

## **9.0 HISTORIC AND CULTURAL RESOURCES**

It is the location of Rockland County in time and space which has always drawn people for whom arts, history, and education are as important as the natural environment of the majestic Hudson River and its Palisades on the east and Tonne Valley on the west. Revolutionary-era landmarks, Works Project Administration murals and modern-day sculpture park and art galleries beckon visitors and residents alike who value the beauty of Rockland and its accessibility to New York City. Rockland has been called "the Plum near the Big Apple" for good reason, and this chapter describes some of the ways in which the history, culture and arts can play an ever-more critical role and become the focal point for economic growth in Rockland's future. In addition, thanks to the understanding by Rockland educators of the importance of the arts, the children and youth of Rockland County have had music, art, theater, and dance in their lives in and out of school hours.

### **9.1 Historic Resources**

A number of Federal, State, County and local organizations are in place with an interest in protecting and promoting Rockland's historic resources. These organizations range from government agencies to fully staffed nonprofit entities to volunteer groups.

#### **National and State Agencies**

Official Federal involvement with historic preservation largely began with the National Historic Preservation Act of 1966, which established, among other institutions, the State Historic Preservation Office (SHPO) and the National Register of Historic Places. The Act also established the "Section 106 review process" for all federally funded and permitted projects that will affect sites listed on, or eligible for listing on, the National Register. Any Federal, State, county, or local agency that receives Federal funding for a project that could adversely impact historic property, especially those properties listed on the National Register, must consider alternative plans for their project. If any adverse effect on the historic resource is expected, the agency must work with the local SHPO to ensure that all interested parties are given an opportunity to review the proposed work and provide comments.

The National Register of Historic Places, administered by the National Park Service, is part of a federal program to recognize the nation's historic and archeological resources. In general, to be listed on the National Register, districts, buildings or structures are more than 50 years old and should be (1) associated with events that have made a significant contribution to the broad patterns of U.S. history or with the lives of significant persons; (2) embody distinctive characteristics of a type, period, or method of construction; or (3) have yielded or might be likely to yield information important in prehistory or history. Other considerations include buildings holding architectural significance, artistic distinction or historical importance; structures or sites most associated with historical figures or events; and properties achieving significance within the past 50 years if they are of exceptional importance. In essence, the placement of a property on the National Register is a statement that it has been evaluated and found to be worthy of preservation. It is worth noting that historic properties and places may have significant local historical value even if they are not listed on the National Register.

Direct benefits for properties listed on the National Register include consideration in planning for Federally owned, licensed, and assisted projects; possible eligibility for certain tax credits; and qualification to be considered for federal grants administered by the SHPO for historic preservation. In addition, communities which contain National Register-listed districts or sites could see tourism-related

and economic development benefits. It is important to note that listing on the National Register does not prevent property owners from making modifications or renovations, or even demolishing the structures, so long as there are no Federal monies being used for the action.

There are four designated National and State Register Historic Districts in Rockland County: Closter Road-Oak Tree Road Historic District, Tappan Historic District and Washington Spring Road-Woods Road Historic District in Orangetown; and Van Houten's Landing Historic District in Upper Nyack (see Figure 9.1). The largest of these is the Washington Spring Road-Woods Road district, which encompasses 409 acres and 36 buildings. Just west across Route 9W is the Closter Road-Oak Tree Road Historic District, which contains 105 acres and 18 buildings, mainly of Revival and Victorian styles. These two historic districts are somewhat isolated; they have few commercial services, and some of their sites are not easily accessible to visitors. In addition, Washington Spring Road is narrow and winding and terminates at the Hudson River waterfront with no parking or turnaround areas. The Tappan Historic District is coterminous with the hamlet center and covers 260 acres and 35 buildings, including individual National Register sites. The district is accessible to visitors, with an array of historical sites and services. Van Houten's Landing Historic District, in Upper Nyack, has 40 acres, 50 buildings and two structures and features a number of Revival and Italianate sites, as well as one of the oldest boatyards on the Hudson.

Rockland also has more than 60 individual sites listed on the National Register (see Table 9.1 and Figure 9.2). Nearly all the National Register-listed sites are also on the New York State Register. However, some State Register properties are not included on the National Register, due mainly to past owner objections. This is the case with the Johannes Isaac Blauvelt House in Tappan and the McCready House in Sloatsburg.

Again, listing on the National or State Registers does not prevent property owners from making significant changes to structures – even demolishing them, which has occurred to some formerly listed resources – but it adds a layer of protection through New York's State Environmental Quality Review Act (SEQRA). Under SEQRA, most actions that occur “wholly or partially within, or substantially contiguous to, any historic building, structure, facility, site, district or prehistoric site that is listed on the National Register of Historic Places,” or that has been proposed for nomination to the National Register, or is listed on the State Register of Historic Places, is designated a Type I action and requires more stringent review.



**Jacob Sloat House in Sloatsburg (also known as Harmony Hall)**

*Source: Rockland County Planning*



**Michael Salyer House in Pearl River**

*Source: Rockland County Planning*



**Dutch Garden Tea House**

*Source: Rockland County Planning*

The table and map do not include sites or structures that were formally listed but have now been demolished or removed. These include the Henry Garner Mansion and Henry M. Peck House in West Haverstraw, which were demolished and destroyed by fire, respectively; the Philadelphia Toboggan Co. Carousel No. 15, which was at the Palisades Center Mall but has been moved out of Rockland County; and the Tappan Zee Playhouse (Broadway Theater) in Nyack, which was demolished.

The National Park Service also manages the National Historic Landmarks program, recognizing nationally significant historic places. While the National Register has over one million properties, there are fewer than 2,500 National Historic Landmarks. In Rockland, these are the DeWint House in Orangetown, the Stony Point Battlefield in Stony Point and the Palisades Interstate Park throughout the county.

Each state’s SHPO supports statewide inventories of historic properties, nominates properties to the National Register, works with the National Historic Landmarks office to screen and develop nominations, maintains a statewide preservation plan and advises local jurisdictions. New York’s SHPO administers programs authorized by the National Historic Preservation Act of 1966 and the New York State Historic Preservation Act of 1980, which created the State Register of Historic Places. The process of placing properties on the Register in New York is linear; a proposal is approved by SHPO for listing on the State Register, and then sent to the National Parks Service for listing on the National Register. Most properties on the State Register are also listed on the National Register, except in cases of owner objection.

**Table 9.1: National Register of Historic Places Sites**

	<b>Site</b>	<b>Location</b>	<b>Year Added</b>
1	DeWint House* +	Orangetown (Tappan)	1966
2	Palisades Interstate Park* +	Countywide	1966
3	Stony Point Battlefield* + #	Stony Point	1966
4	Terneur-Hutton House*	Clarkstown (West Nyack)	1973
5	Sloat House*	Sloatsburg	1974
6	Fraser-Hoyer House (William Smith House)*	West Haverstraw	1976
7	English Church & Schoolhouse*	New Hempstead	1977
8	Stony Point Lighthouse*	Stony Point	1979
9	Bear Mountain Bridge & Toll House	Stony Point	1982
10	Upper Nyack Firehouse (Empire Hook & Ladder Co. #1)*	Upper Nyack	1982
11	Homestead*	Haverstraw Village	1983
12	Ross-Hand Mansion*	South Nyack	1983
13	Brick Church Complex*	New Hempstead	1984
14	M/V Commander*	West Haverstraw	1984
15	<i>Jacob J. Blauvelt House*</i>	Clarkstown (New City)	1985
16	Sparkill Creek Drawbridge*	Piermont	1985
17	Edward Salyer House*	Orangetown (Pearl River)	1986
18	Abner Concklin House (Old Yellow House)*	Orangetown (Palisades)	1987
19	Torne Brook Farm*	Ramapo	1988
20	U.S. Post Office*	Haverstraw Village	1988
21	U.S. Post Office*	Orangetown (Pearl River)	1988
22	U.S. Post Office*	Nyack	1989

Source: New York State Historic Preservation Office, Rockland County Historic Preservation Board, 2010.

Items in italics are also locally designated historic sites and protected by local laws.

\*Also listed on the State Register of Historic Places + Also a National Historic Landmark. # Also State Historic Site

**Table 9.1: National Register of Historic Places Sites (Continued)**

	<b>Site</b>	<b>Location</b>	<b>Year Added</b>
23	U.S. Post Office*	Spring Valley	1989
24	U.S. Post Office*	Suffern	1989
25	Big House*	Orangetown (Palisades)	1990
26	Cliffside (H.E. Lawrence Estate)*	Orangetown (Palisades)	1990
27	Haring-Eberle House*	Orangetown (Palisades)	1990
28	Little House*	Orangetown (Palisades)	1990
29	Neiderhurst (W.S. Gilman, Jr. Estate)*	Orangetown (Palisades)	1990
30	Seven Oaks Estate*	Orangetown (Palisades)	1990
31	Haddock's Hall*	Piermont	1991
32	Kings Daughters Public Library*	Haverstraw Village	1991
33	<i>Rockland County Courthouse &amp; Dutch Garden*</i>	Clarkstown (New City)	1991
34	Hopson-Swan Estate*	Orangetown (Sparkill)	1992
35	John A. DeBaun Mill*	Ramapo (Tallman)	1993
36	<i>Mount Moor African-American Cemetery*</i>	Clarkstown (West Nyack)	1994
37	First Methodist Episcopal Church of Nyack (Old Stone Church)*	Upper Nyack	1998
38	Old Sloatsburg Cemetery*	Sloatsburg	1999
39	Palisades Interstate Parkway*	Countywide	1999
40	William H. Rose House*	Stony Point	1999
41	<i>Edward Hopper Birthplace &amp; Boyhood Home*</i>	Nyack	2000
42	Sloat's Dam & Mill Pond*	Sloatsburg	2000
43	Former Wayside Chapel*	Grand View on Hudson	2000
44	St. Paul's Methodist Church*	Nyack	2001
45	Bear Mountain Inn*	Stony Point	2002
46	Dederer Stone House - Stonehurst*	Orangetown (Sparkill)	2002
47	Michael Salyer House (Stone House)*	Orangetown (Pearl River)	2002
48	Jacob P. Perry House*	Orangetown (Pearl River)	2003
49	Ladentown United Methodist Church*	Pomona	2005
50	Rockland Road Bridge*	Piermont	2005
51	H.R. Stevens House*	Clarkstown (New City)	2005
52	Major John Andre Monument*	Orangetown (Tappan)	2006
53	Carson McCullers House*	South Nyack	2006
54	Onderdonk House*	Piermont	2006
55	Jacob Sloat House (Harmony Hall)*	Sloatsburg	2006
56	Washington Avenue Soldier's Monument & Triangle*	Suffern	2006
57	<i>Henry Varnum Poor House (Crow House)*</i>	Clarkstown (New City)	2007
58	<i>Peter DePew House*</i>	Clarkstown (New City)	2008
59	North Main Street School*	Spring Valley	2008
60	Piermont Railroad Station*	Piermont	2008
61	St. Paul's Episcopal Church*	Spring Valley	2008
62	Contempora House*	Clarkstown (New City)	2009
63	Brook Chapel*	Hillburn	2010

Source: New York State Historic Preservation Office, Rockland County Historic Preservation Board, 2010.

Items in italics are also locally designated historic sites and protected by local laws.

\*Also listed on State Register of Historic Places + Also National Historic Landmark.

FIGURE 9.1: NATIONAL REGISTER OF HISTORIC PLACES, DISTRICTS

LEGEND

-  NATIONAL REGISTER HISTORIC DISTRICTS
-  TOWN BOUNDARIES
-  PARCELS

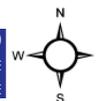
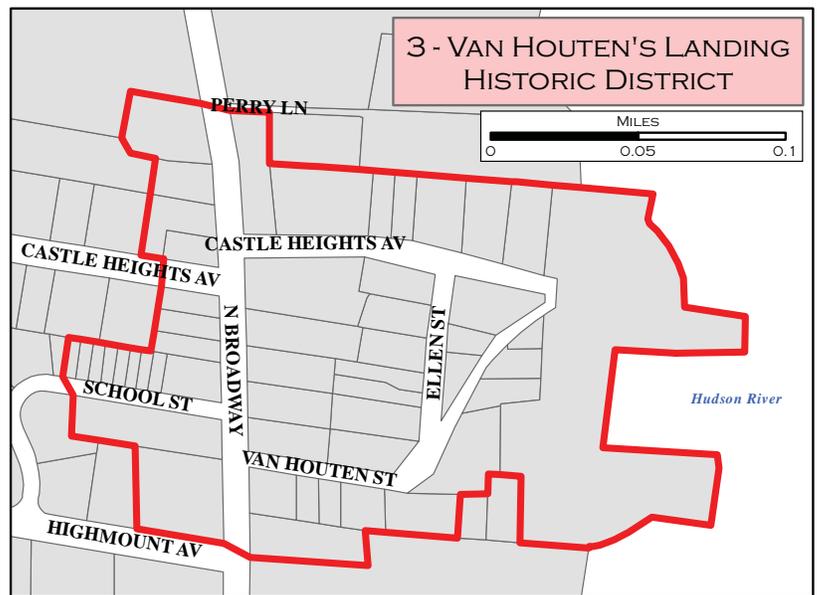
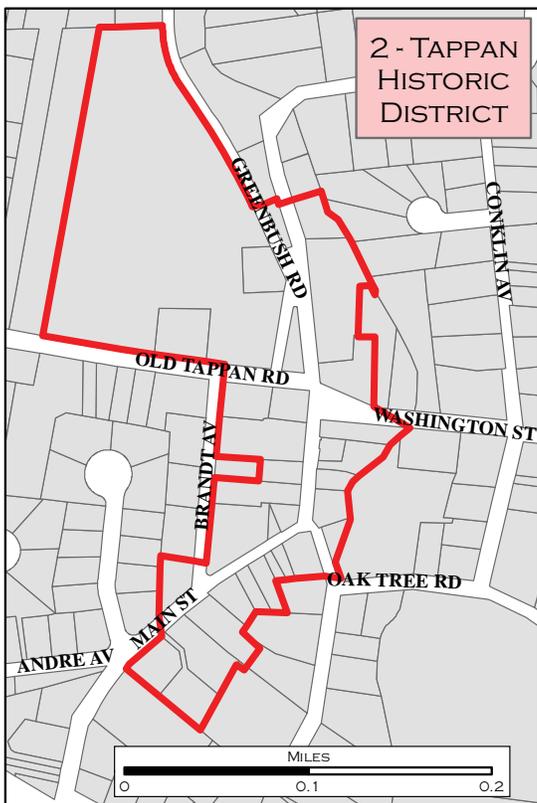
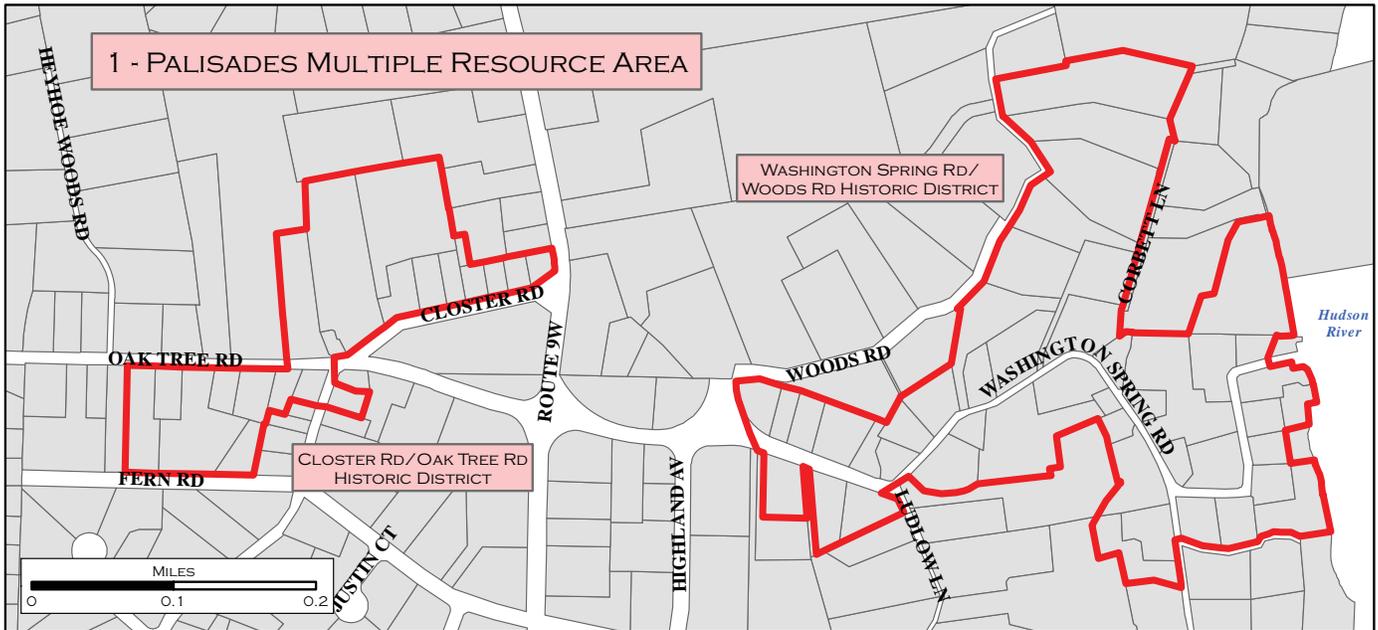
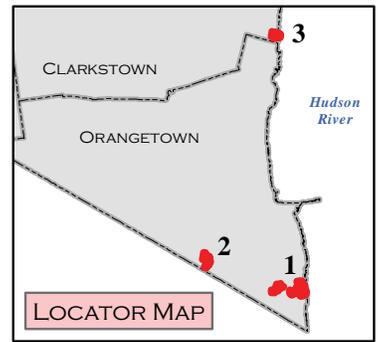
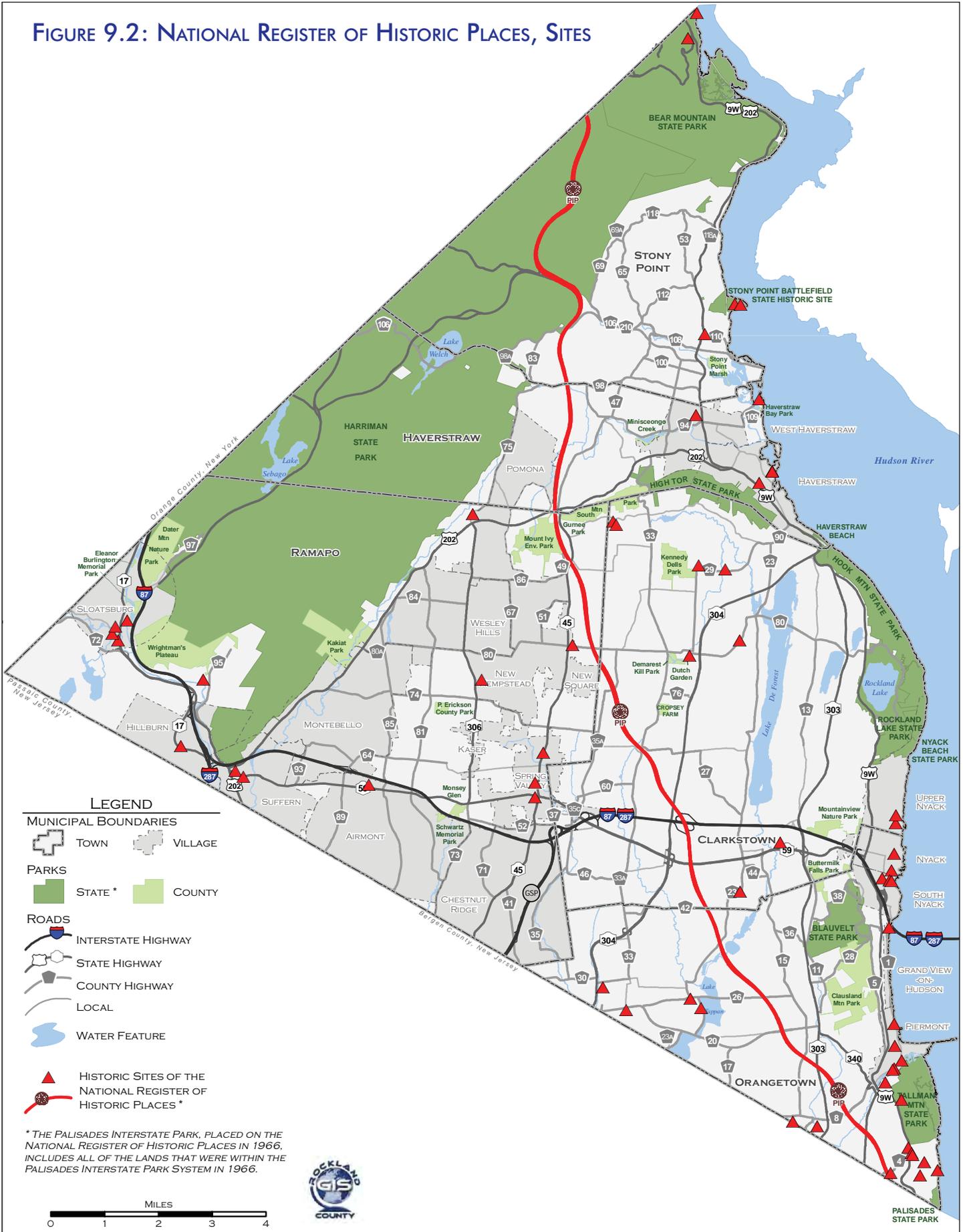


FIGURE 9.2: NATIONAL REGISTER OF HISTORIC PLACES, SITES



HISTORIC & CULTURAL RESOURCES



Listing on the National or State registers does not ensure public access; it merely designates the site or district as historically significant and worthy of preservation. In contrast, a State Historic Site is operated by the New York State Office of Parks, Recreation, and Historic Preservation for touring by the public. The only State Historic Site in Rockland is Stony Point Battlefield.

#### *National and State Nonprofit Organizations*

In addition to Federal and State government agencies, several major nonprofit groups are active in historic preservation. The **Preservation League of New York State** was founded in 1974 to preserve the state's historic buildings, districts, and landscapes. Among its programs, the organization seeks to advance historic preservation policies, provides legal assistance to local preservation groups and municipalities and makes targeted grants and loans for historic preservation.

**Preserve America** is a national initiative of the Advisory Council on Historic Preservation and is a partnership with the U.S. Departments of Agriculture, Commerce, Defense, Education, Housing and Urban Development, Interior and Transportation; the U.S. General Services Administration; National Endowment for the Humanities; President's Committee on the Arts and the Humanities; Institute of Museum and Library Services; and the President's Council on Environmental Quality. The program administers grants and awards and provides educational outreach on historic preservation. Rockland County was designated a Preserve America Community in 2007 and, in 2008, received a \$150,000 grant to develop an educational and interpretive program on the history of the Tappan Zee Bridge, including a museum exhibit, DVD, book and CD of oral histories.

The **National Trust for Historic Preservation**, founded in 1949, is a nonprofit membership organization traditionally focused on the designation of National Trust Historic Sites. In recent years its mission has grown to include community revitalization. The National Trust's Main Street Center promotes revitalization of traditional commercial downtowns, and the Community Investment Corporation makes equity investments in real estate projects that qualify for federal and other historic tax credits.

#### **County and Local Role**

##### *Rockland County Historic Preservation Board*

The Rockland County Historic Preservation Board, established in 2002 by the County Legislature, has an advisory rather than regulatory role and is responsible for pursuing a countywide historic preservation program, carrying out five specific processes:

1. Maintaining a County inventory of historic properties that includes locally designated properties, National Register properties, County-owned properties that are eligible to be placed on the National Register and properties that have been placed on a County register of historic places;
2. Reviewing and making recommendations regarding County government undertakings that affect historic properties;
3. Making recommendations on land use and development proposals that affect historic properties and that are reviewed by the County Planning Department pursuant to General Municipal Law, Section 239;
4. Proposing nominations or sponsoring proposed nominations for listing of County-owned properties on the National Register; and
5. Reviewing properties for placement on a County register of historic places.

The Board also promotes the use and development of model local laws for municipalities to protect local historic resources, supports historic district regulation and works to establish a County Historic Roads Program. The Board is required by local law to have representation from each of the five towns, and members must have a demonstrated interest, competence or knowledge of historic preservation.

Rockland County is one of only two counties in states with township systems to be designated a Certified Local Government (CLG). The CLG program, created by amendments to the National Historic Preservation Act, provides grants and technical assistance to support local historic preservation efforts. To participate, a local government must adopt a law meeting certain standards and establish a qualified preservation board. Traditionally a local historic preservation board has land use regulatory powers, and the CLG program is largely tailored to such local programs. However, in New York State, the principle of “home rule” means that zoning and other land use control powers over unincorporated areas rest with township governments rather than county governments. The State’s guidelines specify that the Rockland County Historic Preservation Board must at least have the power to review and comment on all County government undertakings that might affect historic properties, review and report to the appropriate County agency when a County government undertaking might affect historic properties and review and report to the Rockland County Planning Department when the County is called on to give planning advice on actions that might affect historic properties.

#### *Local Historic Designation*

All five towns in Rockland County, and most of its villages, have an appointed, municipal historian. In addition, several of Rockland’s municipalities have adopted local historic preservation laws. Figure 9.3, below, shows locally designated historic districts and properties, as described more fully below (see <http://www.co.rockland.ny.us/planning/landuse/LocallyDesignatedSites.pdf> for a complete list of locally designated sites).

Orangetown regulates, through its Historic Areas Board of Review, two historic areas in the hamlets of Tappan and Palisades. To date, the Orangetown Town Board has designated four historic roads.

Clarkstown, to date, has designated six historic roads and two historical highways; 31 local historic sites; and a West Nyack Historic Area centering around Strawtown, Sickletown, and West Nyack Roads, and has a Historic Review Board with oversight of the sites. The town has also recently adopted a new historic preservation law.

Ramapo has designated a Scenic Road District containing 10 scenic and historic roads for which special architectural compatibility and view preservation regulations apply within 1,000 feet of roadway centerlines. In recent years, the Town has acquired several historic properties, including the Jacob Sloat House (Harmony Hall) in Sloatsburg, the Mary Mowbray-Clarke property (Brocken) in Pomona, and the Henry Varnum Poor House (Crow House) in Clarkstown. While it has no official historic designation, the Orchards of Conklin is believed to be the nation’s oldest fruit farm, operated continuously since 1717.

Stony Point has outlined a process for a voluntary historic recognition for property owners, but has not formalized the process or created an authority to direct it. Its “Properties of Distinction” program provides plaques to properties with buildings over 100 years old, and is led by a volunteer committee.

The Village of Montebello has designated four local historic sites and adopted a local law that established a historic preservation commission to review and make recommendations on local landmarks and districts.

Thus, while some Rockland municipalities have addressed regulation of historic preservation at the local level, most do not, and local regulation of historic resources is uneven. Because New York is a “home rule” state, land use control resides with municipalities rather than counties, and Rockland County cannot impose historic preservation regulations on its towns and villages. However, under the leadership of its Historic Preservation Board, Rockland is authorized to develop historic preservation guidelines, such as model local laws created by SHPO, for its municipalities to adopt as appropriate.

It is worth noting that many historic sites designated at the national, state, and local level are actually owned by municipalities or the County. Public ownership is one of the best ways to ensure that the resource is protected; however, it can involve significant costs incurred by the municipalities. Local governments that have made the effort to acquire historic properties should be recognized and supported.

### **Historic Societies, Museums, and Other Local Historic Preservation Organizations**

*Camp Shanks World War II Museum* in Orangeburg maintains exhibits focused on military life in Camp Shanks, the largest point of embarkation for troops departing overseas during World War II, including most of the troops who participated in the D-Day invasion.

The *CEJES Institute* was founded in 2001 as a cultural, educational and research foundation dedicated to social justice for marginalized groups, particularly African-American communities. The Institute’s name denotes the first initials of its co-founders, Edmund W. Gordon and Susan G. Gordon, and their children. Located on 16 acres of land in Pomona, the institute consists of a conference center, a cultural center, a library, an art gallery and the Rockland African Diaspora Heritage Center.

*Congers History Museum*, operated by the Congers Civic Association, is located on the second floor of the Congers Railroad Station Park building.

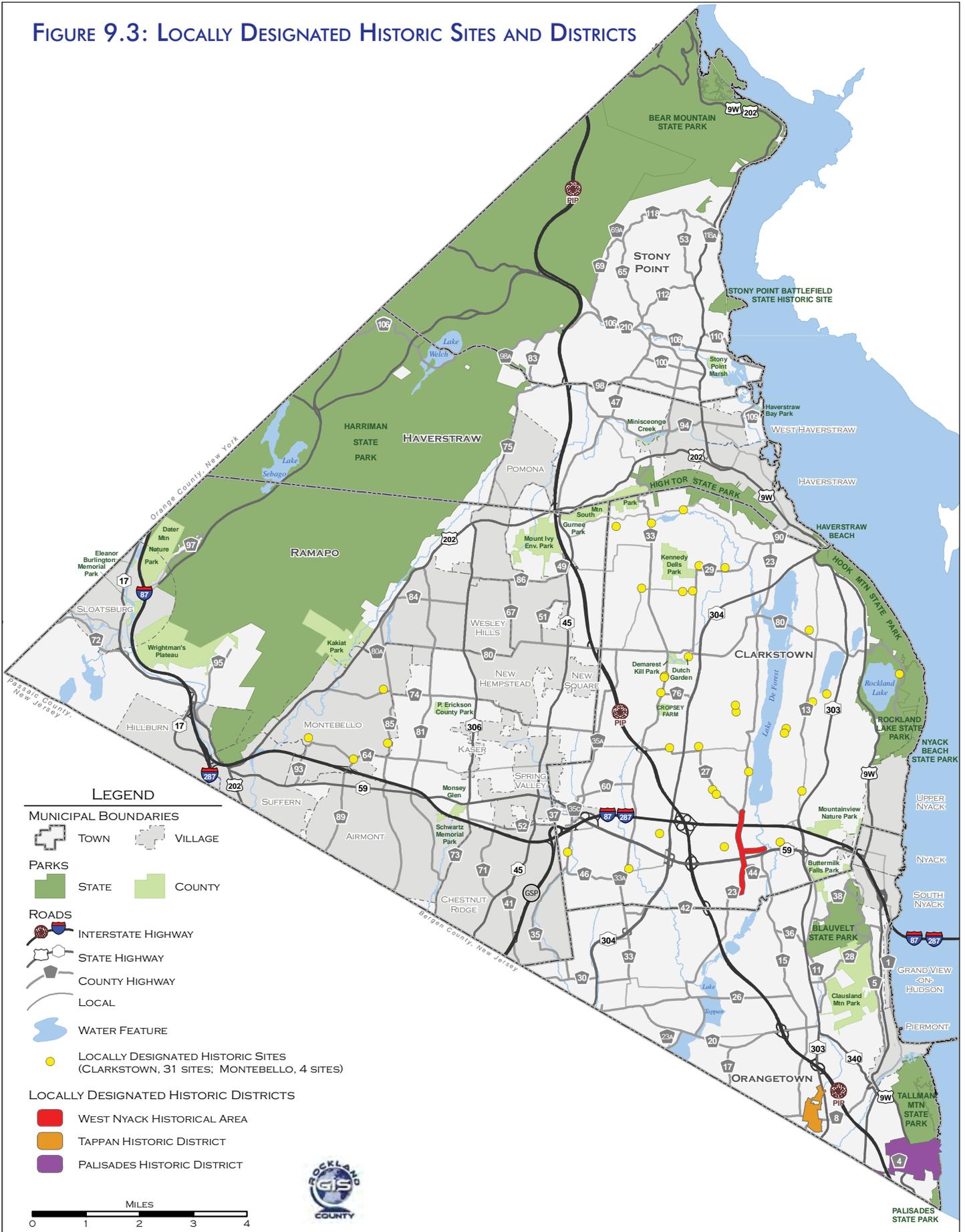
The *Ernest M. Bobb Boy Scout Museum*, located at Camp Bullowa in Stony Point, displays general information on the Boy Scouts and memorabilia of Daniel Carter Beard, a social reformer and early Scouts leader.

*Friends of Harmony Hall*, established in 2007, is dedicated to the preservation of the Jacob Sloat House (Harmony Hall) and the support of arts, cultural, and historical programs to promote local historic preservation. The group works in partnership with the Town of Ramapo, which owns the facility.

*Friends of the Nyacks*, established in 1974, sponsors cultural events, leads walking tours and supports a variety of community projects. The group assisted in the founding of the Riverspace Visual Arts Center, launched a farmer’s market, and has sponsored improvements to local parks and recreation facilities. The organization also produces an annual Art Walk Nyack showcasing the work of selected artists.

*Friends of Rockland Lake and Hook Mountain* was founded in 2004 as a nonprofit organization dedicated to preserving the history and natural resources of the two state parks. The group offers walking tours and lectures, hosts clean-up days, and sponsored a historical marker at Rockland Lake State Park denoting the significance of the area’s former ice industry.

