA's Metro-North Railroad. As mentioned above, some residents may also use the Ossining, Croton Harmon, North White Plains and Mount Kisco stations. These stations provide an attractive option for residents looking to commute to work in New York City and intermediate points along the way.

**a.** Chappaqua Station – is a station operating on the Harlem Line that is accessed from the center of Chappaqua by Woodburn Avenue. The station has 1,191 commuter parking spaces, with both monthly and daily payment options. The parking lot is operated by the Town of New Castle. The station offers both local and semi-express service to and from Grand Central Terminal in New York City, approximately 32 miles away. The station is also serviced by Westchester County's Bee-Line Bus Route 19; bus stops are located on South Greeley Avenue.

Figure 5-26. Metro-North Station



For points outside of the region, train service is available to residents via the Amtrak Station at Croton-Harmon. Service is provided to Albany and Montreal to the North and New York City's Penn Station to the south with connections throughout the Northeast Corridor.

Figure 5-27. Metro-North Ridership at Chappaqua Station, 2007

Chappaqua Station	2007 TO	OTALS	2005 TOTALS		% CHANGE (2005-2007)	
campandam camara	ON	OFF	ON	OFF	ON	OFF
Weekday Inbound	1,966	69	2,108	39	-7%	77%
Weekday Outbound	53	1719	66	1986	-20%	-13%
AM Peak Inbound	1443	40	1610	19	-10%	111%
PM Peak Outbound	18	1132	25	1316	-28%	-16%
AM Reverse Outbound	6	159	12	137	-50%	16%
Weekday Off-peak Inbound	523	29	494	20	5%	45%
Weekday Off-peak Outbound	29	428	29	533	0%	-20%
Saturday Inbound	548	50	529	40	4%	25%
Saturday Outbound	39	512	26	491	50%	4%
Sunday Inbound	349	35	392	26	-11%	35%
Sunday Outbound	32	400	19	390	68%	3%

Source: Metro-North Railroad Prepared by Westchester County Department of Planning

#### C. Bicycle and Pedestrian Trails

A segment of the North County Trailway, a paved multi-use County path, goes through New Castle. The 22-mile trail is owned by New York State and operated by Westchester County. The trail runs through downtown Millwood and connects to Yorktown Heights and Putnam County to the north and to Briarcliff Manor and Elmsford to the south.

#### 5.6 Westchester County Airport

Westchester County Airport, located approximately seven miles from downtown Chappaqua via Route 120, is located in the Town/Village of Harrison, Town of North Castle and Village of Rye Brook. The airport is owned by Westchester County and managed under a contract by AvPorts, a division of Aviation Facilities Company.

According to statistics from the Westchester County Department of Public Works and Transportation (WCDPWT), the airport averages 32,000 commercial flights each year with an average of 1.9 million annual passengers (arriving and departing). The airport also serves 70,000 corporate/charter operations and has 300 light aircraft based at the airport. WCDPWT also estimates that the airport generates 1,300 on-site full-time jobs and thousands of nearby jobs. From the Airport's main terminal building and Hanger A, seven commercial airlines serve Westchester County and the region through sixteen non-stop destinations (see Figure 5-29). As per Chapter 712 of the Westchester County Charter, the Airport has a "Limited Terminal Use Agreement" that limits the terminal to serving 240 passengers per half hour and four aircraft at any time. Connections to other United States and worldwide destinations are available through seven hub airports.

Figure 5-28. Enplanement Statistics, Westchester County

Year	Enplanements	Percent Change
2000	507,145	NA
2001	456,296	-10%
2002	461,448	1%
2003	426,864	-7%
2004	462,981	8%
2005	462,256	0%
2006	511,559	11%
2007	823,478	61%
2008	904,482	10%
2009	964,927	7%
2010	999,831	4%

Source: FAA Passenger Boarding (Enplanement) and All-Cargo Data for <u>U.S.</u> Airports CY 2000-2010

As seen in Figure 5-28, the number of passengers at Westchester County Airport has almost doubled since 2000. With this increase, there has been an increase in scheduled commercial flights. The nature of Airport users has shifted from mostly business-oriented passengers to a higher proportion of leisure travelers, particularly with significantly more flights to destinations in Florida.

Figure 5-29. Westchester County Airport Available Flights

Destination	Airline
Atlanta, GA (ATL)	AirTran**, Delta*
Charlotte, NC (CLT)	US Airways*
Chicago, IL (ORD)	American Airlines*, United*
Detroit, MI (DTW)	Delta*
Fort Lauderdale, FL (FLL)	JetBlue
Fort Myers, FL (RSW)	JetBlue
Lebanon, NH (LEB)	Cape Air
Martha's Vineyard, MA (MVY)	Cape Air
Nantucket, MA (ACK)	Cape Air
Nassua, Bahamas (NAS)	JetBlue
Orlando, FL (MCO)	AirTran, JetBlue
Tampa, FL (TPA)	JetBlue
Philadelphia, PA (PHL)	US Airways*
Washington, DC (IAD)	United*
Washington, DC (DCA)	US Airways*
West Palm Beach, FL (PBI)	AirTran, JetBlue



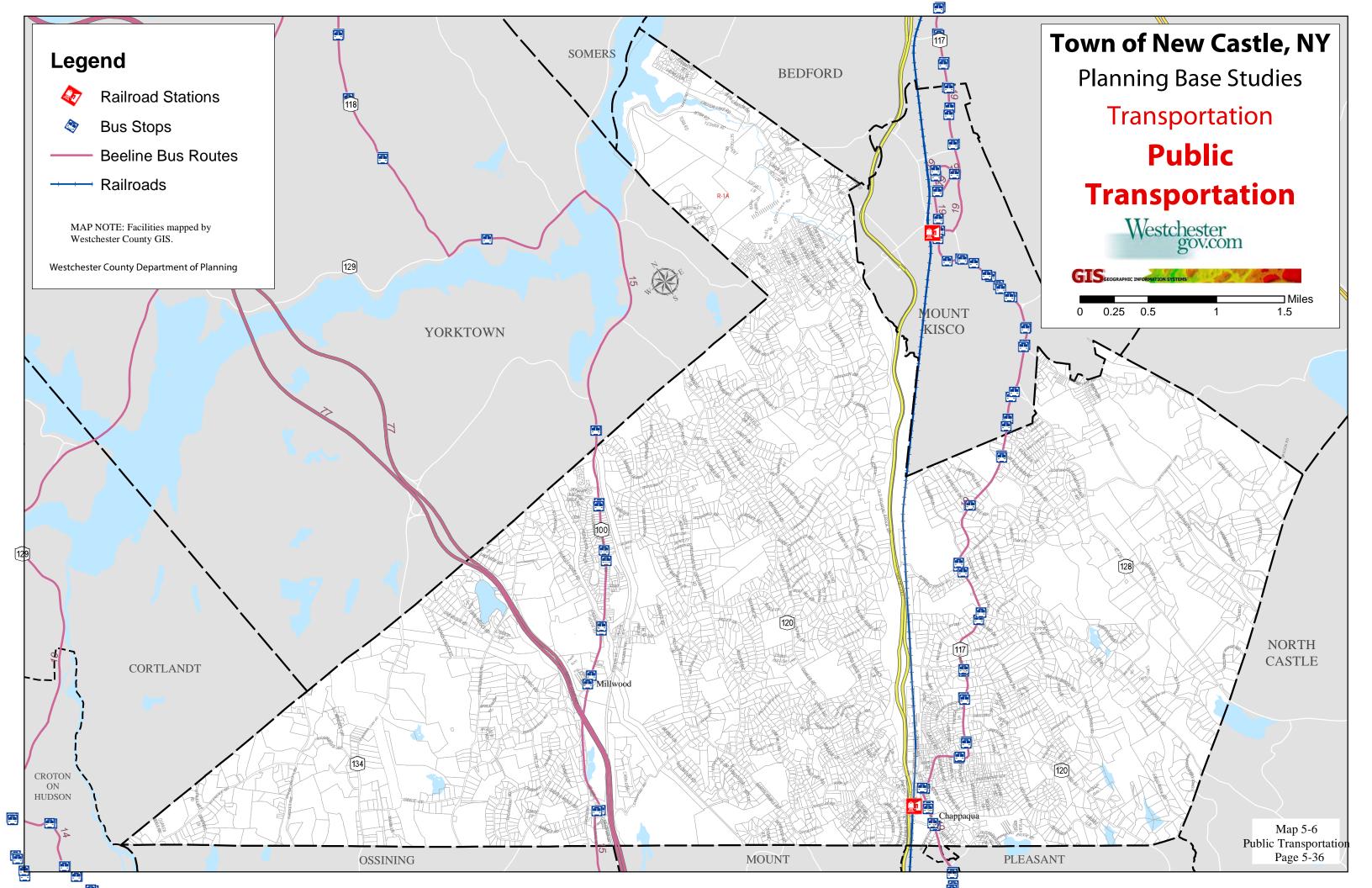




Source: Westchester County Airport webpage, 11/23/2011

<sup>\*</sup>Indicates connections possible via airline hub

<sup>\*\*</sup>AirTran contract ending August 2012



#### CHAPTER 6 NATURAL RESOURCES

Natural resources provide many benefits for a community. Trees can increase property values, reduce stormwater and improve air quality. Wetlands can protect against flooding and keep water clean. The Town of New Castle has a diversity of plants, animals and habitats — despite significant development — that contribute to the overall quality of life in the Town.

This chapter provides background on the natural resources located in the Town of New Castle. Important natural resources include soils, watersheds, wetlands, stormwater and floodplains. Environmental data is presented to illustrate a comprehensive picture of existing conditions, constraints and opportunities in the Town.

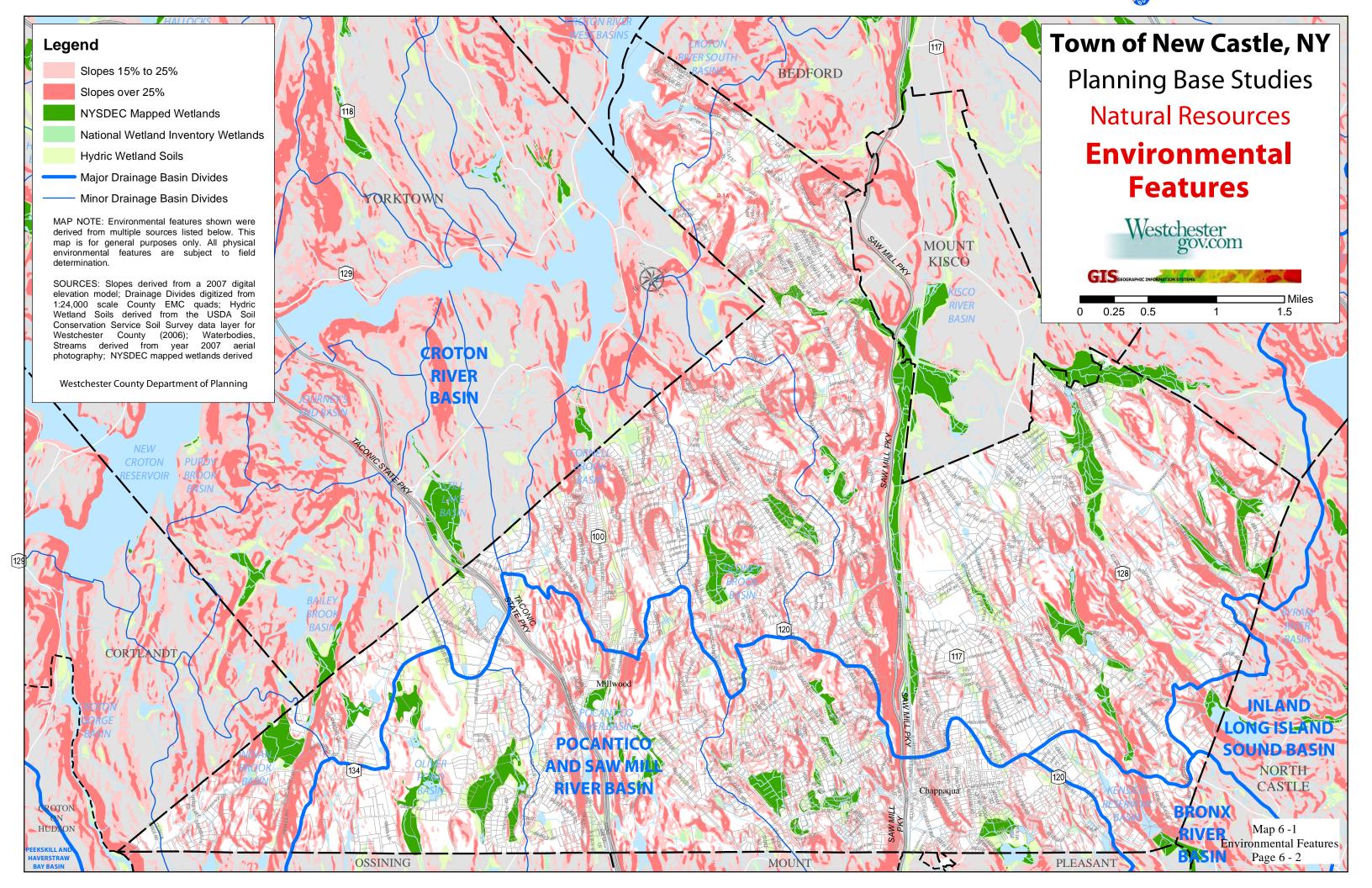
#### 6.1 Topography

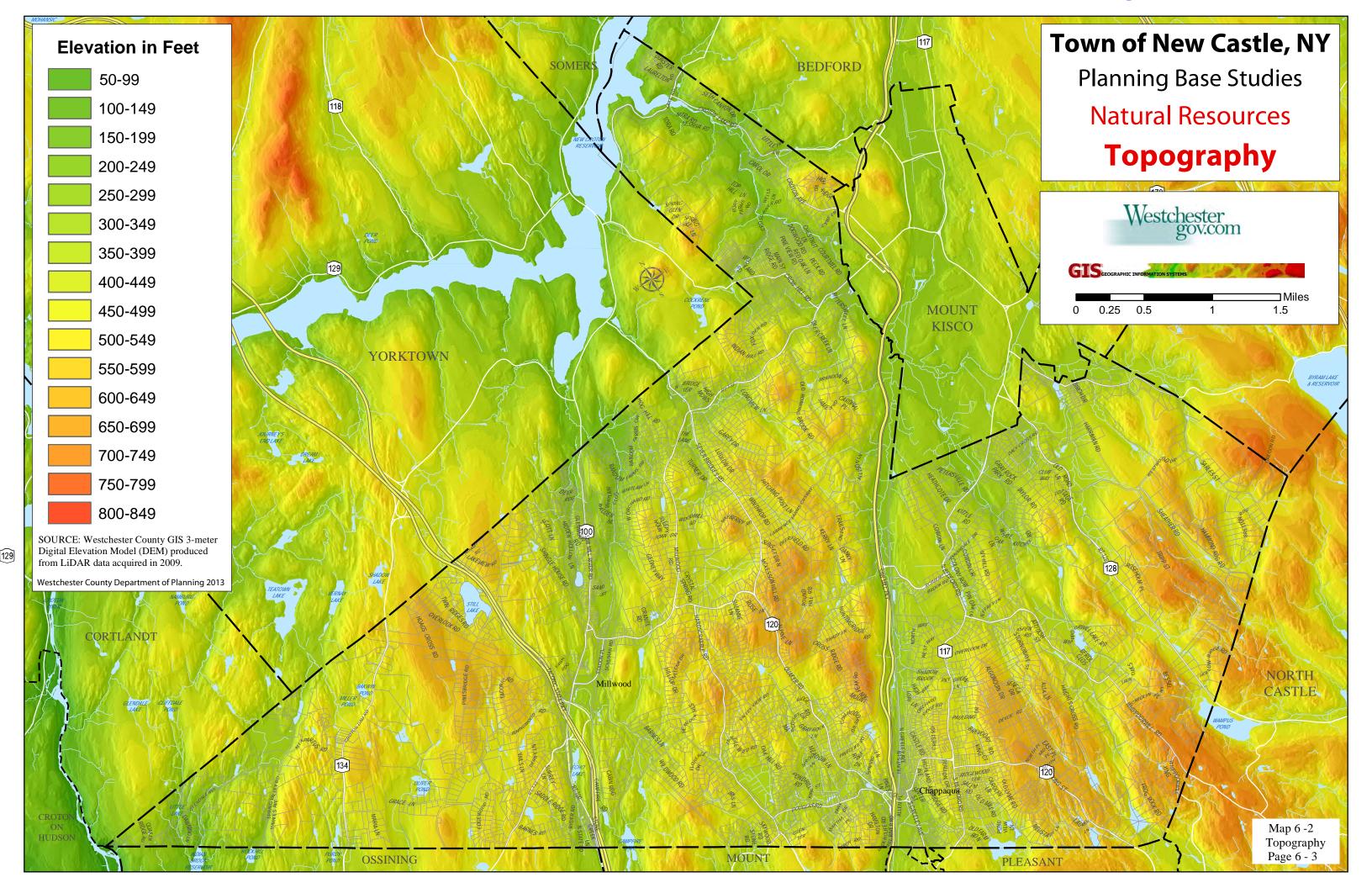
The land throughout New Castle is mostly upland river valleys with some slopes and ridges. The overall topography ranges from a low of approximately 190 feet above sea level (in the northern and western sections of the Town) to a high of approximately 770 feet above sea level in the southeastern part of the Town. (See Map 6-2 Topography on page 6-3).

#### A. Steep Slopes

Approximately 39% of the land (5,799 acres) in New Castle contains steep slopes. Of these areas, 3,660 acres have slopes of 15-25% and 2,139 acres have slopes greater than 25%. Steep slopes are scattered throughout the Town (See Map 6-1 Environmental Features on page 6-2). The most significant concentrations of steep slopes are near the rivers.

Steep slopes may constrain land development due to the often difficult stabilization needed following soil disturbance, construction of structures, and establishment of new slopes through regrading. They also have generally higher rates of stormwater runoff and are susceptible to erosion and slope failure when their soils are disturbed or become extremely wet. The disturbance of steep slopes is regulated through the Town's Steep Slope Protection Law, Chapter 108 of the Town Code.





#### 6.2 Soils

Soils absorb stormwater runoff, filter out pollutants carried by runoff, support structures and support varying plant and animal life.

#### A. Soil Categories

A list of soil types found in New Castle are shown in Map 6-3 and further identified and categorized in Figure 6-1. The information in the map and table has been derived from the U.S. Department of Agriculture-Natural Resources Conservation Service's (NRCS) 1994 Soil Survey of Putnam and Westchester Counties, New York.

It should be noted that the areas of these soils, as shown in Map 6-3 and Figure 6-1, are approximate due to the general nature of the soil survey, which is accurate only to plus or minus two acres. Furthermore, many of the dominant mapped soil units may include subordinate soils that have not been mapped because they are relatively small areas within larger soil units. Field work should be done for site-specific soil surveys when more precise soil information and boundary mapping are needed, usually in association with proposals for land development.

#### a. Charlton and Chatfield Soils

The predominant soils in New Castle are Charlton and Chatfield soils. There are approximately 4,948 acres of Charlton soils and 3,749 acres of Chatfield soils. These soils are well drained soils often found in upland areas.

#### **b.** Hydric Soils

Hydric soils are generally associated with wetlands because they are seasonally or permanently saturated or inundated with water. They also play a significant role in stormwater management for water quality and quantity purposes and ground and surface water recharge capabilities. Many land uses are not suitable in areas of hydric soils due to the wetness of the soil. Development on these soils should be closely regulated. Fourteen of the 63 soil types identified in the Town (Figure 6-1) are hydric soils.

For more detailed descriptions of the soil types listed in the table, including their limitations or benefits for certain land uses, please refer to the Soil Survey of Putnam and Westchester Counties, New York, in Appendix 6-1.

#### **B.** Hydrologic Soil Groups

Hydrologic soil groups classify soils according to their runoffproducing characteristics. These characteristics should be key to decisions made relevant to stormwater management and flood mitigation. The chief consideration in assigning a soil type to a hydrologic soil group is the capability of soil, bare of vegetation, to permit infiltration. Separate factors in predicting runoff include slope and the type of plant cover.

Soils are assigned to four hydrologic groups. Group A soils have a high infiltration rate and low stormwater runoff potential. They are well drained and often consist of relatively high concentrations of sand and/or gravel. Group D soils, at the other extreme, have a very slow infiltration rate and high runoff potential. They may have a layer of clay at or near the surface and a high permanent water table, or they may be shallow because they are over nearly impervious bedrock or other material. Most of the Town's soils are in Groups B and C, between the extremes of Groups A and D.

#### **6.3 Water Resources**

The Town of New Castle is located in four different major watersheds: Pocantico and Saw Mill River Watershed, Croton River Watershed, Bronx River Watershed and Inland Long Island Sound Watershed.

#### A. Pocantico and Saw Mill River Watershed

The western and southern sections of New Castle are located in the Pocantico and Saw Mill River Watershed. This watershed makes up

#### **Hydric Soils in New Castle**

Hydric soils are formed under conditions of saturation, flooding, or ponding for a sufficient period of time during the growing season to develop anaerobic conditions in the upper part of the soil where the roots of plants are generally found. These wetland hydrologic conditions typically support plants that are most often found in wetlands. Hydric soils have developed characteristics of soil that is saturated or inundated with water during part of the year. Hydric soil types within the Town are:

- Carlisle muck (Ce)
- Fluvaquents-Udifluvents complex (Ff)
- Fredon silt loam (Fr)
- Leicester loam, 0-3 % slopes, stony (LcA)
- Leicester loam, 3-8 % slopes, stony (LcB)
- Leicester loam, 2-8% slopes, very stony (LeB)
- Palms muck (Pa)
- Palms and Carlisle soils (Pc)
- Raynham silt loam (Ra)
- Ridgebury loam, 0-3% slopes (RdA)
- Ridgebury loam, 3-8% slopes (RdB)
- Ridgebury loam, 2-8% slopes, very stony (RgB)
- Sun loam (Sh)
- Sun loam, extremely stony (Sm)

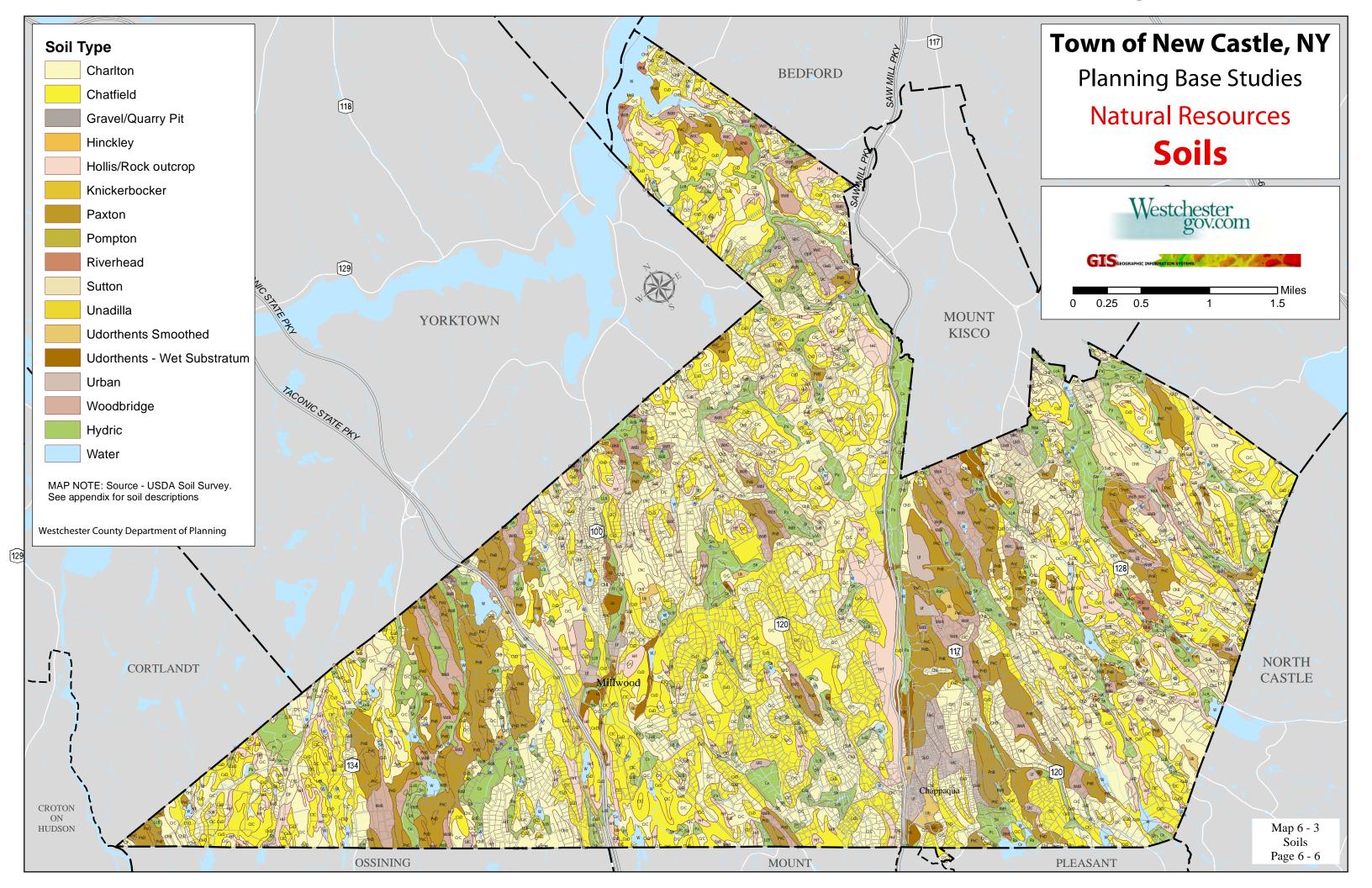


Figure 6-1. Soils In the Town of New Castle

Soil Category	Soil Map	Soil Name and Description	Hydrologic Group	Acreage
Charlton				4,948
	ChB	Charlton loam, 2-8% slopes	В	561
	ChC	Charlton loam, 8-15% slopes	В	584
	ChD	Charlton loam, 15-25% slopes	В	290
	ChE	Charlton loam, 25-35% slopes	В	91
	CIB	Charlton loam, 2-8% slopes, very stony	В	15
	CIC	Charlton loam, 8-15% slopes, very stony	В	28
	CID	Charlton loam, 15-25% slopes, very stony	В	16
	CIF	Charlton loam, 35 –45% slopes, very stony	В	15
	CrC	Charlton-Chatfield complex, rolling very rocky	В	3,348
Chatfield				3,749
	CsD	Chatfield-Charlton complex, hilly v. rocky	В	2,846
	CtC	Chatfield-Hollis-Rock outcrop complex, rolling	B (check)	338
	CuD	Chatfield-Hollis-Rock outcrop complex, hilly	B (check)	565
Gravel/Quarry Pit				5
	Pt	Pits, gravel	Determined on case-by-case basis by soil characteristics of bottom of pit	3
	Pv	Pits, quarry	Treatment as impervious	2
Hinckley				10
	HnB	Hinckley gravelly loamy sand, 3-8% slopes	A	4
	HnC	Hinckley gravelly loamy sand, 8-15% slopes	A	4
	HnD	Hinckley gravelly loamy sand, 15-25% slopes	A	2
Hollis/Rock Outcrop	HrF	Hollis-Rock outcrop complex, very steep	D (check)	726
Knickerbocker				14
	KnB	Knickerbocker fine sandy loam, 2-8% slopes	A	8
	KnC	Knickerbocker fine sandy loam, 8-15% slopes	A	6
Paxton				1,565
	PnB	Paxton fine sandy loam, 2-8% slopes	С	680
	PnC	Paxton fine sandy loam, 8-15% slopes	С	552
	PnD	Paxton fine sandy loam, 15-25% slopes	С	322
	PoC	Paxton fine sandy loam, 8-15% slopes, very stony	С	9
	PoD	Paxton fine sandy loam, 15-25% slopes, very stony	С	2
Pompton	Pw	Pompton silt loam, loamy substratum	B/D (check)	1
Riverhead				50
	RhB	Riverhead loam, 3-8% slopes	A (check)	32
	RhC	Riverhead loam, 8-15% slopes	A (check)	13
	RhD	Riverhead loam, 15-25% slopes	A (check)	5

Source: U.S. Department of Agriculture-Natural Resources Conservation Service's (NRCS) Soil Survey of Putnam and Westchester Counties, New York, 1994

Soil Category	Soil Map Symbol	Soil Name and Description	Hydrologic Group	Acreage
Sutton				591
	SuA	Sutton loam, 0-3% slopes	В	60
	SuB	Sutton loam, 3-8% slopes	В	531
Unadilla	UdB	Unadilla silt loam, 2-6% slopes	В	2
Udorthents, Smoothed	Ub	Udorthents, smoothed	B (check) (Use group of soil type excavated into or filled upon)	107
Udorthents, Wet Substratum	Uc	Udorthents, wet substratum	A/D (check)	143
Urban				302
	UIC	Urban land-Charlton-Chatfield complex, rolling, very rocky	B (use for pervious areas)	47
	UID	Urban land-Charlton-Chatfield complex, hilly very rocky	B (use for pervious areas)	22
	Uf	Urban land	Treatment as impervious	110
	UhB	Urban land-Charlton complex, 2-8% slopes	B (use for pervious areas)	10
	UhC	Urban land-Charlton complex, 8-15% slopes	B (use for pervious areas)	3
	UhD	Urban land-Charlton complex, 15-25% slopes	B (use for pervious areas)	8
	UpB	Urban land-Paxton complex, 2-8% slopes	C (use for pervious areas)	6
	UpC	Urban land-Paxton complex, 8-15% slopes	C (use for pervious areas)	33
	UpD	Urban land-Paxton complex, 15-25% slopes	C (use for pervious areas)	34
	UrB	Urban land-Ridgebury complex, 1-8% slopes	B/D (check) (use for pervious areas)	3
	UwB	Urban land-Woodbridge complex, 2-8% slopes	C (use for pervious areas)	26
Woodbridge				683
	WdA	Woodbridge loam, 0-3% slopes	С	48
	WdB	Woodbridge loam, 3-8% slopes	С	537
	WdC	Woodbridge loam, 8-15% slopes	С	98
Hydric				1,827
	Ce	Carlisle muck	A/D	242
	Ff	Fluvaquents-Udifluvents complex, frequently flooded	A/D (check)	180
	Fr	Fredon silt loam	B/D (check)	13
	LcA	Leicester loam, 0-3% slopes, stony	A/D (check)	216
	LcB	Leicester loam, 3-8% slopes, stony	A/D (check)	256
	LeB	Leicester loam, 2-8% slopes, very stony	A/D (check)	28
	Pa	Palms muck	A/D	259
	Pc	Palms and Carlisle soils, ponded	A/D (check) (Treat as impervious)	35
	Ra	Raynham silt loam	C/D (check)	16
	RdA	Ridgebury loam, 0-3% slopes	B/D (check)	117
	RdB	Ridgebury loam, 3-8% slopes	B/D (check)	134
	RgB	Ridgebury loam, 2-8%, very stony	B/D (check)	4
	Sh	Sun loam	C/D (check)	315
	Sm	Sun loam, extremely stony	C/D (check)	12
Water	W	Water	NA	280
			TOTAL	15,003

#### **Northern Westchester Watershed Committee (NWWC):**

The Northern Westchester Watershed Committee (NWWC) is Westchester's forum to oversee implementation of the historic Memorandum of Agreement (MOA). It's an avenue within which the 12 Westchester County municipalities that have land area within the New York City Watershed can discuss issues related to watershed protection and local involvement. Any program or activity undertaken to protect drinking water quality for New York City's residents has a direct impact on each of these 12 communities.

(http://planning.westchestergov.com/initiatives/croton/watershed-committee)

4,584 acres or 31% of the area of the Town. All stormwater that runs over land within this section of the Town eventually makes its way into the Hudson River. It is located within the Oliver Pond, Pocantico River and Saw Mill River subwatersheds. Map 6-1 on page 6-2 shows the locations of these subwatersheds.

#### **B.** Croton River Watershed

The northern and eastern sections of New Castle are located in the Croton River Watershed. This watershed makes up 9,947 acres or 66% of the area of the Town. All stormwater that that runs over land within in this section of the Town eventually makes its way to the Croton Reservoir system. It is located within the New Croton Reservoir, Croton River South, Kisco River, Croton Gorge, Still Lake, Bailey Brook, Gedney Brook, Cornell Brook, and Indian Brook subwatersheds.

New Castle is one of 12 municipalities that make up the Northern Westchester Watershed Committee (NWWC). The NWWC acts as an advisory committee for watershed protection activities in the New York City Watershed.

#### C. Bronx River Watershed

A small section the southeastern section of the Town is in the Bronx River Watershed. This watershed makes up 328 acres or 2% of the area of the Town. It is located within the Kensico Reservoir subwatershed.

#### D. Inland Long Island Sound Watershed

A small section of the southeastern section of the Town is located in the Inland Long Island Sound Watershed. The watershed makes up 145 acres or 1% of the area of the Town. It is located within the Byram River subwatershed.

#### E. Watercourses and Waterbodies

There are several major rivers and lakes in New Castle. The Kisco

#### **New York State Classifications of Waterbodies (Source NYSDEC)**

- Classifications AA or A are assigned to waters used as a source of drinking water.
- Classification B indicates a best usage for swimming and other contact recreation, but not for drinking water.
- Classification C is for waters supporting fisheries and suitable for non-contact activities.
- The lowest classification is D.

Waters with classifications A, B, and C may also have a standard of (T), indicating that it may support a trout population, or (TS), indicating that it may support trout spawning (TS). Special requirements apply to sustain these waters that support these valuable and sensitive fisheries resources. Certain waters of the state are protected on the basis of their classification. Streams and small waterbodies located in the course of a stream that are designated as C(T) or higher (i.e., C(TS), B, or A) are collectively referred to as "protected streams," and are subject to the stream protection provisions of the Protection of Waters regulations.

River and Chappaqua Brook in New Castle are classified as "C" under the Protection of Waters Program of the NYSDEC. The Gedney Brook and Saw Mill River are classified as "B". All waters of the State are provided a class and standard designation based on existing or expected best usage of each water or waterway segment.

#### F. Wetlands Definition and Background

Per the Town's Wetlands Law, Chapter 137 of the Town Code, wetlands are defined as "(1)All areas of at least 1/10 of an acre that comprise hydric soils and/or are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of hydrophytic vegetation as defined by the Federal Interagency Committee for Wetlands Delineation 1989 (2) Watercourses (3) Any area larger or smaller than 1/10 of an acre, meeting all other requirements of a wetland, within 100 feet of other similar areas shall be considered as one wetland if the total of the areas is greater than 1/10 of an acre."

Wetlands buffers are defined in the Town's Wetland Law as the area extending 100 feet horizontally away from and paralleling the wetlands boundary. The Town's Environmental Protection Overlay District establishes buffer zones of 150 feet around wetlands (See page 6-15). Due to its inland location, no tidal wetlands exist within the Town of New Castle.

#### **G.** Wetlands in New Castle

Wetlands, or areas most likely to contain wetlands, are shown on Map 6-1. Twenty-one DEC wetlands exist in New Castle. These wetlands have a total area of 849 acres and they are distributed throughout the Town.



The Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1989) is available online at the U.S. Fish & Wildlife Service Conservation Library at:

http://library.fws.gov/

38% evapotranspiration 40% evapotranspiration 35% evapotranspiration 10% 20% 30% runoff runoff runoff 25% shallow 21% shallow 20% shallow infiltration infiltration infiltration 25% deep 21% deep 15% deep infiltration infiltration infiltration **Natural Ground Cover** 10%-20% Impervious Surface 35%-50% Impervious Surface

Figure 6-2. Impervious Surfaces and Impacts on Runoff

Source: Stream Corridor Restoration: Principles, Processes, and Practices (10/98), Federal Interagency Stream Restoration Working Group (FISRWG).

Other, smaller wetlands have also been identified and mapped as part of the National Wetland Inventory (NWI). This non-regulatory mapping, which covers the nation, was prepared by the U.S. Fish and Wildlife Service. These wetlands are also identified on Map 6-1. The NWI characterizes each wetland by system, subsystem (if applicable), class, and subclass.

The NWI-mapped wetlands total approximately 827 acres. The NWI -mapped wetlands include freshwater ponds totaling approximately 170 acres, freshwater forested/shrub wetlands (swamps) totaling approximately 140 acres, freshwater emergent wetlands (marshes) totaling approximately 32 acres and lakes totaling approximately 4 acres. Freshwater ponds are characterized as non-vegetated open waterbodies. Emergent wetland vegetation usually grows in standing water or, at minimum, water-saturated soils during much or all of the year. Forested shrub wetland vegetation often grows in standing water or, at minimum, water-saturated soils from late fall through early to mid-spring.

The NWI mapping does not identify all of the wetlands in the Town, nor anywhere else, so it must be used in conjunction with other mapping and field investigations.

In addition to State and federally mapped wetlands, the *Soil Survey of Putnam and Westchester Counties, New York*, prepared by the U.S. Department of Agriculture's Natural Resources Conservation Service, should be consulted to identify possible other, unmapped wetlands. As noted in Section 6.2, areas containing hydric or wetland soils can be identified as possible locations of additional wetlands. The Town contains approximately 1,826 acres of mapped hydric soils. It should be noted that not all areas of hydric soil are, in

Figure 6-3. Impervious Surfaces in New Castle

Surface	Acres	Percent of Town's Area
Roadways, Parking Areas, Sidewalks and Driveways	998	7%
Buildings and Structures	358	2%
<b>Total Impervious Surfaces</b>	1,356	9%

Source: Westchester County GIS Data

fact, wetlands. The soil survey is best used for general planning purposes and is only accurate to plus/minus two acres, and all soil types identified in the survey include inclusions that may be dissimilar to the dominate soil type. For example, an area of hydric soil in a given location may include non-hydric soil inclusions within it.

#### H. Impervious Surfaces

Impervious surfaces can be defined as any material that prevents the infiltration — soaking in — of water into the soil. Roads, rooftops, parking lots, driveways, tennis courts, and sidewalks are some easily identifiable impervious surfaces. As development occurs in a watershed, the percentage of land covered by impervious surfaces can increase. Map 6-4, Impervious Surfaces, shows these areas within the Town.

As shown in Figure 6-3, a total of approximately 1,356 acres, or approximately 9% of the Town's 15,003 acres, is covered with impervious surfaces including all buildings, parking lots, roadways, and sidewalks. Of this, approximately 998 acres is impervious coverage from roadways and parking lots which are subjected to leaking oils and grease and the metals they contain. Much of the land area in the Town is comprised of lawns and other human-influenced features that, although not impervious, foster a high degree of stormwater runoff in comparison with woodlands, meadows and similar natural features. Appendix 6-2, Impervious Surfaces, more fully describes the roles of impervious surfaces toward the degradation of water quality, hydrology and stream habitat.

#### **6.4 Stormwater and Flooding**

## **A. Relationship Between Land Use and Stormwater** *Adapted from NYSDEC stormwater website*Stormwater is water from rain or melting snow that does not soak

Figure 6-4. Swamp Milkweed



Source: Westchester Department of Planning

#### Septic Systems in New Castle

Many households in New Castle have septic systems. If septic systems are not maintained regularly, they can not treat wastewater properly and pollute nearby waterbodies and groundwater sources. For more information about septic systems, see Appendix 6-3 for "A Homeowner's Guide to Operating and Maintaining a Septic System."

Stormwater runoff collects and transports pollutants to lakes, ponds and reservoirs. Although the amount of pollutants from a single residential, commercial, industrial or construction site may seem insignificant, the combined accumulation of pollution from multiple properties can contaminate our lakes, rivers, wetlands and drinking water

Learn more about stormwater: westchestergov.com/stormwater

into the ground but runs off into waterways or pipes. It flows from rooftops, over paved areas and bare soil, and through sloped lawns, picking up a variety of materials on its way. The quality of runoff is affected by a variety of factors and depends on the season, local meteorology, geography and upon activities which lie in the path of the flow.

As it flows, stormwater runoff collects and transports pollutants to surface waters. Although the amount of pollutants from a single residential, commercial, industrial or construction site may seem unimportant, the combined concentrations of contaminants threaten our lakes, rivers, wetlands and other waterbodies. Pollution conveyed by stormwater degrades the quality of drinking water, damages fisheries and damages the habitat of plants and animals that depend on clean water for survival. Pollutants carried by stormwater can also affect recreational uses of waterbodies by making them unsafe for wading, swimming, boating and fishing. According to an inventory conducted by the United States Environmental Protection Agency (EPA), half of impaired waterways are affected by urban/suburban and construction sources of stormwater runoff.

Examples of pollution in stormwater:

- Nutrients such as phosphorus and nitrogen can promote the overgrowth of algae, deplete oxygen in the waterway and be harmful to other aquatic life.
- Bacteria from animal wastes and illicit connections to sewerage systems can make nearby lakes and bays unsafe for wading, swimming and the propagation of edible shellfish.
- Oil and grease from automobiles causes sheen and odor and makes transfer of oxygen difficult for aquatic organisms.
- Sediment from construction activities clouds waterways and interferes with the habitat of living things that depend upon those waters.
- Careless application of pesticides, herbicides and fertilizers affect the health of living organisms and cause ecosystem imbalances.
- Litter damages aquatic life, introduces chemical pollution, and diminishes the beauty of our waterways.

The best way to control contamination to stormwater is usually at the source, where the contaminants can be identified, reduced or contained before being conveyed to surface water. It is often more expensive and difficult to remove the combination of contaminants that are present at the end-of-pipe where stormwater is finally discharged directly to a receiving water body. Significant improvements can also be made by employing stormwater best management

Source: Westchester County Department of Planning

practices or "BMPs" to reduce contaminants. See Appendix 6-4 for copies of the New York State Stormwater Management Design Manual and New York State Standards and Specifications for Erosion and Sediment Control, both of which identify appropriate BMPs.

Suburban watershed and stormwater management often lacks a unifying theme to guide the efforts of its participants—planners, engineers, landscape architects, scientists, and local officials. The lack of a theme has sometimes made it difficult to achieve a consistent result at either the individual development site or at the watershed scale.

A physically defined unit, imperviousness, might be a desired theme. Imperviousness is defined as the sum of roads, parking lots, sidewalks, rooftops, and other impermeable surfaces of the suburban landscape. This variable can be easily measured at all scales of development, as the percentage of area that is not "green."

Effectively planning for stormwater management practices best suited for the Town's land uses may begin with an evaluation of these uses so as to develop a strategy for implementing stormwater management practices having the best value derived from a costbenefit relationship. This assessment may be guided by, or performed directly in accordance with, the Center for Watershed Protection's Unified Site and Subwatershed Reconnaissance (USSR), which is included in Appendix 6-5. Stormwater management practices, in accordance with the New York State Stormwater Management Design Manual and New York State Standards and Specifications for Erosion and Sediment Control, must be tailored to existing land uses or to any redevelopment of them.

#### **B.** Regulations and Planning for Stormwater

Adapted from NYS <u>DEC stormwater website</u>

a. TMDLs —The Croton River watershed is the subject of existing and pending water quality improvement requirements, including Total Maximum Daily Load (TMDL) thresholds for phosphorus. This nutrient is the limiting factor in the development of oxygendepleting algae in the Croton Reservoir; the greater the loading of phosphorus, the greater the degree of algal growth and, therefore, the greater the magnitude of oxygen depletion in the Croton Reservoir.

**b. NYS Stormwater Regulations** — The NYS DEC administers and enforces three State Pollutant Discharge Elimination System

### **Point Source and Non-Point Source Pollution**

Point source pollution is easy to understand because it can be traced directly to its source. Think of it like this: if a sewage plant has a broken pipeline that leaks raw sewage into a river, you can "point" your finger at the exact source of the pollution. Point source pollution was a big concern in the past, but today stricter laws and regulations have drastically decreased the problem.

Non-point source pollution is a little more difficult to understand. Stormwater runoff pollution is a type of non-point source pollution. This means that the pollution cannot be traced back to a specific source, but instead comes from many different sources throughout the environment. Non-point source pollution is the primary cause of watershed pollution today. Nonpoint source pollution occurs when small amounts of pollution from a large variety of sources is picked up by stormwater runoff and carried into waterbodies. You can't point to the specific origin of the contamination; it comes from too many places and is difficult to trace.

#### Source:

http://www.swfwmd.state.fl.us/education/kids/stormwater.php

(SPDES) general permits required for activities associated with stormwater discharges:

- Multi-Sector General Permit for Stormwater Discharges
   Associated with Industrial Activities This permit addresses stormwater runoff from certain industrial activities.
   It requires facilities to develop Stormwater Pollution Prevention Plans (SWPPPs) and report the results of industry-specific monitoring to the NYSDEC on an annual basis.
- Municipal Separate Storm Sewer Systems (MS4s) Permit
   — This permit is required for stormwater discharges from
   Municipal Separate Storm Sewer Systems (MS4s) in urbanized areas. The Town of New Castle and the County of
   Westchester are MS4s. Permittees are required to develop a
   Stormwater Management Program (SWMP) and submit annual reports to the NYSDEC (please see Appendix 6-6 for
   copies of those from New Castle).

The United States Environmental Protection Agency (EPA) and NYSDEC have established six "minimum control measures" that must be included in every MS4 SWMP:

1. Public education and outreach on stormwater impacts

#### Types of non-point source pollution

**Sediment (dirt, soil, sand):** increases turbidity (a measure of water cloudiness) of a waterbody. Turbidity can block sunlight from reaching aquatic plants, making it impossible for them to grow. Without plants, animals lose a food source and it is more difficult to filter pollutants from the water. Instead, pollutants collect in the bottom of the waterbody and remain there indefinitely.

**Nitrogen and Phosphorus:** Nitrogen and phosphorus, can come from lawn fertilizers or natural sources, such as manure. Nutrients can cause algal and bacterial blooms, which reproduce rapidly. Algae will consume oxygen, increase turbidity in the water body and eventually die along with the fish and other aquatic life that need oxygen to live.

**Pathogenic Bacteria and Microorganisms:** Pathogens can be carried by stormwater into a waterbody. This creates health hazards to humans and can cause lakes and beaches to close and water supplies to be contaminated.

**Debris:** Plastic bags, bottles and cigarette butts can wash into a waterbody and interfere with aquatic life. It also isn't very pretty.

**Hazardous substances:** These include insecticides (chemicals used to control or kill insects), herbicides (chemicals used to kill unwanted plants), paint, motor oil and heavy metals. All of these items can cause illness not only to aquatic life, but also to humans.

- 2. Public participation and involvement
- 3. Illicit discharge detection and elimination
- 4. Construction site runoff control
- 5. Post-construction stormwater management; and
- 6. Pollution prevention and good housekeeping for municipal operations.

These minimum measures are set up to prohibit and systematically eliminate pollution of waters by systems intended to transport only rainwater and natural runoff from rain storms. In doing so, they are requiring every affected community to be responsible for all activities that occur within their jurisdiction.

• General Permit for Stormwater Discharges from Construction Activities — This permit is required for construction activities disturbing one or more acres of soil. Permittees are required to develop a SWPPP to prevent discharges of construction-related pollutants to surface waters.

#### c. Watershed Based Zoning

Traditional zoning strongly emphasizes the regulation of buildings and where they must be located on a lot and their size, but does not focus on the location and size of driveways, roads and parking lots. For example, no more than one single-family home may be located on each acre of land in a given area but a wide range of impervious cover may be seen for the same zoning category.

According to analysis performed by the Center for Watershed Protection, the total runoff volume for a one-acre parking lot is about 16 times that produced by an undeveloped meadow. During a one-inch rain storm, runoff from a one-acre meadow would fill a typical size bedroom to a depth of about two feet (218 cubic feet). By way of comparison, if that same acre was completely paved, a one-inch rainstorm would completely fill three additional bedrooms.

Watershed based zoning can employ a mixture of land use and zoning options to achieve desired results. A watershed based zoning approach may include the following nine steps:

- 1. Conduct a comprehensive stream inventory and assessment.
- 2. Measure current levels of impervious cover.
- 3. Verify impervious cover/stream quality relationships.
- 4. Project future levels of impervious cover.
- 5. Classify subwatersheds based on stream management "templates" and current impervious cover.
- 6. Modify master plans/zoning to correspond to subwatershed impervious cover targets and other management strategies



#### **New Castle Environmental Protection Overlay District**

New Castle has an Environmental Protection Overlay District which protects the Croton and Kensico Watersheds, Hudson River and Indian Brook Reservoir. The Overlay District establishes buffer zones of 150 feet around wetlands. Go to Appendix 6-7 for a copy of the Overlay District ordinance.

#### **Federal Emergency** Management Agency (FEMA)

FEMA administers the National Flood Insurance Program (NFIP). The NFIP program goals are to reduce the risk of flood damage to properties and reduce federal expenditures for uninsured properties that are damaged by floods. The three components of NFIP are:

- Floodplain identification and mapping
- Floodplain management, and
- Flood insurance.

Floodplain identification and mapping is provided through the program to create awareness of flood hazards. The mapping provides data for flood management pronew construction. Specifically, Flood Insurance Rate Maps (FIRM) delineate base flood elevations and identify flood risk zones including Special Flood Hazard Areas (SFHAs). The SFHA is the land area that is subject to a one percent or greater chance of flooding in any given year. These high risk areas are where the NFIP's floodplain management regulations must be enforced and where the mandatory purchase of flood insurance applies. Properties located outside of these high risk areas are still subject to flooding and owners have the option of purchasing flood insurance to protect themselves from flood risks.

- identified in the "subwatershed management templates" found at the Center for Watershed Protection.
- 7. Incorporate management priorities from larger watershed management units such as river basins or larger watersheds.
- 8. Adopt specific watershed protection strategies for each subwatershed.
- 9. Conduct long-term monitoring over a prescribed cycle to assess watershed status.

By following these nine steps, this technique can be used to protect receiving water quality on the subwatershed scale by relocating development out of particular subwatersheds.