**FIGURE 9.3: LOCALLY DESIGNATED HISTORIC SITES AND DISTRICTS**



**HISTORIC & CULTURAL RESOURCES**



The *Haverstraw Brick Museum's* exhibits recount the extensive history of brick-making in the Village of Haverstraw, an area once known as "The Brick-Making Capital of the World."

*Historical Society of the Nyacks* is a nonprofit group "dedicated to researching, preserving, and fostering appreciation of the history of the Nyack community." While it seeks to acquire a museum building, it is accepting donations of historic papers and artifacts related to the community for future preservation and exhibition. The Society sponsors periodic meetings, programs and exhibits to promote knowledge and interest in local history, and has a local historic markers program.

*Historical Society of the Palisades Interstate Park Region*, based in Tomkins Cove, is dedicated to preserving the history of the "lost hamlets" that once existed in the Palisades Interstate Park region. The group offers history hikes, presents lectures and conducts genealogical research.

The *Historical Society of Rockland County* seeks to make local history "a vibrant part of community life" by collecting, preserving and exhibiting artifacts and archival materials that reflect the history of Rockland County and the Lower Hudson Valley; sponsoring educational programs and publications to promote appreciation of Rockland's history and cultural heritage; and promoting the preservation, restoration and adaptive use of the county's historic buildings and sites. The Society operates a museum and the Jacob Blauvelt house, barn and carriage house at its headquarters in New City. In addition, it has erected a number of historic markers throughout the county (see Figure 9.5 and discussion below).

The *Holocaust Museum & Study Center* in Spring Valley features montages, artifacts and audio/visual displays to memorialize every phase of the Holocaust. The museum offers lectures, teacher training seminars, visits by school classes, commemoration ceremonies and displays rotating art exhibits.

The *Edward Hopper House Arts Center* in Nyack is housed in the National Register-listed birthplace and childhood home of renowned American realist painter Edward Hopper. The Arts Center features exhibitions and juried theme shows, and offers classes and programs including an outdoor summer jazz concert series, an Artists in the Park event, a book fair and a monthly poetry workshop.

*Hudson River Valley Heritage*, administered by the Southeastern New York Library Resources Council, provides access to a collaborative digital record of Hudson River Valley regional history. Based in Highland, New York, in Ulster County, the group provides access to historical materials from digital collections contributed by colleges, libraries, archives, historical societies, museums and cultural organizations from Columbia, Greene, Dutchess, Ulster, Sullivan, Rockland, Orange, Putnam and Westchester Counties.

The *Law Enforcement Museum*, housed at the Rockland County Sheriff's Department, displays photos and memorabilia on the history of law enforcement in Rockland County, New York City and nationwide.

The *Little Red Schoolhouse Museum*, located in Chestnut Ridge in a former school operated by the East Ramapo School District, features exhibits on the history of education in Rockland County, and includes an interactive timeline and circa-1900 classroom.

The *Nature Center at Rockland Lake State Park* features exhibits on Rockland Lake's ice harvesting history, area flora and fauna, the formation of the Palisades Interstate Park Commission and the Lenape Indians.

The *Orangetown Historical Museum & Archives* was founded in 1992 to acquire, preserve and exhibit objects that primarily reflect the history of the Town. The museum is administered by the Town, and is housed in two historic buildings: The Isaac DePew House, in Orangeburg, and the Michael Salyer House, in Pearl River.

The *Piermont Historical Society* was begun in 2005, initially to restore the village's 19<sup>th</sup> Century Erie Railroad train station, which was ultimately purchased by Rockland County as parkland. The Society's mission is now to preserve Piermont's architecture, history, and cultural heritage, as well as to protect its open space and scenic resources.

The *Pomona Cultural Center*, located in a former schoolhouse, offers a variety of art exhibits and workshops, and periodically displays documents on the area's history compiled by the Village's historian. When not on display, these resources are located within Village Hall.

*Rockland County Archives*, part of the Rockland County Clerk's Office, was created in 1987 to meet the growing need for storage of historical, vital and administrative records required by the New York State Records and Disposition Law. The Archives contain a collection covering more than 40,000 cubic feet of material that documents the history of Rockland County and its residents. The collection includes naturalization records, court proceedings, maps, marriage records and road surveys. The Archives provides genealogists and the public with access to various reference databases through its search kiosk.

The *Rockland County Volunteer Fire Services Museum*, located within the County's Fire Training Center in Pomona, explores 200 years of fire service history through memorabilia, including a horse-drawn steamer, hand-drawn hose cart and antique fire trucks.

The *Rockland Room Collection* at New City Library maintains more than 4,500 print materials, a large collection of local family names and genealogy, online genealogy subscription services and maps. The New City Library also sponsors the Genealogical Society of Rockland County, which was founded in 1985 and is dedicated to copying, digitizing and publishing the county's church, funeral home, state census and cemetery records, among other projects.

The *Salvation Army Heritage Museum*, founded in 1982 and located at the Salvation Army's eastern territorial headquarters in West Nyack, is dedicated to preserving the organization's history.

*Sloatsburg Historical Society*, located at the Sloatsburg Public Library, was founded in 1979 and actively pursues restoration and preservation of key local historical sites, and nominates sites for listing on the National Register of Historic Places. The Society also displays a permanent exhibit of artifacts excavated from the Spring House Rock Shelter in the village.

*Stony Point Battlefield State Historic Site* offers self-guided tours and museum exhibits covering the history of Rockland's only Revolutionary War battlefield and the 19<sup>th</sup> Century Stony Point Lighthouse.

The *Suffern Railroad Museum* opened in 1998 and is located in a restored 1908 Wells Fargo building adjacent to a commuter parking lot. The museum is open by appointment.

The *Suffern Village Museum*, located in the Village's municipal building, opened in 1980 and displays exhibits relating to the history of Suffern and the Ramapo area from its earliest settlement through the present day. The museum is open by appointment on Sunday afternoons from September through June.

*Tappantown Historical Society* was founded in 1965 to preserve, protect and enhance buildings and sites in Tappan's 85-acre historic area, and to continue Tappan's heritage of architecture and history.

*Trailside Museum, Nature Center and Zoo at Bear Mountain*, established in 1927, is an interpretive center at the former site of Fort Clinton, on a bluff 250 feet above the Hudson River. Its four museums are devoted to local geology, history, nature study and fauna exhibits highlighting local reptiles, fish and amphibians. The museums also have been involved with the restoration of the nearby Iona Marsh.

The *West Branch Conservation Association* is a nonprofit historic preservation and open space conservation organization, founded in 1940 and incorporated in 1971. The group was responsible for two recent property listings on the State and National Registers, the Crow House and Contempora House in New City. West Branch listed these sites as part of an effort to form a new intermunicipal historic district including properties in Ramapo and Clarkstown. The organization has also protected or assisted in the protection of more than 1,000 acres of land in the South Mountain Road valley.

### **Scenic Byways, Historic Roads, and Other Scenic Resources**

#### *Scenic Byways*

According to the New York State Department of Transportation, which administers the State's Scenic Byways program, a scenic byway is a "road corridor which is of regionally outstanding scenic, natural, recreational, cultural, historic or archeological significance." Scenic byways are roads "with a story to tell." Created in 1992 by the State Legislature, the Scenic Byways program promotes both economic development and resource conservation.

To be designated a scenic byway, a roadway is expected to advance at least one of five themes:

- *Scenic*: Natural or cultural landscape that provides an especially memorable or appealing visual experience;
- *Natural*: Geological formations, topography, wildlife habitats, and hydrologic features;
- *Recreational*: Active or passive recreation opportunities such as state and local parks, reforestation areas, hiking trails, ski areas, water access points, and indoor recreational facilities;
- *Cultural*: Examples of the state's heritage such as churches, museums, schools, civic buildings, and other sites of ethnic importance or working landscapes; or
- *Historical (including archeological)*: Locations of pivotal historical events, whether or not there remains physical evidence of those events, and sites related to individuals or groups that affected the state's history.

Sponsors may nominate a road for State designation by submitting a package consisting of a resource inventory, a narrative and supporting documentation such as photographs and maps. A separate corridor management plan is submitted with the nomination package. Public participation and local action are key elements of the nomination process.

Benefits for communities with designated scenic byways include economic development through the promotion of tourism; resource management through generating support for protection and enhancement of natural and manmade resources; community amenities including picnic and rest areas; visitor management by distributing visitors to control their effects on local resources; and roadway management through encouraging stewardship of the road and its environs.

Rockland County does not contain any New York State-designated Scenic Byways; however, the Palisades Interstate Parkway is designated as a Scenic Parkway, and the Bear Mountain Bridge, Bear Mountain State Park roads (including Seven Lakes Drive, U.S. Routes 9W and 202 and the road to Iona Island), and the Tappan Zee Bridge are all designated as Scenic Roads, designations which were part of a predecessor scenic roads program (see Figure 9.4).

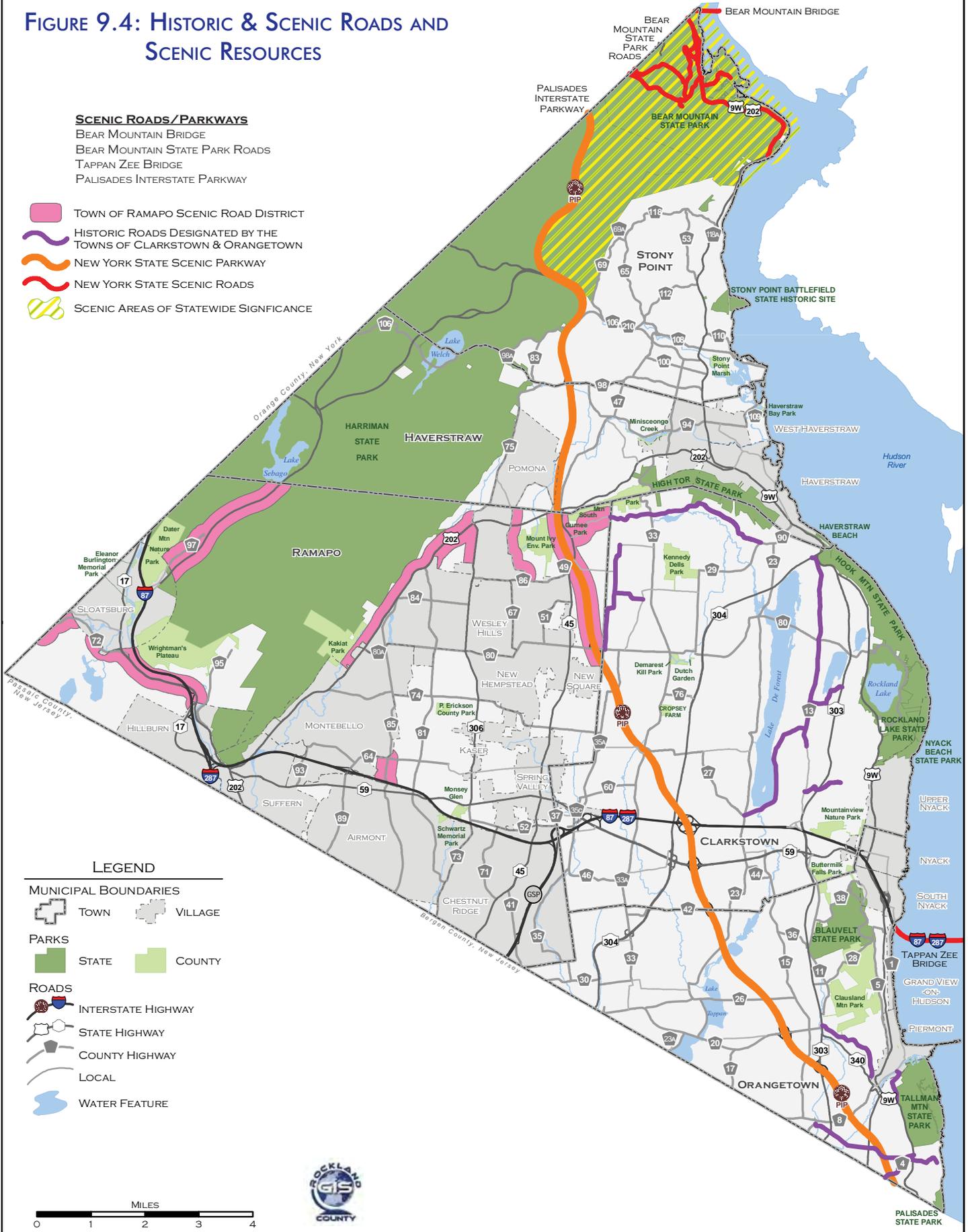
Within Rockland, several issues relating to scenic byways are evident. The Palisades Interstate Parkway is listed under the State's program as a parkway, while the Bear Mountain Bridge, the Bear Mountain State Park Roads, and the Tappan Zee Bridge are listed as scenic roads. However, the roads and trails within Rockland's other major State parks – Harriman, High Tor, Rockland, Blauvelt, and Tallman – are not included. This has created a situation in which one portion of a road is designated as scenic, but other portions of the same road, with similar character, are not. Thus, Seven Lakes Road and Route 9W are "scenic" in Bear Mountain State Park, but not in Harriman State Park or High Tor/Hook Mountain State Parks, respectively. Extending the scenic road designation to these other portions would promote better linkage of the county's scenic resources and would ensure greater consistency.

A key element of the State's Scenic Byways program is preparation of a corridor management plan, which addresses the long-term objectives and management of the byway and ensures that its visions and goals are met and sustained. According to the New York State Department of Transportation, corridor management plans have not been prepared for the scenic roads in Rockland, only for the Palisades Interstate Parkway. The department has indicated that it generally accepts designation of proposed scenic roads if a community is willing to complete a management plan. Thus, a first step for extending scenic designation to the remaining portions of these roads is to prepare these corridor management plans. This task is typically instigated by the relevant municipal government and often carried out by a designated nonprofit organization. Because the roads in question may cross municipal boundaries, the County should provide assistance in coordinating development of corridor management plans and the subsequent nomination process for scenic designation for additional road segments.

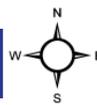
In addition to the State Scenic Byways program, the Federal Highway Administration administers the National Scenic Byways program, established in 1992 to recognize, preserve and enhance certain roads throughout the country. Roads may be designated as "All-American Roads" or "National Scenic Byways" based on one or more archeological, cultural, historic, natural, recreational and scenic qualities.

While none of Rockland's roads is currently designated under the National Scenic Byways program, the Palisades Interstate Parkway's Corridor Management Plan has set forth a goal to work with New Jersey to pursue national scenic byway designation for its entire length and to manage the parkway as a single entity. This process of national scenic designation is ongoing. In addition, the Hudson River Valley Greenway (which includes Rockland County) was awarded a grant in 2005 by the Federal Highway Administration to explore the potential for a system of scenic byways in the Hudson River Valley. Goals of the project, which is ongoing, include an initial public outreach process, an evaluation of the status of roads initially designated under New York State's Scenic Roads Program and identification of roadways that could be nominated as scenic byways in the Hudson River Valley.

**FIGURE 9.4: HISTORIC & SCENIC ROADS AND SCENIC RESOURCES**



HISTORIC & CULTURAL RESOURCES



Shown as above

### *Local Historic and Scenic Roads*

Similar to scenic roads, historic roads are any road or portion of road that has particular historic value or aesthetic interest because of its contribution to municipalities, counties, states, or the nation. Many of Rockland's historic structures are found along such pre-revolutionary roads as Viola Road and Route 202 in Ramapo; Strawtown Road, South Mountain Road and Germonds Road in Clarkstown; Main Street in Stony Point; Sickletown Road, Western Highway and River Road/Piermont Avenue in Orangetown; Kings Highway (County Route 13) in Clarkstown and Orangetown; and Mile Road in Montebello. Other historic roads include Middletown Road in Clarkstown and Kings Road (State Route 45), Orange Turnpike (State Route 17), Spook Rock Road, and Saddle River Road in Ramapo. Some of these roads follow earlier paths created by the Algonquin Indians who lived in the area prior to European settlement. Some also contain red sandstone houses, reflecting the Dutch and early colonial settlement patterns, which are intermixed with later period historic homes.

Orangetown, Clarkstown, and Ramapo have each adopted laws designating and regulating historic or scenic roads (shown on Figure 9.4). The Orangetown and Clarkstown codes outline the designation criteria and procedure and identify restrictions on maintenance and alteration of historic roads (four for Orangetown and six for Clarkstown). The Ramapo Scenic Roads District law applies to an area 1,000 feet from either side of the centerlines of 10 roads and provides for review by the Town Planning Board and Building Inspector. These historic and scenic roads local laws could serve as models for other Rockland towns and villages who wish to recognize and preserve roadways that have played a significant role in their history and are important to the community identity.

### *County Role*

Designation of scenic byways or historic roads in Rockland has traditionally been accomplished at the state level, in the case of scenic byways, or at the local level, in the case of historic roads. However, the County may take an active role in designating and protecting these resources in several ways. For scenic byways, the County could participate in the nomination process for the New York State Scenic Byways program and assist the Hudson River Valley Greenway in the exploration of potential scenic byways in the region. For locally designated historic roads, the County could provide support to municipalities in drafting legislation and forming the institutions necessary to select and preserve historic roads.

More directly, the County should pursue creation of a Rockland County Historic Roads Program, as recommended in the *River to Ridge* plan. In addition, the County could include lands abutting designated scenic byways or historic roads in its open space acquisition plans. The County Historic Preservation Board has previously evaluated potential historic roads throughout the county and is preparing a proposal that certain County roads be designated by the County Legislature as historic roads.

### *Scenic Areas of Statewide Significance*

Statewide, the New York State Department of State's Division of Coastal Resources has designated 15 Scenic Areas of Statewide Significance (SASS), or areas encompassing special, highly scenic landscapes that are accessible to the public and recognized for their outstanding quality. New York's Coastal Management Program (CMP) includes two policies, to be included in Local Waterfront Revitalization Programs (LWRPs), providing for the protection and enhancement of these scenic resources. One policy provides for the designation and protection of the SASS itself, and the other policy requires that proposed actions not located within a designated SASS must still protect, restore or enhance the overall scenic quality of the coastal area. Actions undertaken by State and federal agencies that are within a designated SASS must be consistent with these policies, but local consistency is only relevant if the community has adopted an LWRP or scenic zoning regulation such as an overlay district. A portion of

Rockland County, mainly consisting of Bear Mountain State Park in the northern part of Stony Point, is within the Hudson Highlands SASS, including the sub-units Bear Mountain State Park, Iona Island Marsh, Iona Island and Jones Point. The Hudson Highlands SASS consists of a 20-mile stretch of the Hudson River and its shorelands, varying in width from approximately one to six miles. The area is known for its striking topography and varied vegetation, as well as a high degree of public recognition stemming from the work of the Hudson River School of painting. The portion of the Hudson Highlands SASS within Rockland is shown on Figure 9.4. Stony Point's LWRP includes a policy to prevent impairment to the Hudson Highlands SASS, and outlines siting and facility-related guidelines intended to achieve this purpose.

## **Other Historic Resources**

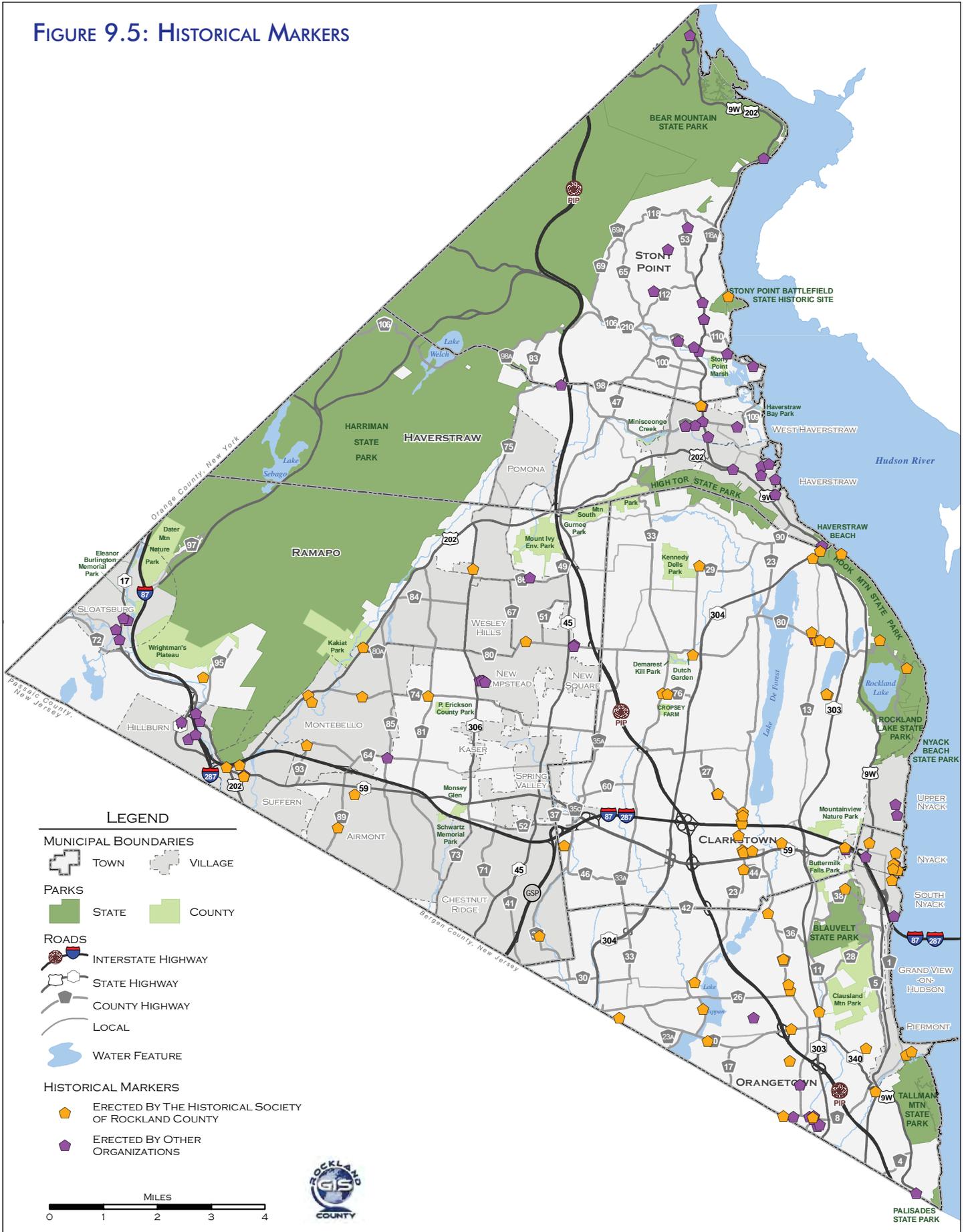
### *Hudson River Valley National Heritage Area*

The Hudson River Valley National Heritage Area, established by Congress in 1996, is one of 40 federally designated Heritage Areas, funded through the National Park Service and the Department of the Interior via annual appropriations. Most of the 90 sites recognized within the 4-million-acre Heritage Area are clustered around the Hudson River itself, but a number are found throughout the Hudson River Valley region. Heritage sites found within Rockland County are the Stony Point Battlefield, Bear Mountain and Harriman State Parks, the Jacob Blaauvelt House and the Edward Hopper House and Museum.

### *Historical Markers*

In addition to the resources discussed above, which are officially designated either on the National or State Registries or by local law, many other areas are recognized in Rockland through less formal means. The Historical Society of Rockland County and other organizations, including the New York State Department of Education, have erected more than 100 historical markers to commemorate significant historical areas and events. Some of these sites are also listed on the National Register or locally protected, but most carry no official designation. The Rockland County Office of Tourism publishes a list and map of the markers in its promotional brochures. A list of the historical markers erected by the Historical Society of Rockland County since 1980, its predecessor groups and other organizations is provided on the Rockland County Planning Department's website, <http://www.co.rockland.ny.us/planning/landuse/HistoricSitesMarkers.pdf>, and locations are shown on Figure 9.5.

FIGURE 9.5: HISTORICAL MARKERS



HISTORIC & CULTURAL RESOURCES



Shown as above

### *Historic Trails*

In addition to the recreational trail system discussed in **Chapter 8.0: Parks & Open Space** (which includes the Long Path and the Greenway), an informal trail system exists in Rockland and the region, serving historic sites. For example, there is a quarter-mile self-guided interpretive trail at Stony Point Battlefield; a Hudson River Lighthouse Trail linking the seven remaining lighthouses on the Hudson (including the Stony Point Lighthouse); and the 1776-1779 Trail connecting the Stony Point Battlefield and Fort Montgomery State Historic Sites, following the route used by both British and American attacking forces during the Revolutionary War. In addition, the National Park Service is planning the Washington-Rochambeau Revolutionary Route, a 680-mile trail stretching from Newport, Rhode Island, to Yorktown, Virginia, which marks the roads used by the U.S. Continental Army troops under George Washington and the allied French troops under Jean-Baptiste de Rochambeau. Within Rockland, the trail would run from Kings Ferry in Stony Point southwesterly through the Town of Haverstraw and the Village of Suffern before entering into New Jersey. Various locations are being considered for developing a Washington-Rochambeau trail museum in the county.

### *Historic Sites and Structures Survey*

As a project for the 1998 celebration of the Rockland County Bicentennial, during 1996, 1997, and 1998, the Historical Society of Rockland County undertook a comprehensive survey of the county's historic sites and structures. The survey was an effort to increase awareness of the history of Rockland County by new residents and of historic sites and structures by local government planning boards. The survey, conducted by a team of more than 40 historians, architects and other volunteers, documented more than 3,000 sites and structures. To complete the survey, the volunteers first studied relevant historical documents and maps and then generally drove all public roads in the county to record historic structures visible from the roadways.

The work of the historians and other volunteers resulted in a collection of 42 notebooks, each containing completed survey forms organized by the various geographical areas of the county. The surveyed sites are found throughout the county, but concentrations are located within the village and hamlet centers of Haverstraw Village, Hillburn, the Nyacks, Pearl River, Spring Valley, Suffern, Piermont, Palisades, Grand View, Stony Point and Tappan.

The Rockland County Planning Department provided technical assistance for digital mapping of over 1,600 surveyed sites that existed or contained structures built before the year 1900. Due to privacy concerns, the digitally mapped portion of the survey is not published or released to the public in such a way that addresses or precise locations can be determined. *The Historic Sites and Structures Survey of The Historical Society of Rockland County* is a reconnaissance survey and is used as a reference tool only. The surveyed properties containing resources from before the year 1900 have been mapped, and the map is available from the Rockland County Planning Department. The survey is not referenced in or used as the basis for any County, state or federal regulations.

As a reference tool, the completed surveys were used by the SHPO in developing the documentation for establishing the Van Houten's Landing National Register Historic District in the Village of Upper Nyack. The Village of Montebello also used the completed survey forms as background information to complete a comprehensive architectural survey of historic village structures. On a regular basis, the digitally mapped portion of the survey is used for reference by the Rockland County Planning Department staff when reviewing land development applications pursuant to SEQRA requirements and the New York State General Municipal Law.

### *Conclusion*

There is significant overlap among historically significant sites, areas, and structures. Many are listed on the State and National Registers, protected by local law and denoted by historic marker. However, a number of Rockland's historic resources, while recognized by local organizations as significant, have not been afforded the formal designation of listing on the National or State Registers of Historic Places or protection by local municipal law. This makes such historic resources particularly vulnerable to destruction or significant alterations that diminish their value. Many of these locally recognized resources might be eligible for listing on the National and State Registers, and because they have been identified already either through historic marker or historical survey, much of the work for the nominating process may have already been done. In addition, a number of 20<sup>th</sup> Century sites in Rockland are now eligible for National Register listing, and could be researched further to begin that process. The County should continue to work with the Historical Society of Rockland County and other appropriate organizations to ensure that these resources are granted official recognition.

## **9.2 Cultural Resources**

The arts have become a major engine in the economic pictures of cities and regions, significantly contributing both directly and indirectly to state and local economics. According to the National Governors Association Center for Best Practices, which commissioned a 2001 study on the Role of Arts in Economic Development, "thriving cultural life generates income, jobs, and tax revenue."<sup>1</sup> Arts and heritage activities create an identity for localities, regions, and states, and are also key factors in quality of life, which is now viewed as a critical driver in location decision making for potential employers and workers. More directly, the nonprofit arts business is a multibillion national industry that supports millions of full-time jobs, and provides revenue to local, state and national governmental agencies. The development of existing arts and cultural resources can form the centerpiece of a renewed and revitalized Rockland County for the future, as a county strong in its artistic resources can facilitate tourism which creates jobs and revenue, and can also demonstrate that the County is invested in the educational and cultural well-being of its residents.

In addition to benefitting from its proximity to New York City and the natural beauty of the Hudson Valley, Rockland has an extraordinary history of artistic and cultural resources. By the middle of the 20<sup>th</sup> Century, it had become home to a number of visual and performing artists, writers, musicians and celebrities of stage and screen, including painter and ceramicist Henry Varnum Poor; Dutch Garden designer Mary Mowbray-Clarke; playwright Maxwell Anderson; writer Carson McCullers; composers Aaron Copland and Kurt Weil; artists Edward Hopper, Jasper Johns and Richard Pousette-Dart; Paramount Pictures founder Adolph Zukor; actresses Helen Hayes, Katharine Cornell, Lotte Lenya; actors Charlie Chaplin and Burgess Meredith; and more recently dancer Mikhail Baryshnikov, pianist Andre Watts, producer-director Jonathan Demme, actors Al Pacino and Ellen Burstyn, musician Tito Puente, choreographer Bill T. Jones, and actor and clown Bill Irwin. There are thousands of people working in theaters, film, concert halls, fashion, product design, and in all fields of arts and arts education currently living in Rockland.

For Rocklanders, the arts are an integral part of life and personal well-being, and can be an even greater economic tool. The County has an opportunity to capitalize on existing resources and nearby well-

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<sup>1</sup> NGA Center for Best Practices. Issue Brief: "The Role of the Arts in Economic Development." June 25, 2001.

funded markets. The county's cultural resources also include the organizations supporting artists and their work. These range from County and municipal agencies to nonprofits to community heritage groups, and focus on a broad range of cultural endeavors. The following section summarizes Rockland's major resources and organizations promoting arts, entertainment and culture; it is not intended to be comprehensive.

### **Rockland County Office of Tourism**

The Rockland County Office of Tourism is located in New City. Inspired by the "I LOVE NY" marketing campaign, a fledgling tourism program was started by the Rockland County Legislature's Committee on Arts, Culture and Tourism in 1990, and formally established in 1994 by County Executive C. Scott Vanderhoef. Since its inception, the Office's public outreach efforts have reached across Rockland, the Hudson River Valley region and beyond. The Office maintains a Web site ([www.rockland.org](http://www.rockland.org)) where visitors can learn about major cultural and recreational events in Rockland, access a comprehensive listing of the county's restaurants, download a number of tourism brochures and maps, as well as read the Office's seasonal newsletter, *On the Move*. Of the more recent initiatives, the Office has called upon Rockland's communities to join together under a "RiverTowns of Rockland" brand. This effort seeks to organize events under one umbrella; for example, new brochures might promote summer concerts or art trails in the various River Towns. Signage on the New York Thruway and other locations would help direct visitors to attractions associated with the county's rivers.

### **Art in Public Places Program of Rockland County**

In 1986, the Rockland County Legislature adopted a law allocating 1% of the bonded capital cost of County government construction projects for public art. Rockland was the first county in New York State (outside of New York City) to establish an Art in Public Places program. The program is run by a volunteer committee that oversees the commission, selection and placement of art. Committee members are appointed by the County Executive and confirmed by the County Legislature, and are experts in the fields of art, art history, architecture and design. The Rockland Center for the Arts administers the program and maintains a map and list of commissioned projects.

### **Works Progress Administration (WPA) Murals**

Rockland County is home to a number of murals painted under the auspices of the Works Progress Administration's (WPA) Federal Art Project during the Great Depression era. Three WPA murals – "Patriotic Themes," "Four Seasons," and "The Legends of Rip Van Winkle and Sleepy Hollow" – hang in the Rockland Psychiatric Center in Orangeburg. Other WPA-era murals are found at several post offices in Rockland, including murals depicting scenes from local history at the Nyack post office and a sculptured relief called "Communication" at the Suffern post office. In addition, Dutch Garden, the County park adjacent to the Rockland County Courthouse in New City, was the only formal landscape architecture project undertaken in the WPA program and features unique carvings on the brick structures, with all of the bricks made in Haverstraw.



**Public art projects at the new County Courthouse (left) and the County Sheriff's Department (right).**

*Source: Rockland Center for the Arts*

### **Hudson River Sculpture Trail**

Located along the waterfront adjacent to the Harbors at Haverstraw complex in the Village of Haverstraw, the Hudson River Sculpture Trail opened in 2006 as part of a goal to bring 100 significant outdoor sculptures to the banks of the Hudson River from Manhattan to Saratoga in conjunction with the Hudson-Fulton-Champlain Quadricentennial celebration in September 2009. The trail is accompanied by literature and programs designed to bring local area residents and students in contact with the artwork and to educate viewers about the artists.