#### C. Flood Zones in New Castle

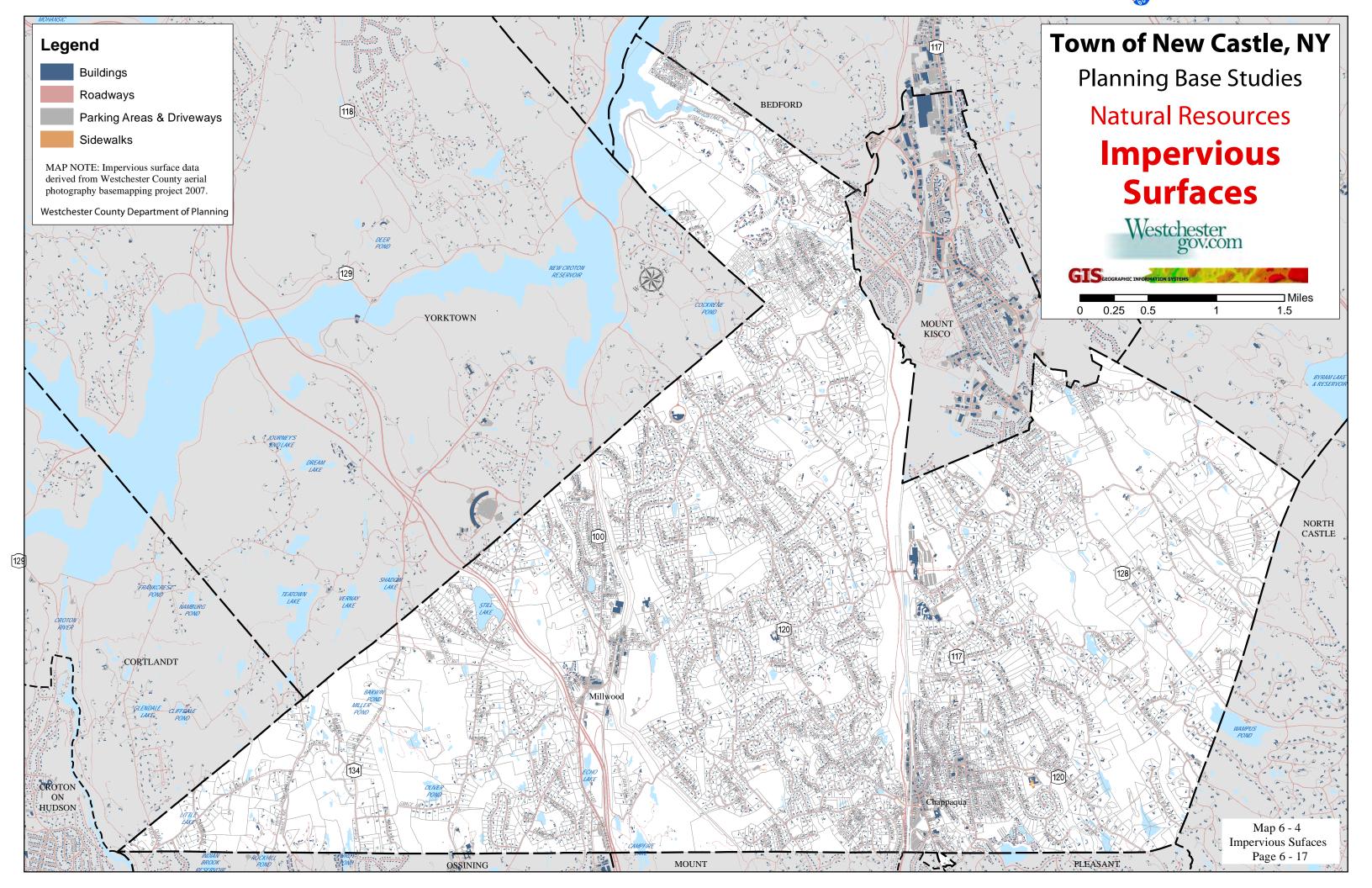
The Federal Emergency Management Association (FEMA) has developed flood zone maps (FIRMS) that indicate areas of flood risk. The 1% annual flood, i.e., 100-year flood or the base flood, has a 1% chance of being equaled or exceeded in any given year. The 0.2% annual flood, i.e., 500-year flood, has a 0.2% chance of being equaled or exceeded in any given year. Existing thresholds have the 100-year frequency storm in Westchester County at 7.5 inches of rainfall over a 24-hour period. For the 50-year and 25grams and flood insurance rates for year storms it is 7 inches and 6 inches, respectively. However, the rainfall amounts associated with these storms is currently being reevaluated due to expected increases in rainfall intensity. During the significant April 2007 storm that caused widespread flooding, more than nine inches of rain fell in some areas of Westchester County.

> Although FEMA designated flood zones typical of watercourses and waterbodies exist in New Castle, coastal flood zones with velocity hazards (wave action) are not present.

#### **D.** County Stormwater Reconnaissance Plans

The County enacted a Stormwater Management Law in 2011 requiring the County to develop "reconnaissance" plans that assess current conditions and identify cost-effective projects to directly address flooding and flood damage and impacts in Westchester. County projects to lessen the risks and impacts associated with flooding will be guided by these plans. A Stormwater Advisory Board created under the law began meeting in 2012, and is advising the County on flood-related matters, including the development of the reconnaissance plans and on projects to better manage stormwater.

Under Stormwater Management Law, the County Department of



# **Hazard Mitigation Plans and FEMA**

Hazard mitigation planning is one of the most important steps towards creating a disaster resilient community. Hazard mitigation plans identify natural and other hazards and propose measures to mitigate the impacts from such hazards. Because mitigation involves "longterm actions taken to eliminate or reduce the effects of disasters or emergencies," it is appropriate to incorporate the recommendations included in a hazard mitigation plan into the comprehensive plan for a community.

In addition, in order to participate in the National Flood Insurance Program, a community must, as part of its long-range planning process, identify and address areas of significant flood damage (44 CFR Part 60.22). In order to receive funding through FEMA's Hazard Mitigation Grant Program, a community must have prepared a Hazard Mitigation Plan and submitted such to FEMA for review and approval.

Planning is charged with developing these flood-related stormwater Reconnaissance Plans for each of the county's major watersheds or drainage basins. Working with the municipalities in each of these watersheds as well as the County's Department of Public Works and Transportation, Planning has completed plans for the Saw Mill River-Pocantico River Watershed, the Bronx River Watershed, the Coastal Long Island Sound Watershed, the Peekskill-Havestraw Bay Watershed and the Croton River and Inland Long Island Sound Watersheds. For more information, go to: http://planning.westchestergov.com/flooding.

#### E. Hazard Mitigation Plan

The *New Castle Hazard Mitigation Plan* (July 2009) identifies a variety of potentially natural and man-made hazardous events and provides general mitigation strategies to address the anticipated consequences of these events and to reduce the risks and impacts from them. The Hazard Mitigation Plan is included in Appendix 6-8.

There are a total of 30 different mitigation strategies listed in the Plan. Ten of these strategies are stormwater and flood control projects including the following recommendations (from Section 6, Mitigation Strategy):

- Conduct a flood-control design study to minimize flooding through the highly traveled residential area along Lawrence Farms Crossway.
- Upgrade the existing road drainage along Roaring Brook Road.
- Replace, upgrade and increase capacity of existing aged/ deteriorated drain-piping and headwalls along Annandale Road
- Rebuild the slope embankment and retaining walls along Hawkes Avenue
- Repair and increase capacity of drainage along Allapartus Road, near NYS Route 134 and Spring Valley Road.
- Increase drainage capacity and upgrade outdated drainage along Spring Valley Road.
- Work with NYS DOT to conduct a study to determine how to alleviate severe flooding and drainage problems along Route 100, near Station Place.
- Implement recommendations from Hahn Engineering's Drainage Study for Route 120 and Birch Lane areas to reduce flooding along Birch Lane
- Replace and upgrade existing culverts and headwalls to increase drainage capacity and mitigate frequent flooding along Kipp Street and Pond Hill Road
- Upgrade and increase the drainage capacity in the trench drain along North Greeley Avenue to mitigate flooding downtown

The Plan also includes a mitigation strategy to develop a plan for implementing the above stormwater and flood control projects.

#### F. Dams

There are four regulated dams in New Castle: Still Lake Dam, Echo Lake Dam, Chiselhurst Dam and Cogger Dam.

The Still Lake Dam has a State hazard classification of C or "high hazard". Per Part 673 of the Environmental Conservation Law, the failure of a high hazard dam may result in: widespread or serious damage to home(s); damage to main highways, industrial or commercial buildings, railroads, and/or important utilities, including water supply, sewage treatment, fuel, power, cable or telephone infrastructure; or substantial environmental damage; such that the loss of human life or widespread substantial economic loss is likely should failure occur.

# 6.5 Plants and Animals

#### A. Plants

The NYSDEC has divided the state into different ecological zones that have similar vegetation, topography and land use. New Castle is located in NYSDEC's Manhattan Hills ecological zone. The vegetation in the Town is predominantly pioneer hardwoods and oaks.

#### a. Trees

Trees are an important natural resource in a community. Research has shown that trees in urbanized areas provide several important functions, including the modification of microclimates by shading expanses of pavement and thus keeping temperatures lower and reducing energy use. While trees use carbon dioxide in the atmosphere and turn it into life-giving oxygen, those planted around a home can cut air conditioning costs in summer months by providing shade and reduce heating costs in the winter by serving as windbreaks. Trees also filter air pollution, prevent soil erosion and reduce noise pollution.

Many of Westchester's municipalities have recognized the aesthetic and environmental importance of trees, particularly existing, healthy trees, by adopting regulations covering the removal, planting and maintenance of trees, both on public land and private property. The Town of New Castle has an adopted tree ordinance that protects trees on both public and private property. The following is a summary of the ordinance requirements:

Permits are required for removing trees over a certain size

#### Dam Safety & the DEC

To protect people against loss of life and property from flood and dam failure, DEC is entrusted with the regulatory power over dams. The Department also provides technical support to local governments and owners of dams, and promotes floodplain management in communities across the state.

#### What is a Dam?

Dams are man-made barriers constructed to impound water. Dams are usually designed with timber, rock, concrete, earth, steel or a combination of these materials. The Department conducts technical reviews of proposed dam construction or modification, performs periodic safety inspection of dams, and works with communities on emergency preparedness. To prevent costly failure, DEC oversees dam maintenance, operation and repair, and monitors remedial work for compliance with dam safety criteria.

(Excerpt from DEC website)

Learn more about dams at the DEC website.



More information about invasive species in New York, can be found at: <a href="https://www.invasiveplantatlas.org">www.invasiveplantatlas.org</a>

# Croton-to-Highlands Biodiversity Plan

The Croton-to-Highlands Biodiversity Plan was a result of a collaborative planning effort between the Towns of New Castle, Yorktown, Cortlandt and Putnam Valley, the Wildlife Conservation Society's Metropolitan Conservation Alliance, the NYS DEC Hudson River Estuary Program and the Westchester Community Foundation. Sections of New Castle are identified as high quality habitats and wildlife corridors for reptiles, amphibians and breeding birds. For more information about the Croton-to-Highlands Biodiversity Plan, go to: http://www.yorktownny.org/sites/ default/files/fileattachments/chbp lores1.pdf

- on public and private property.
- Permits are required for removing any trees in regulated buffer zones.
- The Town maintains a Significant Tree List that defines trees that have significant specimen quality, historic importance or other unique characteristics. Permits are required for removing trees on the Significant Tree List.
- Trees can be removed if they are dead, hazardous or cause emergency conditions.
- Fines are imposed for illegal tree removal.

#### **b.** Invasive Plants

Invasive plants are a problem throughout Westchester County, including in New Castle. The most predominant invasive plants in the County are:

- Porcelain berry
- Wild grape
- Mile-a-minute
- Kudzu
- Burning bush
- Mugwort

Figure 6-5. White-tailed Deer



#### Japanese knotweed

For more information about invasive species in New York, <u>click</u> here.

#### **B.** Animals

Wildlife, such as coyotes, skunks, raccoons, squirrels, mice, crows or rabbits, can sometimes be a nuisance to residents. DEC defines nuisance species as any wildlife that cause health and safety concerns or cause property damage. DEC provides educational information to residents on how they can effectively and appropriately remove wildlife that are a nuisance. For more information about nuisance species, go to <a href="https://www.nuisance.nuisance.nuisance">NYSDEC's website</a>.

#### a. Deer

Without many natural predators, white-tailed deer have grown exponentially in Westchester County. Deer overpopulation has resulted in an increase in car accidents and destruction of the forest understory. In 2006, Westchester County created a Citizens' Task Force on White-tailed Deer and Forest Regeneration to address deer overpopulation issues throughout the County. The Task Force found that white-tailed deer caused significant damage to forests in Westchester County. The Task Force developed a report that provided recommendations for how to implement an Adaptive Deer Management Program of population control, monitoring and public education. The Mohonk Mountain House created a list of rarely eaten plants by white-tailed deer which is included in Appendix 6-9. As noted by Mohonk Mountain House, deer will eat almost anything during harsh winters and when food is scarce. For more information about deer in Westchester, refer to the Deer Task Force Report in Appendix 6-10.

#### **b.** Coyotes

According to the NYSDEC, the Eastern coyote is firmly established in New York. They live in New York as an integral part of our ecosystem and have been attributed to controlling deer populations. Coyotes also provide a great deal of benefits to New Yorkers through photography, hunting and trapping; however, not all interactions are pleasant. Some coyotes in suburbia have lost their fear of people. This can result in a dangerous situation. A coyote who does not fear people should be considered dangerous. Coyotes in residential areas quickly learn to associate food with people. Suburban coyote food (garbage, pet food, pets) is saturated with human odor. Human behavior has often changed to be non-threatening to coyotes (running into your home after seeing a coyote is behaving like prey). In short, food smells like people and people behave like

Figure 6-6. Eastern Coyote



# **Coyote Safety Tips**

# **Keep coyotes from your property:**

- •Bring pet food and dishes inside.
- •Do not put out food for birds.
- •Do not leave food outside unattended; scrape your grill and burn off food residue.
- •Cover garbage cans securely.
- •While outside, have handy a loud horn, noisemakers, or pots or pans to bang on and also things that can be thrown at coyotes.

#### If a coyote approaches you:

- •Be aggressive: stand tall, shout in a loud voice, throw things at coyote, maintain eye contact and wave arms to scare it away and head indoors or to a more populated area.
- •Do not turn your back and run, as the coyote will then view you as prey and give chase.
- •Call 911. Do not try to catch the coyote unless you are a trained animal trapper.

#### **Prevent Rabies**

- Vaccinate pets
- Avoid contact with wildlife and stray animals
- Bat-proof homes
- Keep dogs on a leash
- Keep cats inside
- Don't provide food or harborage for wildlife

If exposure does occur, the Westchester County Department of Health should be called immediately at 914-813-5000.

prey. Add to the mix people intentionally feeding coyotes and the potential for a coyote attack becomes very real. Potential does exist for coyote attacks in New York. However, a little perspective may be in order. Nationwide, only a handful of coyote attacks occur yearly. For more information about coyotes in New York, go to the <a href="NYSDEC's website">NYSDEC's website</a>. The Town of New Castle has developed a program to monitor the coyote population in the Town. Residents can go to www.coyote.mynewcastle.org to enter information about coyote sightings on the Town's Coyote Tracker. The Town has also developed an educational flyer for residents about coyote safety. The flyer is located in Appendix 6-11.

#### c. Rabies

Rabies is a deadly virus that lives in the saliva and brain tissue of infected animals. Rabies can make an otherwise wild animal act unusually aggressive or tame. Rabies is spread mainly through bites from infected animals. But, the virus can also be spread by scratches and contact with an infected animal's saliva. Rabies is carried mainly by wild animals, such as: raccoons, skunks, bats and foxes. However, stray dogs and cats may also carry rabies.

Education of how to behave around pets and wildlife is important to minimize contact with rabid animals. Some key points to convey are:

• Never feed, rescue or handle any wild animals.

# **Identifying Deer Ticks**

Everyone living in Westchester needs to be able to identify a deer tick, even if you do not spend a lot of time outdoors. Know the difference between the deer tick which carries Lyme Disease, and a dog tick, which does not carry the disease.

More information can be found at the <u>County Health</u> <u>Department website</u>.



Left to right: adult male, adult male dorsal side, nymph, larva. Note that the adult dog ticks are somewhat larger than adult deer ticks, and have characteristic white markings on the dorsal (top) side.

Bottom Row: the deer tick which transmits Lyme Disease. Left to right: adult female, nymph, younger nymph, larva. Adults appear in the fall and early spring.



An American dog tick



An adult deer tick (left) and an engorged deer tick filled with blood (right).

- Avoid strays and unknown pets, they can also have rabies.
- Call the police department (911) if a sick, injured or abandoned animals is seen.
- Wild animals never make good pets and baby animals can be rabid.
- If bitten, scratched or have some other exposure immediately wash the area with warm soapy water and call a doctor or hospital.
- Call the Westchester County Health Department at (914) 813-5000 24 hours a day seven days a week for assistance. Whether this assistance is in the form of a referral or action by the department will depend upon the circumstances.

#### d. Birds

Between 2000 - 2005, DEC staff and volunteers completed a survey of breeding birds in New York State. Two birds of Special Concern were found in New Castle: Cooper's Hawk and Sharp-Shinned Hawk. More information can be found about <u>DEC's Breeding Bird Atlas</u>, including detailed maps of the survey regions.

#### e. Invasive Insects

According to the NYSDEC, "invasive species are non-native species that can cause harm to the environment or to human health. As a threat to our biodiversity, they have been judged second only to habitat loss. Invasives come from all around the world; the rate of invasion is increasing along with the increase in international trade that accompanies globalization." The Asian Longhorned Beetle and the Emerald Ash Borer are destructive invasive insects that have been found in New York State. The Asian Longhorned Beetle burrows and destroys hardwood species. The DEC is particularly concerned about the effects of the Asian Longhorned Beetle on maple species. The Emerald Ash Borer destroys all species of ash trees and can be spread through affected firewood. While the Asian Longhorned Beetle is found in Westchester County, the Emerald Ash Borer has not yet been detected in the County. These invasive species may be a regional problem in the coming years. Residents and municipal officials should make sure to plant a diversity of plant species so that large tracts of forests are not susceptible to infestation. For more information, click here.

#### f. List of Endangered Species

NYS promulgated through State legislation the List of Endangered, Threatened and Special Concern Fish and Wildlife Species that includes those endangered species which meet one or both of the criteria specified in section 182.2(g) of 6NYCRR Part 182 and which are found, have been found, or may be expected to be found in New York State. Some of these species have been found in New Castle. For more information about the list, <u>click here</u> or it can be found in Appendix 6-12.

Figure 6-7. Cooper's Hawk



Figure 6-8. Asian Longhorned Beetle

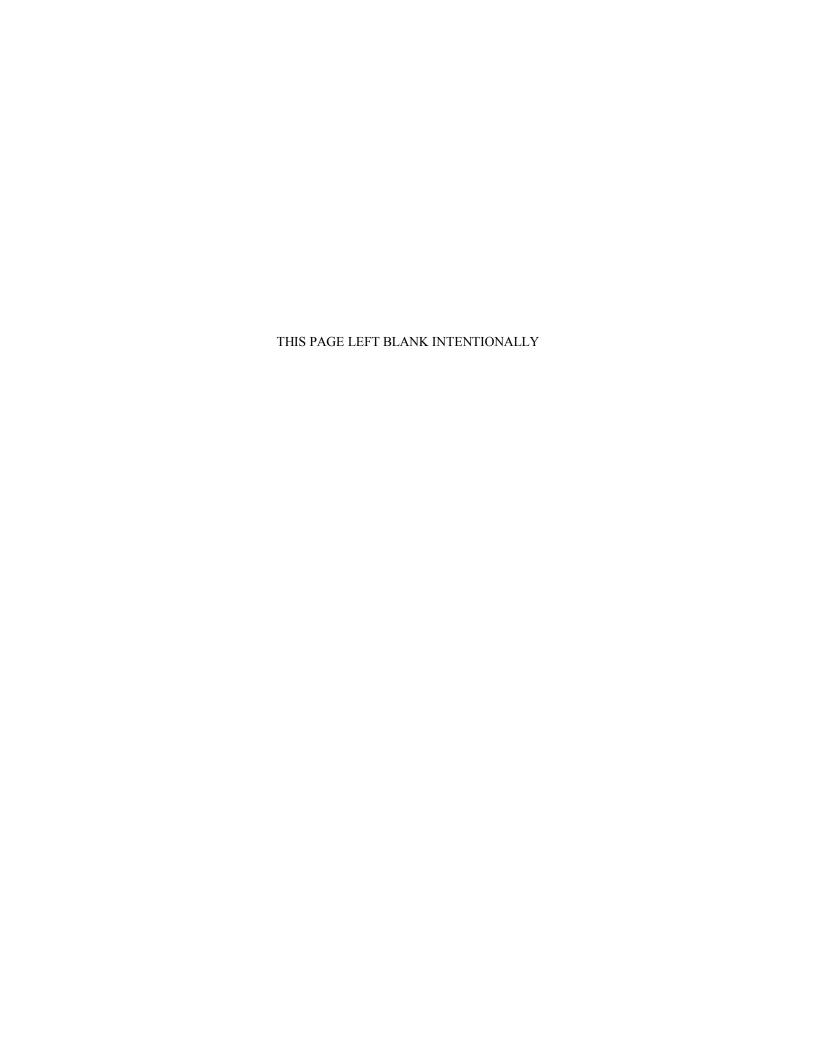


Source: Kenneth R. Law, USDA APHIS PPQ, www.forestryimages.org

Figure 6-9. Emerald Ash Borer



Photo Source: David Cappaert, http://www.forestryimages.org



# CHAPTER 7 RECREATION, OPEN SPACE AND CULTURAL RESOURCES

#### 7.1 Overview

The Town of New Castle has over 2,700 acres of open space, which is found in the form of county parks and parkway lands, local parks and open space, nature preserves, private recreation, state park and parkway lands and water supply lands. These areas are variably designated for both active and passive recreation, open or limited access, or for resource conservation. New Castle's parks and open spaces serve as places of recreation and respite, as community gathering places, centers of learning, and as reflections of its culture and history.

Publicly owned parks and open space account for 1,760 acres, or approximately 0.1 acre per resident. The Town is located in a region that is rich in recreational resources. Neighboring municipalities provide a variety of both public and private recreational opportunities. The Town's central location within the County affords New Castle residents access to a significant number of County parks, historic sites and nature preserves.

#### A. Recreational Resources

Public parks provide a large portion of the outdoor recreational resources within the Town of New Castle; however, other opportunities for outdoor recreation include:

- Trailway routes
- Nature preserves
- Community centers
- Schools
- Golf courses
- Private swim and tennis clubs

# **B.** Open Space

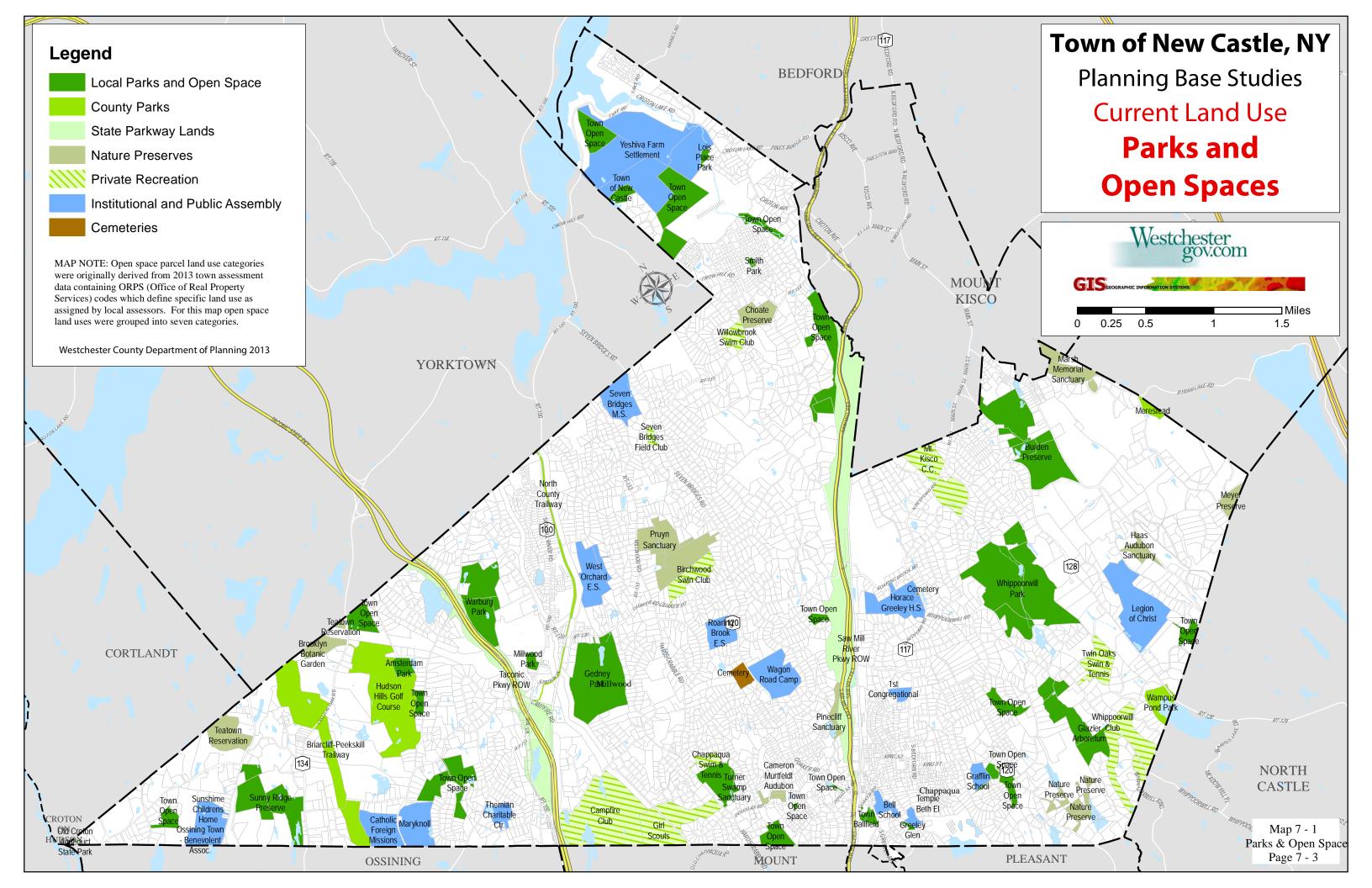
The New York State Department of Environmental Conservation (NYS DEC) defines open space as, "An area of land or water that either remains in its natural state or is used for agriculture, free from intensive development for residential, commercial, industrial or institutional use. Open space can be publicly or privately owned. It includes agricultural and forest land, undeveloped coastal and estua-

Figure 7-1. Major Open Spaces and Recreational Resources

Amsterdam Park Burden Preserve	11 128
Burden Preserve	
	128
Codmary Domby	
Gedney Park	126
Glazer Arboretum	69
Lois Place Park	3
Millwood Park	6
Recreation Field	6
Smith Park	2
Sunny Ridge Preserve	82
Turner Swamp Sanctuary	35
Warburg Park	78
Whippoorwill Park	209
County Parks and Parkway Lands	
Briarcliff Peekskill Trailway*	124
Hudson Hills Golf Course	150
Merestead*	9
North County Trailway*	27
Wampus Pond Park*	25
State Parks and Parkway Lands	
Old Croton Aqueduct State Park*	1
Saw Mill River Parkway Right-of-Way*	297
Taconic State Parkway Right-of-Way*	182
Nature Preserves	
Brooklyn Botanic Garden	19
Cameron Murtfeldt Audobon Sanctuary	7
Choate Preserve	25
Haas Audobon Sanctuary	14
Marsh Memorial Sanctuary*	34
Meyer Preserve*	13
Pinecliff Audobon Sanctuary	15
Pruyn Audobon Sanctuary	92
Teatown Lake Reservation*	39

Name	Acres
	Acres
Private Recreation	20
Birchwood Swim Club	30
Campfire Club of America*	151
Chappaqua Swim and Tennis Club	11
Girl Scout Reservation*	71
Mount Kisco Country Club*	61
Seven Bridges Field Club	6
Twin Oaks Swim and Tennis Club	35
Whippoorwill Club*	73
Willowbrook Swim Club	16
Institutional and Public Assembly	
Catholic Foreign Missions*	41
Douglas Grafflin Elementary School	12
First Congregational Church	8
Horace Greeley High School	49
Legion of Christ	97
Maryknoll*	46
Roaring Brook Elementary School	26
Robert E. Bell Middle School	12
Seven Bridges Middle School	41
Sunshine Children's Home	33
Temple Beth El	6
Themian Charitable Center	16
Town of Ossining- Benevolent	13
Association*	
Wagon Road Camp	52
Westorchard Elementary School	52
Yeshiva Farm Settlement School	258
Cemeteries	
Fair Ridge Cemetery	12

<sup>\*</sup> Portion of property located in the Town of New Castle



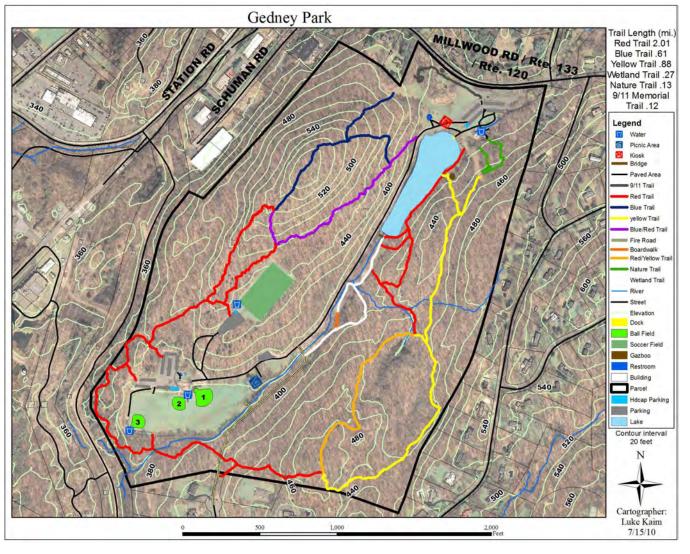
rine lands, undeveloped scenic lands, public parks and preserves. It also includes waterbodies such as lakes and bays. The definition of open space depends on the context. In a big city, a vacant lot or a small marsh can be open space. A small park or a narrow corridor for walking or bicycling is open space, though it may be surrounded by developed areas. Cultural and historic resources are part of the heritage of New York State and are often protected along with open space." (Source: <a href="http://www.dec.ny.gov/lands/317.html">http://www.dec.ny.gov/lands/317.html</a>).

**Figure 7-1** *Major Open Spaces and Recreational Resources* lists several types of open spaces and recreation facilities in the Town, including Town, County and State park lands, schools which include open space and recreational resources, nature preserves and private facilities such as golf courses, swim clubs and private campgrounds and schools. **Map 7-1 Parks and Open Spaces** also shows these various open spaces and recreational facilities in the Town.

#### 7.2 Town of New Castle Parks

The Town of New Castle has nine main municipal parks within its borders. They are:

- Whippoorwill Park (209 acres) is located at Whippoorwill Road in the eastern portion of the Town and provides passive recreation with hiking trails and a pond.
- Gedney Park (126 acres) is located on the intersection of Millwood Road and Granit Road near the hamlet of Millwood. This facility has picnic areas and shelters, including grills, playgrounds, sports fields for soccer, lacrosse, baseball and softball, a pond, trails, ice skating and sledding, and public restrooms.
- **Burden Preserve** (128 acres) is a protected natural area which provides residents with hiking trails throughout the property. The park is located in the eastern portion of Town, near Mount Kisco and accessed from Sheather Road.
- **Sunny Ridge Preserve** (82 acres) is located in the western portion of the town and accessed from Croton Dam Road. The park is predominantly wooded with ample hiking trails and a pond for passive recreation.
- Warburg Park (77 acres) is a largely wooded parkland offering residents ample hiking trails and a pond. The park is located at Pines Bridge Road, just east of the Taconic State Parkway.



Map 7-2. Gedney Park

- Amsterdam Park (11 acres) is a Town-owned large multipurpose park located on Hoag Cross Road. It includes a playground, soccer fields, and a restroom.
- Millwood Park (6 acres) is located on Route 100 in the hamlet of Millwood. It has a picnic shelter, a playground, tennis courts, baseball / softball fields, and a public restroom.
- **Recreation Field** (6 acres) is located at 200 South Greeley Ave. in the hamlet of Chappaqua. It consists of a playground and a baseball / softball field.



# Town of New Castle Recreation and Parks Commission

200 South Greeley Avenue, Chappaqua, New York 10514

The mission of the New Castle Recreation and Parks
Commission is to enhance the quality of life in New
Castle through sports, leisure and other recreational experiences and to provide a safe environment that emphasizes fun and the joy of personal development through participation and discovery at all ages.

<u>Telephone Numbers:</u>
Office: (914) 238-4771
Parks Dept.: (914) 238-3909

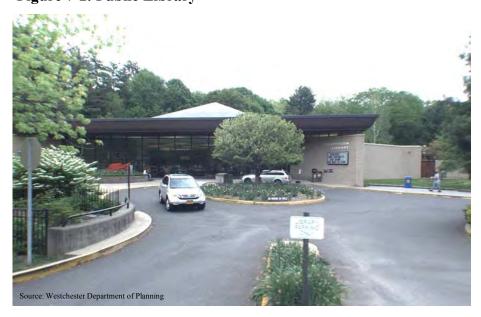
• **Smith Park** (2 acres) This neighborhood park is located off of Pineview Road and Crow Hill Road in the Kisco Park neighborhood in the northern part of Town. Facilities include a playground and a small basketball court.

# 7.3 Town Facilities—Non-Open Space

The following recreational facilities are located in New Castle:

- Town of New Castle Community Center Located at 10 Senter Street in downtown Chappaqua, this important Town facility has a senior center and offers programs such as fitness, aerobics and dance classes.
- Town of New Castle Art Center Located on Hardscrabble Road, in a residential area, about one mile from downtown Chappaqua. Located next to Turner Swamp Sanctuary, the 0.9 acre site includes a one-story former one room school house now programmed for community art activities.
- Chappaqua Library The Town is served by the Chappaqua Library. The Library grew from space in a Coal and Feed Store on King Street in 1922. In 1930, a new library was opened in what is now the Community Center. By 1970, it was agreed that a new and larger building was needed and the community voted to change from a Free Association Library to a School District Library which allowed the approval of a bond issue to pay for a new library. The Grunfeld family donated their property on South Greeley Avenue for the explicit use of a new library

Figure 7-2. Public Library



building. The building was designed by Chappaqua resident Philip M. Chu and opened in December 1978. In 1986, a children's program room was added and in 2006 the front of the library was expanded. The library collection is now over 134,000 items and offers a large variety of programs for families, children and adults. For more information about the library, go to the <u>library website</u>. (www/chappaqualibrary.org)

#### 7.4 School Facilities

The following schools provide recreational opportunities in New Castle:

- **Horace Greeley High School** Located at 70 Roaring Brook Road in Chappaqua, the recreational facilities at this 49-acre property include multiple sports fields for baseball, soccer, softball, field hockey and lacrosse and an outdoor track.
- **Robert E. Bell Middle School** The 11.5-acre campus at 50 Senter Street in Chappaqua includes baseball and soccer fields and a playground.
- **Seven Bridges Middle School** Located at 222 Seven Bridges Road in Chappaqua, the 41-acre campus includes baseball and soccer fields and a playground.
- **Douglas Grafflin Elementary School** Located at 650 King Street in Chappaqua, the 12-acre campus includes baseball and soccer fields, a basketball court and playgrounds.
- Roaring Brook Elementary School Located at 530 Quaker Street in Chappaqua, the 26-acre campus includes a baseball field and playground.
- Westorchard Elementary School The 52-acre campus is located at 25 Granite Road in Chappaqua. The school facilities include a soccer field and playground.
- Yeshiva Farm Settlement School—This private school is located on 258 acres along Pinesbridge Road and it serves grades K-12. Several playgrounds are located on the mostly wooded property.

#### 7.5 Bicycle Routes/Trailways

A segment of the North County Trailway, a paved multi-use County path that spans north through the heart of Westchester for 22.1 miles









Figure 7-3. Hudson Hills Golf Course

Photos: Westchester County Department of Parks & Recreation

to the Putnam County border, traverses through New Castle. A total of 26.5 acres of property, owned by New York State and operated by Westchester County, are in the Town.

The Briarcliff-Peekskill Trailway is a 12-mile linear County Park running from the Town of Ossining, through New Castle to West-chester County's Blue Mountain Reservation in Peekskill. 124 acres of the park are located in the Town of New Castle. The routes for the North County Trailway and the Briarcliff-Peekskill Trailway are shown on the Map 7-1.

#### 7.6 Golf Courses—Public and Private

The following are three golf courses located in New Castle:

- Hudson Hills Golf Course The 150-acre county-owned facility contains an 18-hole golf course and clubhouse with outbuildings complex located along Croton Dam Road. Formerly a private golf course, the par 71 championship golf course was refurbished and incorporates stunning vistas of the Hudson River Valley.
- Whippoorwill Club Located along Whippoorwill Road and partly located in the Town of North Castle in Armonk, this private 18-hole golf course facility was first constructed in the early 1920's and expanded upon over the years, including a golf course, club house, and incorporating residential development surrounding the course. Approximately 72.5 acres are in New Castle and the remainder is in the Town of North Castle.
- Mount Kisco Country Club Located along North Bedford Road, approximately 61 acres of this privately owned 18-hole golf facility is in the Town of New Castle, with the remainder in the Town/Village of Mount Kisco.

#### 7.7 Nature Preserves and Town-Owned Open Spaces

A variety of protected, natural open spaces are located throughout the Town of New Castle. These are listed in Figure 7-1 Major Open Spaces and Recreation Resources. These properties are managed by a variety of non-profit organizations. They are often open to public for hiking, walking and nature observation. Several of these have portions of the properties also located in adjacent municipalities, such as the Teatown Reservation which has several other large properties in the Towns of Yorktown and Cortlandt.

Two nature preserves are owned by the Town of New Castle. The

69-acre Glazer Arboretum, accessed from Whippoorwill Road, is owned by the Town and managed by the New Castle Conservation Board. The 35-acre Turner Swamp Sanctuary is located on Hardscrabble Road in the south part of town, west of Chappaqua and adjacent to the Chappaqua Swim and Tennis Club.

Several large and small open space properties, shown on Map 7-1, are owned by the Town but are not operated or managed as parks or nature preserves. These properties are often wooded with many having environmentally sensitive features such as steep slopes or wetlands.

# 7.8 Private Swim Clubs, Campgrounds and Institutional Open Spaces

Several larger private recreation and institutional open spaces are located throughout the Town and are also listed in Figure 7-1.

- Five swim and tennis clubs are located in Town. These range in size from 5.51 acres at the Seven Bridge Field Club to 34.76 acres at the former Twin Oaks Swim and Tennis Club which was recently sold and is no longer operating as a private club.
- Several camps and campgrounds are located in the Town. They
  include the Wagon Road Camp (51.84 acres), the Girl Scout
  Reservation (71.35 acres in New Castle) and the Campfire Club
  of America (151.33 acres in New Castle).
- In addition to several properties associated with houses of worship, several larger private institutional properties are located in the Town, including the Themian Charitable Center property (15.71 acres), the Sunshine Children's Home (33.15 acres), Maryknoll (45.55 acres in New Castle) and the Catholic Foreign Missions (40.62 acres in New Castle).

#### 7.9 State and County Parks

Wampus Pond County Park is partly located in New Castle; much of the park and its main entrance is located in North Castle. Much of Merestead, a County park featuring a former residential estate, is located in the Town of Bedford; only a very small portion is in New Castle.

As mentioned above, Hudson Hills Golf Course is a Westchester County Park. The North County Trailway is owned by New York State and operated by Westchester County. The Briarcliff-Peekskill Trailway is also a County Park.

The two New York State parkways traversing New Castle, the Taconic and Saw Mill River Parkways, also include significant lands surrounding the roadways. Echo Lake State Park, located within the lands of the Taconic State Parkway just south of the Millwood hamlet, is accessed from Saw Mill River Road/Route 100.

The Old Croton Trailway State Park crosses the far western corner of New Castle as it runs along the Croton River south of the Croton Dam.

# 7.10 Undeveloped Land

A large portion of open space remains as undeveloped land in the Town. The 1,372 acres categorized by the Town as Vacant/ Undeveloped is approximately 9% of the Town's land area. These properties vary from privately owned lands that may someday be developed to Town-owned, non-park properties that are currently undeveloped and may serve as open space resources.

#### 7.11 National Recreation & Park Association Standards

The following are standards for parks developed by the National Recreation and Parks Association for potential use as guidelines by the Town of New Castle.

#### A. Mini-Parks

These small parks focus on limited, unique, or isolated recreational needs. They are specialized facilities that serve a concentration or limited population or specific group such as tots or senior citizens.

- Service Area: Less than ¼ mile radius, Desired Size: one acre or less
- Acres per 1,000 Population: 1/4 to 1/2 acres
- Desired Site Characteristics: These parks should be situated within neighborhoods and in close proximity to apartment complexes, townhouse development, and/or housing for the

Figure 7-4. Standards for Parkland, National Recreation and Parks Association

Park Type	Acres/1,000 Population	Service Area Radius
Mini-Park	0.25-0.50	< 0.25 mile/5 minute walk
Neighborhood Park	1.0-2.0	0.5 mile/12 minute walk
Community Park	5.0-8.0	1-2 miles/5 minute drive
Regional Park	Variable	30 miles/1 hour drive

For more information on parkland and recreational standards for municipalities, see: <a href="http://www.nrpa.org/Professional-Development/Accreditation/CAPRA/CAPRA-Standards/">http://www.nrpa.org/Professional-Development/Accreditation/CAPRA/CAPRA-Standards/</a>

elderly. Users should be able to see the opposite end of a mini-park.

# **B.** Neighborhood Parks

Small and large neighborhood parks offer similar recreation opportunities; however, the larger neighborhood parks generally are between five and 10 acres in size (this is a modification of the previous NRPA standard for neighborhood parks that calls for one to two acres of parkland per 1,000 people). Small and large neighborhood parks can provide both passive and active recreation. In general, they feature areas for intense recreational activities, such as ball field games, court games, crafts, playground equipment, skating, picnicking, and more. Undeveloped natural areas are also desirable in these parks.

- Service Area: ¼ to ½ mile radius, Desired Size: Small: one to five acres; Large: five to ten acres
- Acres per 1,000 Population: one to two acres
- Desired Site Characteristics: These parks should be suited for intense development and be easily accessible to the neighborhood. Ideally, they should be geographically centered with safe walking and bike access. These parks can be developed as school park facilities.

# C. Community Parks

These park components focus on serving larger, community-wide outdoor recreational needs.

- General Use: These parks have areas of diverse environmental quality. They may include areas for intense recreational facilities, such as athletic complexes for organized sports, large group picnicking, and community gatherings. They may also feature areas of natural quality for activities such as walking, biking, and viewing that are supported by trail systems.
- Service Area: Several neighborhoods One to two mile radius, Desired Size: 30 to 50 acres
- Acres per 1,000 Population: five to eight acres
- Desired Site Characteristics: These parks should be easily accessible to the neighborhoods that are served and include areas for intense outdoor recreational development. Other desirable components include natural features such as waterbodies.

#### **D. Special Purpose Parks**

These park system components focus on a single use, such as historic preservation or downtown open space. The NRPA has no specific standards for special purpose parks as they are unique to each community.

- General Use: These parks are centered on a specific environmental feature, historical event or setting and offer a unique place that assists in creating a sense of place in the community.
- Service Area: No applicable standard, Desired Size: Varies
- Acres per 1,000 Population: Varies
- Desired Site Characteristics: These parks cater to cultural, historic, or social recreational needs.

# E. Urban Green Space

These park system components are typically made up of lands set aside for preserving drainage corridors, wetlands, or other significant community natural resource areas. The NRPA has no specific standards for these areas.

- General Use: These features are generally open to the public, but usually do not contain many facilities beyond access points and trail systems.
- Service Area: No applicable standard, Desired Size: Varies
- Acres per 1,000 Population: Varies
- Site characteristics vary based on the resource being conserved or protected. Typically, these areas should have nature -based, low impact recreational facilities.

# **CHAPTER 8 PUBLIC FACILITIES**

#### 8.1 Overview

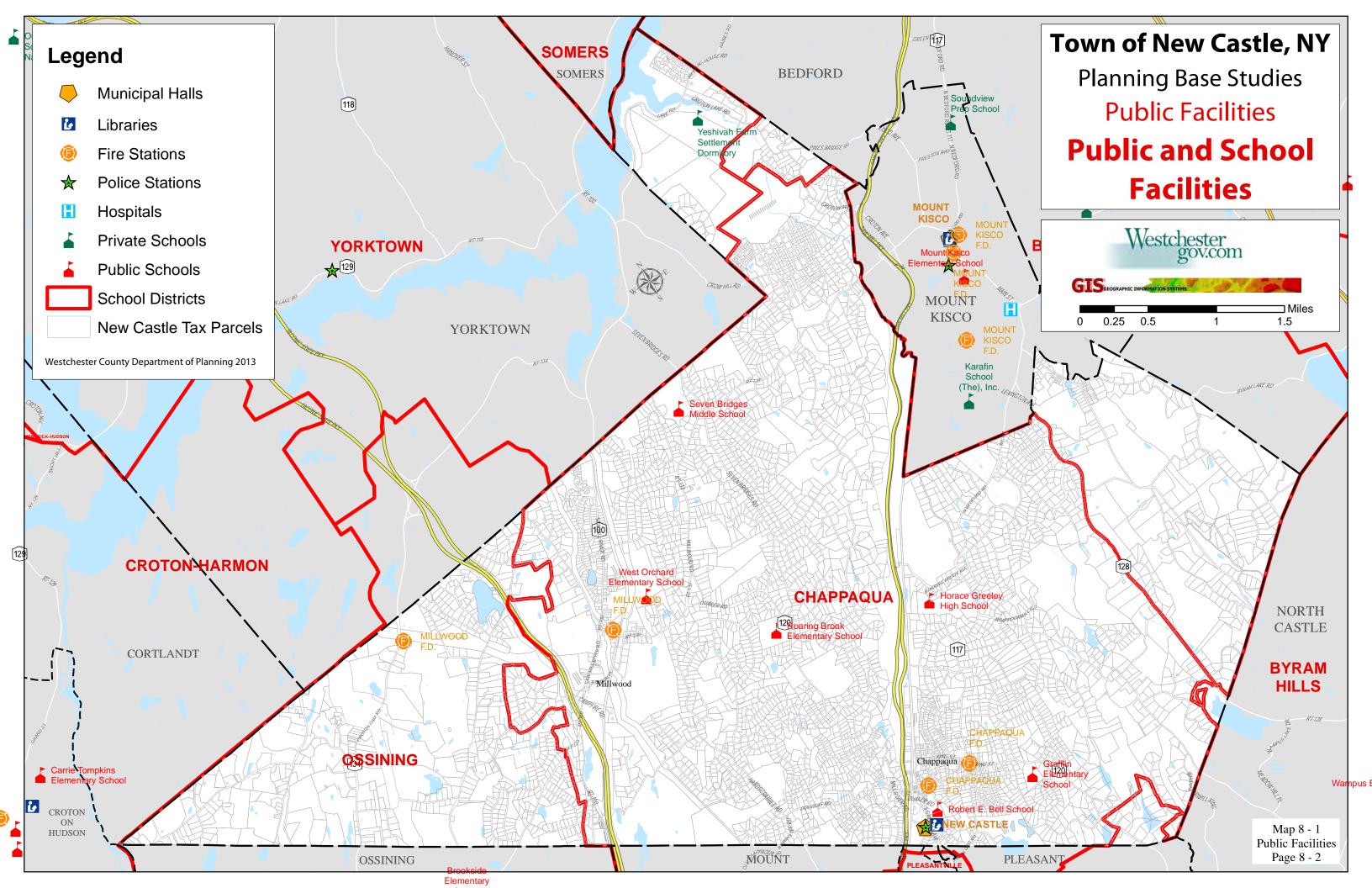
This chapter provides an overview of the various public facilities and services in the Town of New Castle, including public safety services, Town-owned properties and buildings, the recreation center, the Chappaqua library and the public school systems serving the Town. Map 8-1 shows the public facilities and schools in New Castle. Unless otherwise noted, the information provided was adapted from the Town's and school districts' websites.

In addition to the centralized Town offices at 200 South Greeley Avenue in the hamlet of Chappaqua, the library, fire districts and the public works and recreation departments operate at the locations noted below.

Figure 8-1. Town Hall



Source: Westchester County Department of Planning



# 8.2 Municipal Facilities

# A. Fire Department

Fire protection is primarily provided by the Chappaqua Fire Department and the Millwood Fire Company.

The Chappaqua Fire Department was founded in May, 1910. The companies that now comprise the Department are staffed by volunteers who are required to take 84 hours of initial training at Westchester County's Fire Training Center at the Valhalla Campus at Grasslands. There are approximately 60 active professional volunteers who respond to over 400 alarms per year. The Chappaqua Fire Headquarters are located at 491 King Street and the Senter Street Firehouse is located at 11 Senter Street in Chappaqua (www.chappaquafd.org).

The Millwood Fire Company was founded in 1924 after lightning struck the Millwood railroad station and started a fire. The Company maintains two firehouses. Station #1 is located on 60 Millwood Road (Route 120) and Station #2 is located on 366 Croton Dam Road (Route 134). There are approximately 60 active professional volunteers who respond to over 250 alarms per year (www.millwoodfire.org). Plans for a future Station #1 involve an 8.53 acre building lot for the construction of an 18,486 square foot, two (2)-story fire station building that includes five (5) apparatus bays, offices, storage, multipurpose meeting areas with a maximum capacity of 96 people, a kitchen, exercise room, membership room

Figure 8-2. Chappaqua Fire Department



Source: Westchester County Department of Planning





Figure 8-3. Millwood Fire Company Station #2, above, Station #1, right.