### **Community Organizations and Resources**

In addition to the organizations discussed below, Rockland County is home to a number of cultural heritage groups that celebrate the county's growing diversity. These groups are not specifically identified because they are constantly evolving and a comprehensive listing is not possible; however, they are a major piece in Rockland's cultural fabric and an important resource for many residents.

#### *Arts Council of Rockland*

Located in Garnerville, the Arts Council of Rockland promotes the county's arts programs by administering grants through funds from the New York State Council on the Arts; awarding scholarships to graduating high school seniors in the county; conducting an annual fundraising campaign for Rockland nonprofit artistic and cultural organizations; maintaining an online artist registry; distributing annual County Executive Arts Awards; publishing a newspaper of artistic happenings; and sponsoring a variety of workshops, exhibitions and special events.

#### *Rockland Center for the Arts (RoCA)*

For more than 60 years, Rockland Center for the Arts (formerly the Rockland Foundation), located in West Nyack, has been one of the key cultural centers in Rockland, presenting a wide variety of arts programs including a performing arts series, ongoing visual arts exhibitions, an extensive School for the Arts for adults and children and a Summer Arts Day Camp. RoCA has an extensive arts in education program, working closely with local schools to integrate arts into the school curriculum, and is also host to the Catherine Konner Sculpture Park.

#### *ArtsRock*

Founded in 2009 by a local group of entertainment industry professionals, ArtsRock seeks to use its collective resources to provide performing arts that are available, affordable and accessible to everyone, and to support existing nonprofit performing arts organizations through unified marketing.

#### *Keep Rockland Beautiful*

Keep Rockland Beautiful, an affiliate of Keep America Beautiful, seeks to promote a "cleaner and more beautiful" county. Programs include a trash can painting project in which the group has worked with local artists to decorate more than 200 trash cans at bus shelters, parks and playgrounds in the county; and a program which works with high school students and faculty on principles of good land use planning.

#### *Arts Alliance of Haverstraw*

The Arts Alliance of Haverstraw's multicultural center offers art exhibitions, concerts, performances and creative arts programs for a range of ages.



**Arts Alliance of Haverstraw.**  
Source: Rockland County  
Office of Tourism

### *Garnerville Arts & Industrial Center*

Located in a pre-Civil War textile mill in Garnerville, the Garnerville Arts & Industrial Center leases artist studios and work spaces, and is home to GAGA Arts Center, which runs two galleries and sponsors regular exhibits and an annual arts festival in June. GAGA Arts Center is also working to attract a major art school satellite facility in Rockland County, and is looking to work with County and State officials in this effort.

### *Arts Students League of New York, Vytlacil Campus*

The Arts Students League of New York, based in Manhattan, gives instruction in drawing, painting, sculpture, and other fine arts. In 1995, the organization received a donation of a 15-acre property in Sparkill, which became its Vytlacil Campus (named for the late artist whose family donated the land and funding). The campus provides education and support to working artists, with facilities including a foundry, metal forging and welding facilities, a kiln and a full artist studio.

### *New York State Council on the Arts (NYSCA)*

Established in 1960 and based in New York City, NYSCA awards more than 2,700 grants each year to arts organizations throughout the state. In the past 10 years, the Council has awarded nearly \$3 million in grants to Rockland County arts organizations.

### **Theaters and Dance Ensembles**

Rockland contains a number of theaters for live performances, including the Penguin Repertory Theatre in Stony Point; Suffern's Antrim Players, the longest-running community theater in the county; Elmwood Playhouse in Nyack; the Ramapo Cultural Arts Center in Spring Valley; and the Stage Left Children's Theatre in Tappan. Theaters and other performance spaces are also found at Rockland's colleges. Other theatrical and dance ensembles include the Hudson Vagabond Puppets in Blauvelt and the Rockland Youth Dance Ensemble in Nanuet, best-known for its annual Nutcracker performances.

### **Musical Organizations**

Many organizations in Rockland offer music instruction and performance, including the Rockland Conservatory of Music, the Rockland County Choral Society, the Rockland County Concert Band, and the Rockland Symphony Orchestra. Other organizations have a promotional or educational mission, such as the Rockland County Jazz & Blues Society, the Rockland County Music Educators' Association and the Rockland County Music Teachers Guild.

### **Farms and Markets**

Rockland's agricultural heritage is reflected in the continued existence of working farms and farmers' markets, many of which are open to the public, and have both a historic and recreational component. Examples include Dr. Davies Farm in Congers, the Orchards of Concklin in Pomona, Cropsey Farm in New City, Van Houten Farms in Orangeburg and farmers' markets in several of the villages.



**Cropsey Farm House in New City.**

*Source: River to Ridge*

### 9.3 Policies and Plans

#### *Hudson River Valley National Heritage Area Management Plan (2002)*

This plan, produced by the Hudson River Valley Greenway Communities Council and the Greenway Conservancy for the Hudson River Valley, Inc., sought to increase access to and interpretation of the nationally significant cultural and natural resources related to the Heritage Area's overall themes of "Freedom and Dignity," "Nature and Culture" and "Corridor of Commerce." The management plan proposed the implementation of Heritage Area Trails to link heritage sites and bring together their communities and public and private agencies to create partnerships. One proposed trail, the Revolutionary War Heritage Trail, would comprise much of Rockland County, including Stony Point Battlefield and the entire Hudson River waterfront.

#### *Rockland County Greenway Compact Plan*

This program is part of the state-sponsored Hudson River Valley Greenway program, a voluntary regional strategy for preserving the scenic, natural, historic, cultural and recreational resources of the Hudson River Valley while promoting compatible economic development. All cities, towns and villages in the 13 counties comprising the Hudson River Valley are eligible to participate, including both "riverside" communities that border the Hudson and "countryside" localities with no physical connection to the River but within the geographic boundary of the Greenway area. The elements of the Hudson River Valley Greenway program include the following criteria:

- **Natural and Cultural Resource Protection:** Protect, preserve, and enhance natural resources including natural communities, open spaces and scenic areas as well as cultural resources including historic places and scenic roads.
- **Regional Planning:** Develop mutually beneficial regional strategies for natural and cultural resource protection, economic development (including necessary public facilities and infrastructure), public access and heritage and environmental education.
- **Economic Development:** Encourage economic development that is compatible with the preservation and enhancement of natural and cultural resources including agriculture, tourism and the revitalization of established community centers and waterfronts.
- **Public Access:** Promote increased public access to the Hudson River through the creation of riverside parks and the development of the Hudson River Valley Greenway Trail System.
- **Heritage and Environmental Education:** Promote awareness among residents and visitors about the Hudson River Valley's natural, cultural, scenic and historic resources.

In exchange for participation in the Greenway program, communities can receive technical assistance and funding for community planning projects, with typical grants ranging from \$5,000 to \$10,000 and greater financial assistance available for projects involving two or more municipalities.

There are currently 23 Greenway Communities in Rockland: the County itself; the Towns of Clarkstown, Haverstraw, Orangetown, Ramapo and Stony Point; and the Villages of Airmont, Chestnut Ridge, Grand View, Haverstraw, Hillburn, Kaser, Montebello, New Hempstead, New Square, Nyack, Piermont, Sloatsburg, South Nyack, Spring Valley, Suffern, Upper Nyack and West Haverstraw. Municipalities can become a Greenway community by passing a resolution.

After becoming a Greenway Community, the next step in the Greenway program is to become a Greenway Compact Community. **See Chapter 8.0: Parks and Open Space** for a complete discussion and recommendations on the Greenway Compact.

Working in tandem with the Hudson River Valley Greenway Communities Council is the Rockland Riverfront Communities Council (RRCC), an organization dedicated to improving land use planning and development through intermunicipal cooperation. RRCC is intended to foster greater cooperation among its member communities, allowing them to effectively coordinate their actions and obtain additional grants for improvements to their waterfronts. The organization is comprised of the Towns of Clarkstown, Orangetown, Haverstraw, and Stony Point; the villages of Grand View, Haverstraw, West Haverstraw, Nyack, South Nyack, Upper Nyack, and Piermont; as well as the County of Rockland and the Palisades Interstate Park Commission.

#### *New York State Historic Preservation Plan (2009-2013)*

The New York State Historic Preservation Office (SHPO) prepares a comprehensive statewide historic preservation plan approximately every five years as part of its responsibilities under the National Historic Preservation Act. While the State Historic Preservation Plan does not include any information specific to Rockland County, it does contain a number of policies and implementation strategies that the County should be aware of in its historic and cultural resources planning.

## **9.4 Issues and Recommendations**

Rockland County has made significant progress in the preservation and promotion of historic and cultural resources. From the substantial research and locally driven efforts at historic preservation – municipally recognized historic districts, sites, and roads; historic markers; and the countywide survey of historically significant properties – to the creation of institutions ranging from the Historical Society of Rockland County to the Rockland Center for the Arts, to the forming of County agencies such as the Historic Preservation Board, the Arts in Public Places Committee, and the Office of Tourism, many of the pieces to a comprehensive historical and cultural program are already in place. The task now is to connect the pieces and the various agencies and organizations with a role to play, so that, rather than working separately and focused primarily on individual goals, the groups can work together and achieve greater results. Because the County has a more regional perspective, it may be the most logical entity to take the lead in this coordination, providing technical support and guidance, helping to fill key gaps, and potentially even partnering with certain groups on grants and other initiatives.

### ***Recommendation #1: Support Artistic and Cultural Organizations and Pursue a Countywide Marketing Strategy to Publicize Rockland's Arts and Cultural Activities.***

Rockland County has particular attributes in arts and culture, upon which it can build to attract visitors from throughout the region. In addition to its critical location in the New York City metropolitan area and aesthetic and natural resources, the county has long been home to a diverse group of visual and performance artists. Rockland is also located in close proximity to major regional arts and cultural destinations in the Hudson Valley, including Storm King in Orange County and Dia:Beacon in Dutchess County, presenting opportunities for mutually beneficial, regional co-marketing strategies. One example of such a strategy, as suggested by the Garnerville Arts Project Gallery, would be creation of an arts and culture trail in the Hudson Valley aimed at travelers seeking an extended trip in the region. To further promote this effort, the County should explore increasing public transportation access and supporting the creation of weekend ferry service or to connect visitors from New York City to Rockland County.

Arts and cultural activities contribute significant economic value to Rockland County, and play a major role in the quality of life of its residents. In addition, they can play a major role in revitalizing traditional downtown and hamlet areas by attracting tourists. The County should support its artistic and cultural endeavors by providing technical assistance, facilitating inter-group cooperation and collaboration and, more importantly, funding, as available, for arts groups to expand and improve their facilities. Key in this effort is the creation of a countywide marketing and promotional effort to publicize Rockland's existing assets. The recently launched RiverTowns of Rockland initiative, a co-marketing initiative sponsored by the Office of Tourism, has proved successful, and could serve as a model for more broad-based future promotions.

***Recommendation #2: Support Funding for a Rockland County Visitor Center and Countywide Signage and Wayfinding Program for Major Cultural and Historic Destinations.***

Rockland's unique historic and cultural destinations, as well as its wide network of parks and recreational facilities, together make the County a true regional destination. While the Rockland County Office of Tourism maintains a website offering a full range of travel service information and an up-to-date calendar of major events, there are no visitor centers located at the primary points-of-entry into the county. The County therefore should seek initial and ongoing funding to establish and operate visitor centers that would provide stop-off facilities and information for visitors and residents alike. Possible locations might include the major gateways into Rockland such as the Tappan Zee Bridge/New York State Thruway and the Palisades Interstate Parkway. These facilities could be staffed with knowledgeable volunteers to reduce ongoing labor costs, and maintenance expenses could be shared by municipal, nonprofit, or retail partners who may be interested in sharing the space. The facilities also contain a mini-museum and art exhibition space, and would have parking, phone, and restroom facilities.

Beyond a "welcoming center" the County should take the lead in conducting a countywide wayfinding and signage study, as recommended by a 2008 visitor readiness study for the County. This would create uniform signage indicating distances between communities and directing visitors to major shopping, river villages, historic sites, arts and cultural attractions, food, lodging, and traveler services.

***Recommendation #3: Pursue the nomination of additional roads to the State Scenic Byways program. Create a County Historic Roads program.***

As discussed earlier, the designation of State Scenic Byways in Rockland County has been uneven; a number of roads that would clearly qualify for designation are not included, and some portions of roads are designated as scenic while other portions of the same road – with similar character – are not. Extending the scenic road designation to these other portions would promote better linkage of the county's scenic resources and would ensure greater consistency. Because the roads in question might cross municipal boundaries, the County should provide assistance in coordinating development of corridor management plans and the subsequent nomination process for scenic designation for additional road segments.

A prime candidate for scenic byways designation in Rockland is the Route 9W Corridor, which joins Rockland's Hudson River communities, and is a tool for their promotion and economic prosperity. Because the corridor crosses municipal boundaries and jurisdiction, it makes sense for the County to take the lead in exploring and pursuing State Scenic Byway status. The County could work in this effort with the RRCC, given that the Route 9W Corridor encompasses these municipalities and jurisdictions.

In addition, the County will pursue creation of a Rockland County Historic Roads Program, particularly as significant efforts toward that goal have already been made. The County Historic Preservation Board has evaluated potential historic roads throughout the county and is preparing a proposal that certain County roads be designated by the County Legislature as historic roads.

The County should facilitate the creation and enhancement of trails to connect historic and cultural sites, and work with municipalities and property owners to limit the interference of new or expanded development on these trails. One tool for enhancing the county's existing historic trail network is for lands abutting designated scenic byways or historic roads to be included in the County's open space acquisition plans.

***Recommendation #4: Facilitate actions to list additional sites and districts on the National and State Registers, and additional sites as Heritage Sites.***

As discussed above, a number of Federal, State, County, and local organizations are in place with an interest in protecting and promoting Rockland's historic resources. The County will continue to support the towns and villages in researching and nominating additional sites and districts eligible for listing on the National and State Registers. It also will explore the listing of eligible County-owned properties on these registers. For example, several buildings at the Robert L. Yeager Health Center may be eligible for listing on the National and State Registers. Seeking listing of these buildings would be an opportunity for the County to lead by example in historic preservation, and could also make them eligible for grants which could be used for much-needed renovation and restoration. For designated sites, the County should use natural-looking materials in fencing to avoid inappropriate colors and textures, and will encourage the municipalities to follow its example.

On all levels, particular attention should be given to 20<sup>th</sup> Century sites that have recently become eligible and significantly contribute to Rockland's character. At the same time, the County will continue to educate municipalities on the model CLG local law developed by SHPO for the historic preservation of sites, districts, and roads. The County will also work with the Hudson River Valley National Heritage Area to designate additional sites as Heritage Sites and include them on future thematic trails.

One of the best ways to preserve historic properties is to ensure their adaptive reuse. Adaptive reuse is also an environmentally responsible and "green" approach to land use, since it provides potential locations for land uses without utilizing valuable undeveloped land or new building materials. Historic residences can be converted into affordable housing, professional offices, offices for nonprofit and cultural organizations, and other appropriate beneficial uses that serve a community need while preserving important historic resources. Other common uses for historic properties which can have economic development benefits are inns and bed and breakfasts. Participants at one of the public workshops for this Plan noted that Rockland County currently has a limited number of legal inns and bed and breakfasts, and that municipal zoning regulations often expressly prohibit or discourage such uses. The County should encourage towns and villages to allow for these small-scale lodging uses, as appropriate, so that visitors to Rockland do not have to travel outside the county to stay in inns or bed and breakfasts. **See Chapter 11.0: Economic Development**, for a discussion of the tourism industry.



## 10.0 HOUSING

Rockland County has a rich history of quality residential communities that include turn-of-the-century Victorian homes, mansions overlooking the Hudson River, suburban neighborhoods, condominium and townhouse complexes, and multifamily residential structures. Analysis of the qualities and characteristics of the housing stock in Rockland is critical in determining the important issues associated with the housing component of the Comprehensive Plan. Moreover, having an understanding of major trends, including population and its impact on housing supply and demand, can help nurture a healthy housing market.

The following portions of this chapter describe the existing inventory of housing in Rockland, provide an economic profile of those occupying the housing, project future supply and demand, and identify issues involved in better providing for the housing needs of County residents.

### 10.1 Existing Housing Supply and Production

Rockland County's housing supply and production must keep pace with and adapt to changing demographics and household composition. The following subsections highlight the characteristics and trends of the County's housing market.

#### Existing Housing Stock

More than 40% of Rockland's existing housing stock was constructed during the 1960s and 1970s, decades when homes were built at an average rate of at least 2,000 per year (see Table 10.1). This phenomenal growth in housing production, which started in the 1950s, was due largely to the opening of the Tappan Zee Bridge in 1955, and the completion of the New York State Thruway and the Palisades Interstate Parkway during the same decade. Home construction remained moderately steady through the 1970s, before beginning a steady decline during the three decades leading up to the present.

**Table 10.1: Rockland County Existing Housing Supply: Year Structure Built**

<i>Year Unit Built</i>	<i>Number</i>	<i>Percent</i>
2005 or later	1,893	1.9%
2000-2004	3,672	3.7%
1990-1999	9,509	9.6%
1980-1989	11,663	11.7%
1970-1979	18,912	19.0%
1960-1969	22,934	23.1%
1950-1959	14,333	14.4%
1940-1949	3,496	3.5%
1939 or earlier	12,932	13.0%
<b>Total Housing Units</b>	<b>99,344</b>	<b>100.0%</b>

*Source: U.S. Census Bureau, 2008 American Community Survey*

Information gathered from the 2008 American Community Survey (ACS) reveals that there are 99,344 total housing units in Rockland. This is a nearly 13% increase from the total housing units in 1990 and about a 5% increase from that in 2000.

As shown in Table 10.2, 71% of Rockland’s housing stock is owner-occupied, accounting for 67,675 of the County’s 94,687 occupied units. Rental units comprise 29% of the county total.

**Table 10.2: Rockland County Housing Stock by Tenure, 2008**

<i>Tenure</i>	<i>Number</i>	<i>Percent</i>
Owner-Occupied	67,675	71%
Renter-Occupied	27,012	29%
<b>Total Occupied Housing Units</b>	<b>94,687</b>	<b>100%</b>

*Source: U.S. Census Bureau, 2008 American Community Survey*

### Structure Types

Consistent with the prototypical American suburban model, the housing supply in Rockland is predominantly single-family homes. As Table 10.3 shows, the estimated number of single-family homes is just over 67,000, or about 68% of the total housing stock. Although some multifamily developments have been constructed over the last decade, they comprise only about 30% of all housing, according to the 2008 ACS estimates.

**Table 10.3: Rockland County Housing Structure Types, 2008**

<i>Units in Structure</i>	<i>Number</i>	<i>Percent</i>
1-unit, detached	60,071	60.5%
1-unit, attached	7,186	7.2%
2 units	7,475	7.5%
3 or 4 units	7,611	7.7%
5 to 9 units	6,656	6.7%
10 to 19 units	2,985	3.0%
20 or more units	6,474	6.5%
Mobile home	886	0.9%
<b>Total Housing Units</b>	<b>99,344</b>	<b>100%</b>

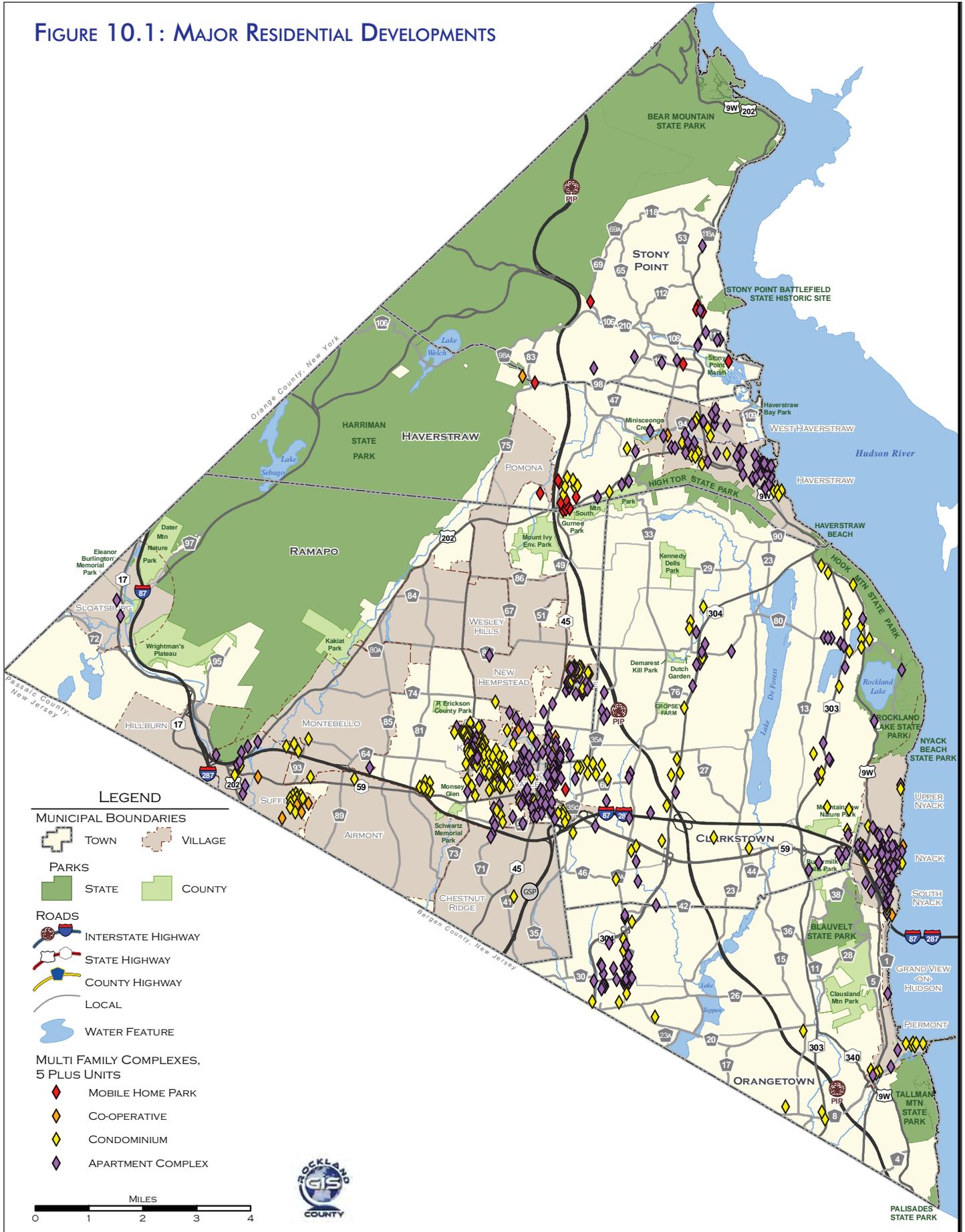
*Source: U.S. Census Bureau, 2008 American Community Survey*

Despite overall county trends, there are a number of Rockland municipalities that contain housing stock with high percentages of rental and multi-family units including the Villages of Haverstraw, Kaser, New Square, Nyack, South Nyack, and Spring Valley (see Figure 10.1). Multi-family homes can take on a variety of forms in terms of ownership (owner-occupied condominiums and cooperatives vs. renter-occupied apartments, including public assisted housing); unit type (townhouses vs. flats or garden apartments); and building type (low-rise-, mid-rise, and high-rise). Each of these housing types serves different needs for a diverse range of residents, and each can have varying impacts on communities.

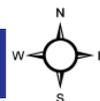
### *Apartment Complexes/Condominiums*

According to data collected by the Rockland County Planning Department, there are currently a total of 386 apartment and 229 condominium complexes with five or more units. This translates into 11,598 apartments and 11,853 condominium units (see Figure 10.1).

FIGURE 10.1: MAJOR RESIDENTIAL DEVELOPMENTS



HOUSING



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### *Housing Cooperatives*

With 11 properties comprising a total of 1,382 units, Rockland's inventory of housing cooperatives constitutes a fairly minor portion of its multifamily development complexes. All but one of the housing cooperative properties (Bon Aire in Suffern) have fewer than 200 units, and five of the remaining 10 each have fewer than 100 units. Suffern is home to five of Rockland's housing cooperatives, all of which are located along or adjacent to Route 59. Another two cooperatives are in Spring Valley near Route 45, while South Nyack, Nyack, West Haverstraw, and the Town of Haverstraw each have one. In general, Rockland's housing cooperatives are located among clusters of other multifamily developments such as apartment complexes and condominiums.

### *Mobile Homes*

In addition to traditional multifamily structures, there are 18 mobile home properties containing 1,073 mobile homes. As illustrated on Figure 10.1, the majority of the mobile home properties are located in the Town of Haverstraw; another five properties are in Stony Point, and Clarkstown has one. While mobile homes make up less than 1% of all housing structure types in Rockland (Table 10.3), they can be a viable option for the first-time buyer, senior, and emergency-services volunteer populations.

### *Senior Housing, Nursing Homes, Adult Homes & Assisted-Living Facilities*

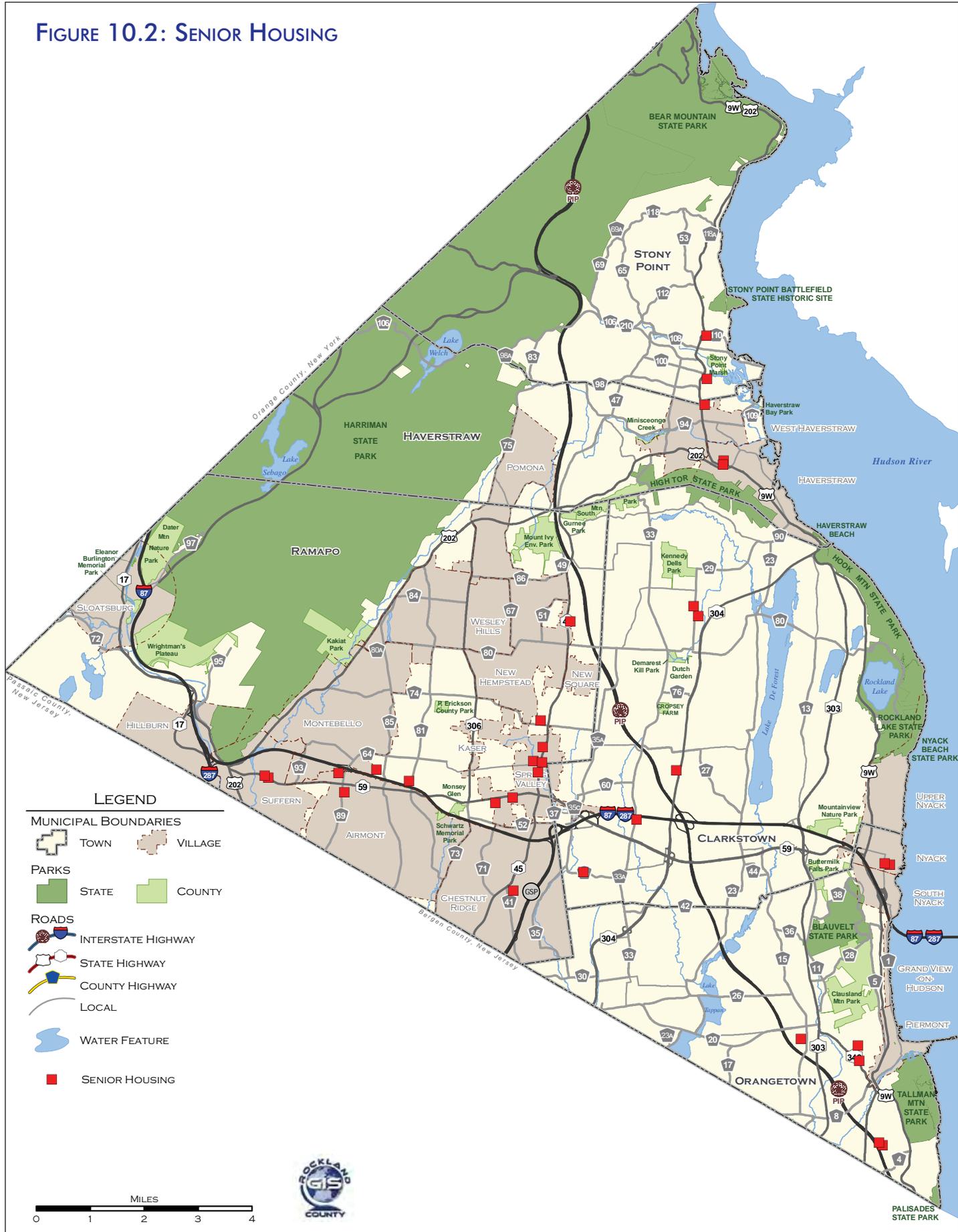
Rockland has an inventory of 32 senior housing complexes that are comprised of a total of 3,185 units (see Figure 10.2). Some of the 32 complexes provide community activities and nutrition centers, and most have access to public and/or senior transportation services.

There are a total of 18 adult homes and assisted-living facilities comprising a combined total of 1,530 units. In addition, there are nine nursing homes in Rockland County (see Figure 10.3).

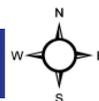
### *Public Assistance Housing*

Rockland maintains an inventory of 68 subsidized or affordable housing properties comprising a total of 4,089 units. As depicted on Figure 10.4, the majority of the County's subsidized housing properties are located in Ramapo, with a particularly high concentration clustered along Route 45 just north of Route 59 in Spring Valley. Rockland's subsidized and affordable housing stock includes housing for the disabled and senior populations, as well traditional public housing units. With 26 properties containing some 2,728 units, senior subsidized and affordable housing constitutes the majority – almost 67% - of the County's total subsidized and affordable housing inventory, while subsidized housing units for the disabled account for approximately 3% (21 properties, 135 units) of subsidized and affordable housing. There are 1,226 traditional public housing units throughout the county, constituting approximately 30% of Rockland's total subsidized and affordable housing stock. According to the Rockland County Consolidated Plan, 2010 – 2014, Rockland's Section 8 Housing Program currently consists of 3,462 vouchers and 3,087 participants.

FIGURE 10.2: SENIOR HOUSING



HOUSING

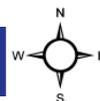


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**FIGURE 10.3: NURSING HOMES, ASSISTED LIVING, & ADULT HOMES**



**HOUSING**

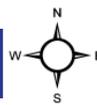


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FIGURE 10.4: SUBSIDIZED & AFFORDABLE HOUSING



HOUSING



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## Housing Density

Patterns of housing density are useful in understanding Rockland’s housing stock distribution. As Figure 10.5 illustrates, the county’s most significant housing unit densities are found in Suffern, near the convergence of Route 59, Route 202, and I-87/287; along with Spring Valley, Monsey, Hillcrest, Kaser, and New Square – all located in Ramapo. Municipalities with the greatest housing densities also include the riverfront communities of Nyack and South Nyack in Orangetown, and the Villages of Haverstraw and West Haverstraw in the Town of Haverstraw.

## Overcrowding

A standard accepted definition of overcrowding is more than 1.00 occupants per room. Severe overcrowding occurs when there are more than 1.50 occupants per room. Table 10.4 shows the number and percentage of housing units in Rockland according to occupants per room. In 2008, nearly 99% of owner-occupied housing units in Rockland had one or fewer occupants per room. Renter-occupied units, however, had a notably higher percentage of units with one or more occupants per room. According to the 2008 ACS, nearly 14% (3,735 units) of renter-occupied households in Rockland are overcrowded or severely overcrowded.

**Table 10.4: Rockland County Overcrowded Housing**

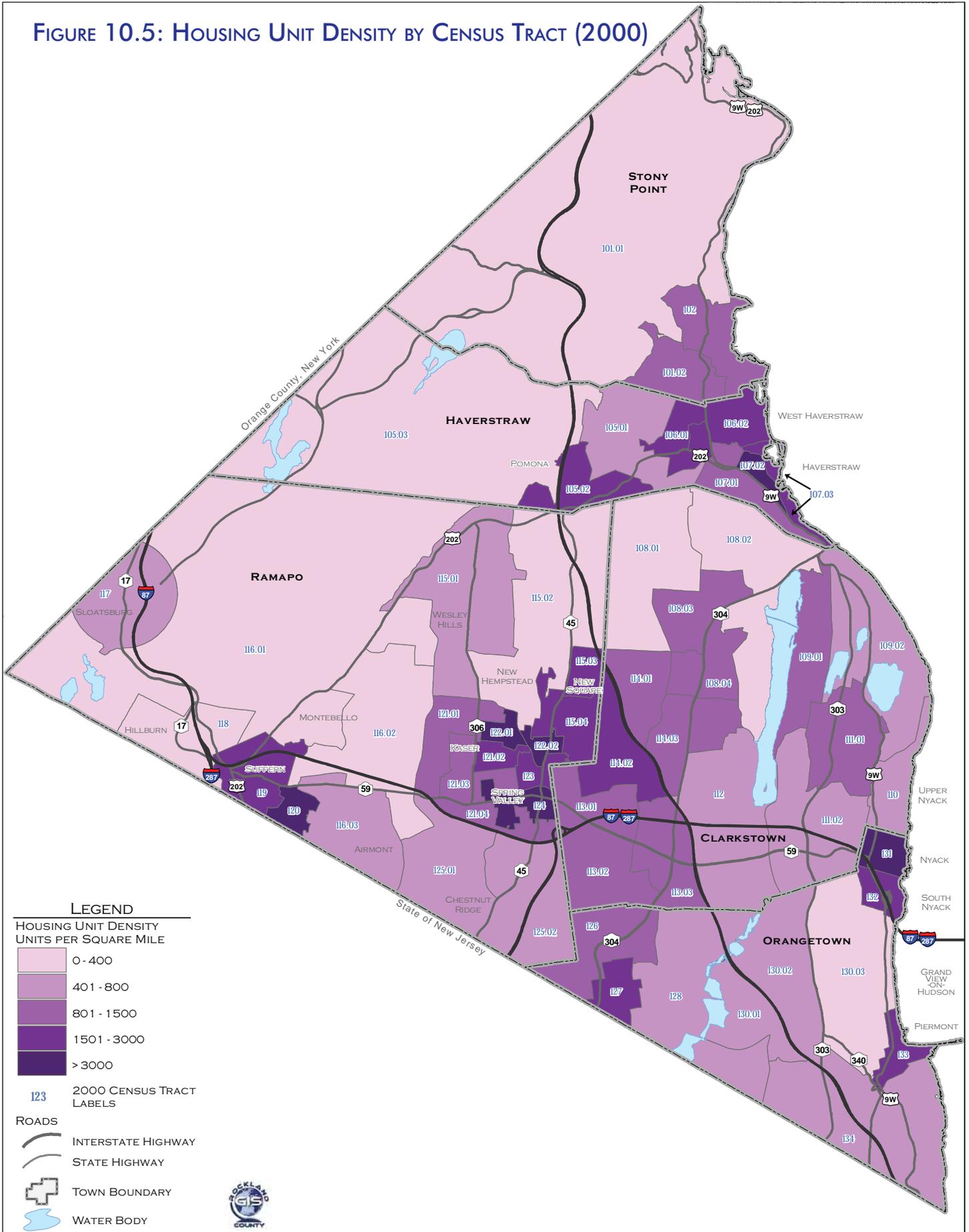
<i>Occupants per Room</i>	<i>Number</i>	<i>Percent</i>
<b>Owner-occupied</b>	<b>67,675</b>	<b>100.0%</b>
1.00 or less	66,817	98.7%
1.01 or 1.50	726	1.1%
1.51 or more	132	0.2%
<b>Renter-occupied</b>	<b>27,012</b>	<b>100.0%</b>
1.00 or less	23,277	86.2%
1.01 to 1.50	2,356	8.7%
1.51 or more	1,379	5.1%

*Source: U.S. Census Bureau, 2008 American Community Survey*

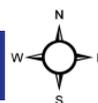
## 10.2 Housing Demand Characteristics

While the previous section portrays the supply side, or characteristics of Rockland’s existing housing stock, the following section examines the demand for housing based upon the preferences and attributes of the county’s resident households. This includes an analysis of household income, tenure, and housing budgets, or characteristics that influence the demand for housing by structure type, size, and cost. The chapter concludes with a forecast of households, the demand for types of housing units, and a discussion of existing housing deficiencies.

**FIGURE 10.5: HOUSING UNIT DENSITY BY CENSUS TRACT (2000)**



HOUSING



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### Median Income in 2008

According to the 2008 ACS, the median annual income of all households in Rockland was \$85,363 in 2008 dollars, higher than the surrounding counties of Bergen, Orange, and Westchester.<sup>1</sup> The median household income value indicates that half of all households have incomes below the median level, and half have incomes above the median level.

**Table 10.5: Median Household Income, 2000 – 2008: Rockland & Surrounding Counties**

	<b>2000</b>	<b>2005</b>	<b>2008</b>
Rockland	\$90,544	\$87,184	\$85,363
Bergen	\$86,908	\$79,142	\$82,361
Orange	\$69,347	\$69,782	\$71,674
Westchester	\$84,698	\$79,592	\$79,448
	<b>Percent Change</b>		
	<b>2000 - 2005</b>	<b>2005 - 2008</b>	<b>2000 – 2008</b>
Rockland	-3.71%	-2.09%	-5.72%
Bergen	-8.94%	4.07%	-5.23%
Orange	-0.81%	2.71%	3.36%
Westchester	-6.03%	-0.18%	-6.20%

*Source: U.S. Census Bureau, 2000 Census, 2005 & 2008 American Community Survey; 2008 Dollars*

As shown in Table 10.5, Rockland’s median household income decreased by 3.7% from 2000 to 2005, and then decreased further from 2005 to 2008 by more than 2%. Overall, over the eight years, the county saw a 5.7% decrease in household income. Aside from Orange County – which has seen growth in the past eight years – Rockland’s change in median household income was on par with its neighboring counties. Within Rockland, the county’s median household income of \$85,363 does not fully represent the disparities among its towns and villages, which have 2000 median household incomes, expressed in 2008 dollars, that range from \$15,575 to \$149,321.

In 2008, Rockland’s median family income was \$97,754 (in 2008 dollars). Family income is typically higher than household income, because family earnings usually reflect more than one earner, while household income can reflect earnings of single persons or unrelated individuals living together which are typically lower. Expressed in per capita terms for all persons in households, the average income per person in Rockland was \$36,004 in 2008 dollars.

**Table 10.6: Rockland County Median Household Income by Age of Head of Householder, 2005 & 2008**

	<b>2005</b>	<b>2008</b>
Under 25	\$16,844	\$33,039
25-44	\$94,408	\$90,285
45-64	\$102,906	\$100,412
65 and over	\$53,926	\$50,247

*Source: U.S. Census Bureau, 2005 & 2008 American Community Survey; 2008 Dollars*

<sup>1</sup> 2000 and 2005 Dollars were Inflated to 2008 Dollars

Table 10.6 displays Rockland’s median household income by age category for 2005 and 2008. Although households with heads aged 45 – 64 years saw a 2.4% decrease in their median income from 2005 to 2008, the age category does have the highest income among all age groups at \$100,412 in 2008. Moreover, all other age groups saw decreases ranging from 2.4% to 6.8%, with the exception of those under 25 years of age group. The youngest cohort saw an increase in median household income of almost 100%. Generally, improvements in median household income reflect increases in earnings power, either through increasing labor force participation or advancing skill attainment, while decreases might reflect the loss of earnings through unemployment or retirement.

**Table 10.7: Rockland County Median Household Income by Tenure, 2005 and 2008**

	<i>2005</i>	<i>2008</i>	<i>Percent Change</i>
Owner	\$ 105,032	\$ 106,379	1.28%
Renter	\$ 36,065	\$ 42,864	18.85%

*Source: U.S. Census Bureau, 2005 & 2008 American Community Survey; 2008 Dollars*

While differences in household income are significant by age of head, the disparity by tenure is also considerable. As seen in Table 10.7, Rockland’s median household income is more than twice as high for owners as renters, although renter incomes did increase by 19% between 2005 and 2008 compared with a 1.3% increase for owner incomes.

### **Housing Costs as Percent of Income**

For housing to remain affordable, households should not have to allocate more than 30% of their annual incomes to housing costs, according to the U.S. Department of Housing and Urban Development. These standards apply to renters as well as homeowners, with the latter often judged as able to afford a home if it is valued at threefold or less of annual household income. For low-income renter households, an extraordinary rent burden would exist if 50% or more of annual incomes were allocated to the costs of rental housing. Because Rockland’s renter households have considerably lower household incomes than homeowners, the issue of housing affordability is particularly serious.

As rents escalate and the wages of low-income workers lag, there is growing national recognition that rents are reaching unaffordable levels, increasingly out of reach for low- and moderate-income households. This holds true in Rockland County, where the ACS shows that more than half of renters were paying rents that were more than 30% of their income (50.2% in 2005 and 54.2% in 2008). As Table 10.8 shows below, nearly one-third of renters had high rent burdens, with at least half their incomes paid toward contract rent and utilities.

Table 10.9, below, shows selected housing costs of Rockland’s owner occupants as a percentage of owner’s median income in 2005 and 2008, based upon ACS data. It shows that more than a third of owners were paying expenses equal to or more than 30% of their incomes (35% in 2005 and 43% in 2008). Thus, over one-third of owners had high cost burdens.

**Table 10.8: Rockland County Renter Housing Costs as a Percentage of Renter's Household Income, 2005 and 2008**

<i>Percent of HH Income</i>	<i>2005</i>		<i>2008</i>	
	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>
Less than 10%	747	3%	916	3%
10 - 19%	4,343	18%	4,110	15%
20 - 29%	4,915	20%	6,042	22%
30 - 39%	2,612	11%	4,389	16%
40 - 49%	1,680	7%	2,058	8%
50% or More	7,911	33%	8,184	30%
Not computed	2,080	9%	1,313	5%
<b>Total Renters</b>	<b>24,288</b>	<b>100%</b>	<b>27,012</b>	<b>100%</b>

*Source: U.S. Census Bureau, 2005 & 2008 American Community Survey*

**Table 10.9: Rockland County Owner Housing Costs as a Percentage of Owner's Median Household Income, 2005 and 2008**

<i>Percent of HH Income</i>	<i>2005</i>		<i>2008</i>	
	<i>Number</i>	<i>Percent</i>	<i>Number</i>	<i>Percent</i>
Less than 20%	26,039	38%	21,921	32%
20 - 24%	9,575	14%	9,108	13%
25 - 29%	9,149	13%	7,909	12%
30 - 34%	5,522	8%	5,777	9%
35% or more	18,355	27%	22,762	34%
Not computed	-	0%	198	0%
<b>Total Home Owners</b>	<b>68,640</b>	<b>100%</b>	<b>67,675</b>	<b>100%</b>

*Source: U.S. Census Bureau, 2005 & 2008 American Community Survey*

Table 10.10 shows Rockland's median monthly owner costs as a percentage of household income with and without a mortgage from 2000 to 2008. In 2000, 2005, and 2008, owners put 22%, 24%, and 27% of their incomes, respectively, toward their housing costs. Owners overall, and by financing category, saw a range of 1.6 to 2.4 percentage point increases in their share of income going toward housing costs from 2005 to 2008, and a 4.3 to 5.7 percentage point increase from 2000 to 2008. In general, Rockland's owners are less burdened by housing costs than Rockland's renters.

**Table 10.10: Rockland County Median selected Monthly Owner Costs as a Percentage of Household Income, 2005 and 2008**

	<i>2000</i>	<i>2005</i>	<i>2008</i>	<i>Change 2000-</i>	<i>Change 2005-</i>
				<i>2008</i>	<i>2008</i>
<b>Total</b>	22.20%	24.30%	26.70%	4.5%	2.4%
With a Mortgage	24.30%	26.60%	28.60%	4.3%	2.0%
Without a Mortgage	14.20%	18.30%	19.90%	5.7%	1.6%

*Source: U.S. Census Bureau, 2000 Census, 2005 & 2008 American Community Survey*

### Household Forecasts

Table 10.11 presents the projected increase in household formation in Rockland by household size. By 2020, the County is forecasted to have a total of 103,401 households, an 8.5% increase over 2005. The average household size for all households is expected to decrease from 3.01 in 2005 to 2.99 in 2020. Throughout the 15-year forecast period, the distribution of households by size is expected to remain relatively constant, ranging from a 1% to 2% increase or decrease across all categories. Two-person households are the most prevalent, comprising 29% in 2005 and 29% in 2020.

**Table 10.11: Rockland County Projected Number of Households by Household Size, 2005-2020**

	2005	2015	2020	2005-2020	
				Number	Percent Change
<b>Total Households</b>	<b>95,289</b>	<b>101,020</b>	<b>103,401</b>	<b>8,112</b>	<b>8.5%</b>
1-Person Household	18,314	20,073	20,632	2,318	12.7%
2-Person Household	27,670	29,367	30,131	2,461	8.9%
3-Person Household	17,023	19,276	20,332	3,309	19.4%
4-Person Household	16,412	16,651	16,078	(334)	-2.0%
5-Person Household	8,535	7,642	7,484	(1,051)	-12.3%
6-Person Household	3,447	3,254	3,487	40	1.2%
7-or-More Person Household	3,887	4,758	5,258	1,371	35.3%
<b>Percent Distribution</b>					
1-Person Household	19.2%	19.9%	20.0%	N/A	N/A
2-Person Household	29.0%	29.1%	29.1%	N/A	N/A
3-Person Household	17.9%	19.1%	19.7%	N/A	N/A
4-Person Household	17.2%	16.5%	15.5%	N/A	N/A
5-Person Household	9.0%	7.6%	7.2%	N/A	N/A
6-Person Household	3.6%	3.2%	3.4%	N/A	N/A
7-or-More Person Household	4.1%	4.7%	5.1%	N/A	N/A
<b>Average Household Size</b>	<b>3.01</b>	<b>2.98</b>	<b>2.99</b>	<b>N/A</b>	<b>N/A</b>

*Source: The Rockland County Department of Planning; Cornell University, Program on Applied Demographics;*

Over the 15-year period, a decrease is projected in the number of four- and five-person households, ranging from 2% to 12%, respectively, due to the declining trend in traditional family composition. Smaller households (one- to three-persons) are expected to increase by at least 8% each, while seven-or-more-person households will likely see the largest percentage increase (35%, or 1,371 households), while still only comprising 5.1% of all households in 2020.

Table 10.12, below, illustrates the distribution of Rockland's households by age of head of household, from 2005 to 2020. In 2005, the 45- to 54-year category had the largest share, at 23% of total households. By 2020, the 55- to 64 year category will equal the 45- to 54-year category for the largest share, at 21% of total households.

As with the population as a whole, households with heads over 65 years of age are also expected to increase in overall numbers and share. Sixty-five- to 74-year-old households are predicted to advance in share from 12% to 15% between 2005 and 2020. Households with heads 75 to 84 years and 85 years or older are expected to see a respective 19% and 69% increase. With the exception of the 15- to 24-year-old cohort and the over-74-year-old cohorts, 25- to 34-year-old households are forecasted to comprise the smallest share from the present through 2020.

**Table 10.12: Rockland County Projected Households by Age of Head of Householder, 2005-2020**

	2005		2010		2015		2020	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
15 - 24 year old	2,141	2%	2,275	2%	2,313	2%	2,322	2%
25 - 34 year old	11,149	12%	11,138	11%	11,702	12%	12,174	12%
35 - 44 year old	21,334	22%	19,895	20%	18,377	18%	18,314	18%
45 - 54 year old	22,017	23%	23,529	24%	23,212	23%	21,422	21%
55 - 64 year old	18,132	19%	19,307	20%	20,290	20%	21,691	21%
65 - 74 year old	11,316	12%	12,228	12%	14,240	14%	15,513	15%
75 - 84 year old	7,226	8%	7,699	8%	7,898	8%	8,626	8%
85 and older	1,973	2%	2,303	2%	2,989	3%	3,339	3%
<b>Total Number of Households</b>	<b>95,288</b>	<b>100%</b>	<b>98,374</b>	<b>100%</b>	<b>101,021</b>	<b>100%</b>	<b>103,401</b>	<b>100%</b>

*Source: The Rockland County Department of Planning; Cornell University, Program on Applied Demographics;*

### Structure Type

In Rockland County between 2005 and 2020, some 8,320 housing units are expected to be added to the residential stock, an 8.5% increase over 15 years. This represents a net gain of new construction over demolitions and conversions to other uses. Housing stock increases were forecast by structure size and tenure, with the greatest gains in single-family and mid-size structures. Although the absolute number of owner-occupied units is expected to increase more than renter-occupied units, the percentage change from 2005 to 2020 is greater for rental units. Even with these projected changes, the overall distribution of housing units, in terms of structure size and tenure, is expected to demonstrate a similar pattern in 2020 as it did in 2005 (see Table 10.13).

Stand-alone, single-family homes are the preferred form of housing by Rockland residents, and their number is projected to increase by 4,361 units between 2005 and 2020. Two-unit structure homes (townhomes or attached single-family homes) are expected to number 8,271 units in 2020, representing nearly 8% of the housing stock, and 666 more units than in 2005.

Apartment complexes comprised of three to 19 units per structure are the second-most prevalent form of residential development in the County. By 2020, 21,854 such units are forecast. In 2020, developments with 20 or more units per structure should continue to be considerably fewer in number than mid-sized multifamily structure types, accounting for 12,618 dwellings. Collectively, apartment developments (three or more units) provided a third of the housing units in the county, which is unchanged since 2005.

**Table 10.13: Rockland County Projected Housing Units by Units in Structure, 2005-2010**

	2005	2010	2015	2020	2005-2020 Change	
					Number	Percent
<b>Total Housing Units</b>	<b>97,732</b>	<b>100,896</b>	<b>103,611</b>	<b>106,052</b>	<b>8,320</b>	<b>8.5%</b>
1 Unit (Single-Family Detached)	58,949	60,626	62,065	63,310	4,361	7.4%
2 Units	7,605	7,858	8,075	8,271	666	8.8%
3 to 19 Units	19,392	20,310	21,097	21,854	2,462	12.7%
20 or More Units	11,786	12,102	12,373	12,618	832	7.1%
<b>Share of Distribution</b>						
1 Unit (Single-Family Detached)	60.3%	60.1%	59.9%	59.7%	N/A	N/A
2 Units	7.8%	7.8%	7.8%	7.8%	N/A	N/A
3 to 19 Units	19.8%	20.1%	20.4%	20.6%	N/A	N/A
20 or More Units	12.1%	12.0%	11.9%	11.9%	N/A	N/A

Source: The Rockland County Department of Planning; Cornell University, Program on Applied Demographics;

Table 10.14 presents the forecast of Rockland’s occupied housing units by tenure (ownership vs. renter) from 2005 to 2020. In 2005, the county had a total of 95,289 occupied housing units, with less than 3% of total stock vacant. Over the 15-year forecast period, the county is expected to see an 8.5% increase in the number of total occupied units, or households. Reflecting the strong preference for single-family housing, more than 70% of all Rockland households are owner-occupied or 68,209 in 2005. In 2020, the level of homeownership is expected to increase by 7.3%, adding 4,990 owner-occupied households. In 2005, renters occupied 27,080 housing units, or nearly 30% of the total. In 2020, renter households are expected to increase by 3,123 units, or 12%.

**Table 10.14: Rockland County Projected Occupied Housing Units by Tenure, 2005-2020**

	2005	2010	2015	2020	Number	% Change
<b>Total Occupied Housing Units</b>	<b>95,289</b>	<b>98,373</b>	<b>101,020</b>	<b>103,401</b>	<b>8,112</b>	<b>8.5%</b>
Owner-Occupied Housing Units	68,209	70,077	71,975	73,199	4,990	7.3%
Renter-Occupied Housing Units	27,080	28,295	29,045	30,203	3,123	11.5%
Percent Owner-Occupied Housing Units	71.6%	71.2%	71.2%	70.8%	N/A	N/A
Percent Renter-Occupied Housing Units	28.4%	28.8%	28.8%	29.2%	N/A	N/A

Source: The Rockland County Department of Planning; Cornell University, Program on Applied Demographics;

Table 10.15 presents the forecast of households in Rockland by household size and income from 2005 to 2020. By 2020, more than 60% of all households are forecast to have incomes above \$100,000, while more than 20% will exceed \$200,000. Within the \$200,000+ category, the greatest number will be two-person households (6,787) followed by three-person households (5,947). Forty percent of households are forecast to have a household income of less than \$100,000, while slightly less than 20% of all households will earn under \$50,000 by 2020.

As Tables 10.16a and 10.16b show for 2005 and 2020, one-person and seven-person or more households had the greatest share of low-income households. However, by 2020, the number of one-person households with annual incomes below \$25,000 is anticipated to decrease sharply, by 55%, while the number of low-income seven-person or more households will expand by 64%. In addition, by 2020, the number of one-person households below \$50,000 annual income will also decrease sharply, by 49%, while the number of seven-person or more households will expand by over 200%. This outlook illustrates the widening disparity in household income distribution by size of households.

**Table 10.15: Rockland County Projected Households by Size and Income, 2005-2020**

<i>Size of Household</i>	<u>2005</u>						
	<i>&lt;\$25,000</i>	<i>\$25,000- \$49,999</i>	<i>\$50,000- \$74,999</i>	<i>\$75,000- \$99,999</i>	<i>\$100,000- \$149,999</i>	<i>\$150,000- \$199,999</i>	<i>\$200,000+</i>
1 Pers	6,975	4,770	3,232	1,319	1,321	72	625
2 Pers	3,345	4,627	4,837	3,926	6,707	2,024	2,203
3 Pers	1,489	2,313	2,691	2,591	4,442	1,396	2,102
4 Pers	1,168	1,730	2,755	2,538	4,139	1,766	2,316
5 Pers	1,181	1,093	366	1,344	2,642	722	1,188
6 Pers	370	206	477	678	1,179	151	385
7+ Pers	861	188	425	202	1,287	476	448
<b>Total</b>	<b>15,389</b>	<b>14,927</b>	<b>14,783</b>	<b>12,598</b>	<b>21,717</b>	<b>6,608</b>	<b>9,266</b>
<b>% of Total Households</b>	<b>16.15%</b>	<b>15.67%</b>	<b>15.51%</b>	<b>13.22%</b>	<b>22.79%</b>	<b>6.93%</b>	<b>9.72%</b>
	<u>2010</u>						
1 Pers	5,568	4,857	4,833	1,030	1,782	822	514
2 Pers	2,021	4,237	3,339	4,816	7,378	2,660	4,003
3 Pers	1,326	1,431	1,495	3,555	3,730	3,778	2,947
4 Pers	928	1,922	1,952	2,031	3,812	3,081	2,841
5 Pers	392	1,331	233	1,020	2,369	1,380	1,408
6 Pers	447	73	226	319	441	509	1,201
7+ Pers	1,183	1,058	610	124	584	325	453
<b>Total</b>	<b>11,865</b>	<b>14,909</b>	<b>12,687</b>	<b>12,895</b>	<b>20,097</b>	<b>12,555</b>	<b>13,366</b>
<b>% of Total Households</b>	<b>12.06%</b>	<b>15.16%</b>	<b>12.90%</b>	<b>13.11%</b>	<b>20.43%</b>	<b>12.76%</b>	<b>13.59%</b>
	<u>2015</u>						
1 Pers	4,513	3,985	6,149	984	2,335	1,399	707
2 Pers	1,479	3,507	2,460	4,839	8,712	3,100	5,269
3 Pers	1,110	1,065	877	3,868	3,557	4,636	4,163
4 Pers	711	1,614	1,452	1,466	3,483	4,084	3,841
5 Pers	234	1,172	79	691	2,304	1,632	1,530
6 Pers	390	20	98	169	243	579	1,756
7+ Pers	1,322	1,485	645	60	472	281	493
<b>Total</b>	<b>9,760</b>	<b>12,848</b>	<b>11,760</b>	<b>12,075</b>	<b>21,107</b>	<b>15,711</b>	<b>17,760</b>
<b>% of Total Households</b>	<b>9.66%</b>	<b>12.72%</b>	<b>11.64%</b>	<b>11.95%</b>	<b>20.89%</b>	<b>15.55%</b>	<b>17.58%</b>
	<u>2020</u>						
1 Pers	3,136	2,802	7,291	811	2,893	2,754	946
2 Pers	1,045	2,748	1,746	4,560	9,807	3,438	6,787
3 Pers	838	721	490	3,868	3,065	5,403	5,947
4 Pers	493	1,206	982	968	2,806	4,899	4,725
5 Pers	136	991	32	450	2,188	2,012	1,674
6 Pers	236	5	31	61	92	512	2,551
7+ Pers	1,414	2,011	656	35	385	241	515
<b>Total</b>	<b>7,298</b>	<b>10,485</b>	<b>11,227</b>	<b>10,754</b>	<b>21,235</b>	<b>19,258</b>	<b>23,144</b>
<b>% of Total Households</b>	<b>7.1%</b>	<b>10.1%</b>	<b>10.9%</b>	<b>10.4%</b>	<b>20.5%</b>	<b>18.6%</b>	<b>22.4%</b>

Source: U.S. Census Bureau, 2005 American Community Survey; Urbanomics

**Table 10.16a: Rockland County Projected Households by Size and Income, 2005**

	<u>1 Person</u>		<u>2 Person</u>		<u>3 Person</u>		<u>4 Person</u>		<u>5 Person</u>		<u>6 Person</u>		<u>7+ Person</u>	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
< \$25,000	6,975	38%	3,345	12%	1,489	9%	1,168	7%	1,181	14%	370	11%	861	22%
\$25,000 - \$49,999	4,770	26%	4,627	17%	2,313	14%	1,730	11%	1,093	13%	206	6%	188	5%
\$50,000 - \$74,999	3,232	18%	4,837	17%	2,691	16%	2,755	17%	366	4%	477	14%	425	11%
\$75,000 - \$99,999	1,319	7%	3,926	14%	2,591	15%	2,538	15%	1,344	16%	678	20%	202	5%
\$100,000 - \$149,999	1,321	7%	6,707	24%	4,442	26%	4,139	25%	2,642	31%	1,179	34%	1,287	33%
\$150,000 - \$199,999	72	0%	2,024	7%	1,396	8%	1,766	11%	722	8%	151	4%	476	12%
\$200,000 +	625	3%	2,203	8%	2,102	12%	2,316	14%	1,188	14%	385	11%	448	12%
<b>Total</b>	<b>18,314</b>	<b>100%</b>	<b>27,669</b>	<b>100%</b>	<b>17,024</b>	<b>100%</b>	<b>16,412</b>	<b>100%</b>	<b>8,536</b>	<b>100%</b>	<b>3,446</b>	<b>100%</b>	<b>3,887</b>	<b>100%</b>

Source: U.S. Census Bureau, 2005 American Community Survey; Urbanomics; 2008 dollars

**Table 10.16b: Rockland County Projected Households by Size and Income, 2020**

	<u>1 Person</u>		<u>2 Person</u>		<u>3 Person</u>		<u>4 Person</u>		<u>5 Person</u>		<u>6 Person</u>		<u>7+ Person</u>	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
< \$25,000	3,136	14%	1,045	3%	838	4%	493	3%	136	2%	236	7%	1,414	27%
\$25,000 - \$49,999	2,802	13%	2,748	9%	721	4%	1,206	8%	991	13%	5	<1%	2,011	38%
\$50,000 - \$74,999	7,291	34%	1,746	6%	490	2%	982	6%	32	<1%	31	1%	656	12%
\$75,000 - \$99,999	1,811	8%	4,560	15%	3,868	19%	968	6%	450	6%	61	2%	35	1%
\$100,000 - \$149,999	2,893	13%	9,807	33%	3,065	15%	2,806	17%	2,188	28%	92	3%	385	7%
\$150,000 - \$199,999	2,754	13%	3,438	11%	5,403	27%	4,899	30%	2,012	27%	512	15%	241	5%
\$200,000 +	946	34%	6,787	23%	5,947	29%	4,725	29%	1,674	22%	2,551	73%	515	10%
<b>Total</b>	<b>20,633</b>	<b>100%</b>	<b>30,131</b>	<b>100%</b>	<b>20,332</b>	<b>100%</b>	<b>16,079</b>	<b>100%</b>	<b>7,483</b>	<b>100%</b>	<b>3,488</b>	<b>100%</b>	<b>5,257</b>	<b>100%</b>

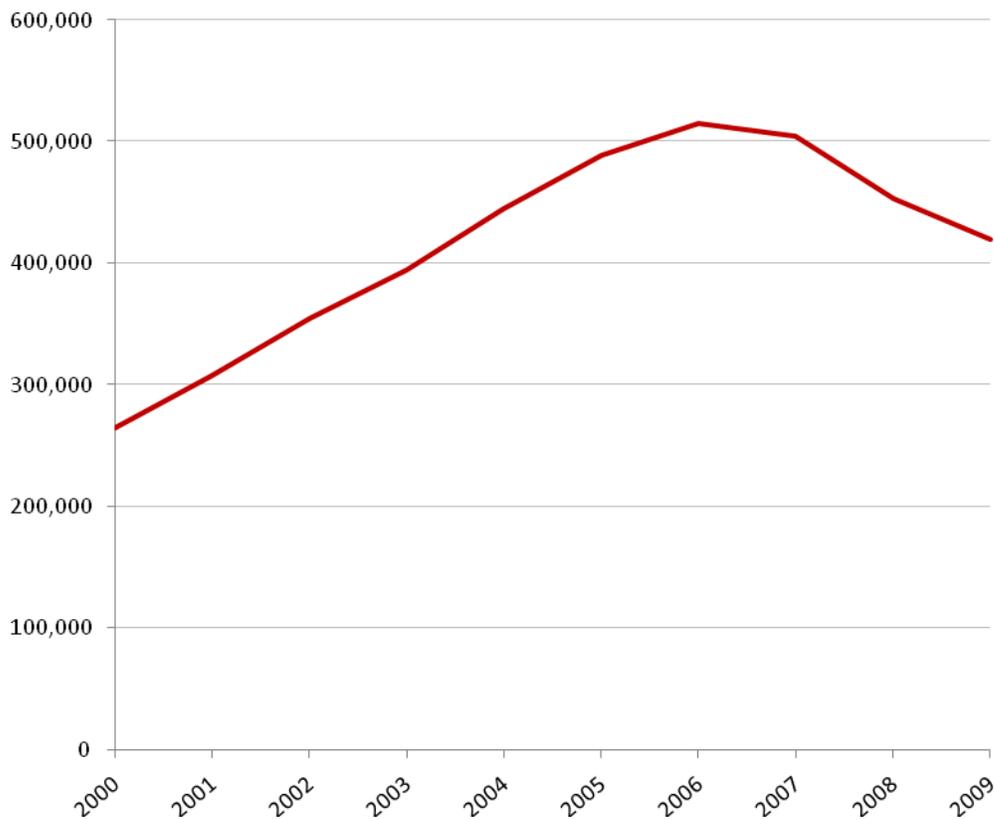
Source: U.S. Census Bureau, 2005 American Community Survey; Urbanomics; 2008 dollars

### 10.3 Current Housing Values and Volume

#### Market Trends in Sales/Rentals, Housing Prices, Occupancy

Paralleling regional and national trends, Rockland's median home sales price increased unabated during the first years of the 21<sup>st</sup> Century, peaking at approximately \$515,000 in 2006, according to the New York State Association of Realtors. Prices leveled after 2006, reflecting an overall cooling of the housing market and the nationwide economic downturn, and then dropped significantly to present. As shown in Chart 10.1, below, the median price of a single-family home in Rockland dropped to approximately \$420,000 in 2009, a more than 18% decrease in just three years.

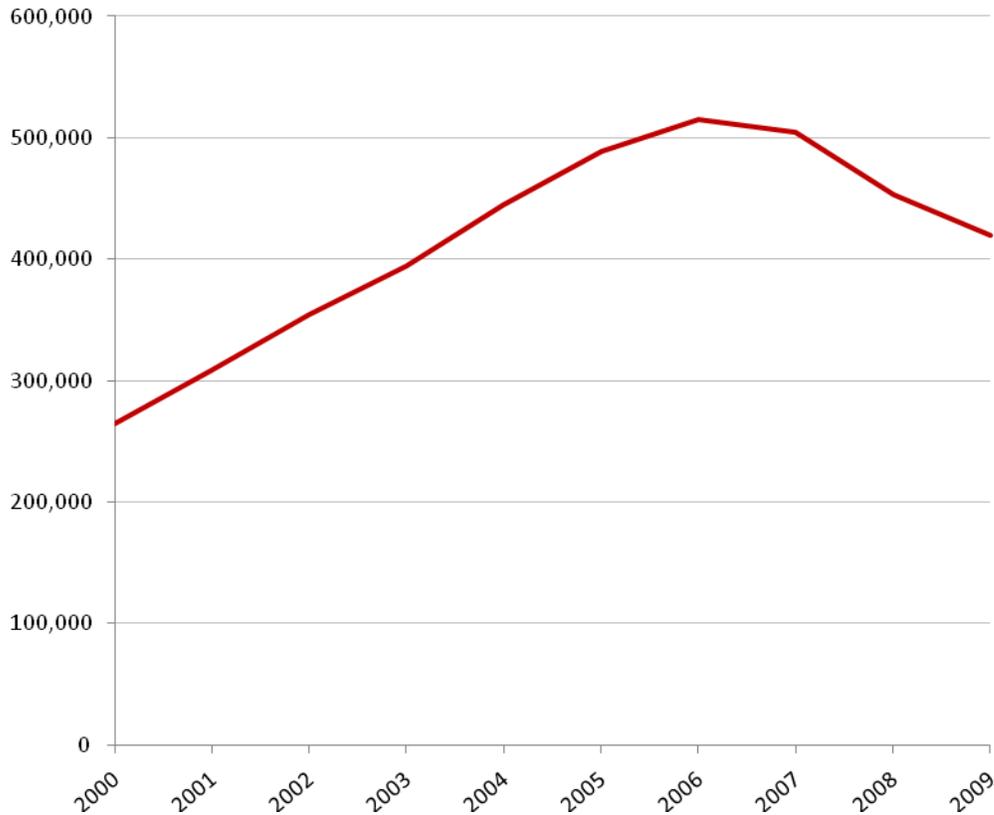
**Chart 10.1: Rockland County Median Home Sales Price, 2000–2009**



*Source: New York State Association of Realtors*

The number of existing single-family homes sold annually in Rockland increased steadily for the first three years of the 21<sup>st</sup> Century, peaking at 2,695 in 2003. The next year, the number dropped sharply to 1,968, a nearly 27% decrease in 12 months. Thereafter, homes sold annually fell for the following six years, reaching a low of 1,169 in 2009 – a more than 50% decrease since the 2003 high (see Chart 10.2).