Source: Westchester County Department of Planning



and a lobby space for antique apparatus. There will be a 24-foot wide driveway and 50 parking spaces.

The Chappaqua Volunteer Ambulance Corps (see Section 8.3) attends to medical emergencies within the Town.

# **B.** Police Department

The New Castle Police Department handles law enforcement and crime prevention within the town. The Department has several services, including a Patrol Division, a Detective Division and a Youth Officer who handles crimes committed by minors. It also has a Traffic Enforcement Unit, a Child Safety Program, a Records Division and an Animal Control Officer. The Department maintains an Alarm Registration for security alarm permits. The Police Department headquarters are at the Town offices at 200 South Greeley Avenue in downtown Chappaqua (http://chappaqua.patch.com/listings/new-castle-police-department). The Police Department has a staff of 52.

# C. Public Works Department

The Department of Public Works, headquartered at 280 Hunts Lane, oversees several maintenance departments, including the Recycling Center, the Highway Department and Water Department. It also handles sewers, refuse collection and building maintenance.

# D. Recreation and Parks Department

The Recreation and Parks Department provides information on events and programs that take place at each of New Castle's town parks. It is governed by the New Castle Recreation Commission (*Source: Chappaqua Patch*).

The Department manages the Town-operated parks at the following locations: Amsterdam Park (13.5 acres), Gedney Park (126 acres), Millwood Park (7 acres), Recreation Field (2.7 acres), Smith Park (2 acres), Warburg Park (37 acres), Whippoorwill Park (167 acres), Burden Preserve (112 acres) and Sunny Ridge Preserve (82 acres). Amenities at these locations include picnic area, playground, tennis, soccer/lacrosse and baseball/softball facilities as well as trails, iceskating and sledding (www.mynewcastle.org).

The Town's Community Center, located at 10 Senter Street in downtown Chappaqua, is an important venue for the Town. The Center offers programs that include a senior center and a section for fitness, aerobics and dance classes. (Source: Chappaqua Patch) The Center is run by a full time staff of three and many part-time staff and volunteers.

The New Castle Art Center, at 939 Hardscrabble Road, contains four classrooms including a woodworking room, clay room, a large and small multi-purpose room and three kilns.

The New Castle/Pleasantville Skate Park is located in the commuter parking lot of the Chappaqua train station, off South Greeley and Washington Avenues. The skate park features bank ramps, quarter pipes, a pyramid and a grinding rail.



Figure 8-4. Department of Public Works Facility

Source: Westchester County Department of Planning

Further information on the Town's recreation and open space resources are found in Chapter 7 Recreation, Open Space and Cultural Resources.

#### E. Other Town-owned Facilities

The Town's Recycling Center handles the recycling of various materials in the Town. Items that can be brought to the center include "e-waste," such as computer monitors and televisions, paper and plastic items that are numbered 1 to 7. The Recycling Center is located at 210 Hunts Lane in the hamlet of Chappaqua (Source: Chappaqua Patch). The Town also operates a mulching and storage facility at Warburg Park, located at 206 Pinesbridge Road.

#### 8.3 Other Public Facilities

# **Chappaqua Volunteer Ambulance Corps**

The Chappaqua Volunteer Ambulance Corps (CVAC) has served New Castle for over 75 years. The over 70 volunteers of the CVAC respond to over 500 calls annually, attending to medical emergencies that include everything from falls and illness to motor vehicle accidents. The CVAC is headquartered at 233 North Greeley Ave-

Figure 8-5. Community Center





Figure 8-6. New Castle Art Center

Source: Town of New Castle

nue, next to the Post Office in the hamlet of Chappaqua. (www.chappaquaambulance.org)

#### 8.4 Schools

Most of the area of New Castle is included in the Chappaqua Central School District, which includes six schools, an administration building and a maintenance building on six sites totaling 206 acres within the Town's boundaries. Portions of the Town are also included in adjacent school districts (Ossining, Yorktown, Bedford and Byram Hills) but none of those school districts' facilities are located within the Town's boundaries.

## A. Chappaqua Central School District

Until the mid-19th century, about eight small, windowless one-room schoolhouses served to educate the youth of the area. In 1870,

Figure 8-7. New Castle Recycling Center







Figure 8-8. Chappaqua Volunteer Ambulance Corps

Source: Westchester County Department of Planning the Quakers built a large school called the Chappaqua Mountain Institute on Quaker Street. It now belongs to the Children's Aid Society and is known as Wagon Road Camp. (www.ccsd.ws/district)

Around 1928, Robert E. Bell Middle School, known at the time as Horace Greeley School, was built. The present-day Horace Greeley High School was built in 1957. The three elementary schools in Chappaqua were completed over a 20-year period: Roaring Brook in 1951, Douglas G. Grafflin in 1962, and Westorchard in 1971. Faced with a growing student population, Chappaqua opened a second middle school, Seven Bridges, in 2003.

Over 4,100 students attend three K-4th grade elementary schools, two middle schools for grades 5-8, and a grade 9-12 high school. There are 378 instructional staff members serving the District.

Each school within the District has recreational facilities. Many include substantial areas of open space. These are discussed more fully in Section 7.4.

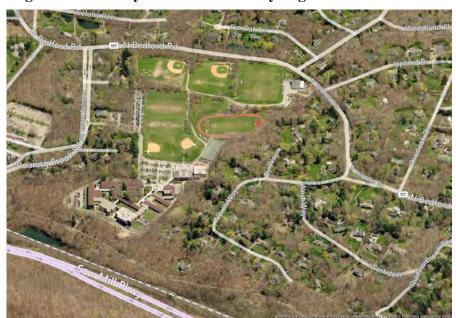
The District is governed by a five-member Board of Education elected at large to serve three-year terms without salary. The board sets policy, adopts the budget, and approves hiring for the District.

Several substantial portions of the Town of New Castle are located in other surrounding school districts. No school facilities in these surrounding districts are located within the Town of New Castle. The district boundary lines are shown on Map 8-1. Much of the far western portion of the Town is within the Ossining Union Free School District. The portion of the Town east of Route 128 (Armonk Road) is located in the Bedford Central School District. An area at the far northern portion of the Town is located in the Yorktown Central School District. Small areas in the southern portion of the Town are located within the Byram Hills Central School District, primarily centered in the Armonk area of the Town of North Castle.

Horace Greeley High School — Horace Greeley High School is located on Roaring Brook Road near the former Readers Digest site. There are 1,305 students in grades 9-12. The 49-acre campus includes multiple sports fields for baseball, soccer, softball, field hockey and lacrosse and an outdoor track.

The L.I.F.E. School (Learning Independently From Experience) is an alternative high school on the Greeley campus for approximately 60 juniors and seniors. L.I.F.E. utilizes innovative strategies of teaching and learning, and students play a major role in designing their learning experiences, which include internships, independent projects, and other off-campus experiences.

Figure 8-9. Birdseye of Horace Greeley High School





Source http://hg.ccsd.ws/



Source: Bingmaps

Robert E. Bell and Seven Bridges Middle Schools — Chappaqua's two middle schools enroll approximately 1,369 students in grades 5 through 8. The Robert E. Bell Middle School is located in the hamlet of Chappaqua. The Seven Bridges Middle School is located near the Millwood hamlet.

Elementary Schools — Douglas Grafflin, Roaring Brook, and Westorchard elementary schools enroll approximately 1,491 students in grades K through 4. Douglas Grafflin and Roaring Brook are located off Route 120 and Westorchard is near the Millwood hamlet.

Figure 8-10. Robert E. Bell Middle School



Fig- Source: Westchester County Department of Planning ure 8-11.



#### **B. Private Schools**

In addition to the above public school districts, there is one private school located in New Castle. The Yeshiva Farm Settlement School is located on 258 acres on Croton Lake Road and Lake Road and has an enrollment of over 300 students and a faculty of 24 teachers (Source: Patch). The school and residential buildings on

Figure 8-12. Elementary Schools. Douglas Grafflin (below), Westorchard (upper right), Roaring Brook (lower right)







Figure 8-13. School District: Enrollment, Revenues and Spending for 2011 School Year, Chappaqua Central School District

Enrollment	4,151 students (1.1% increase from 2010)	
Total Revenue	\$110,877,324 (26.1% decrease from 2010)	
Revenue from Federal Sources	\$1,232,992 (1.1% of total revenue)	
Revenue from NYS Sources	\$13,979,999 (8.4% of total revenue)	
Revenue from Local Sources	\$95,664,333 (90.6% of total revenue)	
Expenditures	\$109,890,652	
Per Pupil Local Revenue	\$23,046	
Per Pupil Total Revenue	\$26,711	
Per Pupil Total Current Spending	\$26,473	

Source: May 2013 Census; Prepared by the Westchester County Department of Planning

the campus are clustered in the eastern portion of the school property. Much of the property is wooded and near the Croton Reservoir.

Figure 8-14. Yeshiva Farm Settlement



# **CHAPTER 9 INFRASTRUCTURE AND UTILITIES**

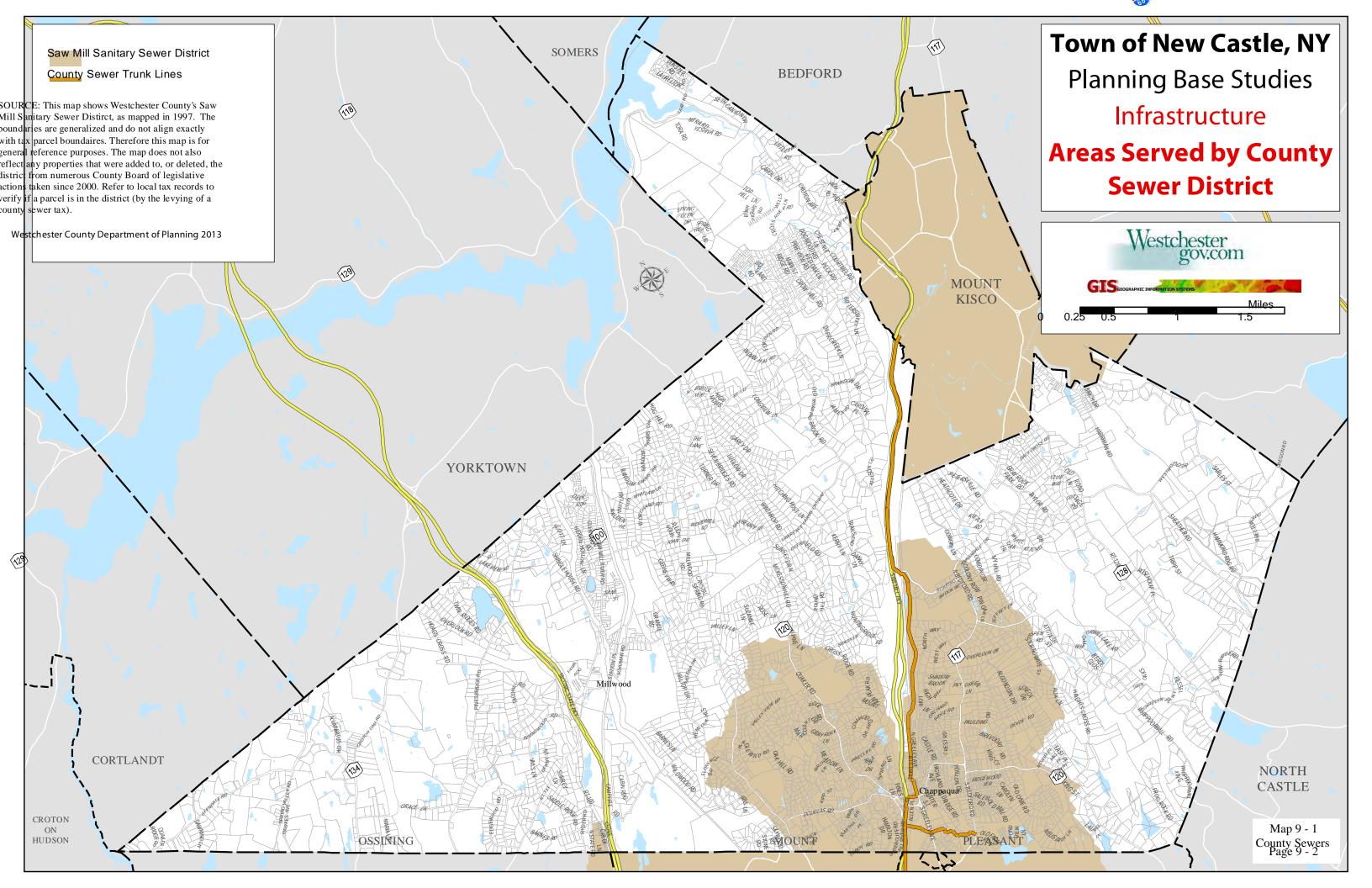
# 9.1 Water Supply

The majority of the Town of New Castle is located within the New Castle/Stanwood Consolidated Water District. Residents in this district receive water from the Catskill and Croton Aqueducts of the New York City Water Supply. This water is clarified by DAF (dissolved air floatation), treated with ozone and filtered at the Millwood Water Treatment Plant. When the plant went on-line in August 1993, it was the first of its kind in the United States. The plant provides water to approximately 16,800 residents in Westchester County (Source: 2012 New Castle/Stanwood Consolidated Water District Water Quality Report).

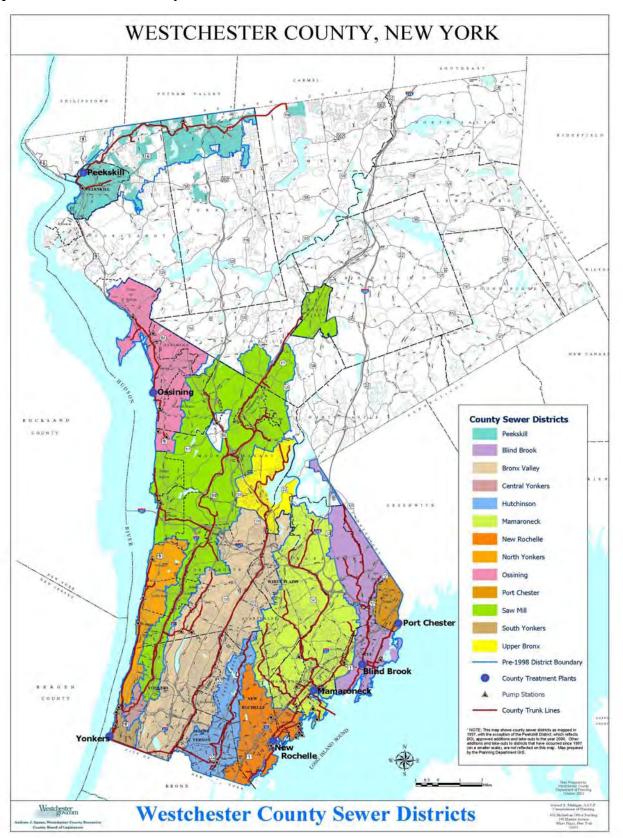
A small portion of the Town receives water from the North Castle Water District, Mount Kisco Water Department or the Ossining Water Department. The St. Mary's Rehabilitation Center for Children has a private water supply and Yeshiva Farm Settlement has its own water supplier. The rest of the Town receives water from

Figure 9-1. Millwood Water Treatment Plant





Map 9-2. Westchester County Sewer Districts



underground drinking water wells (Source: Westchester County Department of Planning). See map of Major Water Suppliers in Appendix 9-1.

#### 9.2 Sewer District

The southwestern portion of the Town is in the County's Saw Mill Valley Sewer District (See Maps 9-1 and 9-2). Sewage in this district is treated at the Yonkers Joint Wastewater Treatment Plant. Other areas of the Town are served by private wastewater treatment plants and septic systems (See Chapter 6 Natural Resources for more information about septic systems). Map 9-3 shows the sanitary waste disposal methods in the Town.

# New York City Watershed

The areas of New Castle that are within in the New York City Watershed are subject to heightened New York State MS4 Stormwater Regulations and heightened wastewater regulations under the New York City Water Supply Rules and Regulations (see Chapter 6 Natural Resources for more information on these regulations). In the 1998 Croton Watershed Diversion Study, four focus areas and three wastewater treatment plants in New Castle were identified as needing upgrades or diversion outside the New York City Watershed.

The Town requested that the County expand the Saw Mill River Sewer District to include three of the focus areas within the Croton Watershed: Riverwoods, Random Farm and the Yeshiva Farm Settlement. The Town also requested that the County expand the District to include an area outside of the watershed known as Chappaqua Crossing. The expansion was authorized by the Westchester Board of Legislators, by Act No. 196-2011.

Figure 9-2. Home Heating Fuel Use, Occupied Housing Units, 2006, Westchester County

	Number	Percentage
Utility gas	135,244	40.6%
Bottled, tank, or LP gas	4,997	1.5
Electricity	29,314	8.8
Fuel oil, kerosene, etc.	160,561	48.2
Coal or coke	0	0
All other fuels	1,999	0.6
No fuel used	999	0.3
Total Occupied housing units	333,114	100.0

Source: U.S. Census Bureau, American Community Survey. Prepared by the Westchester County Department of Planning.

#### **ConEd Business Incentives**

ConEd's economic development specialists work closely with state, County and local economic development organizations to provide assistance to companies seeking to start up, expand or relocate within Westchester. Known as "Team Westchester," representatives will meet with firms and provide information on how businesses can benefit from state and local economic development programs and will help individual companies in locating sites that meet their specific needs.

ConEd's Business Incentive Rate offers reductions of up to 25 percent on electricity. It is a 15-year program with 10 years at full benefits and an additional five years at a declining discount. The Business Incentive Rate is available to businesses that are receiving a comprehensive package of economic development incentives from state, County or local government agencies. This can include development financing, workforce skills training and transportation services. The rate also is available to businesses who occupy new or vacant buildings that are receiving substantial real property tax incentives of at least five years duration. ConEd's Northern Region (serving the Bronx and Westchester) is headquartered at 511 Theodore Fremd Avenue, Rye, NY 10580. For additional information call:(914) 925-6030 or visit ConEdison's web site

As of the date of this report, the Town is seeking the use a portion of the County's Water Quality Improvement Program Fund (East of Hudson Fund) to partially fund the construction of infrastructure to connect the new areas of the sewer district within the Croton watershed to the County's wastewater treatment facility in Yonkers. Negotiations between NYC DEP, the County and the Town are ongoing.

#### 9.3 Electric, Gas and Heating Fuels

Buildings in Westchester County are heated by a variety fuel sources including gas, fuel oil, electricity and propane. According to the Census Bureau, fuel oil is the most common form of heating fuel for homes in Westchester County (see Figure 9-2).

Consolidated Edison (ConEd) provides electric power and natural gas to households and businesses in New Castle. Most of New Castle properties use fuel oil, natural gas or electric as a fuel source. Fuel oil is generally delivered by trucks and the fuel is stored in above or below ground tanks. The Westchester County Health Department regulates in-ground petroleum tanks with capacities greater than 110 gallons. This includes most home heating oil tanks which are over 200 gallons in size.

#### **Climate Change Action Plan**

Through the Town's Climate Action Plan (2011), Town officials are working to promote renewable energy sources and energy efficiency. The Town has conducted energy audits of 80% of the mu-

Figure 9-3. Millwood Water Treatment Plant Solar Wall



Source: Brian Marschhauser, Chappaqua Daily Voice nicipal buildings. A solar wall (passive solar hot air) was installed at the Millwood Water Treatment Plant that has saved 3,000 gallons of heating oil per year. (See Appendix 9-2 for a copy of the Climate Action Plan).

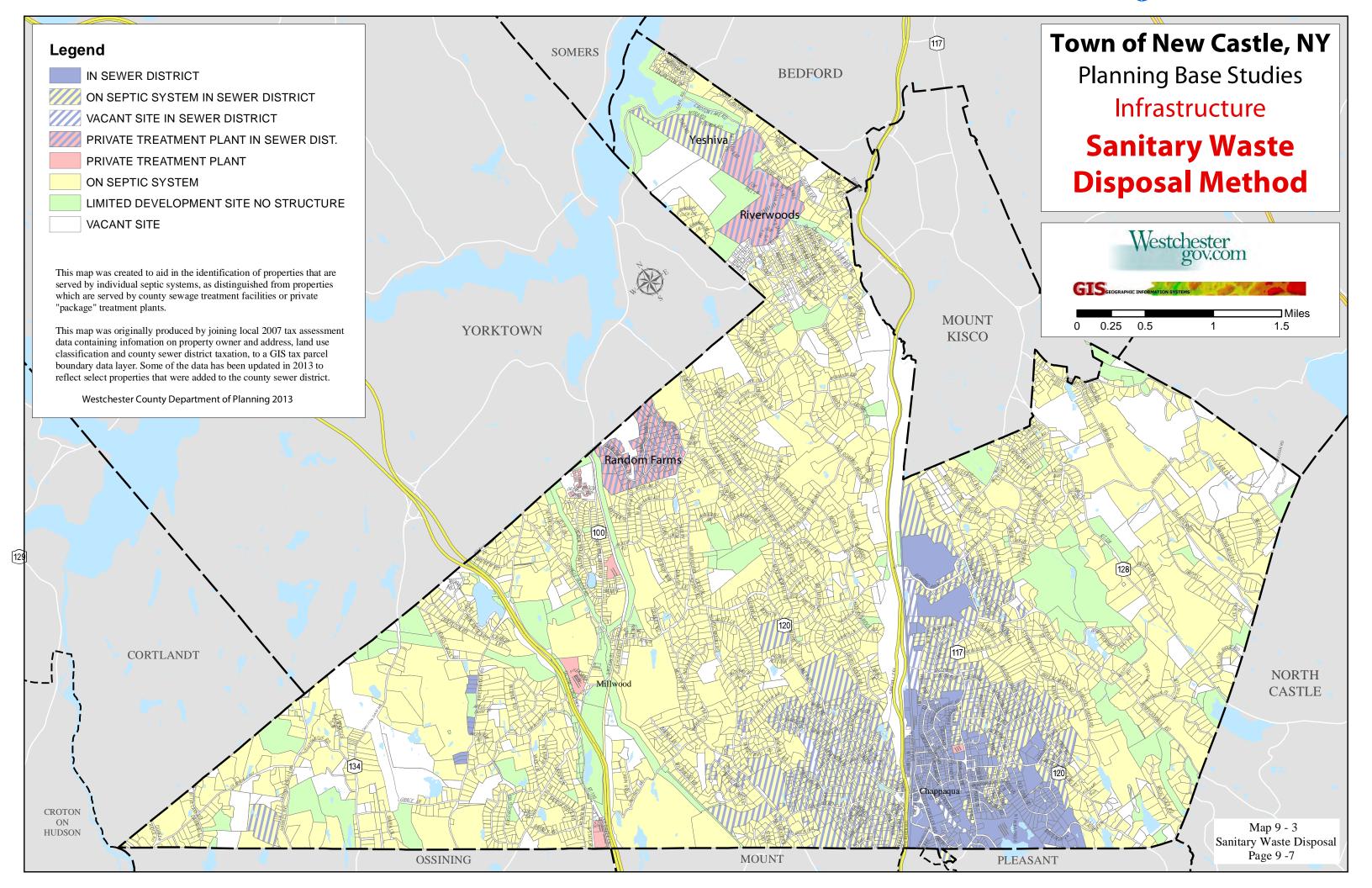
#### **Renewable Energy**

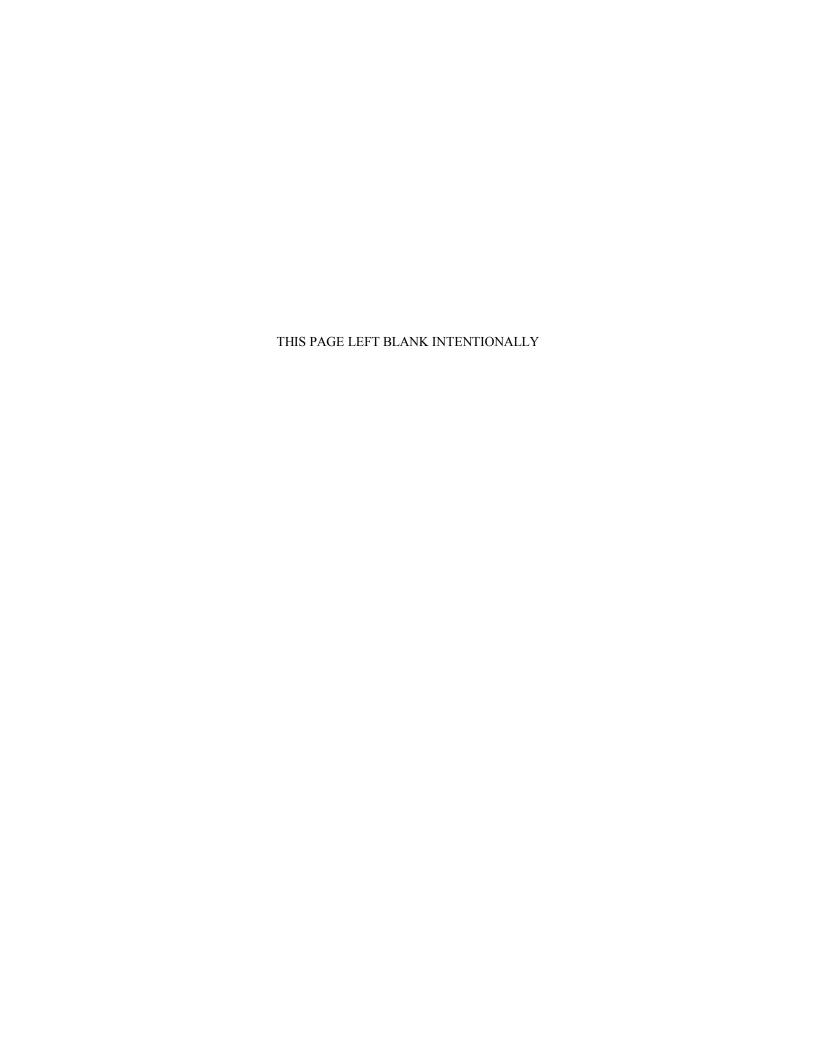
Several companies in the Town are energy efficient and use renewable energy sources. The Chappaqua Restaurant and Café and the Healthy Choice Apothecary installed a solar panel system in 2010 (Journal News article).

Several parcels in the Town may be good locations for new solar power installations. Approximately 975 acres of the Town are southern facing and may be good locations for such installations (See Appendix 9-3 for a map of south facing topography). Each site would need further analysis to determine the feasibility for solar energy installations. For more information about solar energy technologies, click here.

New York State Department of Environmental Conservation (NYS DEC) and New York State Energy Research and Development Authority (NYSERDA) promote the use of renewable energy sources throughout New York. To learn more about their business incentives for renewable energy, go to the:

- NYS DEC Renewable Energy webpage
- NYSERDA webpage





# **CHAPTER 10 COMMERCIAL DEVELOPMENT**

# **10.1 Existing Conditions**

Commercial development in New Castle is largely comprised of retail, office and light industrial uses. As discussed in Chapter 3, retail uses comprise approximately 46 acres, while office buildings, often in campus settings, comprise 118 acres. The former Reader's Digest property, proposed to be redeveloped as a mixed-use development known as Chappaqua Crossing, makes up 113.7 acres of the office acreage. Map 10-1 shows the locations of these commercial, retail and office land uses.

#### A. Retail Land Use

Commercial retail development in New Castle is largely focused in the hamlets of Chappaqua and Millwood. In Chappaqua, retail uses are mixed with office and residential uses and are mainly centered in two areas—the main "downtown" area along South Greeley Avenue and centered at its intersection with King Street, and in the smaller "upper" Chappaqua area, at the intersection of King Street and Bedford Road.

Retail businesses in Millwood are primarily located at the intersection of Saw Mill River Road and Station Place. A strip shopping center includes a supermarket, a post office and shops; a variety of other stores and restaurants are based around this area. A handful of retail uses are located at the intersection of Station Place and Shingle House Road.

As discussed below, several retail businesses are proposed to be developed at the former Reader's Digest headquarters site, in a proposal known as Chappaqua Crossing.

#### **B.** Office Land Use

The largest commercial property in New Castle is the 113.7 acre former Reader's Digest headquarters, accessed from Bedford Road (NYS Route 117), Roaring Brook Road and the Saw Mill River Parkway. Only partly utilized currently by multiple commercial tenants, the former office campus site was initially proposed for redevelopment in 2006 with the addition of senior housing at the site. The Town is currently considering zoning changes and a site plan for a mix of uses at the site, to be known as Chappaqua Crossing,

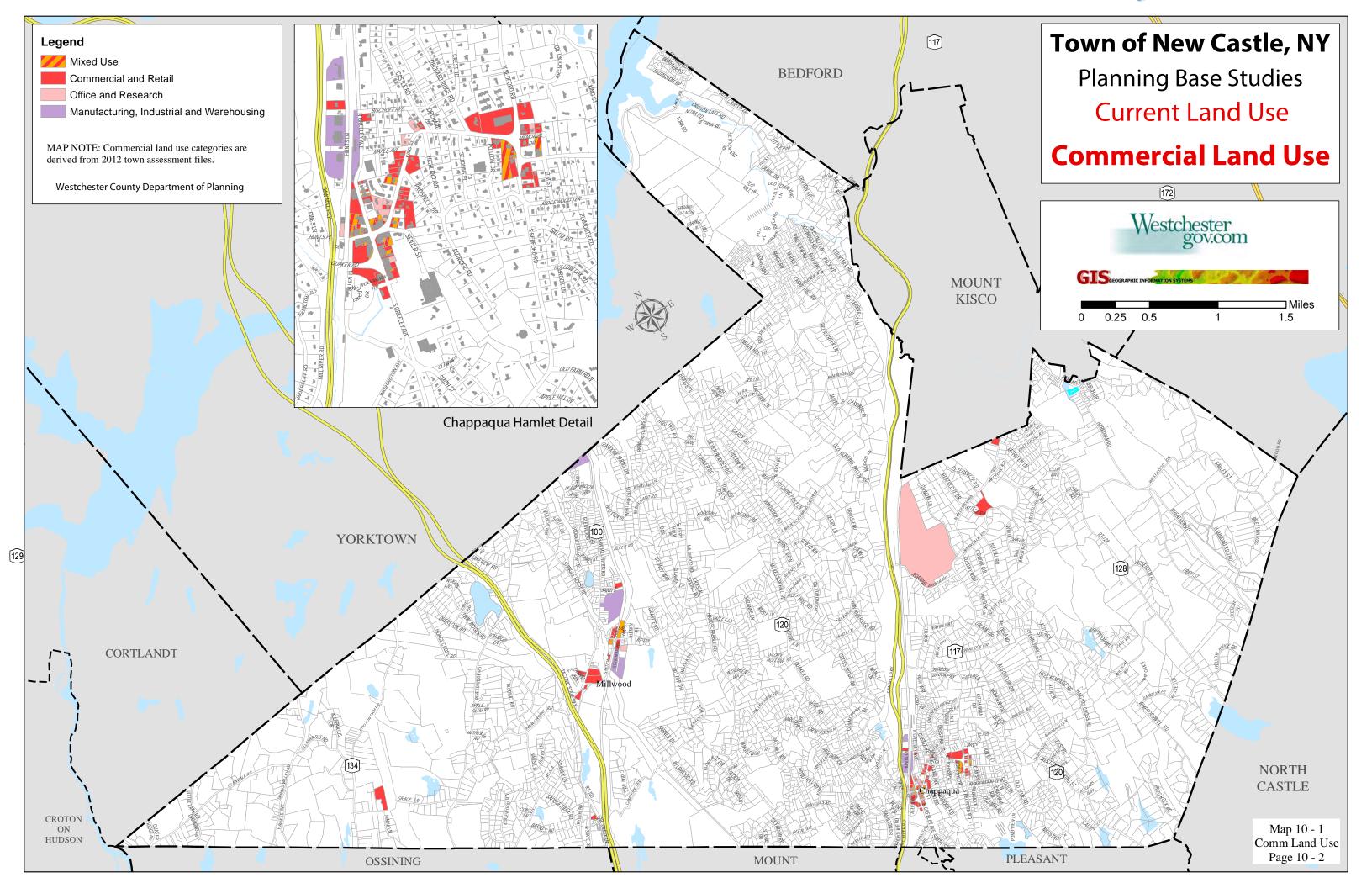
Figure 10-1. Retail Development in New Castle







Source: Westchester County Department of Planning



including multiple tenants in the existing office building, retail uses in a portion of the existing building and in several free-standing retail buildings and a mix of residential buildings, including apartments and townhouses. A portion of the apartments are proposed to be designated as fair and affordable units. The Town is considering the many potential impacts of the development, including traffic and infrastructure, surrounding residential areas, the Saw Mill River Parkway and other commercial areas elsewhere in the town. Several other smaller office uses are scattered in and around downtown Chappaqua.

#### C. Manufacturing, Industrial and Warehousing

There are 36 acres of land in New Castle categorized as Manufacturing, Industrial and Warehousing. Several of these properties are located north of downtown Chappaqua, along Hunts Lane. The Millwood Business Center, located north of downtown Millwood on Route 100, includes warehouse and office space on approximately 16 acres of land.

## D. Commercial Zoning

As mentioned in Chapter 12, Current Zoning, the Chappaqua Crossing property (the former Reader's Digest property) is the only property zoned for office uses in the Town. The remaining four business zoning districts, primarily concentrated in the Millwood and Chappaqua hamlet areas, have a variety of types and mix of uses.

The Town's two industrial zones permit a variety of light industrial, commercial and utility uses. The I-P Planned Industrial district and the I-G General Industrial District are also located in or near the Millwood and Chappaqua hamlet areas.

#### E. Major Employers

Much of the employment in New Castle involves white-collar jobs requiring at least some college education. According to U.S. Census statistics, in 2011 at least 57% of the workers in the town had attained a level of education above the high school level. The variety of jobs in New Castle include educational services (19.4%), health care (9%), professional, scientific and technical services (8.8%), administration and support (7.7%) and "other services" (17.2%). Retail jobs account for 7.2%.

Figure 10-3 includes a list of the Town's major employers as of 2013. The Town's school facilities include many of the top job locations. Retail jobs are clustered in the hamlets of Chappaqua and Millwood.

## Figure 10-2. Millwood Commercial Area









Source: Westchester County Department of Planning

Figure 10-3. Major Employer List for New Castle

Company Name	<b>Location Employee Size</b>
Chappaqua Central School District	761
Mother Hen's Helpers	200
Sunshine Childrens Home	150
Chappaqua Transportation Inc.	115
Town of New Castle	160
Fox Meadow Farm	101
Alfredo LDC	100
Beginning Years Early Childhood	90
Chappaqua Library	74
A & P Food Store	60
Crabtree's Kittle House	60
Hudson Hills Golf Course	60
Millwood Fire Company	60
United States Secret Service	60
Wagon Road Camp	60
American Pecco Corp.	50
D & J Concrete Corp.	50
Devereux Millwood Learning Center	50
World Cup Nursery School	50

Source: InfoUSA 2013

# F. Spatial Relationship of Jobs to Residency

2010 Census data and 2011 Longitudinal Employer-Household Dynamics (LEHD) have allowed for a more recent snapshot of employment by industry and where people live in relationship to their jobs. This data is included in tabular form in Appendix 10-1. According to LEHD data, there are 4,062 jobs within the town. There are 7,064 residents who have jobs, which represents a net outflow of jobs given that the number of jobs in the town is lower than the number of residents who have jobs. However, of the 7,064 residents with jobs, only 432 (6%) live and work within the town. The remaining 6,632 resident workers commute elsewhere. This also means that 3,630 workers come in to the town from elsewhere to work.

#### a. Out-Commutation

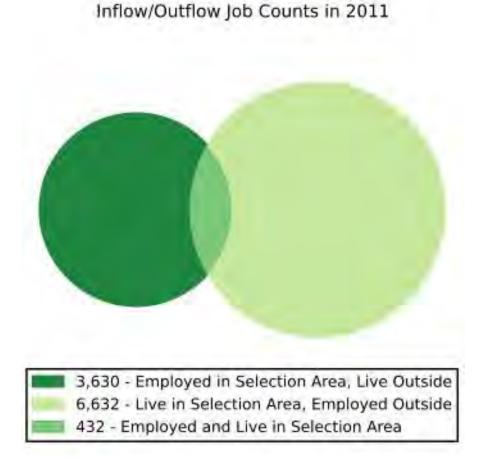
As mentioned above, of the 7,064 residents with jobs, only 432 (6%) live and work within the town. The rest likely commute to other places for work. The overwhelming majority of New Castle working residents commute to other places in Westchester (40.7%), Manhattan (20.6%) or Fairfield County (4.9%). All other New York Metro region counties receive approximately 3.2% or less of the New Castle resident work force.

Within Westchester, the out-commutation is spread among several county municipalities: White Plains (4%), Mount Kisco (3.5%), Yonkers (2%), Harrison (1.8%) and Pleasantville (1.1%).

#### b. In-Commutation

Of the 4,062 jobs within New Castle, only 432 (6%) are held by someone residing in the town as well. The rest must commute from

Figure 10-4. Inflow/Outflow Job Counts in 2011



Source: 2011 LEHD Data

other places for work. Just under half (48%) come from other places within Westchester County. The remainder come from communities scattered amongst the various metro-area counties in relatively low quantities: Putnam (9.7%), Dutchess (4.8%), Fairfield (4.7%), the Bronx (4.5%), Rockland (3.1%), Brooklyn (2.0%), Manhattan (1.8%), Queens (1.7%), Orange (1.5%) and Bergen (1%).

Within Westchester, the in-commutation is also spread among several county municipalities: Ossining (5.0%), Yonkers (4.2%), Mount Kisco (2.4%), Peekskill (2.1%), White Plains (1.9%), Jefferson Valley/Yorktown (1.6%), Croton-on-Hudson (1.3%), Pleasant-ville (1.2%) and Briarcliff Manor (1.2%).

#### 10.2 Potential Future Conditions

# A. Existing Commercial Zoning and Future Commercial Growth

Future commercial growth is limited by two factors: the fact that a majority of the town is not commercially zoned, and the fact that most of the town is already built-out. According to Westchester County land use data, only 1,372 acres (or 9%) of the town is vacant or undeveloped (see Chapter 3, The Use of Land). Only a small portion of this undeveloped area is commercially zoned.

The largest potential for commercial development is the currently proposed redevelopment of the 113.7 acre former Reader's Digest headquarters, known as Chappaqua Crossing. Approximately 120,000 square feet of additional retail space would be added to the site, along with 111 new residential units. Office space floor area, located in the existing office complex, would be set at 542,000 square feet.

# **B.** Potential Commercial Development Scenarios Through Zoning Changes

Given the built-out nature of the town, and the relatively low amount of vacant, commercially zoned land available, besides the Chappaqua Crossings proposal, the town will not likely experience a significant growth in commercial properties unless there is a desire to change zoning regulations.

#### C. Changes In Employment Levels

A combination of new development at the Chappaqua Crossing site and potential for more infill development in the hamlets of Chappaqua and Millwood could offer an opportunity for more retail, or mixed-use-with-retail, development, allowing for an expansion of some limited office and retail employment.

# CHAPTER 11 RESIDENTIAL DEVELOPMENT

# 11.1 Existing Residential Development

Residential uses make up the largest land use in the Town of New Castle. According to the 2010 U.S. Census, there are 6,037 housing units in the Town of New Castle. By far, single family residences make up most of the residential development in the Town. The U.S. Census' American Community Survey (2005-2009) estimates that 93% of units are contained in single-family homes, another 2% are in two-family homes, while 4.9% of the Town's housing units are in multifamily structures.

## 11.2 Residential Growth and Occupancy

The Town of New Castle maintained its agricultural character well into the early twentieth century. As the Saw Mill River Parkway was constructed near the town in 1934 it spurred additional development, with the largest increase in population after World War II. The growth and character of New Castle, Mt. Kisco and Chappaqua was influenced by their access to the railroad in the early- to mid-1800s and then by the expansion of vehicular parkways. The Town's oldest residential neighborhoods are generally located in the two hamlets of Chappaqua and Millwood and areas near the Town/Village of Mt. Kisco.

As with many communities in the New York City metropolitan region, periods of unprecedented suburban growth occurred following World War II. More than half of the Town's current residences were constructed prior to 1970, with over 25% of residences constructed before 1949. The 1990 Census recorded 5,565 housing units. The next two decades saw a much slower growth of residential development, with only 278 residences built between 1990 and 1999, and 194 built after the year 2000 according to U.S. Census Bureau American Community Survey data.

As shown in Figure 11-1, all of the recent residential development in the Town has been in the form of single-family homes. Between 1997 and 2012, 100% of the 234 new residential building permits reported to be issued in the Town were for single-family homes.









Source: Westchester County Department of Planning

Figure 11-1. Residential Building Permits 1997-2012 Building Permits by Units in Structure, Town of New Castle

Year	Single-family Multi-family		Total	
1997	23	0	23	
1998	26	0	26	
1999	21	0	21	
2000	24	0	24	
2001	21	0	21	
2002	23	0	23	
2003	19	0	19	
2004	10	0	10	
2005	16	0	16	
2006*	006* 17 0		17	
2007	8	0	8	
2008	1	0	1	
2009	6	0	6	
2010	9	0	9	
2011	4	0	4	
2012	6	0	6	
Totals	Totals 234 0		234	
Percentage	100%	0%	100%	

Source: U.S. Census Bureau Building Permits Survey

Note: No 2-family homes were reported to be constructed between 1997 and 2011. \*Note: Beginning in 2006, building permits for new structures only are counted. Prior to 2006, building permits for certain other work were also included.

According to the 2010 U.S. Census, of the total 6,037 housing units in the Town, 5,786 were occupied and 251 were vacant. The total residential homeowner vacancy rate was 0.8% and the total rental vacancy rate was 8.6%.

As of February 19, 2013, there were 119 single-family residences on the market for sale with prices ranging from \$139,222 to \$24,750,000. Unit sizes range from 744 to 20,000 square feet. There was one 2-family home on the market for \$575,000, and one

4-family home on the market for \$999,000. There were ten condominium units ranging in price from \$379,000 to \$949,000 (Source: Property Search Houlihan Lawrence, http://www.houlihanlawrence.com/PropertySearchDropDown.aspx).

The Town has seen very little residential development over the last several years. Figure 11-3 shows home sales within the Town of New Castle and Westchester County from 2003 through 2012.

According to the U.S. Census' American Community Survey (2007 -2011), approximately 25.6% of New Castle residents lived in the same residence since 2005, slightly lower than the county average of 32.4%. Surrounding municipalities exhibit similar levels of turnover, with the exception of Town/Village of Mount Kisco where approximately 39.2% lived in the same residence since 2005.

Figure 11-4 shows assessed property values in the Town of New Castle for 2011 and 2012. Assessed value of taxable and taxexempt properties are shown

Figure 11-3. Home Sales\*, Westchester County and Town of New Castle, 2003-2012

Year	Westchester County	<b>Town of New Castle</b>
2003	8,878	257
2004	9,641	307
2005	9,241	305
2006	8,135	224
2007	7,643	261
2008	5,430	209
2009	4,207	143
2010	5,141	168
2011	4,956	172
2012	5,519	169

Source: New York State Office of Real Property Services

Figure 11-2. 4-Family Home for sale in Millwood



Source: Westchester County Department of Planning

<sup>\*</sup>Data includes sales of all residential houses and condominiums.

Year Assessed Value, **Taxable** 2011 \$337,056,333 2012 \$337,158,737 Year Assessed Value, Tax Exempt 2011 \$30,577,050 2012 \$30,577,050 Year Assessed Value, **TOTAL** 2011 \$367,633,383 2012 \$367,735,787

Figure 11-4. Assessed Value, Town of New Castle

Source: Town of New Castle Assessor

## 11.3 Existing Neighborhoods

While there is no "official" map of "neighborhoods" within the Town of New Castle, a map of locally known names of various neighborhoods and residential and commercial developments has been assembled by Town officials. The Neighborhoods, Subdivisions and Zip Code Areas map, shown in Map 11-1, shows the approximate locations of many of the Town's neighborhoods and the Town's postal Zip Code boundaries. Neighborhood boundaries are often shown as approximate since some boundaries may be easy to delineate, others not so easily. Also, some neighborhoods are not named – this does not mean that these areas do not have names or identities. This map can and should be updated and used for other historical purposes. Such place names are helpful in a comprehensive plan, working with neighborhood associations, realtors, visitors and potential investors, to name a few.

Figure 11-5. Two-Family Housing Unit in New Castle



Source: Westchester County Department of Planning

#### 11.4 Types of Housing

#### A. Single-Family Housing

As mentioned above, single-family residential is the most common land use in the Town. There are four single-family residential zones in the Town. The single-family residential zones are primarily defined by the required minimum lot size of the property and range from a minimum size of one quarter acre up to two acre minimum

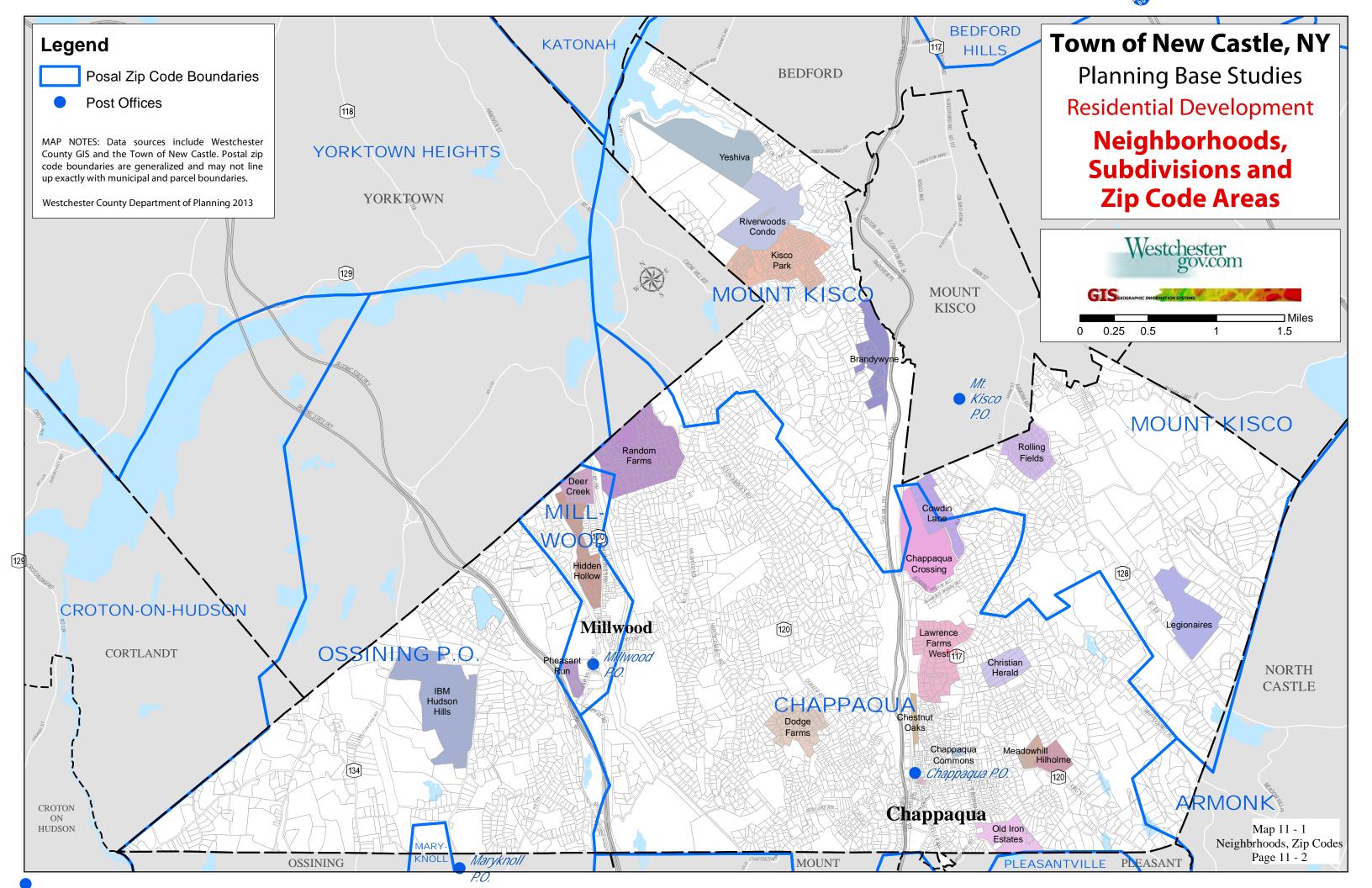


Figure 11-6. Single Family Housing in New Castle



Center hall and side hall colonials (pre and post 1930's)



Bungalow (1900-30's)



Craftsman (1920-40's)



Cape Cod (mid 1940-60's)



Ranch and raised ranches (1950's-early 1970's)



Split level (1960-70's)



Contemporary (early 1980's)



Colonial replications (1980-90's)



"McMansions" of 4,500 – 10,000 square feet (late 1990's - 2013)

Source: Westchester County Department of Planning

Figure 11-7. Multi-family housing, Station Place in Millwood



lot size. Approximately 7,727 acres, or 51% of the Town land area is used as single-family residential.

The Town of New Castle allows accessory apartments within single family homes. The Town code details how and where these apartments are permitted on single family properties. The regulations help encourage the legal creation of housing units for a variety of households in need of smaller dwellings. Requirements on size, location, utilities, parking and review process are detailed in the code. There are currently approximately 150 permitted accessory apartments within the Town.

#### B. Multi-Family Housing – Two Units and More

The Town's three multi-family districts require a minimum lot size of five acres (for the MFPD Multi-Family Planned Development District) or one acre (for the MFRC Multifamily Residence District—Millwood and MFRC—Chappaqua District). While most of the sites currently zoned for Multi-Family uses are developed with multi-family uses, two parcels zoned as MFPD Multi-Family Planned Development District are currently vacant; one site is north of the hamlet of Millwood and another is a portion of the Chappaqua Crossing site (former Reader's Digest site).