**Chart 10.2: Rockland County Annual Existing Single-Family Homes Sold, 2001–2009**



Source: New York State Association of Realtors

Of the 99,344 existing housing units in Rockland, 4,657 (4.7%) were reported as vacant in 2008. Vacancy rates for owner-occupied units remained very low in 2008, at just 1.6%, according to Census estimates. Rental units reported a 2.3% vacancy rate. While rental vacancies are higher than owner-occupied rates, 6% vacancy is considered the equilibrium point of supply and demand for a healthy rental housing market. Nearly 1,000 units would have to be added to the rental market to reach equilibrium.

Costs for rental units in Rockland likewise have escalated, as shown in Table 10.17. The U.S. Department of Housing and Urban Development estimated that fair market rents have risen more than 25% from 2005 to 2010 for all unit types.

**Table 10.17: Rockland County Estimated Fair Market Rents, 2005 and 2010**

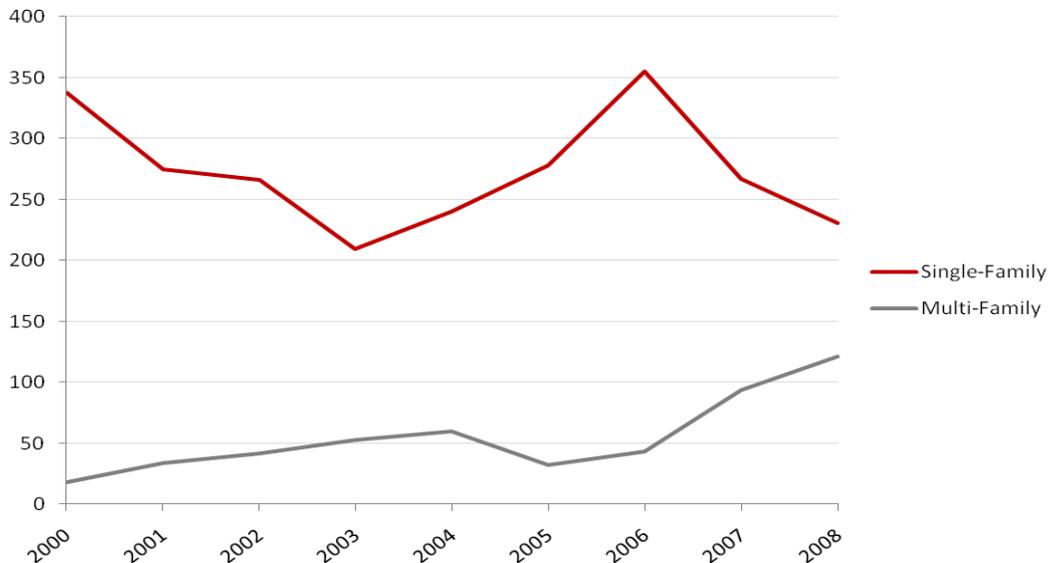
	<b>2005</b>	<b>2010</b>	<b>Increase</b>	<b>Percent Increase</b>
0-Bedroom	\$893	\$1,129	\$236	26%
1-Bedroom	\$966	\$1,222	\$256	27%
2-Bedroom	\$1,075	\$1,359	\$284	26%
3-Bedroom	\$1,322	\$1,672	\$350	26%
4-Bedroom	\$1,360	\$1,880	\$520	38%

Source: U.S. Department of Housing and Urban Development

### Volume & Cost of New Building: Single-Family vs. Multi-family Structures

According to data collected by the Rockland County Department of Planning from the county's municipalities, from 2000 to 2008, 2,956 residential building permits were issued for 5,081 dwelling units in Rockland. Some 2,459 of these permits, about 83%, were for single-family homes. By contrast, 497 permits were for multifamily structures, about 17% of the total permits issued during the eight years (see Chart 10.3).

**Chart 10.3: Rockland County Residential Building Permits Issued, 2000–2008**



*Source: Rockland County Department of Planning*

From 2003 to 2006, the sharp increase in single-family building permits could be the result of the trend of large, estate-type housing (sometimes made possible through teardowns, as discussed below) that reflected a strong economy and real-estate market. However, when the economy began to deteriorate, the number of single-family permits sharply decreased. New construction has significantly declined as more people opted to add on to their homes instead of moving to new ones.

As the number of building permits issued for single-family homes experienced a dramatic decrease after 2006, the County saw a steady increase in the number of permits issued for multifamily structures. These contrasting trends are, in part, indicative of the disparity between single- and multifamily housing construction costs – a disparity that is further exacerbated during an economic downturn. Single-family houses are by far the most expensive type of structure to build in terms of cost per unit. According to the Census Bureau, the cost per unit for a single-family house has recently increased by nearly 10%, rising to \$224,536 in 2008 from \$204,164 in 2007. In contrast, multifamily housing has been consistently less expensive to construct. Units in two-family structures cost about 30% less than single-family units in 2008. Construction costs for units in higher-density multifamily (five units or more per structure) are even lower, at about \$127,000 per unit. A range of economic factors can affect construction costs on a year-to-year basis including costs of building materials, labor wages, permits, fees, and other variable costs (see Table 10.18).

**Table 10.18: Rockland County Construction Costs per Unit by Type of Structure, 2000-2008**

<i>Structure Type</i>	<i>2000</i>	<i>2001</i>	<i>2002</i>	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2008</i>
Single-Family	\$157,085	\$184,365	\$218,293	\$225,051	\$257,200	\$229,824	\$213,973	\$204,164	\$224,536
Two-Family	\$101,250	\$66,590	\$62,500	\$116,575	\$166,828	\$118,750	\$118,412	\$194,000	\$155,133
Three- and Four-Family	\$96,250	\$98,695	\$111,710	\$69,737	\$144,931	\$157,828	\$148,319	\$113,457	\$133,333
Five or More Family	\$59,782	\$66,030	\$79,358	\$74,818	\$158,022	\$139,842	\$108,402	\$148,008	\$126,714
<b>Average, All Structure Types</b>	<b>\$103,592</b>	<b>\$103,920</b>	<b>\$117,965</b>	<b>\$121,545</b>	<b>\$181,745</b>	<b>\$161,561</b>	<b>\$147,277</b>	<b>\$164,907</b>	<b>\$159,929</b>

*Source: U.S. Census Bureau: Building Permits*

Note: U.S. Census annual figures account for only hard costs (direct expenses, e.g. building materials) associated with housing construction. Soft costs (indirect expenses, e.g. permits, fees, taxes) are not included.

It is also instructive to note that, while the total number of permits issued for single-family homes from 2000 to 2008 (2,459) was nearly five times the total number issued for multifamily structures (497), single-family homes equaled only 48% of the total number of dwelling units for which building permits were issued. On the other hand, permits for multifamily structures accounted for 2,622 dwelling units, or 52% of this total. Moreover, despite overall low numbers, there has been – with the exception of a slight decrease from 2004 to 2005 – a small but steady rise in the number of permits issued for multifamily construction over the eight-year span.

#### **10.4 Existing Housing Deficiencies**

In a viable housing market, the relationship between demand and supply should match preferences as well as housing needs and the ability to pay. Housing need is best defined by measurement against acceptable standards of housing condition, such as household occupancy by housing size and physical condition. Ability to pay is largely determined by whether housing costs, associated with household preferences, represent an affordable percentage of household income. A gap in the relationship between demand and supply can be considered a housing market deficit or deficiency.

Existing housing deficiencies in Rockland County stem from the lack of adequate and affordable housing units to meet the needs of all current residents. Although the median household income of Rockland is \$85,363, the median income of homeowners is \$106,379, considerably more than that of renter households. Across the county, homeowners reported a median value of \$492,000 for their housing in 2008. According to the 2008 ACS, the asset/income ratios or median value to median income averaged 5.7 for all homeowner households. These data precede the nationwide decline in housing value, which affected Rockland as well as all other areas, but they suggest that considerable equity has been acquired by homeowners in their housing stock, a positive economic sign for existing owners. However, high housing values can inhibit new homeownership, as higher household incomes are needed to acquire housing, and more households are excluded from homeownership by a growing affordability gap.

Fully one-quarter of all households reported owning their house or condominium free and clear, while 50,038 households (74%) met mortgage payments, and 2,441 had a second mortgage. Among owner-occupied units, 13,336 (approximately 20%) have a home-equity loan, and 298 (under 1%) had both a second mortgage and a home-equity loan. The median value of monthly owner costs in Rockland is \$2,348. For homeowners with a mortgage, the median value of homeowner monthly costs was \$2,883.

Compared with homeowner income levels, occupancy costs among a majority of all owners were clearly quite affordable and housing equity represented a significant resource.

During the 1990s, Rockland encountered a decline in rental units mostly due to a number of conversions of rental housing to condominiums or co-ops. Although in demand, no significant increase in rental housing is anticipated in the foreseeable future. The single-family home market continues to grow, but most housing being built is sold above the median value of existing houses currently in the county.<sup>2</sup>

Most single-family housing built in the last few years is outside the price range of lower-income households, even with a drop in housing prices over the last three years. Very low rates of multifamily housing construction have resulted in decreased vacancy rates. A small increase in the volume of multifamily construction is planned for the near future, but rents will likely keep rising faster than incomes in this market.

### Housing Affordability

To quantify the need for affordable housing units, the area median income (AMI) limits established by the U.S. Department of Housing and Urban Development (HUD) were consulted. Officially, the AMI is used to determine the eligibility of applicants for both federally and locally funded programs. It sets the maximum limit that a household can earn to be eligible for HUD programs, essentially defining those who can be served given the particular funding source. Income limits are calculated for specific geographic areas. Table 10.19 displays Rockland’s 2009 AMI by household size.

**Table 10.19: Rockland County 2009 Area Median Income by Household Size**

	<i>1-person</i>	<i>2-person</i>	<i>3-person</i>	<i>4-person</i>	<i>5-person</i>	<i>6-person</i>	<i>7-person</i>
Low-Income (80%) Limit	\$ 44,800	\$ 51,200	\$ 57,600	\$ 64,000	\$ 69,100	\$ 74,250	\$ 79,350

*Income limits determined by 2009 \$102,000 median income. Source: HUD*

Using HUD’s official AMI and the 2008 distribution of households by income and size according to the 2008 ACS, 31,228 Rockland households would initially qualify for affordable housing. This pool of low-income households needs further refinement from the perspective of annual costs of housing. Cost-burdened low-income households are those that annually spend 30% or more of household incomes on housing costs. Among all those initially qualified, the cost-burdened low-income households of Rockland numbered 25,936 in 2008, or 27% of the total households. Among these, 12,207 are homeowners and 13,729 are renters – the renter component typically comprising the pool of cost-burdened low-income households that are targeted for affordable home ownership programs (see Table 10.20).

**Table 10.20: Rockland County Households at 80% of AMI Spending 30% or More on Household Costs, 2008**

<i>Tenure</i>	<i>Low-Income Households by Number of Persons</i>							
	<i>Total</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7+</i>
<b>Renter</b>	13,729	4,433	2,195	2,384	1,867	1,232	471	1,147
<b>Owner</b>	12,207	4,905	3,526	928	825	1,253	600	170

*Source: U.S. Census Bureau, 2008 American Community Survey PUMS Data*

<sup>2</sup> *Rockland County Consolidated Plan, 2010-2014.*

Although the expenditure of 30% or more of household income on housing costs is considered unaffordable, some households are undoubtedly choosing to voluntarily outlay higher proportions. Data are not available to isolate those renter households with adequate income to afford the market rate rent or those with higher than average income to occupy more expensive housing. In the absence of such information, it is useful to note that slightly more than 8,000 households (8,184) reported spending 50% or more of their annual income on renter costs in 2008. Either this outlay provided little other than discretionary income for necessary expenditures – and thus was not likely to be fully voluntary – or these households had unreported sources of income or were liquidating their assets.

Given household income differences, affordability conditions are quite different for renter- than owner-occupied households in Rockland. In 2008, the median renter income was \$42,864 countywide, while the median monthly rental cost of housing was \$1,142 or \$13,704 annually. For renter households at the midpoint of the income distribution, rental housing costs comprise 32% of annual income, or roughly an affordable expense. For renter households with greater than median incomes, rental costs at the market midpoint are clearly affordable. However, low-income renters or those with costly housing choices make up a significant number that spend 30% or more of their annual incomes on housing costs. In 2008, this group amounted to 50% of all renters and 28% of all homeowner households in Rockland.

A major obstacle to the production of affordable housing lay in local zoning codes, which often discourage or prohibit higher-density development. While it is beyond the purview of the County to implement changes to zoning codes, municipalities can help meet the demand for affordable units through incentive zoning strategies such as density bonuses. Density bonuses are a type of incentive that allows developers to build at higher densities if a certain number or percentage of affordable units is included in the development. Such a program may be designed to allow developers to contribute to an affordable housing fund in lieu of building the affordable units. Height and bulk bonuses can allow for greater height or floor area ratio (FAR), effectively allowing more units within that space.

### **Housing Adequacy**

The majority of all households in Rockland are adequately housed, according to modern housing standards. The units are large, with the median number of rooms being 6.7 for all housing and 7.5 for owner-occupied housing. Households are moderately sized, with the average number of persons per unit being 3.05 in 2008. Thus, on average, most households have homes or apartments that provide one or fewer occupants per room, the standard for overcrowding. However, nearly 14% of renter units are considered overcrowded, while less than 2% of owner-occupied units are overcrowded by this standard. Table 10.21 displays the county's housing units by numbers of rooms and tenure for 2008.

**Table 10.21: Rockland County Housing Units by Number of Rooms and Tenure, 2008**

<i>Number of Rooms</i>	<i>Number of Housing Units</i>	<i>Percent of Units</i>
<b>All occupied housing units</b>	<b>94,687</b>	<b>100%</b>
<b>Median</b>	<b>6.7</b>	...
<b>Owner-occupied housing units</b>	<b>67,675</b>	<b>100%</b>
1 room	0	0.00%
2 rooms	325	0.48%
3 rooms	2,280	3.37%
4 rooms	3,861	5.71%
5 rooms	5,850	8.64%
6 rooms	8,927	13.19%
7 rooms	12,265	18.12%
8 rooms	14,313	21.15%
9 or more rooms	19,854	29.34%
<b>Median</b>	<b>7.5</b>	...
<b>Renter-occupied housing units</b>	<b>27,012</b>	<b>100%</b>
1 room	1,236	4.58%
2 rooms	969	3.59%
3 rooms	6,952	25.74%
4 rooms	7,490	27.73%
5 rooms	5,008	18.54%
6 rooms	2,111	7.82%
7 rooms	1,369	5.07%
8 rooms	1,161	4.30%
9 or more rooms	716	2.65%
<b>Median</b>	<b>4.1</b>	...

*Source: U.S Census Bureau, 2008 American Community Survey*

Another standard of housing adequacy pertains to the availability of plumbing facilities and a kitchen within the dwelling unit itself. In 2008, 812 households lacked complete plumbing, or 0.82% of all households. Most households lacking complete plumbing were renters, at almost 1%. Combining both criteria of inadequacy, only 1.7% of total households did not have complete plumbing or kitchen facilities (see Table 10.22).

**Table 10.22: Rockland County Plumbing and Kitchen Characteristics, 2008**

<i>Facilities</i>	<i>Number of Units</i>	<i>Percent</i>
<b>Total</b>	<b>99,344</b>	<b>...</b>
With complete plumbing only	98,532	99%
Lacking complete plumbing facilities	812	<1%
With complete kitchen only	98,476	99%
Lacking complete kitchen facilities	868	<1%
<b>Owner-occupied units</b>	<b>67,675</b>	<b>100%</b>
With complete plumbing only	67,219	99%
Lacking complete plumbing facilities	456	<1%
With complete kitchen only	67,286	99%
Lacking complete kitchen facilities	389	<1%
<b>Renter-occupied units</b>	<b>27,012</b>	<b>100%</b>
With complete plumbing only	26,790	99%
Lacking complete plumbing facilities	222	<1%
With complete kitchen only	26,667	99%
Lacking complete kitchen facilities	345	1%

*Source: U.S. Census Bureau, 2008 American Community Survey*

While the lack of adequate housing as measured by the above standards affects a small portion of total households, municipalities should resolve these conditions through building code enforcement. Efforts also might be made to determine to what extent a residential structure’s age reflects its condition. As discussed above and shown in Table 10.1, about 13% of Rockland’s housing stock was built before 1940. Housing age cannot be directly correlated with percentage of existing deficiency characteristics, but can reflect potential for deficiency and the need for upgrades and maintenance.

### **Need for Affordable Housing for Young Adult Population and Young Families**

Rockland’s population is aging, and many of its young people are leaving. A sizeable portion of young people leave the county for college and do not return after graduating. As shown in Table 10.12, except for the 15-to-24-year-old and the over-74-year-old cohorts, 25-to-34 year-old households are forecast to comprise the smallest share of Rockland’s population from the present through 2020. This trend, often referred to as “brain drain” or “human capital flight,” has significant economic costs. The creativity and energy of young people fuels innovation and economic development, and a strong proportion of working-age adults is key to supporting a growing elderly population as baby boomers retire.

The needs of this demographic have shifted dramatically. Today, people are marrying later in life and having fewer children. Young people are increasingly migrating toward urban areas based on lifestyle preferences and a wider diversity of employment opportunities. Single-family homes are often too large and too expensive for single young people or young families; at the same time, alternative housing options such as rental apartments and townhouses in Rockland are limited. Taken together, these trends have lessened the attraction and retention of potential young home-buyers, giving rise to domestic out-migration and, consequently, the loss of a critical labor force. **See, also, Chapter 3.0: Demographics.**

### **Need for Affordable Single-Family Units**

Despite nearly stagnant growth in family formation, not all family groups have grown slowly. Female-headed, non-married households have grown by 15%, or added another 1,433 new households between

2000 and 2008. Male-headed, non-married households have remained relatively unchanged at 3,325 households. However, married-couple families have declined in the decade, from 58,177 in 2000 to 57,017 at present, down by 2%. Across all family types, families with children increased by 733, or 2%, while married-couple families with children declined by 1,369, or 5%. Single-parent families with children offset this loss with female-headed families rising by 1,492, or 33%, and male-headed families increasing by 610, or 50%. These trends suggest a great need for affordable homes for single-parent families such as modest size co-operatives or townhouses.

### **Need for Senior Housing**

Many of Rockland's older residents wish to remain in their own homes, or at least remain in the community where they have spent their lives. For some, staying at home is not possible because health and mobility problems require outside care. For others, property taxes and the cost of home maintenance can be a significant burden. Older homes may require substantial monetary commitments as roofs need to be repaired, heating systems upgraded, and major appliances replaced. The ability to stay in their own homes may also depend on renovations such as installation of bathroom rails, chairlifts, and ramps that will make the home safer and more accessible to seniors coping with increasing physical challenges. Even smaller projects can be a financial impediment for many seniors living on fixed incomes. Regardless of the cause, these seniors will require housing opportunities suited to their changing needs, be it smaller, more affordable houses or apartments, or those in a location within walking distance to convenience goods, doctors' offices, and recreation.

Senior citizens are a sub-group of the population that typically has a high housing cost burden. The vast majority (87%) of Rockland's seniors live in households; the remainder live in group quarters. Group quarters may include institutional and non-institutional facilities such as group homes or nursing homes. As expected, the share of population in group quarters expands by age cohort. In 2008, almost 3,000 persons 65 or older reported living in their own adult child's household in Rockland. As the age increases, so too does the percentage of those unable to be cared for at home. Overall, 14% of persons over the age of 75 live with their children, creating a potential strain on household resources.

This strain is reflected in the United Way of Rockland County's *Assessing Human Services Needs in Rockland County, A Community Survey*, of June 2006. As discussed further in **Chapter 4.0: Aging**, the United Way Survey was not distributed to a random sample of residents using a scientifically valid methodology, but instead through community groups and agencies to special needs populations. Therefore, the survey results provide qualitative or anecdotal insight into the *perception* of need and should not be taken as scientific fact.

According to the United Way survey, 27% of respondents reported needing more help in caring for parents – a percentage higher than those who reported needing more child care. Almost one in three respondents said there was not enough care for seniors: 40% said they could not obtain home care for the elderly, 29% could not find nursing home care and 27% could not find adult daycare when needed.

Recent trends show that more Americans are taking on the social and financial responsibility of raising their grandchildren. According to the 2008 ACS, 7.4% of Rockland residents aged 65 or older live in a household with one or more grandchildren. However, none of these individuals are financially responsible for the children. Some 481 persons between the ages of 60 and 64, or 2.7% of this age cohort, are financially responsible for their grandchildren. Given the strength of this trend elsewhere in the region, the number of older persons caring for grandchildren should be monitored in order to accommodate the special needs of this sub-population.

The median household income for 20,098 households with heads aged 65 and older was \$50,247 in 2008. As would be expected, this is well below the county median of \$85,363. Residents 65 and older own or rent 21% of all housing in Rockland. Of the 20,098 households headed by a person 65 or older in 2008, the majority – 58% (11,621) – occupy traditional single-family detached houses. This represents a slight decline in share from 2000, when 61% of senior households (11,810) occupied this type of housing. The next most likely housing types for seniors are five- to nine-family apartment buildings (11%), three- to four-family buildings (6.3%) and two-family buildings (6.1%). Only 5% of senior households were in structures that have 50 or more dwelling units in 2008, down from 7.7% in 2000.

The economic downturn and subsequent decline in housing values are not yet reflected in the ACS data. In 2008 the average value of an owner-occupied housing unit was \$514,000 up from an average of \$509,000 in 2005. For households owned by seniors, the 2008 average value at \$529,000 was slightly higher than the county average. Although this is higher than the 2005 average, future data releases should be monitored to ascertain the effect of the downturn on seniors.

Rockland's senior population will continue to increase, based on forecasts and population projection models. While Bergen and Westchester Counties reflect a slight downward trend in senior population after 1995, Rockland will most likely continue to generate increased demand for senior housing and services beyond 2030. As a result, there will likely be a very high demand for health-care workers in the county, and this is one segment of the work force that should be addressed in affordable housing plans.

The following housing types<sup>3</sup> are available to senior citizens:

- Active-Adult Community
- Senior Housing (with no services)
- Supportive Senior Housing
- New York State Licensed Adult Home
- New York State Licensed Enriched Housing
- Enriched Housing or Adult home with Limited Licensed Home Care Agency
- State Licensed Assisted Living Program
- State Approved Continuing Care Retirement Community (CCRC)
- Dementia Care Facility
- Shared Living Residence
- Naturally Occurring Retirement Community (NORC)
- Intergenerational Housing
- Senior SRO (Single Room Occupancy)
- Subsidized Housing or Private Pay (Market Rate) Housing

#### **Need for Public Assistance Housing**

Households with incomes at or below 50% of median family income (MFI) have the greatest housing cost burden. Renters require rental assistance and affordable housing options, while owners need rehabilitation assistance. Low-income first time homebuyers need down payment assistance, credit counseling, and home maintenance training.

Rockland has 3,462 housing units assisted by Federal funding through the Section 8 Housing Choice Voucher program, 3,087 of which are leased. Another 482 public housing units are operated with

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<sup>3</sup> *Rockland County Consolidated Plan, 2010-2014.*

Federal or State assistance. These units are generally well-maintained and operated, though rehabilitation of some units is always needed. In 2010, all of the County's six Section 8 programs have a closed wait list and are not accepting applications.<sup>4</sup> According to the County's Consolidated Plan, 2010-2014, it is expected that it may be five years before the waiting list reopens. These conditions could be in part a combined result of the shortage of affordable housing in Rockland and landlord resistance to rent to Section 8 tenants, making it difficult for tenants to find housing even if they have a voucher.

### **Need for Homeless Shelters**

The number of homeless, as defined by HUD, is not significant in Rockland; according to the latest "Point-in-Time" Survey<sup>5</sup> (January 2010), there were 141 homeless persons countywide. The main cause of homelessness for families is eviction by primary tenant; for singles, jail release and eviction by primary tenant. Despite obstacles to meeting the needs of the homeless such as a lack of affordable housing, history of substance abuse, and family instability, Rockland's emergency housing costs are low compared with other counties.

Homeless youth have social programs to assist them but, according to the Consolidated Plan, most are forced to stay in the homes of friends. Single homeless have a formal "shelter" program in the County, with help from the Supportive Housing Program. Three shelters had been established in the mid- to late-1990s; however two of these shelters are now closed. The creation of more shelters will be the biggest challenge in the foreseeable future as the "not in my back yard syndrome" is more prevalent for homeless shelters than affordable housing units.<sup>6</sup>

Improvement is needed for the single homeless person who currently does not have housing resources. Rockland offers few "drop-in" shelters. Support in the style of several small shelters in three or four areas of the county might address this need.

### **Need for Housing for the Handicapped and Disabled**

As of 2008, some 23,100 residents of Rockland – or 8% of the civilian non-institutional population – had at least one disability impairing their physical, mental, or emotional condition. Fully half of those with a disability were aged 65 years and over. A majority of others with one or more disabilities were of work-force age, while fewer than 1,400 residents with disabilities were under 18 years of age. According to the 2008 ACS, there are 23,087 people living in Rockland with a non-institutionalized disability

## **10.5 Issues and Recommendations**

Despite Rockland's history of quality residential communities, the County faces a number of challenges in its efforts to improve housing opportunities, to properly coordinate land use and transportation patterns and to help nurture a healthy housing market. This section sets forth guidelines and recommendations aimed at moving these efforts forward.

It should be noted that many housing issues confronting Rockland – including housing deficiencies, the lack of affordable housing, and out-of-scale development patterns – are outside the County's authority to remedy, and instead are best dealt with at the local level. While the County can make general

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<sup>4</sup> *Rockland County Consolidated Plan, 2010–2014.*

<sup>5</sup> The Point-in-Time is a data collection method used to take a snapshot of the homeless population at a given time.

<sup>6</sup> *Rockland County Consolidated Plan, 2010-2014.*

recommendations regarding housing policies and encourage alternative development trends, it holds no sway over the planning or use of land, or the implementation of its guidelines or recommendations set forth herein. Moreover, it is important for the County *and* its municipalities to recognize that the Housing component of the Comprehensive Plan addresses needs that are often best handled by the private sector. By contrast, most of the other components of the Plan address development and/or maintenance that fall primarily in the public sector – e.g. parks and open space, streets and highways, public transit and utilities, and water and waste disposal. The Housing component is different because, while land use regulations – written and implemented by public entities – guide construction and development of housing, factors such as price and housing type are mainly decided in the private sector.

***Recommendation #1: Encourage Conservation (Cluster) Subdivision Development***

Single-family homes comprise nearly 70% of Rockland’s housing stock. Countywide, 87% of the residential land area is devoted to single-family homes. Coupled with the fact that nearly one-third of its area is preserved as parkland, the available land for new single-family developments in Rockland is limited. Despite these conditions, the number of building permits for single-family homes continues to far exceed that of all other residential structures. As stated above, single-family building permits comprised more than 80% of the residential building permits granted between 2000 and 2008.

These circumstances present a challenge for Rockland in its determination to preserve its remaining land for open space and recreation, while not completely restricting traditional subdivision development. One approach to this challenge, as discussed in **Chapter 8.0: Parks and Open Space**, is the technique known as conservation development. Sometimes referred to as “cluster development,” conservation development is the arrangement of residential properties on a proposed development site in order to preserve land for open space and recreation. A conservation development law allows for the development of the same number of housing units that would be permitted in a standard subdivision; therefore, density within the “clustered” zone remains the same as that of a standard subdivision. For example, if a 50-acre site is zoned for one home per acre, a cluster development might build the 50 homes on half-acre lots and allocate the remaining 25 acres as open space. However, unlike many standard subdivisions, a cluster subdivision promotes integrated site design that considers natural features and site topography. It protects environmental resources and minimizes runoff by reducing impervious surface area. Figure 10.6 provides an overview of how the layout for a cluster subdivision can be determined on an environmentally sensitive site.

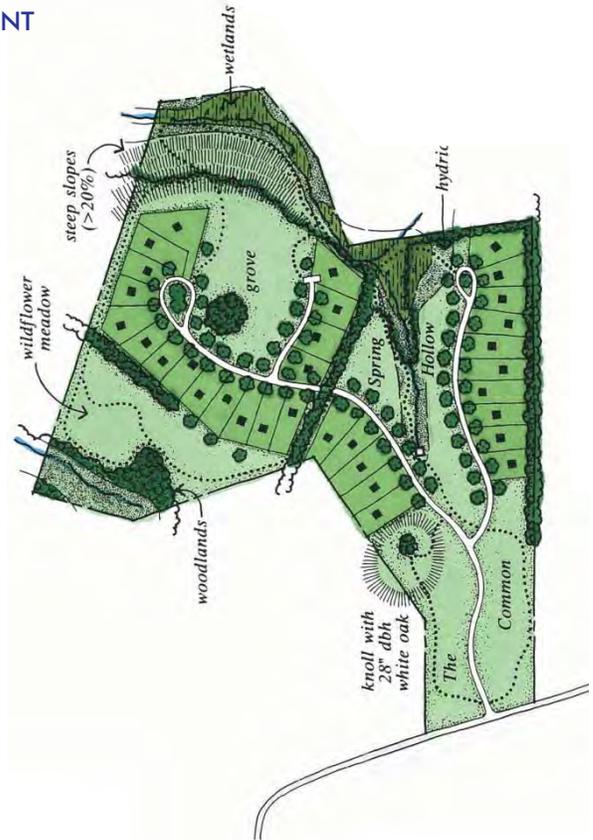
- Illustration A depicts a sample undeveloped site.
- Illustration B shows the maximum number of residential lots that could be developed on the site in a traditional subdivision layout. A “yield plan” determines the total number of lots that can be clustered on a site, incorporating bulk restrictions into the design, such as deductions for steep slopes, lands under water, wetlands, etc. Rather than spreading residential development across the large lots, clustering allows for the same number of lots to be built on the site by facilitating smaller lots that are clustered together.
- Illustration C shows existing environmental features.
- Illustration D shows a typical cluster subdivision layout that allows for development of the same number of lots shown in Illustration B, while preserving open space and minimizing impacts on environmentally sensitive features.

FIGURE 10.6: CONSERVATION (CLUSTER) DEVELOPMENT

B) Yield Plan



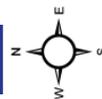
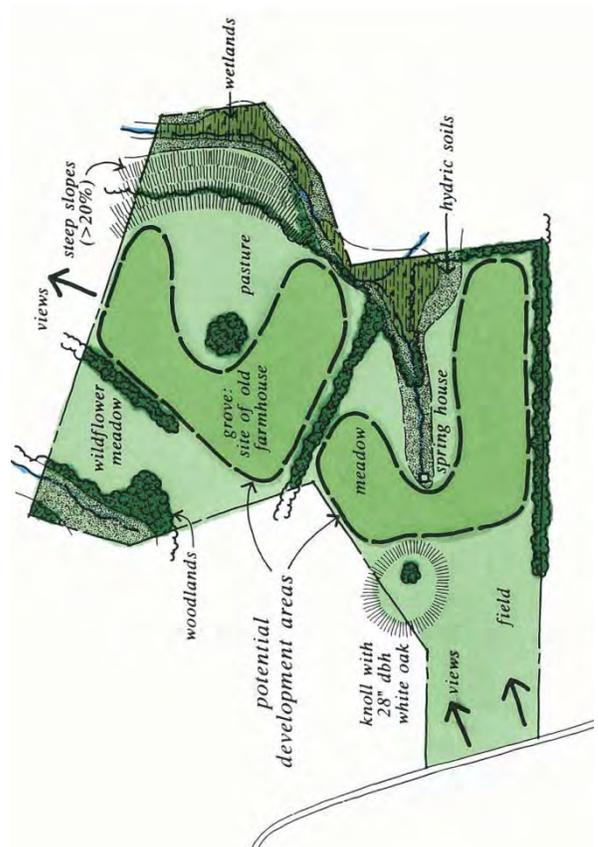
D) Cluster Subdivision



A) Before Development



C) Environmental Features



***Recommendation #2: Encourage Context-Sensitive Townhouse and Multifamily Development Where Appropriate***

Multifamily residential developments such as townhouses – when properly integrated into existing communities – can support the use of mass transit, while still accommodating the automobile. Townhouses can also provide many of the amenities of traditional suburban homes, including much of the spatial comfort and privacy associated with single-family detached units. In addition, townhouse developments reduce the cost of infrastructure (utilities, roads, transit lines) and key public services (police, fire, emergency medical), preserve agricultural land, and allow for more open space.