#### **Housing Resources**

For those residents within or outside of Westchester County looking for the most current opportunities for affordable housing, the **Homeseeker** website is a helpful and informative place to start. Website visitors can learn more about available affordable housing and the communities where the housing is located and news on housing developments as they become available: homes.westchestergov.com/ homeseeker-opportunities.

Another helpful place to start is <u>A Roof Over Your Head</u>, a comprehensive guide to housing programs and resources in Westchester County.



Figure 11-8. Multi-Family Housing in New Castle

Figure 11-9. Town Houses in New Castle

Name	Units
Old Farm Lake, Old Farm Road, Chappaqua	177
Chestnut Oaks, North Greeley Avenue, Chappaqua	88
Pheasant Run, Millwood	84
Chappaqua Commons, North Bedford Rd. Route 117), Millwood	55
Ledgewood Commons, Millwood	40
King Street Associates, Chappaqua	8
Riverwoods, Croton Avenue	148
149 King Street, Chappaqua	20
Stone Creek, Millwood	26
Granites Crossing, Station Place, Millwood	9
TOTAL	655

Source: Town of New Castle

# C. Housing by Tenure

Residential properties are generally either owned by fee-simple ownership (the most traditional and basic form of ownership and often the most common form of ownership of single-family residences), through condominium ownership (where an owner owns a specific piece of a building or property) or through a cooperative (where a group of individuals own a property in common). All of these forms of ownership allow the rental of all or parts of the property. The two main forms of housing by tenure, therefore, are either ownership housing (fee simple, condominium or cooperative) or rental housing. As discussed below, much of the Town of New Castle's residential developments include single-family, owner-occupied homes. Homes may also be rented out by the owners.

# 11.5 Ownership

#### A. Condominium and Cooperative Housing

There are 655 condominium units in the Town located in several separate town house style developments. There are no cooperative units in the Town of New Castle. Figure 11-9 lists the townhouse developments within the Town.

Figure 11-10. Group Homes or Institutional Housing

Location	Type of Housing
39 Mill River Road, Chappaqua	3-4 units
	(persons)
Arnold House, 4 St. John's Place, Chappaqua	13 units
Chappaqua Commons, 150 North Bedford Road (Route 117), Chappaqua	12 units*
St. Jude's Rehabilitation, 45 Shingle House Road, Millwood	Boarding
St. Mary's Rehabilitation, 15 Spring Valley Road, Ossining	Boarding
State of New York, 90 Saw Mill River Road, Millwood	Boarding
Children's Aid Society, 431 Quaker Street, Chappaqua	Boarding
Maryknoll Sisters, 10 Pines Bridge Road, Ossining	Boarding/ Hospital
Catholic Foreign Missions, 15 Pines Bridge Road, Ossining	Boarding
Sisters of Charity, 45 Bischoff Avenue, Chappaqua	Boarding

<sup>\*</sup>Within 55 unit condominium town house development.

Source: Town of New Castle

#### **B.** Rental Housing

Rental housing units are found in all types of residential units; single-family, planned unit developments, two-family, three-family and multi-family types of structures. There were 328 rental units in the town, with a median gross rent of \$1,448 for all types of rental units according to the Census' American Community Survey (2007-2011).

New Castle does not have any type of rent stabilization or rent control ordinances that would affect how much rent one can expect to pay for an initial lease and subsequent renewals. Rents are determined by supply and demand.

# 11.6 Other Categories and Types of Housing

#### A. Group Homes or Institutional Housing

According to the 2010 Census, there are 188 total group quarters homes located within the Town. Of these, 38 are nursing home residences and 119 are college/university student housing units. The

## **Definition of Fair and Affordable Housing**

According to the Settlement's Model Ordinance Provisions, affordable housing is defined as follows:

Affordable Affirmatively Furthering Fair Housing (AFFH) Unit: A for-purchase housing unit that is affordable to a household whose income does not exceed 80% of the area median income (AMI) for Westchester as defined annually by the U.S. Department of Housing and Urban Development (HUD) and for which the annual housing cost of a unit including common charges, principal, interest, taxes and insurance (PITI) does not exceed 33% of 80% AMI, adjusted for family size and that is marketed in accordance with the Westchester County Fair & Affordable Housing Affirmative Marketing Plan.

A rental unit that is affordable to a household whose income does not exceed 60% AMI and for which the annual housing cost of the unit, defined as rent plus any tenant paid utilities, does not exceed 30% of 60% AMI adjusted for family size and that is marketed in accordance with the Westchester County Fair & Affordable Housing Affirmative Marketing Plan.

remaining 31 units are in "other" types of group homes, rooming, lodging or boarding houses. Group homes can include those for mentally and physically disabled or other types of transitional housing. Rooming, lodging or boarding houses includes any building containing up to six rooms that are used, rented or hired out to be occupied or that are occupied for sleeping purposes for compensation. Figure 11-10 lists group homes and institutional housing in the Town.

Figure 11-11. 39 Mill River Road

Source: Westchester County Department of Planning



#### **B. Senior Citizen Housing**

Several residential developments in the Town are either restricted for senior citizens or include a portion of units set-aside for senior citizens. Arnold House, a 13-unit independent living development for senior citizens, is located at 4 St. John's Place in Chappaqua.

## 11.7 Local and Regional Housing Needs

A local comprehensive plan should consider and analyze local and regional housing needs. In turn, zoning and residential development in the Town of New Castle is subject to approval by its local legislative body. Much of the data and information compiled in these Planning Base Studies are surely to be major components of an analysis of housing needs. Further, the recent Westchester Housing Settlement (Stipulation and Order of Settlement and Dismissal in United States ex rel Anti-Discrimination Center of Metro New York, Inc. v. Westchester County, New York) provides substantial background and material to further such an analysis. As part of the Settlement, 750 units of affordable housing are to be developed in certain areas of 31 municipalities in Westchester County, including the Town of New Castle. New Castle is a member of the Westchester Urban County Consortium and may benefit from sources of funds provided to Westchester County by the U.S. Department of Housing and Urban Development for housing related needs. Westchester County is currently working with municipalities, developers and non-profits to satisfy this and other requirements of the Settlement. For more information, go to the County's Housing Settlement website, click here.

In light of the Settlement, on August 9, 2011, the Town of New Castle adopted new zoning ordinance provisions to ensure the provision and promotion of fair and affordable housing development. These regulations were developed in light of the Model Ordinance Provisions developed by Westchester County as part of its Fair and Affordable Housing Implementation Plan.

The Town's fair and affordable housing regulations include a definition of Affordable Affirmatively Furthering Fair Housing (AFFH) Units, requirements for the set aside of AFFH units in new residential development, incentives for increasing the number of units through increases in permitted density. The regulations also include various requirements for occupancy and unit size standards, rent and sales prices, time period of affordability, resale and lease renewal, and monitoring of the units. An expedited review process to help developments with AFFH units proceed more quickly and efficiently through the Town's review process is also included.

**Figure 11-12. Stone Creek** Source: Westchester County Department of Planning



#### 11.8 Affordable Housing Developments

According to Westchester County's definition of affordable housing, there are currently 68 units of affordable housing located in three affordable housing developments in the Town of New Castle. A proposal to develop 28 additional units of affordable housing in the downtown Chappaqua hamlet is currently being considered by the Town. Known as Chappaqua Station, the multi-family building would be on a site located at the Quaker Road (NYS Route 120) bridge, near the Saw Mill River Parkway, Hunts Place and the Metro-North Harlem Line. The current proposal to redevelop the former Reader's Digest campus, known as Chappaqua Crossing, includes a mix of office, retail and residential. Of the 111 housing units most recently before the Town, 20 units of affordable housing units are proposed.

The following are existing affordable housing developments in the Town:

- Stone Creek a 52-unit affordable development of 26 ownership townhomes each with a one-bedroom rental unit. Located off of North State Road, Westchester County used Housing Implementation Funds (HIF) to assist in infrastructure improvements at the site. The development was completed in 1996.
- 39 Mill River Road three affordable Single Occupancy Rental units within a renovated three bedroom single family home. Owned and operated by A-HOME. The rehabilitation was funded with Community Development Block Grant program and Lead Safe Westchester funds and was completed in 2006.

#### Programs to Assist in the Development of Fair and Affordable Housing

Westchester County administers several funding sources - federal, state and county-sourced funds - to assist in the development of fair and affordable housing. The county administers two programs which utilize county funds:

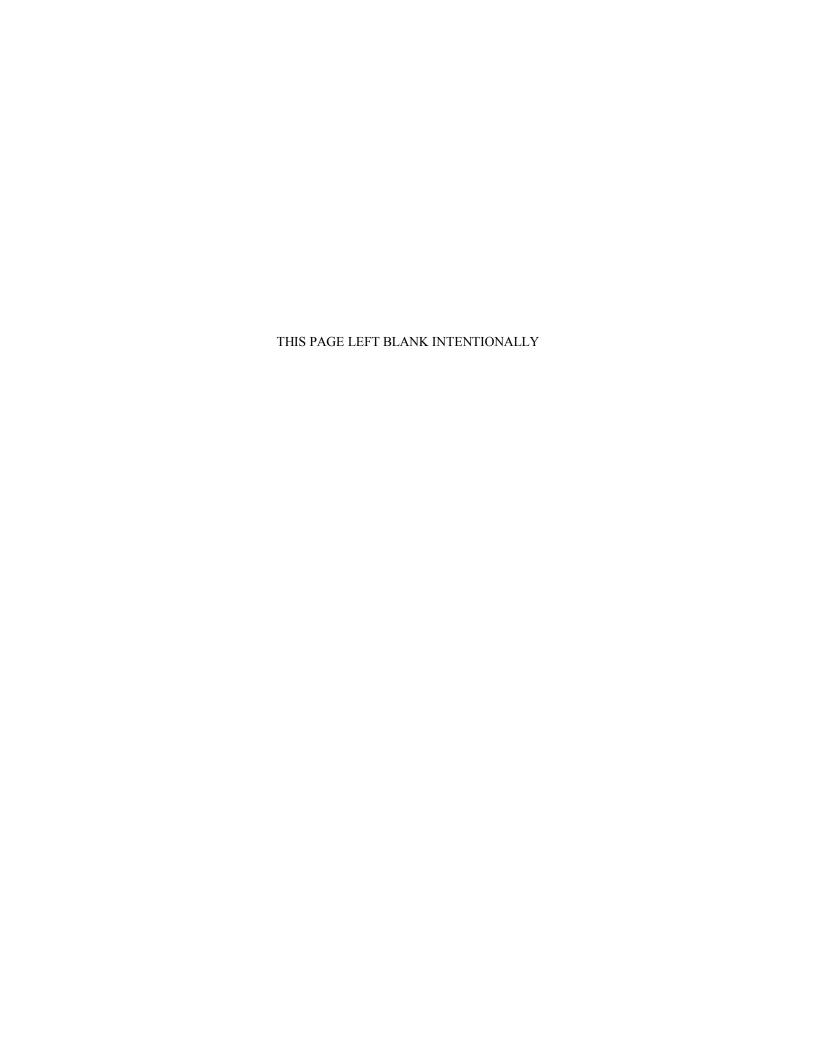
- · New Homes Land Acquisition (NHLA) program assists in the acquisition of property used to develop new construction, rehabilitation and adaptive reuse for rental and homeownership units.
- · Housing Implementation Fund (HIF) used to assist in the construction of municipally-owned infrastructure improvements that support affordable housing.

All of these of these programs require that residential units adhere to the County's definition of affordable housing and have deed restrictions limiting the sale or rental of units for a period of at least 50 years. New York State also administers programs to assist in the development of affordable housing. For more information on funding sources, go to the **County Housing Programs** website.

 Arnold House — this renovated former convent and senior residence now houses 13 older adults. Located on St. John's Place and operated by the non-profit A-HOME, the residence was provided Section 8 Moderate Rehabilitation funding from Westchester County for rental assistance of the units. Other funding was provided through New York State Department of Homes and Community Renewal. The units were completed and occupied in 1993.

**Figure 11-13. Arnold House**Source: Westchester County Department of Planning





# **CHAPTER 12 CURRENT ZONING**

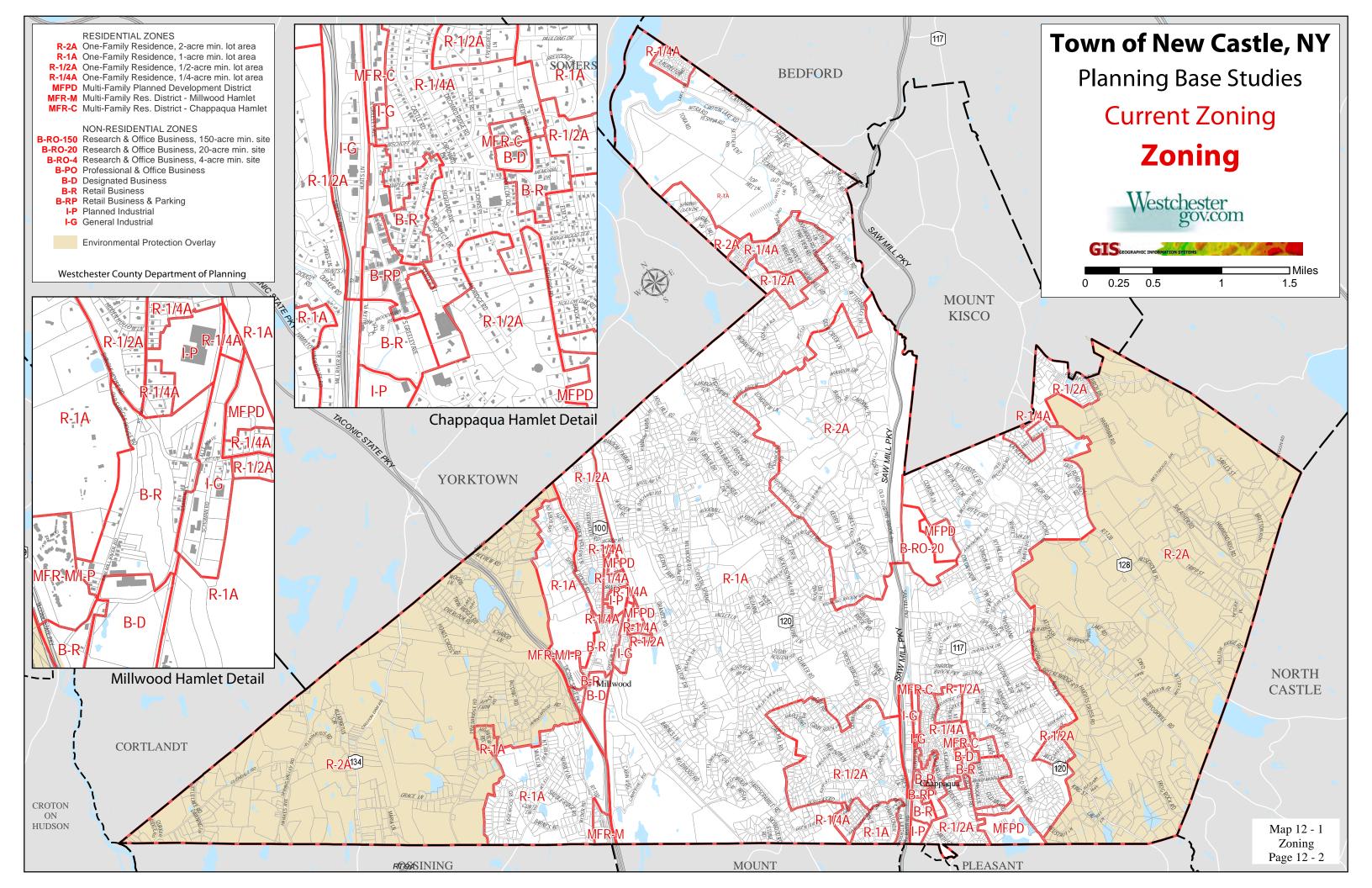
# 12.1 Zoning Map and Official Map

The Town of New Castle Zoning Map (see Appendix 12-1) was prepared by the Westchester County Department of Planning and adopted by the Town Board. Map 12-1, Zoning, on page 12-2 provides zoning district boundaries for general reference purposes and is based on the adopted Zoning Map. The Town of New Castle Zoning Ordinance can be found at the <u>General Code E-code library</u>.

The Town of New Castle Official Map includes the listing and mapping of all public and private streets, with widths of rights-of-way, as well as highways and parks within the Town. The Town's Official Map is adopted by the Town Board and is filed with the Town Clerk.

# Town of New Castle Zoning Ordinance § 60-100 Purposes

- A. This chapter has been prepared and enacted for the purpose of promoting the health, safety, morals and the general welfare of the Town of New Castle and is in accordance with a carefully studied and considered Comprehensive Plan intended to guide the future growth and development of the Town of New Castle in such a way as to encourage the most beneficial and appropriate relationships among land uses and, more particularly, to accomplish the following specific purposes:
  - (1) To lessen congestion in the streets.
  - (2) To secure safety from fire, flood, panic and other dangers.
  - (3) To promote health and the general welfare.
  - (4) To provide adequate light and air.
  - (5) To provide for the use of solar energy.
  - (6) To prevent the overcrowding of land.
  - (7) To avoid undue concentration of population.
  - (8) To facilitate the adequate provision of transportation, water, sewerage, schools, parks and other public requirements.
- B. In preparing and enacting this chapter, reasonable consideration has been given to the character of each district and its peculiar suitability for particular uses, with a view to conserving the value of buildings and encouraging the most appropriate use of land throughout the Town of New Castle.



## **12.2 Zoning Districts**

The Town's zoning regulations divide the Town into 16 different zoning districts. Each of the districts has specific permitted uses and building bulk, height and coverage requirements and minimum dimensional requirements for lot areas and yards or setbacks. Figure 12-1 shows all of the Town's districts and acreage within those districts. As mentioned below, three districts are not mapped within the town so therefore have no acreage. There are also two additional Overlay Districts.

Figure 12-1. Table of Zoning Districts and Acreage

Residential Zoning Districts	Acreage
R-2A: One-Family Residence, 2-acre min. lot area	6,474
R-1A; One-Family Residence, 1-acre min. lot area	6,720
R-1/2A; One-Family Residence, 1/2-acre min. lot area	902
R-1/4A; One-Family Residence, 1/4-acre min. lot area	392
MFPD; Multi-Family Planned Development District	109
MFR-M; Multi-Family Residential District - Millwood Hamlet	23
MFR-M/IP; Multi-Family Residential District - Millwood Hamlet/Planned Industrial*	26
MFR-C; Multi-Family Res. District - Chappaqua Hamlet	16
Non-Residential Zoning Districts	
B-RO-150; Research & Office Business, 150-acre min. site	0
B-RO-20; Research & Office Business, 20-acre min. site	71
B-RO-4; Research & Office Business, 4-acre min. site	0
B-PO; Professional & Office Business	0
B-D; Designated Business	54
B-R; Retail Business	101
B-RP; Retail Business & Parking	13
I-P; Planned Industrial	29
I-G; General Industrial	68
Millwood Center Area Design Plan Overlay District	Overlay District
Environmental Protection Overlay District	Overlay District

<sup>\*</sup>Dual District – areas zoned as two districts simultaneously. Source: Westchester County Department of Planning

# **The Zoning Ordinance**

Zoning encompasses the division of a municipality into districts or zones and the regulation of the use of land and the size of buildings within each of those districts.

The zoning ordinance is generally composed of three elements:

- The text, which describes the intent of the ordinance, defines the various zones and the uses allowed therein, sets forth administrative procedures and establishes definitions.
- The zoning standards, which include building bulk, height and coverage requirements and minimum dimensional requirements for lot areas and yards or setbacks for each zone.
- The zoning map, which shows the boundaries of each of the zones.

Together, these three parts form the document that controls the use and intensity of development of privately held property within a municipality.

The Zoning Ordinance represents the land use policy of the municipality's legislative body at a given instant in time. It differs from the land use plan map found in the comprehensive plan, which depicts land policy recommendations. A comparison of the zoning map and land use plan would indicate the potential for change.

Source: <u>Municipal Planning Primer Series</u>, The Zoning Board of Appeals, Westchester County Department of Planning, 2008.

# **Tools of Planning**

A variety of tools and regulations impact local decisions on land use:

- The Comprehensive Plan
- The Zoning Ordinance
- Land Subdivision Regulations
- Cluster Subdivisions
- Site Plan Approval
- Special Use Permits
- The Official Map
- Capital Improvements Program
- Hudson River Valley Greenway and the Compact Plan

For more information, go to: Municipal Planning Primer Series, The Planning Board

Source: Westchester County Department of Planning, 2008.

Of the seven residential districts, there are four districts allowing only single-family residences as the primary permitted use. These districts have minimum lot sizes ranging from two acres to one quarter acre minimum. The Town's three multifamily districts require a minimum lot size of five acres (for the MFPD Multi-Family Planned Development District) or one acre (for the MFRC Multi-family Residence District—Millwood and MFRC—Chappaqua District).

Of the seven business districts in the Town, three are Research and Office Business Districts having a range of minimum lot sizes from 150 to four acres. Only one parcel, however, is zoned for Office Business—the Chappaqua Crossing property (the former Reader's Digest property) is zoned B-RO-20. Currently no properties are mapped as B-RO-150 (150-acre minimum site), B-RO-4 (four acre minimum site) and B-PO Professional & Office Business. The remaining three business districts are mapped and have a variety of types and mix of uses, as well as bulk, height and coverage requirements. These districts are primarily concentrated in the Millwood and Chappaqua hamlet areas.

The Town's two industrial zones permit a variety of light industrial, commercial and utility uses. The I-P Planned Industrial district re-

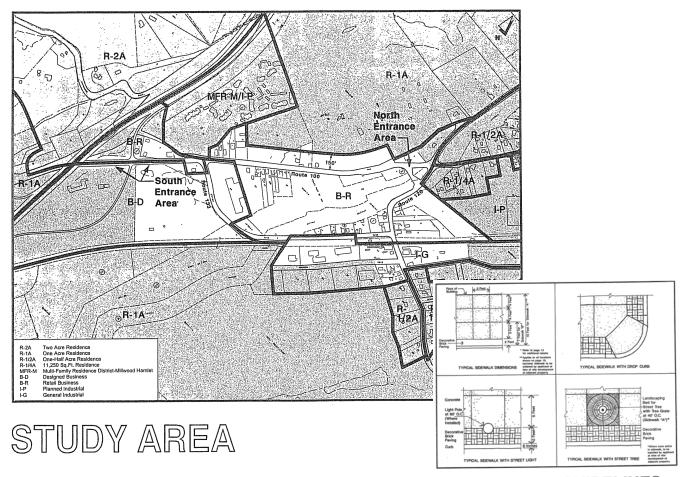
quires a minimum of 15 acres or 7.5 acres if the property abuts a railroad or limited access highway right-of-way. The I-G General Industrial District requires only a minimum of 7,500 square feet. Properties in these districts are also located in or near the Millwood and Chappaqua hamlet areas.

## A. Overlay Districts

The Zoning Ordinance and Map include two overlay districts. These districts include an additional set of requirements or limitations. While the underlying zoning districts' requirements remain in effect, the overlay district's requirements supersede the existing zoning districts' requirements when more restrictive.

• Millwood Center Area Design Plan Overlay District Supplementary design guidelines for the Millwood Hamlet are intended to enhance the visual character and develop a coordinated, unified appearance of the business area. New construction and cerNote: The summary of the Town's Zoning Ordinance provisions is provided as background – please refer directly to the Zoning Ordinance and Map for all legal zoning requirements of the Town of New Castle.

Figure 12-2. Millwood Center Design Plan Overlay District Study Area



Source: Millwood Center Area Design Plan, 1999

STREETSCAPE GUIDELINES

## **Planning and Zoning Referrals**

Under State and County law, municipalities are required to refer certain planning and zoning actions to the Westchester County Planning Board for review. The Planning Board, with the assistance of Planning Department staff, then conducts a review and prepares a recommendation letter response to the municipality. Actions referred to the County Planning Board can range from minor zoning variances for single-family houses to site plans for major shopping centers to new zoning codes and comprehensive plans. Referrals are assessed within the context of *Westchester 2025*, the County Planning Board's adopted land use policies, and for intermunicipal and countywide concerns including potential impacts on state and county roads, parks and facilities. More information on the referral process and a list of the local actions that require County Planning Board notification under the provisions of Section 239 L, M and N of the New York State General Municipal Law and Section 277.61 of the County Administrative Code can be found at: <a href="http://planning.westchestergov.com/planning-zoning-referrals">http://planning.westchestergov.com/planning-zoning-referrals</a>

tain work on existing buildings are to be reviewed in light of the Millwood Center Area Design Plan adopted in 1993 and amended in 1999. The boundary of the district is also delineated in the Plan. Enhanced review and approval by the Town's Planning Board and Architectural Review Board is built into the district's requirements

From Millwood Center Area Design Plan, 1999

#### **Environmental Protection Overlay District**

To provide an extra layer of protection for the Town's many environmentally sensitive lands that have wetlands, steep slopes and poor drainage, the Environmental Protection Overlay District has been mapped in two areas; one in the far western portion of the Town and one in the far eastern portion of the Town. Areas in the District are shown on Map 12-1. Wetlands and areas within a 150 foot wetland buffer are protected from development through the regulations. The District's regulations protect these areas through such methods as increasing the size of protected wetland buffers, regulating smaller wetlands, requiring further analysis of wetland areas, restricting the number of wetland crossings and requiring a special mitigation replacement ratio for wetland and wetland buffer impacts. Wetlands outside of the District are regulated by the Town's Wetlands Ordinance, discussed in Chapter 6 Natural Resources.

# B. Other Notable Requirements In the Zoning Ordinance and Town Code

## **Regulations Within the Zoning Ordinance:**

- Affordable AFFH Model Ordinance Regulatory Provisions Adopted in 2011, these provisions detail the requirements for
  affordable housing units within the Town that are to be considered "affordable affirmatively furthering fair housing" units by
  Westchester County. These requirements are discussed further
  in Chapter 11—Residential Development. See Section 60-220
  of the Town Code.
- **Sign Ordinance** A detailed sign ordinance is included to promote and ensure safety, visual quality, ease of communications and fair review and compliance for permanent and temporary signs within the Town. See Section 60-410.D of the Town Code.
- Multifamily District Regulations To encourage and guide the development of multifamily housing, these requirements detail minimum density, requirements for utilities and parking and special review by the Town's boards. See Section 60-410.H of the Town Code.
- Accessory Apartment Regulations The regulations detail how and where these apartments are permitted in single family homes to help encourage the legal creation of housing units for a variety of households in need of smaller dwellings. Requirements on size, location, utilities, parking and review process are included. See Section 60-410.H.5 of the Town Code.
- Single Family Home Size Restrictions Several sets of requirements are intended to limit the potential for outsized homes in single family residential areas. Limits on maximum building coverage and residential floor area for various sized lots and limits on "projections" into yards and above roof levels are described. See Section 60-420. A through C of the Town Code.
- Off-Street Parking and Loading A schedule of off-street parking requirements lists various types of uses, sizes of parking spaces, location of parking and loading area requirements in this section. See Section 60-410.F of the Town Code.

- Parkland or Parkland Fees for Multi-family Development This section details the required set aside of recreation areas
  within multi-family development and how fees can be collected
  by the Town in lieu of the provision of the recreation area
  where the Town determines that such recreational area cannot
  adequately be provided at the development site. See Section 60420.G of the Town Code.
- Conservation Development To encourage the protection of environmental features in residential development throughout the Town, these regulations give the Town guidelines and procedures to recommend or require more concentrated development on a site that results in more protected and undeveloped areas on a site as compared with conventional subdivision development. See Section 60-420.H of the Town Code.

# Regulations in the Town Code Related to Land Use, but Outside the Zoning Ordinance:

- **Green Building Standards** To encourage a more sustainable community by incorporating green building measures into design, construction and maintenance, these regulations apply to building permits for new construction of municipal buildings greater than 5,000 square feet and new commercial and high-rise multi-family residential buildings greater than 5,000 square feet. See Chapter 74 of the Town Code.
- **Historic Preservation** To protect historic properties, these regulations establish the procedures to allow the Landmarks Advisory Committee to designate New Castle landmarks with the concurrence of the owners. Additions and alterations to the buildings are reviewed. Landmarks shall be exempt from taxation to the extent of any increase in value attributable to the alteration or rehabilitation of the landmark pursuant to a schedule in the regulations. See Chapter 76 of the Town Code.
- Separate Sewage Disposal Systems and On-Site Wastewater Systems To ensure that separate sewage disposal systems operate and be maintained properly, these regulations establish inspection, enforcement and penalty requirements for these systems. For more information, see Chapter 6 Natural Resources. Within the Town Code, see Chapter 102A.
- Steep Slope Protection To protect areas in the Town with steep slopes and prevent negative impacts from improper development and land use on these and adjacent areas, these regula-

# **Zoning and the Comprehensive Plan**

The comprehensive plan differs from the municipality's zoning ordinance in that its focus is on long-range goals and development objectives. Zoning, on the other hand, is a legal instrument, which regulates the current use of land. The zoning ordinance reflects present municipal land use policies while the comprehensive plan sets forth the future direction of a municipality's land use policies as they are expected to evolve. A zoning ordinance should be based on the fundamentals put forth in the comprehensive plan, as it regulates the use of specific parcels. Through it a municipality may preserve the desirable features of existing development and set standards for future development. Decisions on amendments to the zoning ordinance by the legislative body, as well as the actions of the zoning board on such things as variances and special permits, should take into account the policies of the comprehensive plan in order to maintain harmony between planning and zoning.

Source: <u>Municipal Planning Primer Series</u>, The Zoning Board of Appeals, Westchester County Department of Planning, 2008.

tions establish procedures for steep slope permits for work in areas defined as having steep slopes (over 15% gradient). For more information, see Chapter 6 Natural Resources. Within the Town Code, see Chapter 108.

- Stormwater Management and Erosion and Sediment Control To establish minimum stormwater management requirements and controls, these regulations require that land development activities meet New York State Department of Environmental Conservation's State Pollutant Discharge Elimination System (SPDES) requirements. For more information, see Chapter 6 Natural Resources. Within the Town Code, see Chapter 108A.
- Tree Preservation To prevent the clearing and removal of certain trees on private property and within the Town's designated right-of-way, these regulations include procedures for review, approval and permitting for tree removal and protection. Within the Town Code, see Chapter 121.

- Watercourses To preserve and protect streams, lakes, ponds, swamps, marshes and other watercourses in the Town, these regulations aim to prohibit harmful activities and use of these watercourses and prevent contamination and pollution. For more information, see Chapter 6 Natural Resources. Within the Town Code, see Chapter 135.
- Westchester County Greenway Plan The Town of New Castle is a participating community in the Greenway Compact through the adoption of the statement of policies, principles and guides detailed in "The Greenprint for a Sustainable Future... the Westchester Way," the Westchester County Greenway Compact Plan. For more information, see Chapter 2 External Influences-Regional Context. Within the Town Code, see Chapter 136.
- Wetlands To help preserve, protect and conserve wetlands, these regulations provide a list of prohibited and permitted activities within wetlands or wetland buffers and provides procedures and requirements for permits for permitted activities. For more information, see Chapter 6 Natural Resources. Within the Town Code, see Chapter 137.

# **CHAPTER 13 "Build-out" Under Current Zoning**

# 13.1 Background and Methodology

The staff of the Westchester County Department of Planning finalized a draft Build-out Analysis in April 2014. This analysis was performed with the input and assistance of the Town of New Castle. The report *Draft Build-out Analysis Results* is attached as Appendix 13-1. The build-out analyses are shown in Figure 13-1 and Map 13-1. The following is a summary of the key elements of these analyses.



As part of the *Westchester 2025: Plan Together* effort, the Westchester County Planning Board and Department of Planning have embarked on developing draft build-out analyses of all 43 zoning ordinances within Westchester. As of April 2014, 15 have been completed and presented to municipal officials. Analyses were performed at the request of a municipality, usually because a municipality was considering or developing a new or updated comprehensive plan.

The analyses are innovative and particularly helpful for municipal officials to understand how much potential development could occur should development proceed as allowed by current zoning. It is also an important part of <u>Westchester 2025</u> since potential development anywhere in the county is critical in important infrastructure decisions, understanding of inter-municipal impacts, planning for the reduction of impacts of development and planning for larger regional projects and plans (e.g. the replacement of the Tappan Zee Bridge, regional transit planning and the future location of fair and affordable housing).

The report *Draft Build-out Analysis Results* for the Town of New Castle was developed by the County's Department of Planning staff by combining substantial GIS tools, new parcel-based data, web-based technologies and existing software that helps analyze current zoning. The report includes an overview of the methodology. Several analyses were performed and are described in table and map formats. The Town of New Castle provided data on the most current zoning ordinance to assist in calculations.

#### 13.2 Build-out Analyses

- **A. Vacant Parcel Analysis** An analysis was performed to give a realistic view of what can be developed on currently vacant land under existing zoning regulations. Local environmental constraints to development and bulk regulations are input into the model to accurately calculate potential build-out by parcel.
- **B.** "Underdeveloped/Soft Site" Parcel Analysis An analysis was performed to identify the remaining development potential available under existing zoning regulations on already developed sites. Two methods were used to identify "underdeveloped" parcels. The first entails setting parcel area criteria to determine realistically sub-dividable parcels per existing zoning regulations. For example, a single family zoned parcel that is three times (3x) larger than the minimum required lot size for its zoning district can theoretically be subdivided as of right and can thus be classified as "underdeveloped". Likewise, remaining non-residential development potential is identified by subtracting existing built square footage from full build-out under existing zoning using floor area ratio (FAR) regulations. Non-residential "soft-sites" are defined as those parcels in which existing development is 50% or less than what is allowed under zoning.
- C. "Vacant and Underdeveloped Composite" Analysis and Buildout Results The two analyses above are combined and presented in a summary table and a composite map (see map on page 13-3). The map, through symbols and highlighted properties, gives a quick visual glimpse of the overall impact of development in the Town under existing zoning. The table gives a numerical summary of some important impacts of this potential development. The number of future dwelling units, population, school children, energy use, water consumption and vehicle trips created are shown for existing conditions and under a scenario of full development build-out under existing zoning.

While it is difficult to know if and how such future development will occur, this analysis is a critical tool for Town officials and the public to understand the current zoning ordinance and should become a key tool as the Town develops a new Comprehensive Plan. The Westchester County Department of Planning will be available to discuss further components or adjustments to this analysis as the Town moves ahead in visioning its future.

# **Town of New Castle, NY** Legend Planning Base Studies **BEDFORD Buildable Vacant Area\* Build-Out Analysis** Buildable Underdeveloped Area\*\* **Vacant and Underdeveloped** New Potential Buildings **Parcels Composite** Single Family **Multi-Family** Westchester gov.com Mixed Use DRAFT Non-Residential MOUNT Total Buildable Parcel Area (acres) 2,116 **KISCO** 0.5 0.25 1.5 656 Potential New Dwelling Units Potential Population Increase\*\*\* 1,968 Potential Non-Residential Sq. Ft. 320,301 \* Vacant buildable area includes those pacels that meet minimum lot sizes per existing zoning and can still be developed after removing all environmental constraints. \*\*Underdeveloped buildable area includes parvels tow times (2x) the minimum lot sie for residential zones and those in which existing buillt sq. ft. is less that 50% of what is permitted under zoning in non-residential zones, and can still be developed after removing all environmental constraints (wetlands, flood zones, steep slopes). \*\*\*Potential population increase was calculated by multiplying the potential new dwelling units figure from the parcel based buildout model by the Town of New Castle's Average Household Size of 3.0 (Census 2010). **CORTLANDT NORTH CASTLE** CROTON Map 13 - 1 HUDSON Build-Out Analysis Results Page 13 - 3 **PLEASANT OSSINING MOUNT**



# Town of New Castle Draft Buildout Results

	Vacant Parcel Buildout	Underdeveloped Parcel Buildout	Future Buildout Potential (Vacant + Underdeveloped)	Existing Conditions	Total Buildout (Vacant + Underdeveloped + Existing)	Total Buildout Increase	Vacant Parcel Increase	
Buildable Area (acres)	444	1,672	2,116				DR	<i>AF</i>
Dwelling Units	285	371	656	6,037	6,693	11%	5%	]
Population	855	1,113	1,968	17,569	19,537	11%	5%	
School Children	202	263	465	3,972***	4,379	14%	16%	-
HH Energy Use (kWh/Year)	8	11	19	179	198	11%	5%	_
HH Water Consumption (Gal/Year)	40,673,775	52,947,265	93,621,040	861,570,455	955,191,495	11%	5%	
Vehicle Trips per day	1,696	2,207	3,903	35,920	39,823	11%	5%	
Non-Residential Square Footage	0	320,301	320,301					
Non-Residential Energy Use (kWh/Year)	0	7,988	7,988					

Prepared by the Westchester County Department of Planning,4/2014 \*Vacant buildable area include those that meet minimum lot sizes per existing zoning and can still be developed after removing all environmental constraints (wetlands, flood zones, steep slopes).

<sup>\*\*</sup>Underdeveloped buildable area include parcels two times (2x) the minimum lot size for residential zones and those in which existing built sq. ft. is less than 50% of what is permitted under zoning in non-residential zones, and can still be developed after removing all environmental constraints (wetlands, flood zones, steep slopes).

<sup>\*\*\*</sup>School district enrollment based on 2008-2012 ACS Data.

# CHAPTER 14 HISTORIC AND CULTURAL RESOURCES

# **14.1 Town History**

Adapted from the Town of New Castle and the New Castle Historical Society's Web sites.

What is now the Town of New Castle may be said to have originated with the purchase of land by Caleb Heathcote from Native American Chief Wampus in 1696. By 1791, when New Castle was divided from North Castle, the dwindling population of the Sint Sink tribe, located in the western part of New Castle, and the Tankiteke tribe in its eastern part, were completely gone from the area.

Quakers began to settle in the area beginning about 1730. Their meeting-house, completed in 1754, is one of the oldest buildings in New Castle still standing. It was used as a hospital for General Washington's wounded following the Battle of White Plains in 1776.



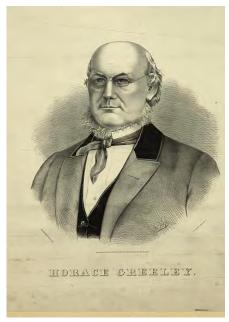
Source: Westchester County Archives

# **New Castle Historical Society**

The New Castle Historical Societv is based in the Horace Greeley House at 100 King Street in downtown Chappaqua. The society produces exhibitions depicting New Castle history, house tours, trips to historical sites, and educational programs for children and adults. The society also runs a gift shop at the Greeley House, including a number of publications on local and county history. Learn more at the society's website at:

http://www.newcastlehs.org/.

Figure 14-1. Horace Greeley



Source: Westchester County Archives

Figure 14-2. Train Station 1920



Source: Historic New Castle Website

The hamlet of Chappaqua was originally centered around the meeting house. The New York and Harlem Railroad, which later became the New York Central Railroad, reached the hamlet in 1846. The railroad allowed for easy shipment of local crops and stimulated the development of livery stables and stores where Quaker Road crosses the tracks. The hamlet of Millwood was originally formed around a stage coach inn, the Granite House, built about 1816 and since demolished. In 1881, the New York and Northern Railroad, later the Putnam Division of the New York Central Railroad, reached Millwood and led to its commercial development. Rail service on this line ended in 1958.

The town population was only 1,800 in 1850 and less than 2,500 by the end of the 19th century. The most dramatic population increase was the decade of 1950 to 1960; the number of people in New Castle increased by 60% to more than 14,000.

In 1853, the newspaper editor Horace Greeley, who would run as a candidate in the 1872 presidential election, began to purchase property in Chappaqua. In 1902, the present Chappaqua railroad station was built on property donated by Horace Greeley's daughter Gabrielle Greeley Clendenin. The Town's first central water system was installed in Chappaqua in 1912. The first Chappaqua central school, the Horace Greeley School (now the Robert E. Bell Middle School), opened in 1929. In 1934 the Saw Mill River Parkway reached Chappaqua. In 1998 the New Castle Historical Society purchased the Horace Greeley House, which is listed in the National Register of Historic Places and is now an important focal point of downtown Chappaqua.

#### 14.2 Historic Preservation

#### A. Historic Preservation Code

The Town of New Castle has established policies, regulations, and benefits to recognize and protect historic sites. The Town's <u>Historic Preservation Code</u>, <u>Chapter 76 of the Code of the Town of New Castle</u> helps to protect historic properties for the promotion of the "economic, cultural, educational and general welfare of the public. Historic properties are defined as buildings, structures, sites, objects, or other features that represent or reflect significant elements of the Town's cultural, social, economic, political and architectural history." The Landmarks Advisory Committee, among other duties, recommends potential properties to the Town Board for designation as Town Landmarks. The Town Board then makes the designation, with the concurrence of the owner.

Figure 14-3 Historic Aerial Photographs

1940

1947

The images above show the Millwood area in the Town of New Castle.

1960

Westchester County's historic aerial photo collection of the years 1947, 1960, 1976, 2004, 2007, and 2009 can be <u>viewed online</u> at the Mapping Westchester County webpage. User the slider at top right of map to select year to display.

Aerial photos for the years 1925, 1926, 1940, 1947, 1954, 1960, 1965, 1970, 1976, 1980, 1986, 1990, 1995, and 2000 can be viewed at a computer kiosk in the County Planning Department. Call (914) 995-4400 for an appointment.

1980

Should the owner of a designated landmark wish to make an external alteration substantial enough to require a permit or approval of a Town agency, such as the Planning Board, Architectural Review Board, Zoning Board of Appeals or Building Department, the Landmarks Advisory Committee is required to provide a report on the historical appropriateness of the proposed alteration. The agency must take this report into consideration when making a determination.

For a period of 10 years following a property's designation, a New Castle landmark is exempt from taxation to the extent of any increase in value attributable to the alteration or rehabilitation of such New Castle landmark pursuant to a schedule detailed in the code.

#### **B.** New Castle Landmarks

Under the Town of New Castle's Historic Preservation Code, 40 sites have been designated as Town Landmarks. Fourteen sites are included in two historic districts: the Old Quaker Village Historical District and the Horace Greeley Thematic Group, which are listed on the National Register of Historic Places. Two of the other 26 landmark sites are on the National Register of Historic Places: the Williams-DuBois house at 35 Pinesbridge Road and the Isaac Young house at 114 Pinesbridge Road.

#### C. Old Quaker Village Historical District

Ten of the Town's Landmarks are located within the Old Quaker Village Historical District, listed on the National Register in 1974. While none of these sites are individually listed on the National Register of Historic Places, the district as a whole is listed with the ten Town Landmarks specified as important contributing elements.

Settled largely by Quaker farmers in the mid-18th century, the farming community was originally centered around the Quaker Meetinghouse and its surrounding graveyard on Quaker Road, a mile or so north of present-day downtown Chappaqua. The historic district is formed by properties on both sides of the road. When the Harlem Railroad was extended to the area in 1846, the area around the railroad crossing took over as the area's center. The former Quaker settlement and its meetinghouse were spared development pressures, leaving many of the structures preserved and recognizable. The meetinghouse has been enlarged over the years and the Chappaqua Meeting of Friends is still active. A commemorative plaque was dedicated in 1975 at the intersection of Quaker Road and Chappaqua Mountain Road. (Source: New York State Office of Parks, Recreation and Historic Preservation, National Register Nomination for Old Chappaqua Historic District, 1973.)

Joshua Washburn house

William-DuBois house

Isaac Young house

# Figure 14-4 Town of New Castle Landmarks (\* Also listed on the National Register of Historic Places)

( 11150 11500 on the 1 (mile) in 116gister of 1115to	
Old Quaker Village Historical District*	
Reynolds-Carpenter house	32 Quaker Road
Sutton Reynolds house	354 Quaker Road
Thorn-Dodge house	386 Quaker Road
Samuel Allen currying shop	400 Quaker Road
Samuel Allen barn	401 Quaker Road
Samuel Allen house	405 Quaker Road
Samuel Allen tenant house	407 Quaker Road
Friends Meeting House	420 Quaker Road
Thomas Dodge house	428 Quaker Road
Stony Hollow Farm	478 Quaker Road
<b>Horace Greeley Thematic Group*</b>	
Horace Greeley House	100 King Street
Chappaqua Railroad Station and Plaza	
Church of St. Mary the Virgin	191 S. Greeley Avenue
Rehoboth	33 Aldridge Road
Other New Castle Landmarks	
George Carpenter House	335 Roaring Brook Road
Croton Valley Friends Meeting House	210 Lake Road
Dickinson-Conklin House	275 Quaker Road
Gray Rock. John and Mary Nichols Cox House	32 Gray Rock Lane
Horace Greeley Statue	Mill River Road
Greeley Woods	191 S. Greeley Avenue (Morton Place)
Charles Griffith house	83 Kipp Street
Reuben and Moses Haight house	350 Bedford Road
Hutin Homestead	59 Highland Avenue
Juniper Ledge	20 Ryder Road
Kipp School	313 Hardscrabble Road
Benjamin Kipp house	335 Douglas Road
Jesse Kipp house	1040 Hardscrabble Road
Willet Kipp-Edward W. Lambert house	1130 Hardscrabble Road
Kittle House	11 Kittle Road
Marshall Homestead	127 Old Roaring Brook Road
Marsland Barns	16 Barnes Road
Millwood Hills	51 Granite Road
Reynolds-Keeler-Williams house	300 Quaker Road
Shingle House	1 Shinglehouse Road
Tall Timbers	236 Bedford Road
Underhill-Haviland house	108 South Bedford Road
Washburn-Barnes house	113 Campfire Road



Friends Meeting House



Samuel Allen Farm



Williams-DuBois house



Isaac Young house



Thomas Dodge house Photo source: Wikipedia

316 South Bedford Road

35 Pinesbridge Road\*

114 Pinesbridge Road\*

## **D.** Horace Greeley Thematic Group

Four of the Town's Landmarks are part of the Horace Greeley Thematic Group. While none of the sites within this Thematic Group are individually listed on the National Register of Historic Places, the group as a whole was listed on the National Register in 1979 with the four sites specified as contributing elements.

Horace Greeley, the famous newspaper editor and 1872 presidential candidate, began purchasing properties near present-day downtown Chappaqua in 1852, eventually assembling a farm of 78 acres. The current Horace Greeley House, on King Street, was purchased in

#### **State and National Registers of Historic Places**

The State and National Registers of Historic Places are the official lists of buildings, structures, districts, objects, and sites significant in the history, architecture, archeology, engineering, and culture of New York and the nation. The same eligibility criteria are used for both the State and National Registers. The National Historic Preservation Act of 1966 and the New York State Historic Preservation Act of 1980 established the National and State Registers programs. In New York, the Commissioner of the New York State Office of Parks, Recreation and Historic Preservation, who is also the State Historic Preservation Officer (SHPO), administers these programs.

# **Benefits of being listed on the Registers:**

- •Registered properties and properties determined eligible for the Registers receive a measure of protection from the effects of federal and/or state agency sponsored, licensed or assisted projects through a notice, review, and consultation process.
- •Owners of depreciable, certified historic properties may take a 20 percent federal income tax credit for the costs of substantial rehabilitation as provided for under the Tax Reform Act of 1986.
- •Municipal and not-for-profit owners of listed historic properties may apply for matching state historic preservation grants.

There are no restrictions placed on private owners of registered properties. Private property owners may sell, alter or dispose of their property as they wish.

Source: New York State Office of Parks, Recreation and Historic Preservation. For more information, go to NYS OPRHP website: <a href="http://nysparks.com/shpo/national-register/">http://nysparks.com/shpo/national-register/</a>

#### **Environmental Review Program**

The Environmental Review program is a planning process that helps protect New York's historic cultural resources from the potential impacts of projects that are funded, licensed or approved by state or federal agencies. Under Section 106 of the National Historic Preservation Act and Section 14.09 of the New York State Historic Preservation Act, the SHPO's role in the review process is to ensure that effects or impacts on eligible or listed properties are considered and avoided or mitigated during the project planning process. In addition, the SHPO advises local communities on local preservation environmental reviews, upon request, under the provisions of the State Environmental Quality Review Act. For more information go to: <a href="http://nysparks.com/shpo/environmental-review/">http://nysparks.com/shpo/environmental-review/</a>

1864 and was the family's country home until 1873. It now contains a museum, gift shop, and offices of the New Castle Historical Society.

After Greeley's death his daughter gave part of the farm, in 1902, to the Town for a new railroad station and adjacent Town park. The station and its plaza are Town Landmarks. She provided the site of the Church of St. Mary the Virgin, also a Town Landmark, in 1906. Another portion of the Greeley farm eventually became the site of the Horace Greeley School, now the Robert E. Bell Middle School. Other parts of the former Greeley farm are the sites of the Chappaqua Library, the New Castle Town Hall, Temple Beth El, and the New Castle Community Center.

**Figure 14-5. Old Chappaqua Historic District**Junction of Quaker Road and Chappaqua Mountain Road.



Figure 14-6. Greeley House



The fourth site in the Thematic Group is Rehoboth, a residence at 33 Aldridge Road. Originally a barn on the Greeley farm and one of the first concrete structures in the country, the building was converted to a neo-Gothic styled house by Greeley's daughter in 1892. (Source: New Castle Historical Society website; New York State Office of Parks, Recreation and Historic Preservation, National Register Nomination for Horace Greeley Thematic Group, 1978.)

#### **Historic Resources:**

Mount Kisco Historical Society: http://mountkiscohistoricalsociety.org/

Ossining Historical Society: http://www.ossininghistorical.org/

Westchester County Historical Society: <a href="http://www.westchesterhistory.com/">http://www.westchesterhistory.com/</a>

National Trust for Historic Preservation: <a href="http://www.preservationnation.org/">http://www.preservationnation.org/</a>

New York State Office of Parks, Recreation and Historic Preservation: http://nysparks.com/historic-preservation/