As Rockland’s major public transit initiatives move forward, the County will coordinate with municipalities to ensure that local land use planning and decisions over permitted land uses are properly integrated with plans for the developing regional transportation system.

***Recommendation #3: Increase Housing Opportunities for Rockland’s Diverse Population***

***(A) Expand Housing Options for the Emergency-Service Volunteer Population & Caregiver Work Force***

The high cost of market-rate housing in many of Rockland’s towns and villages adversely affects the County’s emergency service volunteer population. As discussed in **Chapter 13.0: Services & Information Resources**, the functioning of Rockland’s fire and emergency-service organizations depends largely on citizen volunteers. Housing for this group is generally considered affordable at approximately 80% of the median household income of the County. Although the County does not have the authority to dictate affordable housing regulations, municipalities can consider crafting zoning that encourages more affordable housing for Rockland’s emergency-service volunteers. For example, Clarkstown’s 2009 Comprehensive Plan calls for creating a mechanism for providing tax relief to volunteer emergency-service personnel, and for adopting zoning that requires a “set-aside” of new units for the volunteer work force.

Similarly, the caregiver work force – which includes nurses, home health aides, and child-care workers – is a fast-growing segment in need of affordable housing. Jobs in this sector, as in most service industries, are typically low-wage jobs, and locating adequate housing is a major challenge for these workers. For employees in this sector, housing is typically affordable at about 50% of the median household income of the County. Because of the scarcity of such housing, some workers may be forced to live far from their employment, even outside the county. Municipalities therefore should consider – and the County should facilitate – developing zoning that allows for set-asides in multifamily developments. For example, in an 80/20 set-aside, the developer would receive tax incentives for allocating 20% of units to those in the caregiver work force who earn less than 50% of the median household income of the County.

***(B) Affordable Housing for Senior Population***

As discussed above, more than 85% of Rockland’s seniors live in households; the balance live in group quarters. Of the 20,098 households headed by a person 65 or older, the majority – 58% (11,621) – occupy traditional single-family detached homes; only 5% of senior households were in structures that have 50 or more dwelling units in 2008, down from 7.7% in 2000.

As baby boomers continue to age over the next 10 to 20 years, the demand for senior housing will increase. Among seniors wishing to stay in Rockland, many will actively seek, either by choice or by necessity, a new place of residence. This in turn will create increasing demand for housing communities that offer residents a lifestyle specific to the needs and preferences of the aging population.

Careful consideration of where senior housing should be located is required to ensure seniors are afforded the opportunity to remain active and vital members of their communities. For example, developing senior housing in or near existing village and town centers can provide residents who no longer drive the ability to carry out day-to-day activities – including trips to the store, the doctor’s office, or the neighborhood park – without having to rely on an automobile. Proximity to a downtown area also offers seniors more opportunities to participate in community associations or attend local events, and can dispel feelings of isolation or loneliness sometimes associated with aging.

Senior housing needs are best addressed at the local level through zoning regulations that permit moderate- to higher-density development, and that offer a density bonus in exchange for a set-aside of new age-restricted units. Some municipalities in Rockland have already begun addressing senior housing needs through zoning amendments. For example, Clarkstown adopted a floating zone, the Adult Active Residential (AAR) zone, which “allows for the development of over-55 age-restricted housing.” The floating zone allows for the development of hundreds of additional senior units across the town and provides a density bonus incentive for developing affordable units at the applicant’s discretion. Orangetown also created a senior housing floating zone, Planned Adult Community (PAC). This zone is intended to encourage the development of a range of housing types and prices for active senior citizens within the town, except in designated historic districts. Recognizing the County’s lack of authority to dictate changes to local zoning and land use regulations, Rockland’s towns and villages would benefit most by adopting zoning amendments that address the needs of their respective elderly residents, while not precluding the development of affordable housing for other segments of the population. Municipalities that have already incorporated senior housing components into their zoning codes could serve as models for other municipalities to promote affordable senior housing development.

*(C) Nursing Homes, Adult Homes & Assisted Living Facilities*

The growth of population over 65 years of age will comprise a major expansion in Rockland residents, adding more than 23,300 persons, or accounting for 48% of total growth by 2035 (see **Chapters 3.0: Demographics and 4.0: Aging**). Although many retirement-aged and elderly residents can be considered economically active and financially secure, this shift in age structure has implications for housing needs—in particular, for Rockland’s existing stock of nursing homes, adult homes and assisted living facilities. As is the case with other types of special needs housing, promoting the construction of new nursing homes, adult homes and assisted living facilities – and determining the location of such – falls under the authority of Rockland’s towns and villages. However, the County should support municipal efforts that address housing opportunities for Rockland’s aging population (see sub-section (B) above).

Based on the projected growth in Rockland’s senior population, there also exists the potential for an increase in the handicapped and disabled population—a trend that could result in an increased need for appropriate housing (see **Chapter 4.0: Aging**). According to the Rockland County Office for People with Disabilities, obstacles to finding suitable housing for handicapped and disabled persons include municipal zoning, building moratoriums, lack of creative concepts, reluctance by municipalities to allow pocket communities, and local “not-in-my-backyard” attitudes. Housing options are limited, and making a home handicapped-accessible can be cost-prohibitive. In response to these challenges, the County should work with municipalities to address housing needs for the handicapped and disabled population. Such housing could be promoted through similar zoning strategies used to encourage affordable senior housing (see sub-section (B) above).

*(D) Partnerships With Not-For-Profit Organizations*

There are several not-for-profit organizations dedicated to improving housing opportunities in Rockland County. For example, the Rockland Housing Action Coalition, Inc. (RHAC) has made significant accomplishments in providing cost-effective housing for income eligible families through its many governmental, corporate, community and private partnerships. HOGAR, Inc. directs a number of affordable housing projects throughout the Hudson River Valley, while also working with owners of substandard properties to improve the living conditions and ensure adequate housing. These groups, along with a host of others, are able to provide technical assistance to local municipalities, private developers and community-based organizations – with the goal of helping low- and middle-income families in Rockland obtain quality-built rental and for-sale housing. The County should continue to strengthen existing and cultivate new partnerships with not-for-profit organizations as a means of establishing a unified, County-wide affordable housing vision.

*(E) Housing Cooperatives*

Among the more intractable issues facing Rockland is the lack of affordable housing for its young, senior and low- to moderate-income populations. Even as these individuals and families struggle to find decent, affordable places to live, choices in Rockland remain limited in terms of price and type of housing. From both a financial and practical perspective, traditional, market-rate single- or multifamily homes are often not a feasible option.

One approach to increasing housing opportunities in Rockland is the formation of housing cooperatives. Benefits associated with cooperative ownership are personal income tax reductions, lower real estate tax assessments, lower turnover rates, and reduced maintenance costs. Cooperatives are particularly common in multifamily developments such as apartments, townhouses, and senior housing. Limited-equity cooperatives, in particular, encourage affordability by establishing in the cooperative's bylaws a maximum resale value. Because limited-equity cooperatives are a non-speculative form of homeownership, the affordable character of the housing is generally preserved through time.

As discussed earlier, Rockland's housing cooperatives constitute only a minor portion of the county's housing stock. The County should work with municipalities to encourage the formation of additional cooperative housing to help expand the stock of decent, affordable housing.

***Recommendation #4: Continue to Seek Federal and State Grants for Affordable Housing***

Municipal efforts to expand the availability of affordable housing for all age and income groups in the County are augmented by the Rockland County Office of Community Development. The Office of Community Development administers the County's Section 8 program and prepares its five-year Consolidated Plan—a strategic plan that assesses Rockland's existing housing and community needs. The County will continue efforts to obtain federal and state grants through the U.S. Department of Housing and Urban Development to provide affordable housing and improve the quality of life of low and moderate income residents in Rockland.

***Recommendation #5: Protect Against Out-of-Scale Development Patterns***

In Rockland, as in many rural-suburban locations, an emerging concern involving housing is the retention of the existing semi-rural character with the current development trend of larger homes which might be out of scale with their lot sizes and surrounding neighborhoods. The issues of so-called teardowns – the replacement of traditionally scaled houses with oversized structures that might be technically allowable under zoning, but do not fit in with the existing neighborhood character – is best addressed at the local

level through changes to floor area ratio (FAR) requirements, bulk regulations, building envelopes, and lot coverage.

A related issue occurring in Rockland concerns traditional single-family houses being torn down and replaced with multifamily structures that are significantly greater than the allowable zoned residential density. These new structures often require FAR and lot coverage variances to accommodate larger families. In addition to the resulting impacts on neighborhood character, these higher densities can also have adverse effects on traffic, impervious surfaces, and utility usage. The issue here is not that regulations are not in place to ensure appropriately scaled development, but rather that municipalities might be allowing development that does not conform to the intent of the zoning regulations by continuing to grant variances from the regulations.

Again, zoning and other land use regulations are the purview of the towns and villages, and Rockland County cannot dictate changes to these regulations. However, the County should encourage its municipalities to address out-of-scale residential development through appropriate bulk regulations and by encouraging higher-density development in areas served by adequate public transit modes. Encouraging mixed-use development could allow Rockland's towns and villages to accommodate a growing need for smaller households in a way that does not disturb the existing residential fabric.

## **11.0 ECONOMIC DEVELOPMENT**

### **11.1 Existing Economic Conditions**

According to the *Quarterly Census of Employment and Wages* of the New York State Department of Labor, Rockland County contains 109,600 jobs in 9,772 establishments as of the Third Quarter of 2009. Collectively, these worksites range in size from one employee to more than 1,000 employees per establishment, with an average of 11 overall, and generate roughly \$5.2 billion of annual earnings. However, not all Rockland employment opportunities are held by county residents, and many Rockland residents journey to work outside the county. This chapter addresses recent trends in employment and earnings by work site and by residents, examines issues that affect the county's economy and economic well-being of its residents, identifies new opportunities for growth, and makes recommendations for economic development in terms of achievable goals.

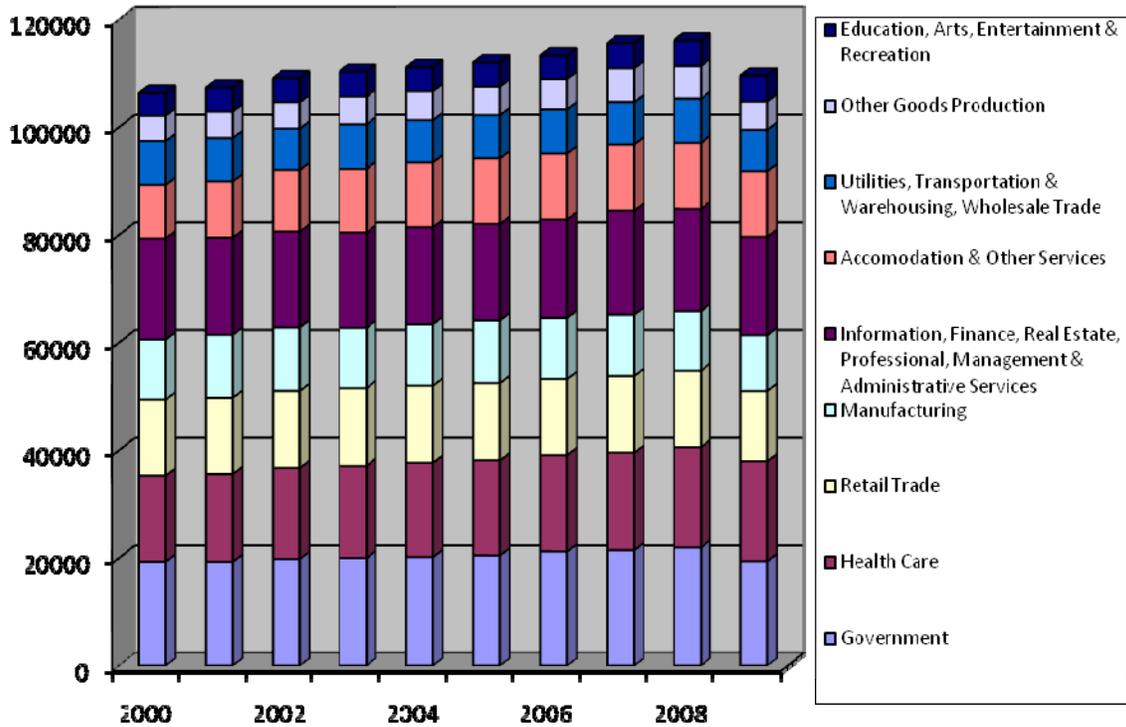
#### **Trends in Establishments, Employment, and Earnings**

After nearly a decade of continuous employment growth, amounting to 9,514 new jobs created from 2000 to 2008, Rockland lost employment in 2009. Down nearly 6,300 jobs by October 2009, or a 5.4% loss, the decline was not distributed in proportion to the industrial structure of the county's economy.

Of 109,600 jobs currently existing in the county, Government comprises the largest sector, followed by Health Care, Retail Trade and Manufacturing. As Chart 11.1 shows, collectively these four sectors account for 56% of total employment in Rockland, a share they have virtually maintained since 2000 (57%). Government and Health Care are moderate-wage industries, while Manufacturing pays relatively high wages in Rockland (\$74,775 in 2009) and Retail Trade low wages (\$27,043). Government, Manufacturing, and Retail Trade accounted for 68% of Rockland County's recent job losses while Health Care employment remained unchanged.

Fifteen other sectors of employment in Rockland County are less significant on an individual basis, but when combined with similar activities, they accounted for 50,000 jobs at their peak in 2008, as Chart 11.1 shows. Office-type activities in Information, Finance, Real Estate, Professional & Technical, Management and Administrative Services currently number 18,200 jobs, or nearly as many as Health Care (Table 11.1). However, since 2007, roughly 1,100 such jobs have been lost in Rockland, while neighboring Westchester County supports fivefold the level of office-type development. The next largest sectoral grouping – Accommodation and Other Services – is dominated by Food Services and Drinking Places that cater primarily to local demand, while the chart's following two groupings – Other Goods Production and Utilities, Transportation & Warehousing, Wholesale Trade – identify jobs in basic industries that support external sources of growth. Lastly, Education and the Arts, Entertainment & Recreation sectors comprise the smallest employment grouping, though their operations contribute heavily to the quality of life in Rockland County.

**Chart 11.1: Rockland County Employment, 2000-2009 Third Quarter**



Source: New York State Department of Labor, Quarterly Census of Employment & Wages

Chart 11.2, below, depicts the rise in Rockland County's employment by individual sector from the year 2000 to the peak level of 115,900 jobs in 2008. This is compared with the decline in employment from 2008 to the current level of 109,600 jobs in 2009: Third Quarter. As the chart shows, only six of 19 sectors registered recent growth. Of these, the most significant gains were recorded in Arts, Entertainment & Recreation, which grew by 521 jobs, while office-type activities in Management and Administrative Services collectively added 304 jobs between 2008 and the Third Quarter of 2009.

The job losses that characterized Rockland's economic decline in 2009 were shared with the neighboring counties of Orange and Westchester, as well as with the New York Metropolitan Region and the nation as a whole. The deepest recession since the Great Depression officially began in December 2007 and likely ended in June 2009, though employment levels are still declining and are expected to suppress nationwide, state and local employment at least through 2010. Five in 10 economists surveyed by the National Association for Business Economics (NABE) in 2009 agreed that it would take until 2012 to recoup all of the jobs lost in the recession, while one in three predicted that full recovery would not be achieved until 2013. As a consequence, the economic trends of 2000 to 2008 are generally regarded as better metrics for evaluating long term economic strengths and weaknesses.

**Table 11.1: Establishments, Employment & Earnings, 2008 & 2009 Third Quarter**

Industry Sector	Establishments		Employment		Earnings(\$Millions)	
	2008	2009:QtrIII	2008	2009:QtrIII	2008	2009:QtrIII
Agriculture, Forestry, Fishing & Hunting	7	6	64	62	\$1.4	\$0.8
Utilities	7	8	998	1,093	\$94.5	\$70.9
Construction	1,038	1,001	5,950	5,183	\$326.1	\$204.9
Manufacturing	262	255	11,080	10,365	\$840.6	\$587.9
Wholesale Trade	658	657	4,788	4,419	\$328.8	\$235.7
Retail Trade	1,138	1,107	14,189	13,060	\$394.9	\$264.8
Transportation and Warehousing	158	147	2,416	2,188	\$84.9	\$63.6
Information	153	158	2,668	2,468	\$205.2	\$146.5
Finance and Insurance	508	491	2,847	2,689	\$185.5	\$128.3
Real Estate and Rental and Leasing	415	421	1,528	1,447	\$58.7	\$40.7
Professional and Technical Services	1,233	1,231	5,849	5,313	\$445.3	\$269.5
Management of Companies and Enterprises	30	37	852	982	\$110.5	\$66.7
Administrative and Waste Services	608	598	5,157	5,331	\$182.1	\$123.4
Educational Services	181	189	3,365	2,946	\$88.9	\$66.5
Health Care and Social Assistance	1,087	1,100	18,567	18,584	\$820.2	\$585.9
Arts, Entertainment, and Recreation	170	178	1,369	1,890	\$33.9	\$25.3
Accommodation and Food Services	655	656	6,785	6,880	\$131.3	\$93.9
Other Services	889	899	4,636	4,510	\$111.2	\$82.1
Government	189	189	22,002	19,380	\$1,175.6	\$871.1
Unclassified	266	443	764	808	\$8.8	\$28.1
<b>Total, All Industries</b>	<b>9,652</b>	<b>9,772</b>	<b>115,874</b>	<b>109,598</b>	<b>\$5,662.0</b>	<b>\$3,956.4</b>

Source: New York State Department of Labor, Quarterly Census of Employment & Wages

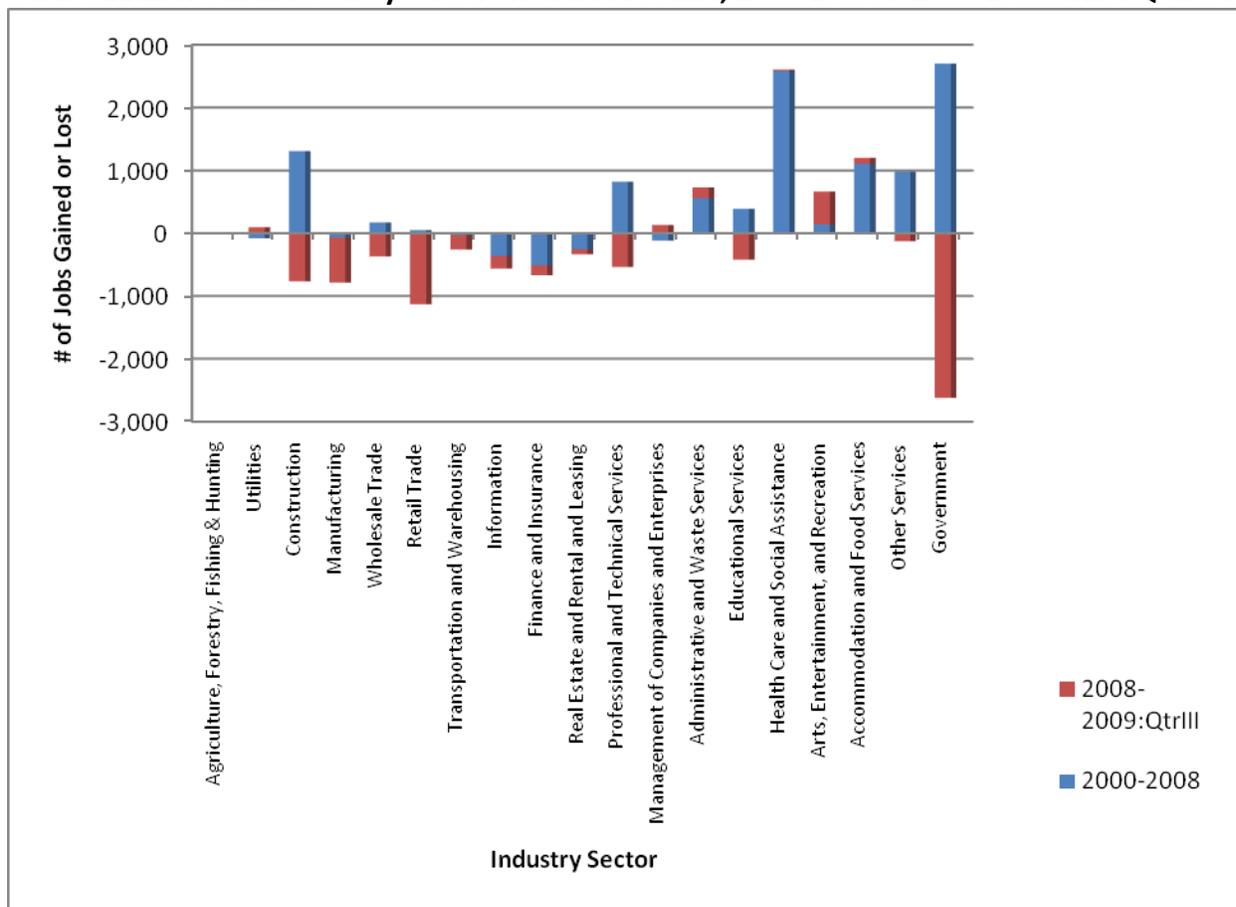
As Table 11.2 shows, Rockland has roughly comparable establishments and earnings to Orange County, but collectively the two “West of Hudson” counties have little more than half of the employment and establishments of Westchester County and considerably less of the worker earnings. However, between 2000 and 2008, employment in Rockland and Orange each grew by 9%, while Westchester expanded by less than 4%, but Rockland and Westchester declined more rapidly than Orange under the recession. Similarly, aggregate worker earnings grew fastest in Rockland between 2000 and 2008, and by the end of 2009: Third Quarter, declined less rapidly than earnings of workers in Westchester. Nonetheless, jobs in Rockland County paid \$48,900 annually in 2008, fully 27% below the average earnings of \$62,400 in Westchester County, but 27% above the \$38,600 annual earnings of Orange County.

**Table 11.2: Economic Growth and Decline, 2000-2009: Third Quarter: Rockland and Neighboring Counties**

	Establishments			Employment			Aggregate Earnings (\$Billions)		
	2000	2008	2009:QtrIII	2000	2008	2009:QtrIII	2000	2008	2009:QtrIII
Rockland	8,673	9,652	9,772	106,360	115,874	109,598	\$3.963	\$5.662	\$3.956
Orange	8,345	9,803	9,910	119,572	130,533	124,297	\$3.510	\$5.042	\$3.770
Westchester	33,793	35,822	35,865	405,439	420,107	395,928	\$19.082	\$26.194	\$17.261

Source: New York State Department of Labor, Quarterly Census of Employment and Wages

**Chart 11.2: Rockland County Job Growth and Decline, 2000-2008 & 2008-2009 Third Quarter**



Source: New York State Department of Labor, Quarterly Census of Employment & Wages

**Regional Forecasts of Growth, 2006-2016**

The New York State Department of Labor produces long-term forecasts of employment growth by industry and occupation for New York State and its 10 labor market regions, titled *Employment Projections and Jobs in Demand 2006-2016*. While not specific to Rockland County, it does indicate potential job opportunity trends in the broader seven-county region.<sup>1</sup> As Table 11.3 shows, for the 2010-2016 period, employment is expected to increase by 9%, or 87,220 jobs, with seven in every 10 new jobs created in the Service providing industries, or 60,260 in six years. Of these, the largest gains will be experienced by Professional & Technical Services and Health Care & Social Assistance, two sectors which will attract more than half of all new Services. Despite their strength, however, Construction is anticipated to be the fastest-growing sector, with the largest single gain in employment among all industries, or 21,890 new jobs. Further declines can be anticipated in Manufacturing and Government, with Utilities also likely to contract marginally.

Translated to occupational requirements, or the skills associated with employment growth by industry, Table 11.3 also shows that 43,730 of the region’s 87,130 new jobs will be white-collar opportunities, while 21,370 will require service skills and 21,050 blue-collar occupations. Among all these, the greatest

<sup>1</sup> The Hudson Valley has been defined by NYS DOL as consisting of Dutchess, Orange, Putnam, Rockland, Sullivan Ulster, and Westchester. Rockland County accounts for 13% of Hudson Valley employment and establishments.

new demands will be for workers with construction skills, sales, and administrative support occupations. While the latter two occupations are generally considered to be among the less skilled and lower paid white-collar occupations, construction work can be more remunerative and demanding in skill attainment. It is against these regional job trends that prospects for the economic development of Rockland County are assessed.

### **Three Measures of Economic Development**

Three measures of economic development shed light on the existing strengths and weaknesses of Rockland County in comparison with Orange and Westchester, or the Hudson Valley as a whole. The first measure, using *Cluster Analysis*, is based on findings of the NYS Department of Labor that identify growth sectors or industry clusters of the Hudson Valley, based on 2008 data. The subsequent measures – *Location Quotient Analysis* and *Shift-Share Analysis* – identify the relative intensity of employment by sector for Rockland County versus Orange and Westchester counties and the national, structural, and competitive share components of employment growth in Rockland.

As shown in Table 11.4, industry clusters are “geographic concentrations of competing, complementary, or interdependent firms and industries that do business with each other and/or have common needs for talent, technology, and infrastructure.”<sup>2</sup> As such, they serve as export-oriented activities that market their goods and services beyond their borders. Because exports generate new income and employment in a local economy, they are considered to be the basic drivers of economic growth.

Of 16 industry clusters identified as the drivers of economic growth in New York State, the Hudson Valley contains nearly 12% of all establishments, 8% of employment, and 6.5% of worker earnings. The region’s leading clusters with disproportionate shares of statewide activity are Biomedical and Electronics & Imaging, characterized by concentrations of pharmaceutical and nanotechnology firms. In relative importance, these clusters are followed by growth industries in Materials Processing, Miscellaneous Manufacturing, Food Processing, and Travel & Tourism. Front Office & Producer Services rank as the largest employment cluster in the Hudson Valley and statewide; while Travel & Tourism, with a disproportionately large share of statewide employment, also represents the region’s second-largest employment cluster (see Table 11.4, below).

Industry clusters ranked by average wage in the Hudson Valley lead with Electronics & Imaging and are followed by Financial Services, which is also relatively important in terms of employment size. Although the Biomedical (Life Sciences) cluster is not a major employer in the Hudson Valley, the sector pays relatively high wages, an important attribute that is not characteristic of Travel & Tourism, which is a large employer in the region. In sum, the growth clusters of Electronics & Imaging, Biomedical, Front Office & Producer Services, Financial Services, and Travel & Tourism appear to hold the most promise for economic development of the Hudson Valley.

Given the economic development strengths and prospects of the Hudson Valley, it is useful to assess the concentration of various employment sectors by county. Using *Location Quotient Analysis*, the U.S. Bureau of Labor Statistics compared the relative intensity of employment by industry in Rockland, Orange, and Westchester counties to comparable jobs in the nation in 2008, based upon data of the *Quarterly Census of Employment and Wages*. As Chart 11.3 shows, Rockland’s employment profile has a pronounced concentration in Utilities, Educational Services, and Health Care & Social Assistance. These

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<sup>2</sup> NYS DOL, *Industry Clusters in New York’s Economy: A Statewide and Regional Analysis*, January 2010.

three sectors are half again to twice as concentrated in the county, as in the nation, while industries such as Construction, Manufacturing, Retail Trade, and Information are on par with their national intensity.

**Table 11.3: Industry & Occupational Forecasts for the Hudson Valley Region, 2006-2010-2016**

Sectors	2006	2010	2016	Change 2010-2016	
				#	%
<b>Agriculture, forestry, fisheries</b>	<b>10,360</b>	<b>9,840</b>	<b>10,110</b>	<b>270</b>	<b>2.7%</b>
<b>Goods producing:</b>	<b>111,690</b>	<b>102,210</b>	<b>120,060</b>	<b>17,850</b>	<b>17.5%</b>
Mining	940	930	1,010	80	8.6%
Construction	50,670	49,450	71,340	21,890	44.3%
Manufacturing	60,080	51,830	47,710	-4,120	-7.9%
<b>Service providing:</b>	<b>812,730</b>	<b>814,020</b>	<b>874,280</b>	<b>60,260</b>	<b>7.4%</b>
Utilities	5,780	5,750	5,590	-160	-2.8%
Wholesale Trade	36,480	32,650	34,770	2,120	6.5%
Retail Trade	114,700	110,740	117,300	6,560	5.9%
Transportation & warehousing	32,020	29,800	33,930	4,130	13.9%
Information	23,070	19,630	20,850	1,220	6.2%
Financial activities (including real estate)	51,950	47,540	55,610	8,070	17.0%
Professional & business services	98,580	94,140	111,510	17,370	18.5%
Educational services	110,140	116,000	117,090	1,090	0.9%
Health care & social assistance	141,570	151,670	166,410	14,740	9.7%
Leisure & hospitality	70,170	73,560	77,270	3,710	5.0%
Other services	50,170	53,610	55,230	1,620	3.0%
Government	78,100	78,930	78,720	-210	-0.3%
<b>Self employed &amp; unpaid family workers</b>	<b>61,340</b>	<b>54,530</b>	<b>63,370</b>	<b>8,840</b>	<b>16.2%</b>
<b>Total</b>	<b>996,120</b>	<b>980,600</b>	<b>1,067,820</b>	<b>87,220</b>	<b>8.9%</b>

**Table 11.3: Industry & Occupational Forecasts for the Hudson Valley Region, 2006-2010-2016***(Continued)*

Occupations	2006	2010	2016	Change 2010-2016	
				#	%
<b>White collar:</b>	<b>593,580</b>	<b>581,300</b>	<b>625,030</b>	<b>43,730</b>	<b>7.5%</b>
Management	45,500	45,600	47,300	1,700	3.7%
Business & financial operations	35,380	33,550	37,640	4,090	12.2%
Computer & mathematical specialists	21,040	19,990	22,680	2,690	13.5%
Architecture & engineering	13,750	13,520	13,730	210	1.6%
Life, physical & social sciences	11,820	11,940	11,880	-60	-0.5%
Community & social services	20,770	22,520	24,530	2,010	8.9%
Legal	10,150	8,290	10,180	1,890	22.8%
Education, training & library	82,740	89,600	90,300	700	0.8%
Arts, design, entertainment, sports & media	18,100	17,420	18,900	1,480	8.5%
Healthcare practitioners & technical	54,010	56,190	60,640	4,450	7.9%
Sales & related	110,710	102,100	115,030	12,930	12.7%
Office & administrative support	169,610	160,580	172,220	11,640	7.2%
<b>Service:</b>	<b>213,390</b>	<b>219,150</b>	<b>240,520</b>	<b>21,370</b>	<b>9.8%</b>
Healthcare support	36,310	35,830	43,920	8,090	22.6%
Protective service	29,990	27,740	31,940	4,200	15.1%
Food preparation & serving related	60,190	64,560	66,530	1,970	3.1%
Building & grounds cleaning & maintenance	42,280	44,860	47,190	2,330	5.2%
Personal care & service	44,620	46,160	50,940	4,780	10.4%
<b>Farming, fishing &amp; forestry</b>	<b>7,090</b>	<b>6,160</b>	<b>7,140</b>	<b>980</b>	<b>15.9%</b>
<b>Blue collar:</b>	<b>182,090</b>	<b>174,070</b>	<b>195,120</b>	<b>21,050</b>	<b>12.1%</b>
Construction & extraction	51,410	51,310	66,250	14,940	29.1%
Installation, maintenance & repair	36,760	36,310	38,930	2,620	7.2%
Production	40,360	36,680	35,720	-960	-2.6%
Transportation & material moving	53,560	49,770	54,220	4,450	8.9%
<b>Total</b>	<b>996,150</b>	<b>980,680</b>	<b>1,067,810</b>	<b>87,130</b>	<b>8.9%</b>

Source: New York State Department of Labor, *Employment Projections and Jobs in Demand 2006-2016*

Rockland's least developed sectors include Finance & Insurance, and the Management of Companies, which are roughly half as concentrated in the county as nationally, and more than twice as concentrated in neighboring Westchester County. Compared with Orange County, the employment structure of Rockland appears more favorable in most industries, but sectors such as Arts, Entertainment & Recreation, and Accommodations & Food Services could use strengthening. With the exception of the Biomedical (Life Sciences) sector, Rockland's existing economic structure does not appear to present the requisite intensity of activities to fully participate in the Hudson Valley's leading growth clusters.

As a tool for identifying the components of change, *Shift-Share Analysis* has been applied to Rockland County's industrial structure of employment growth between 2000 and 2008. As Table 11.5 shows, the county gained 8,618 jobs over the eight-year period, excluding those in Construction, Natural Resources,

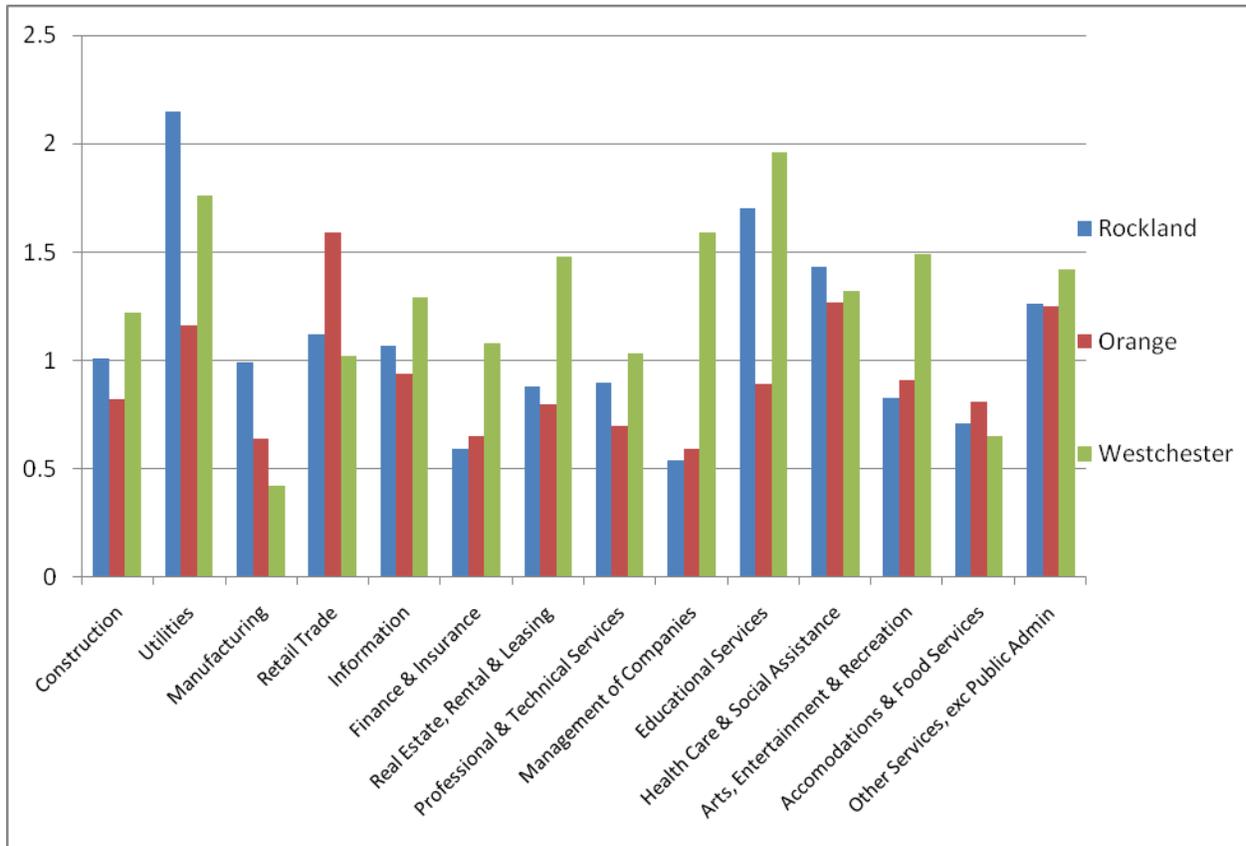
& Mining. In general, jobs grew primarily due to the national economy, which expanded employment by 3,757 jobs, or 3.8%. The Rockland County industrial mix accounted for much less growth potential than the national average, adding only 1,843 jobs, overwhelmingly in Education & Health Care Services. The county's local advantage in promoting employment growth, known as the Competitive Share Component, contributed 3,016 jobs, or 35% of Rockland's expansion between 2000 and 2008. Notably, most of this advance occurred in Manufacturing, which has some competitive advantages that would otherwise have resulted in significant job losses due to the contraction in goods production nationally.

**Table 11.4: Selected Growth Clusters of the Hudson Valley: 2006**

Industry Cluster	Reporting		Clusters Ranked by Employment within Region		Clusters Ranked by Average Wage within Region		
	Units	Employment	Employment	within Region	Total Wages (\$ Millions)	Average Wage	
Back Office & Outsourcing	488	12,200	7		\$530.6	\$43,600	14
Biomedical	301	9,800	8		\$972.9	\$99,100	4
Communications, Software & Media Services	1,255	19,300	5		\$1,271.3	\$65,900	6
Distribution	4,283	23,800	4		\$1,529.4	\$64,200	7
Electronics & Imaging	93	14,600	6		\$1,933.0	\$132,700	1
Fashion, Apparel & Textiles	307	3,300	14		\$175.0	\$53,700	10
Financial Services	2,854	27,300	3		\$3,131.7	\$114,600	2
Food Processing	260	5,900	12		\$271.1	\$46,300	12
Forest Products	226	3,300	13		\$143.8	\$43,200	15
Front Office & Producer Services	6,884	45,600	1		\$4,620.1	\$101,300	3
Industrial Machinery & Services	401	9,800	9		\$565.1	\$57,800	8
Information Technology Services	1,453	9,100	10		\$829.7	\$90,700	5
Materials Processing	256	8,000	11		\$451.9	\$56,400	9
Miscellaneous Manufacturing	147	2,300	15		\$103.2	\$45,500	13
Transportation Equipment	36	900	16		\$47.6	\$53,300	11
Travel & Tourism	8,263	34,100	2		\$974.4	\$28,600	16
<b>Hudson Valley</b>	<b>27,507</b>	<b>229,300</b>			<b>\$17,550.9</b>	<b>\$76,600</b>	

Source: New York State Department of Labor

**Chart 11.3: Comparison of Location Quotients: Rockland, Orange, and Westchester to the Nation in 2008**



Source: U.S. Bureau of Labor Statistics

Overall growth in the leading sector of Education & Health Care Services amounted to 5,395 jobs in the eight-year period, but most of this growth was attributed to the industry’s expansion nationally, rather than to a local competitive advantage. Should the sector have attracted activity beyond its population serving requirements, the county’s job growth may have been considerably higher. Competitive strengths can be observed, however, in other leading growth sectors, such as Professional & Business Services and Other Services, which are largely consumer services. In sum, the *Shift-Share Analysis* provides further support for economic development in the Biomedical (Life Sciences) cluster, from drug manufacturing/medical supplies, laboratory research and clinical testing in the Health Care sector, as well as a potentially emerging export role in Front Office & Producer Services with the growth of Professional & Business Services employment. Most other sectors of Rockland’s economy are oriented toward the consumer market and offer lower paid employment opportunities, the growth of which is driven by residential development.

Of concern, however, is the disconnect between existing job opportunities and available skills of Rockland County’s labor force. Rockland has a highly educated and literate resident work force, many of whom leave each weekday for professional, business, and technical service jobs located outside the county. As a whole, their number far exceeds the job availability of this industry in the county. Were Rockland to pursue the attraction of professional services, financial institutions, and back-office operations, it could offer a substantial resident workforce as an inducement. On the other hand, a much smaller proportion of existing jobs in Rockland County currently demand a highly skilled work force.

Some 30,000 residents from other counties journey to work in Rockland on an average weekday basis, more than half of whom come from neighboring Hudson Valley counties. Many in-commuters have less education but satisfy the lower skill requirements of Rockland's available work in the lower-wage industries of Healthcare, Retail Trade, and Manufacturing.

**Table 11.5: Shift-Share Analysis of Rockland County's Employment Growth, 2000-2008**

<b>Sector</b>	<b>National Growth Component</b>	<b>Industrial Mix Component</b>	<b>Competitive Share Component</b>	<b>Total Job Change, 2000-2008</b>
Manufacturing	418	-2,933	2,488	-27
Other Services	138	158	731	1,027
Professional & Business Services	398	270	659	1,328
Trade, Transportation & Utilities	857	-702	258	413
Leisure & Hospitality	261	735	243	1,240
Information	122	-654	212	-320
Public Administration	207	162	-102	267
Education & Health Care				
Services	1,162	4,738	-505	5,395
Financial Activities	194	69	-968	-705
Construction	n/a	n/a	n/a	n/a
Natural Resources & Mining	n/a	n/a	n/a	n/a
<b>Total</b>	<b>3,757</b>	<b>1,843</b>	<b>3,016</b>	<b>8,618</b>

*Source: Northeast Regional Project and U.S. Bureau of Labor Statistics*

Given that many low-wage jobs in Rockland County are being filled by workers commuting into the county, adequate transportation and affordable housing are significant public issues. Employers need also to address work-force development by partnering with educational institutions in internship programs and by hiring training providers to equip workers with a range of skills from highly specialized skills to customer management and work ethics. The problem of a labor-job disconnect also pertains to Rockland's younger generation, their educational attainment, and its alignment with emerging job opportunities in the county. These issues and their associated costs suggest that work force and economic development are integral elements of a single goal.

#### **Labor Force Characteristics and Commutation Patterns**

The resident civilian labor force of Rockland County numbered 152,867 individuals in 2008, with 146,179 employed and 6,688 unemployed, or 4.4%. Males outnumbered females in the work force, with males comprising 53% of employed residents and females 47%. Over the eight-year period since 2000, the County's civilian labor force grew by 12,391 participants, or nearly 9%. Females accounted for 42% of recent growth, while males increased in share with 58% of growth.

By age group, the labor force participation rate is highest among persons 45 to 54 years of age, at 87% in the labor force, though other age groups between 20 and 65 years exhibit rates of participation between 72% and 84%. Even in retirement years, for persons aged 65 to 74 years, fully 37% participate in the labor force, ahead of the youthful ages of 16 to 19 years with 30% in the labor force. Unemployment affects the young labor force, to a greater extent than all other age groups, with 19% jobless among those aged 16 to 19, and 6.9% jobless among those aged 20 to 24 years. In the prime

labor force ages of 25 to 44 years, 3.6% of the resident labor force is unemployed, while among those aged 45 to 54 years, 4.5% are unemployed. Rates of joblessness are least, at 2%, for the mature labor force of 55 to 74 years of age.

By family structure, more than half of all married couple families in Rockland County (56%) report both husband and wife in the labor force, while another one-quarter (26%) report husband working with wife not in the labor force. For non-married families, another 56% are headed by single females in the labor force and 20% by single males in the labor force. Fully 10% of all families had no workers in the previous 12 months of 2008.

Two in every three resident employed persons in Rockland County are engaged in the private for-profit sector with workers earning wage or salary compensation. Another one in six, or some 25,500 residents, work for government at all levels, while the remaining one-sixth are comprised of nonprofit workers and the self-employed. Median earnings tend to be highest for government workers and the self-employed of incorporated businesses, at \$53,400 to \$59,700 annually, while employees of private for-profit companies were paid roughly \$40,000 in 2008 and nonprofit workers earned around \$35,000 annually.

Table 11.6 presents the occupational and industrial characteristics of Rockland County's employed labor force in 2000 and 2008. As the table shows, managers and professionals comprise the largest single share of the employed and have increased by the greatest number over the 2000-2008 period. The table shows that in sheer numbers, the managers grew the most, but by percentages, the service workers grew the greatest with 26%, followed by farming/fishing/forestry workers. Currently consisting of 65,400 workers, the highly skilled managerial occupation expanded by nearly 5,600 persons. The next largest growth sector, however, consisted of service workers who are typically lower skilled and less remunerated. Between 2000 and 2008, they increased in number by nearly 5,400 jobs, or 26%. Significant other changes in the occupational composition of Rockland County's work force include the loss of more than 1,600 blue-collar workers in production, transportation and material moving occupations. Without a skilled blue-collar work force, the County's economic development initiatives to attract and retain manufacturing operations are significantly challenged.

Nonetheless, the Empire Zone Program, which will be discussed in a subsequent section, has attracted some 300 new manufacturing jobs of a regionally significant nature, that are soon expected to relocate from New Jersey and Switzerland.

From a different perspective, Table 11.6 portrays the industrial affiliation of Rockland County's same work force. As the table shows, virtually all of the recent growth in resident employment can be traced to increases in three sectors – Education, health and social services, which grew by 4,147 jobs, or 11%; Retail trade, which grew by 3,209 jobs, or 23%; and Arts, entertainment, recreation, accommodation and food services, which grew by 2,996 jobs, or 37%. Four sectors actually declined in employment, and most others except Construction experienced marginal changes. Of note with respect to recent trends is the issue that growth is occurring in relatively lower paid service activities, while marginal gains or actual declines are occurring in higher paid white-collar and goods production activities.

**Table 11.6: Occupation and Industry Characteristics of Rockland County's Employed Labor Force, 2000 & 2008**

Occupation	2000	2008	Change 2000-2008	
			#	%
Management, professional & related occupations	59,825	65,411	5,586	9.3%
Service occupations	20,451	25,824	5,373	26.3%
Sales and office occupations	35,043	36,033	990	2.8%
Farming, fishing and forestry occupations	88	98	10	11.4%
Construction, extraction and maintenance occupations	9,454	10,039	585	6.2%
Production, transportation, and material moving occupations	10,401	8,774	-1,627	-15.6%
<b>Total Employed</b>	<b>135,262</b>	<b>146,179</b>	<b>10,917</b>	<b>8.1%</b>

Industry	2000	2008	Change 2000-2008	
			#	%
Agriculture, forestry, fishing and hunting, and mining	306	0	-306	-100.0%
Construction, extraction and maintenance occupations	7,045	9,088	2,043	29.0%
Manufacturing	12,273	8,843	-3,430	-27.9%
Wholesale trade	5,107	4,638	-469	-9.2%
Retail trade	13,721	16,930	3,209	23.4%
Transportation and warehousing, and utilities	5,798	6,685	887	15.3%
Information	5,982	5,989	7	0.1%
Finance, insurance, real estate, and rental and leasing	11,049	11,162	113	1.0%
Professional, scientific, management, administrative, and waste management services	14,128	15,232	1,104	7.8%
Educational, health and social services	38,992	43,139	4,147	10.6%
Arts, entertainment, recreation, accommodation and food services	8,096	11,092	2,996	37.0%
Other services	6,253	6,887	634	10.1%
Public administration	6,512	6,494	-18	-0.3%
<b>Total Employed</b>	<b>135,262</b>	<b>146,179</b>	<b>10,917</b>	<b>8.1%</b>

Source: U.S. Bureau of the Census, 2000 Census of Population and 2008 American Community Survey

Note: A discrepancy exists between the growth in Farming, fishing and forestry occupations and the decline in the Agriculture, forestry, fishing and hunting and mining industry. This can be explained in part by the inclusion of mining as an industry, but not as an occupation with Farming, fishing and forestry (included as an occupation with Construction), as well as by the possibility of Farming, fishing and forestry occupations to be represented in non-Agricultural industries.

Rockland County has traditionally sent about half of its work force to employment opportunities located outside of the county, thus previously viewed as a commuter County. However, since 2000, all of the growth in resident employment has been attributable to Rockland workers holding Rockland County jobs. As Table 11.7 shows, the work force living and working in the county increased by 11,512 persons between 2000 and 2005, or grew by 16%, while those residents now working elsewhere in New York State declined by 2,582 and those working outside of New York State rose only by 1,805 persons.

As Rockland County becomes a more self-contained live/work place, travel time to work can be expected to decline – actually, from 32.6 in 2000 to 30.3 minutes per trip in 2008 – and certain modes of travel to increase in usage. As the table shows, the fastest rates of growth by means of transportation

can be attributed to other means including bicycles, working at home, and public transportation – taxi and other modes. In 2000, bus comprised 65% of public transport and rail less than 25%. Between 2000 and 2008, the rise in ferry service undoubtedly explained a portion of the growth in public transportation, providing workers with access to intraregional rail service. The use of autos on a drive-alone basis accounted for the largest increment in commutation modes. Fully 4,641 more trips were made by drivers, and 963 fewer trips by carpool, suggesting an increasingly dispersed pattern of work trip destinations.

In 2000, the last year for which county-destination data were available, 20% of Rockland’s work force worked in New York City, nearly 10% in Bergen County, New Jersey; 8.3% in Westchester; and only 1.3% in Orange County, apart from the 54% that lived and worked in Rockland County. By contrast, Rockland’s employers attracted 71% of their workers from the county, followed by nearly 10% from Orange, 5.8% from Bergen, and only 3.6% from Westchester County. The influx of New York City residents was minimal. Although comparable data were not available for 2008, it would appear that the outflow to New York City and Westchester County, in particular, declined over the period.

**Table 11.7: Commutation Characteristics of Rockland County’s Employed Labor Force, 2000 & 2008**

Place of Work	2000	2008	Change 2000-2008	
			#	%
Worked in state of residence	113,081	122,011	8,930	7.9%
Worked in county of residence	72,022	83,534	11,512	16.0%
Worked outside county of residence	41,059	38,477	-2,582	-6.3%
Worked outside state of residence	19,221	21,026	1,805	9.4%
<b>Total</b>	<b>132,302</b>	<b>143,037</b>	<b>10,735</b>	<b>8.1%</b>

Means of Transportation to Work	2000	2008	Change 2000-2008	
			#	%
Car, truck or van -- drove alone	97,551	102,192	4,641	4.8%
Car, truck or van – carpoled	14,618	13,655	-963	-6.6%
Public transportation (including taxi)	10,846	14,438	3,592	33.1%
Walked	3,659	4,645	986	26.9%
Other means	943	1,865	922	97.8%
Worked at home	4,685	6,242	1,557	33.2%
<b>Total</b>	<b>132,302</b>	<b>143,037</b>	<b>10,735</b>	<b>8.1%</b>
<b>Mean travel time to work (minutes)</b>	<b>32.6</b>	<b>30.3</b>	<b>-2.3</b>	<b>-7.6%</b>

Source: U.S. Bureau of the Census, 2000 Census of Population and 2008 American Community Survey

## 11.2 Economic Development Issues

Physical, market, and policy conditions can affect the attractiveness and competitive advantages of a locality for economic development. This section briefly addresses the distribution of economic activity within Rockland County, the relative competitiveness of its major office and retail markets, the land available for economic development, and the efficiency of its major transportation system.

### Distribution of Economic Activity in the County

Thirty-five percent of Rockland County's private-sector employment is concentrated in three postal zip code areas that contain more than 10,000 jobs each – Nanuet, Spring Valley, and Suffern. Another six zones account for 45% of private-sector employment, each containing roughly 5,000 to 8,500 jobs – West Nyack, Pearl River, New City, Monsey, Orangeburg, and Nyack in descending order of magnitude. The remaining 20% of countywide private employment is disbursed among the 17 other zones, primarily in the northern and selected eastern portions of the county (Figure 11.1).

The three leading economic sectors – Health Care, Retail Trade, and Manufacturing – collectively account for 47% of private-sector employment in Rockland. Most other sectors have fewer than 5,000 jobs each and are relatively disbursed in serving population areas. Seven in every 10 Health Care jobs are found in the six darkest-colored zones of Figure 11.2, more than half of which are in the three largest employment areas. Retail Trade (Figure 11.3), the county's second-largest employer, is more densely concentrated in four zones – West Nyack, Nanuet, Spring Valley, and Monsey – reflecting the presence of major shopping malls. The Palisades Mall complex represents 37% of West Nyack's jobs and 23% of its worker earnings. Manufacturing (Figure 11.4) is the least confined major employer, with only two zip codes – Suffern and Orangeburg – having over 1,000 industrial jobs, or 37% of the county's total.

Table 11.8, below, shows the 31 largest employers of Rockland County, or all those reporting more than 400 workers in 2010. They are identified by sector, name, employment, and location, and include public as well as private employers. Their industrial character attests to the relative strength of the Biomedical (Life Sciences) cluster in the structure of the county's employment, as well as to the prominence of local government as a job generator. Collectively, the 31 establishments employ more than 30,200 workers, compared with 90 establishments between 100 and 399 workers that employ 17,900 workers. In addition to their export role, the largest private sector employers serve as magnets for attracting supporting and complementary activities that can broaden the depth and specialization of a cluster, thereby increasing its multiplier effect.

It should be noted that the bulk of Rockland County's employers are small establishments with fewer than 100 job opportunities, which primarily serve the population. Figure 11.5, below, identifies the location of major employers by establishment size having more than 100 employees in 2010.

FIGURE 11.1: PRIVATE HEALTH CARE & SOCIAL ASSISTANCE EMPLOYMENT BY ZIP CODE

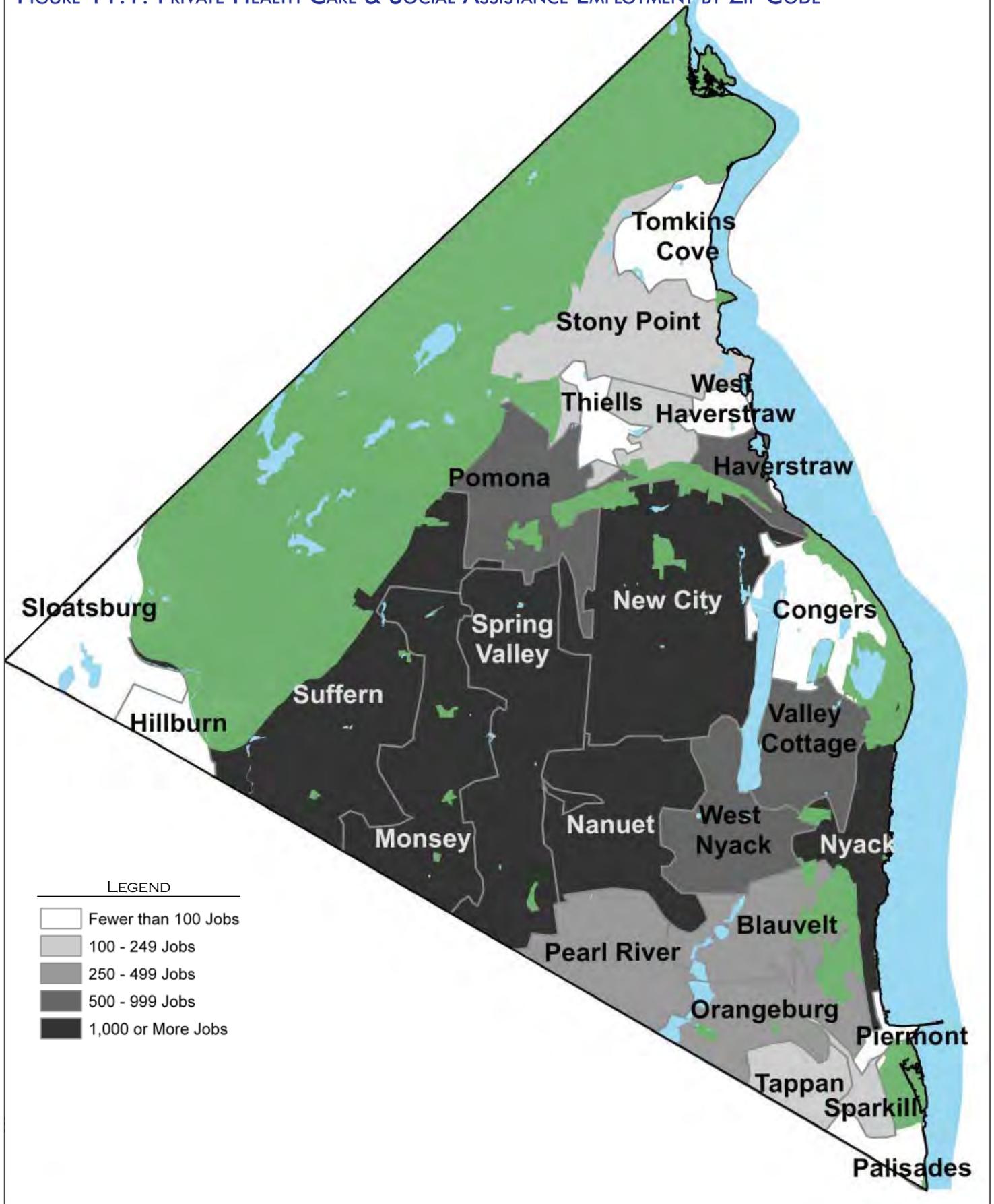


FIGURE 11.2: MANUFACTURING EMPLOYMENT BY ZIP CODE

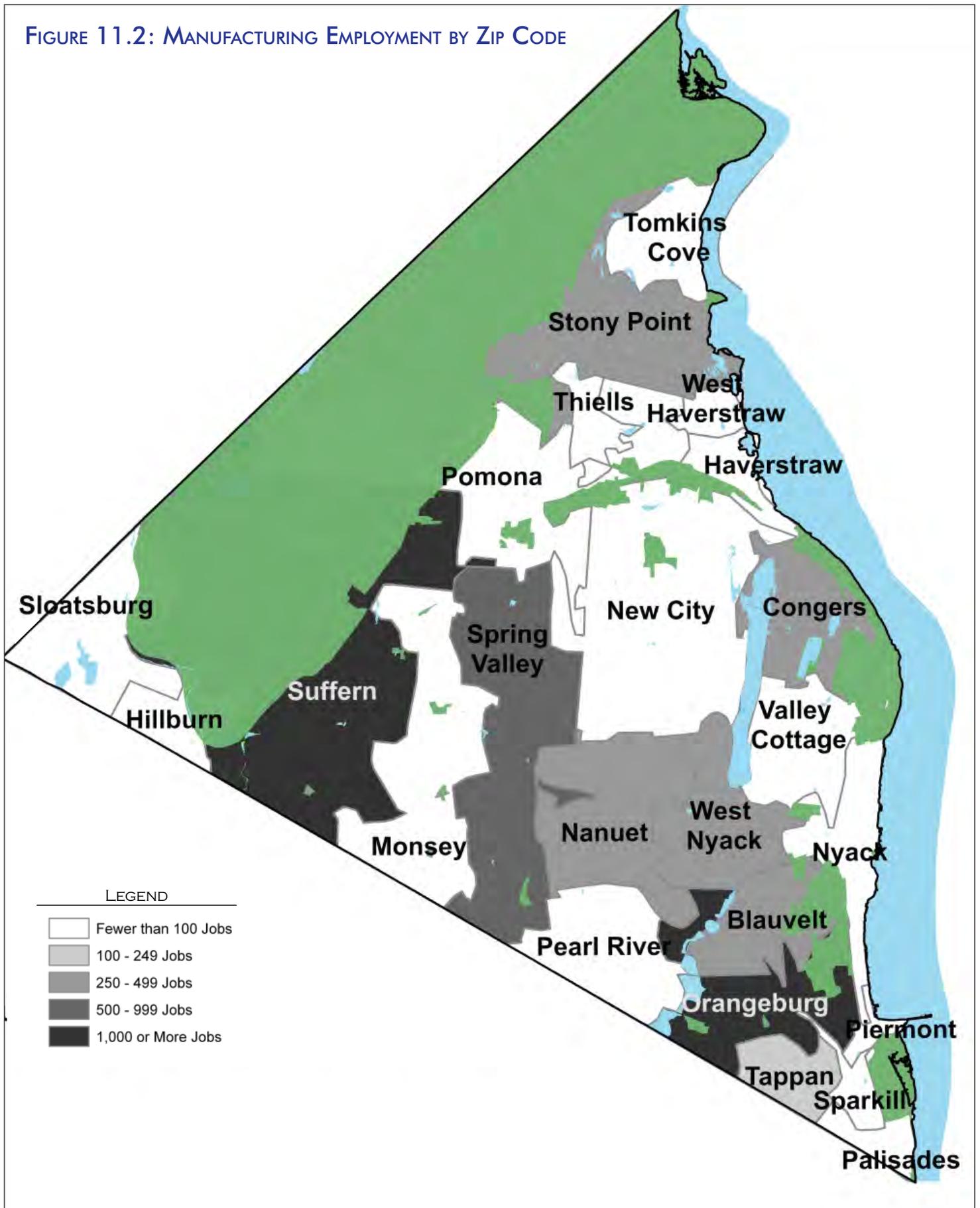


FIGURE 11.3: RETAIL EMPLOYMENT BY ZIP CODE

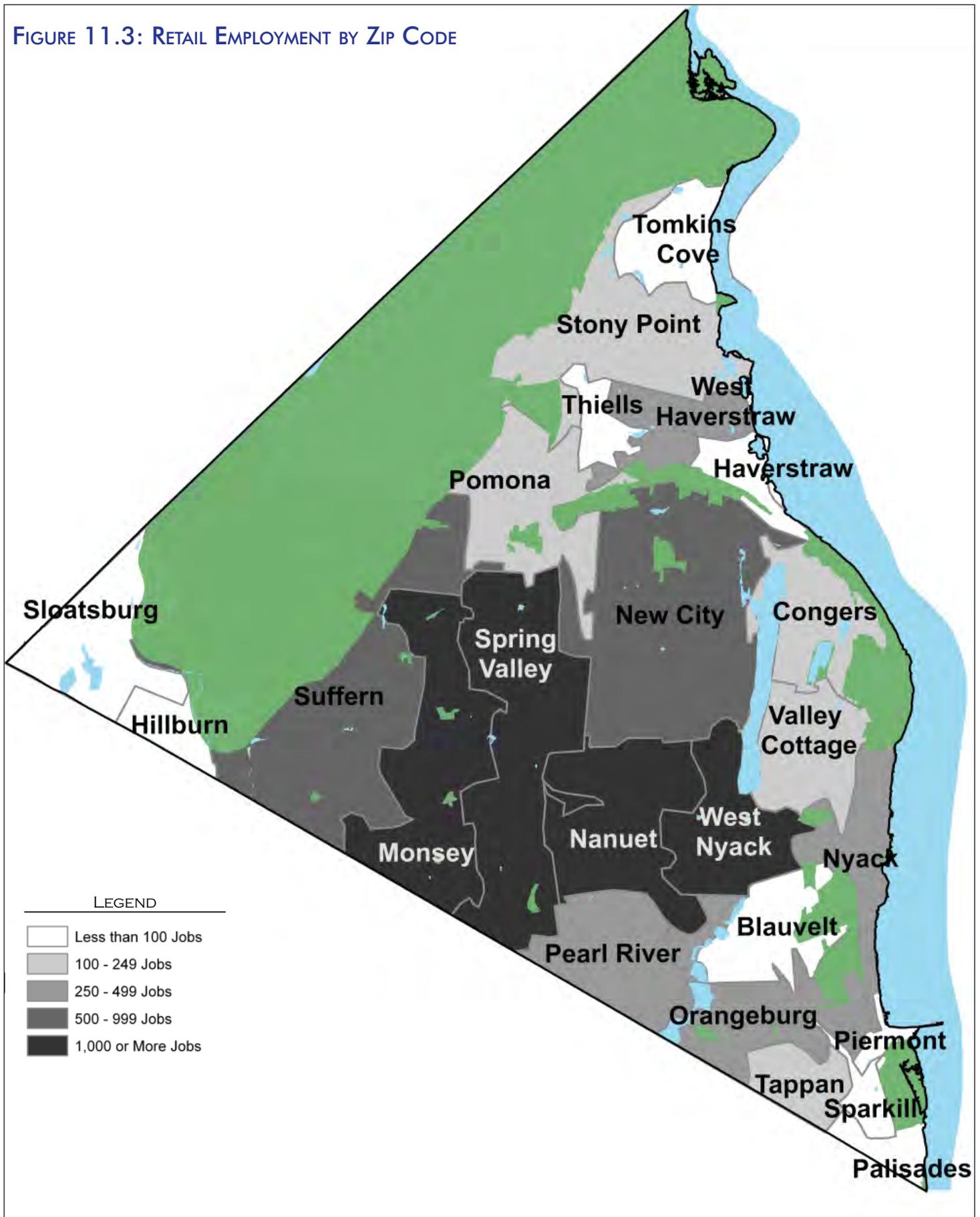
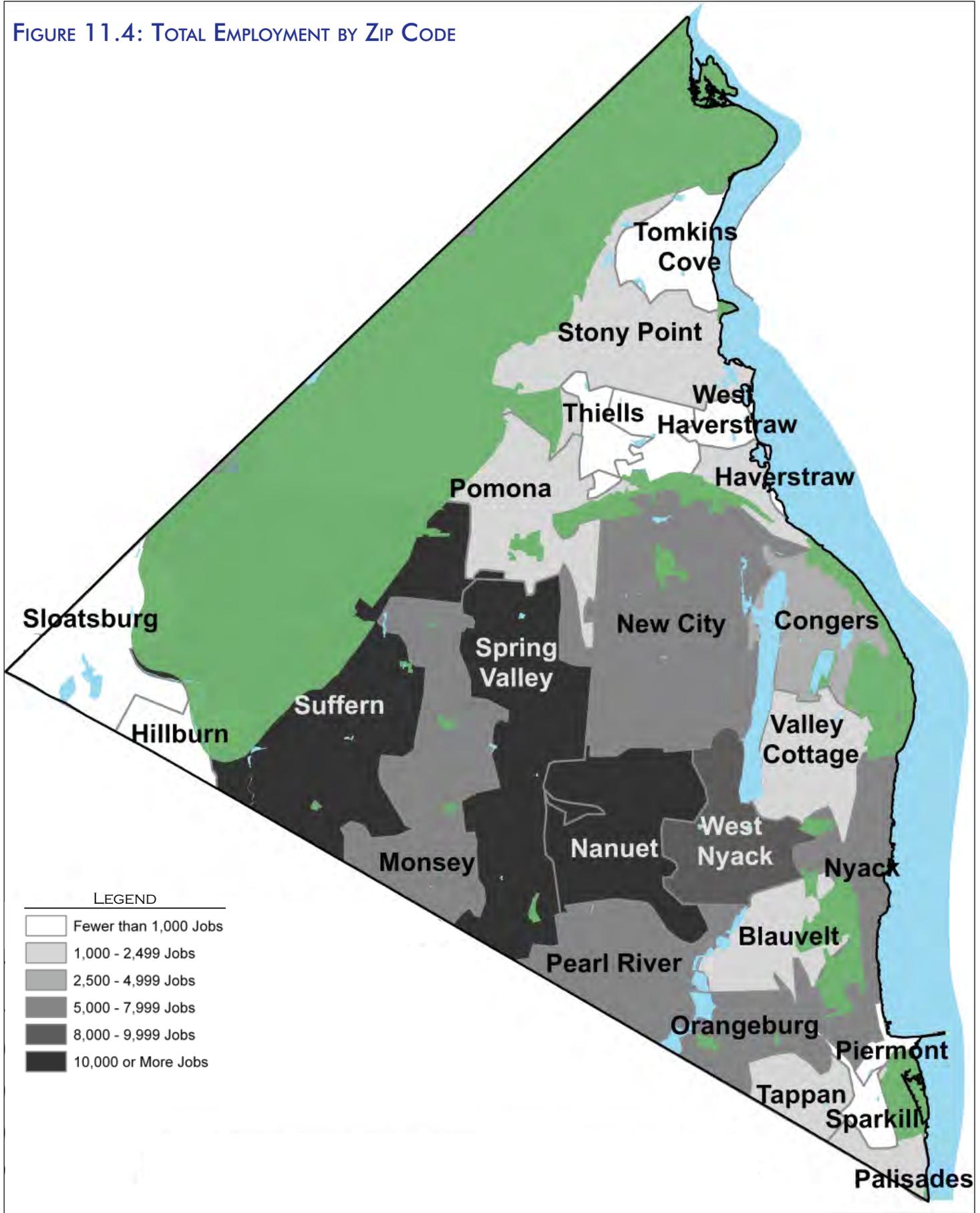


FIGURE 11.4: TOTAL EMPLOYMENT BY ZIP CODE

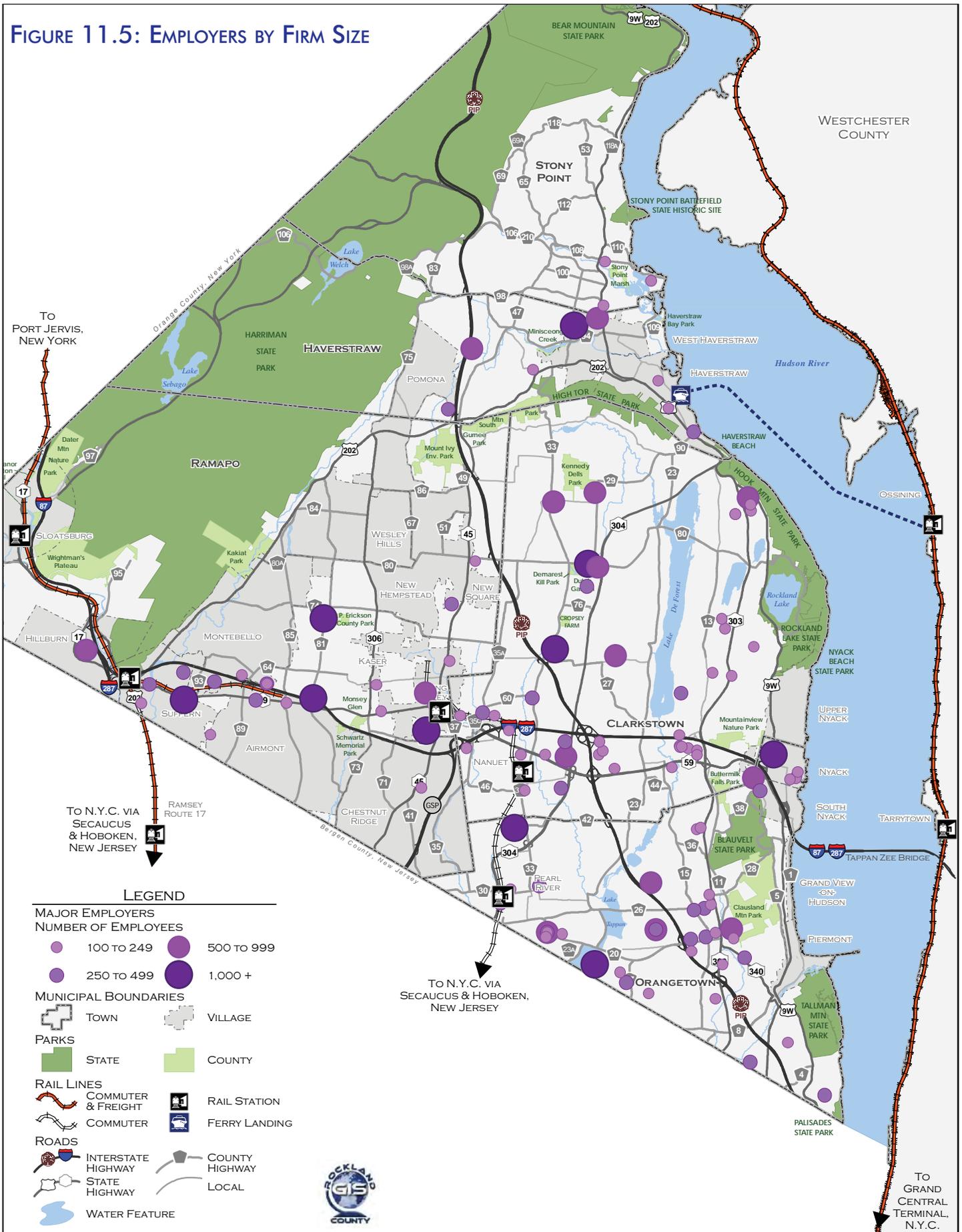


**Table 11.8: Major Employers of Rockland County, 2010**

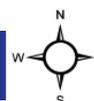
<b>Industrial Sector</b>	<b>Company</b>	<b>Employment</b>	<b>Location</b>
Public Administration	Rockland County Government	2,709	New City
Pharmaceutical Manufacturing	Pfizer Pharmaceuticals	2,450	Pearl River
Public Educational Services	East Ramapo School District	2,148	Spring Valley
General Medical & Surgical Hospitals	Good Samaritan Hospital, Bon Secours Charity Health System	2,100	Suffern
Public Educational Services	Clarkstown Central School District	1,831	New City
General Medical & Surgical Hospitals	Nyack Hospital	1,500	Nyack
Public Educational Services	North Rockland Central School District	1,326	Garnerville
Continuing Care Retirement Communities	Northern Services Group, Inc.	1,100	Monsey
Community Colleges	SUNY Rockland Community College	1,068	Suffern
Telephone Communications	Verizon Wireless	1,000	Orangeburg
General Medical & Surgical Hospitals	Rockland Psychiatric Center	900	Orangeburg
General Medical & Surgical Hospitals	Helen Hayes Hospital	861	West Haverstraw
Sanitary Paper Product Manufacturing	Nice-Pak Products, Inc.	815	Orangeburg
Vocational Rehabilitation Services	Jawonio Inc.	806	New City
Public Educational Services	Rockland BOCES	785	West Nyack
Electric Power Distribution	Orange and Rockland Utilities, Inc.	766	Pearl River
Home Health Care Services	A & T Healthcare, LLC	750	New City
Public Educational Services	Ramapo Central School District	713	Hillburn
Vocational Rehabilitation Services	ARC of Rockland	648	Congers
Continuing Care Retirement Communities	Camp Venture, Inc.	600	Nanuet
School & Employee Bus Transportation	Chestnut Ridge Transportation Inc.	600	Spring Valley
Public Educational Services	South Orangetown Central School District	530	Blauvelt
Public Administration	Town of Clarkstown	512	New City
Public Educational Services	Nyack Union Free School District	501	South Nyack
Continuing Care Retirement Communities	Hudson Valley Dev. Disabilities Services	500	Thiells
Colleges	Dominican College	482	Orangeburg
Scientific & Technical Consulting Services	Lamont-Doherty Earth Observatory	480	Palisades
Public Educational Services	Nanuet Union Free School District	463	Nanuet
Aircraft Engine & Engine Parts Manufacturing	Chromalloy New York	440	Orangeburg
Pharmaceutical Manufacturing	Novartis Pharmaceuticals Corp.	425	Suffern
Pharmaceutical Manufacturing	Barr Laboratories, Inc.	415	Pomona

*Source: Rockland Economic Development Corporation and Rockland County Department of Planning, 2010*

**FIGURE 11.5: EMPLOYERS BY FIRM SIZE**



**ECONOMIC DEVELOPMENT**



### Occupancy and Absorption in Rockland’s Office & Retail Markets

More than 600 acres of land are in office development in Rockland County, and another 1,870 acres are in commercial uses of a neighborhood, general business, community, or regional character. The largest share of office land uses is located in Orangetown, at 212 acres, or one-third of the total, while Clarkstown dominates commercial development with 46% of the countywide acreage. While the volume of office and retail floor space is not generally known, some characteristics of these markets can be discerned from brokerage data.

According to CB Richard Ellis, among buildings of 75,000 square feet or more, Rockland contains 2.1 million square feet of office space. Fully half of this inventory is in Blue Hill Plaza, the 1.1-million-square-foot Class A office development in Pearl River. Other office campuses of a smaller scale exist in Rockland, including multiple Executive Boulevard buildings in Suffern. This regional office market is small compared with that of Westchester County and the northern New Jersey counties of Bergen, Essex, Hudson, and Morris. However, Rockland’s Class A availability rate was a favorable 6.7% by year-end 2009, with only 141,000 square feet vacant, and net absorption – or the change in amount of occupied space – was only a negative 8,500 square feet. This compares with a 17% vacancy rate and a 635,400 square foot decline in occupancy in Westchester (See Table 11.9).

**Table 11.9: Office Market Conditions in Rockland & Neighboring Counties, 2009 Fourth Quarter**

<b>County</b>	<b>Percent Available</b>	<b>Average Asking Lease Rate</b>	<b>Net Absorbed</b>
Rockland	6.7%	Negotiable	(8,500)
Westchester	17.4%	\$26.77	(635,379)
Bergen	22.8%	\$25.56	(143,989)

*Source: CB Richard Ellis*

However, most of Rockland’s office space is in smaller structures of less than 50,000 square feet, in places like Orangeburg, New City, Pomona, and Spring Valley, or sites of the Empire Zone. Vacancy rates and asking rents in these buildings can differ sharply from Class A space, with vacancies likely ranging above 20% and rents averaging below \$20 per square foot. Typical occupants include medical offices, realtors and insurance agents, lawyers, and personal-service workers. Buildings tend to sell for \$100-\$200 a square foot, and for the last five years on average, 10 such buildings were offered for sale a year.

Retail space is more plentiful, more costly, and more dispersed in Rockland County, than office space. The regional character of retail space is exemplified by two major malls – the Palisades Center Mall in West Nyack, and the Nanuet Mall at the intersection of Route 59 and Middletown Road – two regional malls of approximately 1.85 million and 915,000 square feet, respectively. Although the county’s 13.1 million square feet of retail space includes five other shopping centers of more than 200,000 square feet each,<sup>3</sup> the bulk of Rockland’s retail stock consists of small strips, neighborhood centers, freestanding buildings, and village storefronts that collectively account for 68% of total space. An even higher share of the county’s 626,500 square feet of vacant available retail space, or 81%, is concentrated in these

<sup>3</sup> In Monsey at 45 Route 59 (212,000 sf); in Nanuet at 140 Rockland Plaza (248,300 sf) and 43 Hutton Avenue (219,500 sf); in Pearl River at 500 Veterans Memorial Drive (223,500 sf); and in Spring Valley at 1-46 Spring Valley Marketplace (206,000 sf).

older settlements. As Chart 11.4 shows, retail vacancies have increased dramatically since 2005, even as rental rates have declined from \$30 per square foot to \$20 on average.



Source: CB Richard Ellis

Retail space in the village centers and hamlets suffer at the expense of the super-regional malls and other major shopping centers located largely in unincorporated areas. Vacancies are twice as concentrated in the village locations and typically exceed 6% of space unoccupied, while the Palisades Center Mall has less than 2% of space vacant at present. Given the competition, the Nanuet Mall is exploring several redevelopment options. Recreating village centers as magnets for uniquely different patterns of spending requires a careful reassessment of demographic trends and consumer preferences.

**Table 11.10: Distribution of the Current Retail Space Inventory by Place in Rockland County**

	Stock of Retail Space	Vacant Available Retail Space	Vacancy Rate
<b>Villages:</b>	3,701,788	362,459	9.8%
Spring Valley	1,516,418	43,676	2.9%
Suffern	737,221	71,034	9.6%
West Haverstraw	408,760	81,512	19.9%
Nyack	366,436	76,052	20.8%
Haverstraw	199,230	51,798	26.0%
Other Villages	473,723	38,387	8.1%
<b>Unincorporated Areas:</b>	9,434,270	264,032	2.8%
Nanuet	3,736,600	89,678	2.4%
West Nyack	2,402,312	51,617	2.1%
Monsey	953,523	11,630	1.2%
Pearl River	460,365	9,060	2.0%
Other Areas	1,881,470	102,047	5.4%

Source: CB Richard Ellis, March 15, 2010

As Table 11.10 shows, of the historic villages, Spring Valley, Suffern, West Haverstraw, Haverstraw, and Nyack contain the largest stock of retail space, while in the unincorporated areas, Nanuet, West Nyack,

Monsey, and Pearl River dominate the stock. Retail vacancies are heavily concentrated in Nyack, West Haverstraw and Haverstraw villages, which average 22%, while the vacancy rate of the remaining villages is currently less than 6%. In the unincorporated areas where newer retail developments have drawn the bulk of consumer spending, the rate ranges below 2.5% in the larger areas. Asking rents reflect these differences in space competitiveness, as do the resale prices of existing retail buildings. Most retail buildings and strip malls in villages tend to sell for \$100 to \$200 per square foot, while retail developments elsewhere in the County can range from \$300 to \$700 per square foot.

### **Land Use for Future Economic Development**

Rockland contains some 8,350 acres of vacant land, though much of this land is unsuitable for economic development. Of the 8,350 vacant land acres, approximately 2,150 acres are zoned commercial, industrial and/or office, 6,000 acres are zoned residential and some 200 acres are zoned in miscellaneous categories. Of the 2,150 vacant acres zoned for economic development, approximately 1,400 acres are industrial, 200 acres are for commercial or general business with 17 acres for regional commercial uses, and some 550 acres are zoned for offices. Thirteen of the largest parcels of 25 acres or more are zoned commercial, industrial and/or office, but of these, three parcels encompassing nearly 570 acres are unsuitable for development based upon terrain or ownership.

While the exact volume of vacant shovel-ready sites for commercial, industrial and/or office development in Rockland County is not known, it is evident that zoning, parcel size, and other restrictions have effectively reduced the capacity of available zoned land. Moreover, the trend toward conversion of non-residentially zoned land to residential uses exacerbates this condition. Greater effort is needed to prepare shovel-ready sites zoned for economic development purposes.

### **Costs of Congestion**

Major roadways in Rockland County, such as I-87, I-287, and the Palisades Interstate Parkway, as well as secondary roads that carry traffic displaced from the major corridors, experience significant congestion in peak AM and PM weekday periods. As measured for I-287 in Westchester County, the extent of traffic congestion can exceed 2,800 hours per morning peak commutation period on a weekday basis, given the volume of traffic and the travel time delays per vehicle. Valued by generally accepted monetary measures of delay that assume these costs are absorbed by employers as revenue losses,<sup>4</sup> the traffic congestion on I-287 in Westchester County in the AM period can result in an annual cost of nearly \$9 million per weekday or \$44 million per workweek in an average year. By comparison, transportation analysis of the New York Metropolitan Transportation Council (NYMTC) shows significant congestion on I-287 and the Palisades Interstate Parkway by 2030. Traffic restrictions and heavy congestion in peak weekday periods is a major impediment to economic development and also creates negative impacts on community character.

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<sup>4</sup> Federal Highway Administration (FHWA) guidelines for the valuation of congestion costs in competitive labor markets, such as Rockland and Westchester counties, acknowledge that commuter delays in peak hours of travel reduce on-the-job time and worker productivity, and may result in offering higher wages, thus transferring the costs of commuter congestion to employers.

### 11.3 Economic Development Initiatives

#### REDC, IDA, Empire Zone and Other Development Initiatives

Launched by the New York legislature in 1986 to attract new industry and employment to struggling areas considered non-competitive, the Empire Zone program began in Rockland in 2005. Its purpose was to attract industrial companies from out-of-state, and to allow existing firms to expand and create new job opportunities, via major State tax incentives. The REDC administers the program in Rockland, in partnership with Empire State Development (ESD), the State's economic development agency, and the State Departments of Labor and Taxation and Finance. The program expired in June 2010 and was replaced with a successor program, called the Excelsior program.

Rockland County's Empire Zone contains nearly 1,280 acres in seven separate Zone Areas (see Figure 11.6). Almost all of the Empire Zone land area has been zoned industrial or commercial. Within the Empire Zone designation, two investment zones are comprised of nearly 419 acres in the Towns of Clarkstown, Haverstraw, Stony Point, and Ramapo, and the Villages of Chestnut Ridge, Haverstraw, Spring Valley, and West Haverstraw, while five development zones consist of over 861 acres in Clarkstown, Orangetown, and Ramapo, as well as Chestnut Ridge, Hillburn, Montebello, and Suffern. The two investment zones were designated in distressed areas of villages, characterized by high commercial vacancy rates, blight, disinvestment, and a lack of job opportunities. They were meant for applications from Strategic Industries (see below), while the five development zones were eligible for more broadly based Target Businesses and export-oriented activity.

To be considered eligible for program certification, a business must be located in one of the seven bounded areas, shown in blue, and be considered either a "Strategic Industry" or a "Target Business." Emphasis has been placed upon attracting and expanding activities that export at least 60% of their products and services outside of the official metropolitan area, defined as New York City, Putnam, Rockland, and Westchester counties. Doing so, they receive significant economic development benefits.

The Strategic Industries are defined as:

- Manufacturing
- Headquarters and R&D Facilities
- Emerging Technology
- Financial Services
- Wholesale Distribution
- Tourism
- Agricultural Value Added Processing

The Target Businesses include:

- Professional & Personal Services
- Retail
- Exporting Industries
- Community Development Projects by nonprofits
- Other appropriate industry applicants

The Empire Zone benefits consist of:

- State business tax reduction credit, for 10 years based largely on percentage increase in employment (e.g., 50%)
- State wage tax credit, for 5 years ranging from \$1,500 to \$4,000 per full-time employee (FTE)
- Local real property tax credit, for 10 years up to 100% of liability
- Sales tax refunds, on purchase of building materials
- Sales tax exemption, for 10 years on the majority of all other purchases
- Investment tax credit, for manufacturers, manufacturer-equivalents, and other specified industries for up to 19% on original investment value in production equipment
- Zone capital tax credits, for new investments or contributions to approved projects in the zone.

FIGURE 11.6: EMPIRE ZONE PROGRAM AREA DESIGNATIONS



ECONOMIC DEVELOPMENT



Shown as above

In the two investment and five development zones of Rockland County’s Empire Zone program, 27 businesses are currently certified to receive tax incentives and, collectively, they provide some 725 employment opportunities (see Table 11.11). Less than half, or 13 establishments with roughly 330 jobs, are manufacturers, of which four are clearly in the biomedical industry, and another four are in food processing. Two other major sectors account for the bulk of incentivized employment activity – retail trade and professional/business services. With the unreported employment of one retailer, they account for about 40% of all certified jobs, including those in a big-box center, a supermarket, and a data processing center. Of the multiple zone locations, Congers, with 154 zone acres, has the largest concentration of certified zone businesses, or six that contain two in every five job opportunities. The two investment zones have attracted four establishments, only one of which could be characterized as a Strategic Industry.

**Table 11.11: Empire Zone Certified Businesses and Employment in Rockland County, 2009**

<b>Industry</b>	<b>Establishments</b>	<b>Estimated Employment</b>
Construction	1	n/a
Manufacturing	13	328
Warehousing	1	3
Wholesale Trade	1	55
Retail Trade	4	142
Professional & Business Services	3	145
Real Estate	3	1
Personal & Repair Services	1	10
<b>Total</b>	<b>27</b>	<b>684</b>

*Source: Rockland Economic Development Corporation, 2009*

*Note: Excludes employment in 1 Construction, 1 Manufacturing, 1 Retail Trade and 2 Real Estate establishments, which collectively are estimated to contain 41 jobs.*

In addition to administering the Empire Zone Program, the REDC works with the IDA of Rockland County to promote, attract, encourage, and develop economically sound commerce and industry by providing financial incentives and inducements to locate and expand in the county. The Agency acts as a conduit for funding from other financial sources such as banks, insurance companies, and institutional investors. With funding provided by these sources, the Agency issues bonds and provides financial assistance through a straight-lease transaction. Three tax benefits are associated with an Agency transaction:

- Mortgage recording tax exemption
- Sales and use tax exemption, on materials purchased for construction and equipment of project
- Real property tax exemption, but payments in lieu of taxes (PILOT) are required

The REDC administers other economic development incentives that are applicable for small businesses. These include Rockland County’s participation in the Westchester/Rockland Revolving Loan Fund Program established and funded by ESD. These funds are specifically available to small businesses that have been declined financing by traditional lending institutions, or would otherwise not qualify for the full amount requested. Business loans start at \$2,500 and can be used for a broad array of purposes, including working capital, inventory, and equipment. In an effort to assist small businesses and emerging entrepreneurs by providing guidance in business decision making, REDC sponsors SCORE, a nonprofit organization and resource partner of the U.S. Small Business Administration. SCORE mentors,

who are volunteers with long careers as business executives, provide free counseling on issues of business operation. PTAC, another program of REDC, offers free counseling on government procurement by identifying sales opportunities, providing information on solicitation processes, and technical assistance in product specification.

The New York State Business Development Corporation (NYBDC), a privately owned financial organization funded by banks to provide long-term financing for small businesses throughout the state, works in partnership with lending institutions to provide term loans, many of which do not meet traditional financing requirements. Often, multiple forms of participation are included, such as SBA guarantees, flexible amortization, and long-term payouts. NYBDC manages the Empire State Certified Development Corporation (ES CDC) which is licensed by the SBA to provide the 504 Loan Program – a fixed-asset economic development program designed to promote growth and job creation in eligible New York State businesses – as well as the Statewide Zone Capital Corporation (SZCC), a private investment fund whose capital is used to expand and grow new and existing businesses located in Empire Zones.

#### **11.4 Issues and Recommendations**

Reflecting its inherent resources, evolving trends and competitive advantages, Rockland County's economic development plan should reinforce its strengths; address its weaknesses; and engage residents, businesses, institutions, and local governments in actions to attract and retain the economic activities that will enhance overall well-being. The prior comprehensive plan identified the following economic development goals that remain as valid today as 10 years ago<sup>5</sup>:

- Foster enhanced transportation resources
- Utilize the county's land resources to provide sites for business development
- Build on existing business sectors to attract new industry
- Enhance and attract institutions and businesses that improve the county's quality of life
- Improve the fiscal and regulatory environment
- Strengthen traditional downtowns
- Promote tourism

##### **Attainable Policy Objectives**

As a general condition of implementing economic development goals, the County should identify and promote business growth opportunities and appropriate sites that meet overarching development objectives. The economic analysis suggests that opportunities may exist in promoting biomedical research and production, front office and professional services, and tourism. Trends in these sectors suggest emerging export roles for the county, based on employment and competitive advantage analysis, and complement the broader Hudson Valley's economic development clusters. Intraregional linkages should be forged in marketing and promoting the attraction of these activities.

The county's supply of vacant land should be assessed for appropriate sites to support such growth, in corridors accessible by intraregional transport, equipped with necessary infrastructure systems as well as comparable and supporting activities, and consistent with the adopted land use plan. Economic

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<sup>5</sup> Rockland County Planning Board, *Rockland County: River to Ridge*, 2001.

development entities such as the Rockland Economic Development Corporation (REDC), the Industrial Development Agency (IDA), and the Rockland Business Association (RBA) should be empowered to market and incentivize these locations, while local governments should foster a physical and economic environment that is business-friendly and offers a broad range of supporting services.

For population serving activities, the focus should be on strengthening traditional downtown centers and transit-oriented developments, and on conserving places of historic value and environmental sensitivity. Long-standing village centers need cohesive planning and redevelopment that capitalize on their assets, such as historic houses, creative talents, and cultural resources. Establishing links between centers can improve the movement of people and goods and attract tourism, be it day trips or overnight stays that include recreation and entertainment. Village centers also provide natural environments for small business start-ups, either in vacant storefront space or entrepreneurial incubators.

A hierarchy of centers has been suggested within this Plan; public incentives and private investment in these centers should be prioritized based upon the willingness of each municipality to promote new housing, transportation, and parking opportunities that address local as well as countywide needs. For suburban hubs established by major retail or office developments, the objectives should assure adequate, less congested transportation systems, and accessible employment opportunities for residents of Rockland County.

***Recommendation #1: Prepare a Comprehensive Economic Development Plan***

Economic development entities such as the Rockland Economic Development Corporation (REDC), the Industrial Development Agency (IDA), and the Rockland Business Association (RBA) should be empowered to market and incentivize industrial and commercial locations in centers. A first step in achieving these goals is to create a countywide economic development strategy, prioritizing sector and geographic development goals and coordinating development among municipalities. In addition, the Development Strategy should provide process guidelines for making sites shovel-ready, attaining incentive and public financing, preparing cost-benefit and market analyses as well as a marketing strategy.

The County or the REDC should apply for federal Economic Development Agency (EDA) investment assistance to fund the completion of a formal EDA Comprehensive Economic Development Strategy (CEDS). The preparation of an EDA-funded CEDS requires cooperative public/private sector guidance and public review and is thus more effective in creating support for implementation. A CEDS also requires the creation of quantifiable goals with achievable milestones. In addition, individual key projects identified as steps to meeting these goals may be eligible for additional federal aid.

The primary goal of a CEDS or any economic development strategy would be retaining and creating new jobs within Rockland County. To further this goal, all of the following recommendations should be part of any overall economic development plan.

***Recommendation #2: Focus on Growth Sectors***

Given the recent elimination of the Empire Zone Program, and the limited range of businesses for which Rockland displays a measure of growth, competitive advantage, and adequate earnings, it is recommended that an economic development plan focus on strengthening three discrete sectors:

- Biomedical – by linking the pharmaceutical companies research and production with the county’s medical facilities, educational institutions, and small businesses

- Front Offices, Professional Services, and Data Centers – by promoting Class A office development in scenic campus locations, and professional careers through college, graduate, and professional school programs
- Tourism – by focusing on the regeneration of historic villages and the promotion of recreational and entertainment resources in the county (including arts and cultural opportunities), linked to tourism marketing throughout the Hudson Valley

These sectors would offer the advantage of increasing Rockland’s export earnings and providing improved worker earning opportunities for residents.

***Recommendation #3: Identify Appropriate Economic Development Sites***

Although the Empire Zone program ended in June 2010, existing zones will continue to receive property tax exemption on average for 10 years. Every effort will be made to support the existing certified businesses in these zones. On June 22, 2010, former Governor Patterson signed into law the Excelsior program, a successor to the Empire Zone program. Rockland County is not currently listed as an Excelsior Investment Zone; however, initially the statutory tax credits only apply to establishments able to make a substantial increases in employment (e.g., manufacturing, minimum 25 new jobs; financial back office, minimum 100 new jobs; R&D or Software development, minimum 10 new jobs; back office operations, minimum 150 new jobs). Rockland County should work with its economic development agencies, including the REDC and IDA, to determine the eligibility of additional sites within the county for such and any future State tax-incentive programs.

There are a number of vacant or potentially redevelopable sites in Rockland County that are not part of the Empire Zone program but which may be suitable for economic development from a zoning, terrain, size, and locational perspective. However, these sites may be subject to issues of ownership or other legal issues, and may face environmental constraints. The County will focus on redeveloping abandoned or underutilized parcels before developing vacant space, and should thus work with the IDA and REDC on an Economic Development Strategy to identify and market these sites, and with municipalities to make the sites “shovel-ready” for development. This means ensuring that the sites are appropriately zoned, have adequate road access, have clear title, and do not require significant environmental remediation. Because making a site shovel-ready can involve substantial costs before seeing any return on investment – especially if the site has pre-existing contamination or requires water, sewer, or road infrastructure – the County should work with the municipality and other potential partners on grants and other means of funding, so that no single governmental entity is forced to bear the entire cost of site improvements.

To assist in forging these partnerships, municipalities are encouraged to create local economic development offices and develop strategic plans. The County should also work with its towns and villages to foster more cross-jurisdictional economic development initiatives. For example, a major potential economic development may be located in two separate municipalities, or be located in a single municipality but abut another. It makes sense for the two municipalities to coordinate – as well as work with the County and the REDC – on preparing the site for its highest and best use, particularly since both will receive economic benefits.

***Recommendation #4: Address the Disconnect Between Employer Needs and Work-Force Skills***

As discussed earlier, Rockland County’s work force is highly educated and highly skilled, and the kinds of jobs appropriate for these skills – professional services, financial institutions, and back-office operations – are not present in significant quantities in the county. Conversely, lower-skill and lower-wage jobs,

such as those in the health-care, retail trade, and manufacturing sectors, are heavily filled by in-commuters from neighboring Hudson Valley counties. An effective work-force development strategy is to better align the requirements of Rockland County employers and the skill level of job seekers. This can be done through strategic planning and open dialogue with the education, work-force, and business community. As part of business attraction and retention efforts the available work force and job skills should be considered. When discussing future industry cluster opportunities, the need for a work force and the potential match with current job skills should be discussed.

Programs such as the One-Stop System of the Workforce Investment Board and the Sales & Service Training Center provide appropriate training to meet industry needs and pre-employment testing to effectively match job seekers to employers. The need for and response to job skill training ranges from basic skills in customer service and work ethics to technical skills of specific industries. Where possible, programs should be expanded for the employed and unemployed based on current jobs and future potential jobs determined by any gap in skill levels recognized.

In addition, there exists a need to provide job opportunities for high school and college graduates, encouraging them to remain in Rockland by addressing their young adult unemployment issues. More intensive collaboration with high school and college curriculum planners is essential to matching educational programming with employer needs. The findings and recommendations of the *2004 State of the Rockland County Workforce Report* are worthy of note.

***Recommendation #5: Improve Physical and Financial Capital and Entrepreneurship***

As discussed above, congestion on the I-287/87 corridor and the Palisades Interstate Parkway creates significant costs for Rockland County, and represents a major impediment to economic development efforts. In addition, as noted in **Chapter 10.0: Housing**, and throughout this Plan, locating affordable housing is a challenge for many sectors of the county's population, particularly for young adults and service workers such as caregivers. Thus, appropriate plans and resources are needed to address the impact of housing and transportation costs on labor force availability. The lack of affordable work-force housing and accessible public transportation inhibits the County's ability to retain and attract a broadly based work force, especially its young adults.

On the financial side, venture capital resources should be attracted to support research and development, particularly in the biomedical field, which has been identified as one of Rockland's three key growth sectors.

In addition, the County's economic development efforts should focus on enhancing Rockland's entrepreneurship. The county is fortunate to be home to a number of institutions of higher learning, leading regional hospitals, and other institutions that could help to develop the next generation of business leaders. Working with these partners, the County should promote programs that nurture the development of executive skills in existing and emerging businesses, and outreach efforts to support entrepreneurship.

***Recommendation #6: Reinforce Existing Centers by Encouraging Mixed-Use and Multifamily Development***

Rockland County's traditional downtown centers, with their unique character, transit linkages, and often available vacant spaces, create significant opportunities for economic development. Planning for these centers must capitalize on their assets, such as historic buildings, concentrations of creative talents, existing employment and cultural resources. In addition, as Rockland is successful in attracting

employers for a highly educated and skilled work force, the County could experience a return of young adults who will be seeking quality affordable housing. The development of infill mixed-use and/or multifamily development within existing centers could satisfy that demand, while complementing the assets already present to revitalize the community, fostering job creation, reduction in vacancies, and support of public transit systems.

***Recommendation #7: Promote “Green Job” Growth in Rockland County***

Currently, many economic development strategies across the nation include a focus on “green jobs,” characterized by work that contributes to preserving or restoring environmental quality. This sector can include jobs that help to protect ecosystems and biodiversity; reduce energy, materials, and water consumption through technological innovation; and reduce or avoid generation of waste and pollution.

The economic analysis conducted for this Comprehensive Plan did not find a competitive advantage for Rockland County on the production side of the “green jobs” sector. However, there may be employment opportunities for the construction sector in specialized trade jobs for retrofitting existing structures to add solar panels, geothermal heating, and other energy saving devices. In the longer-term, as technologies advance and the demand for “green” products increases, the County should continue to explore other opportunities in this sector.

## 12.0 INFRASTRUCTURE

The infrastructure within Rockland County supports its residential, commercial, and industrial uses. Often referred to as “grey infrastructure” it consists of manmade improvements that support human settlement such as roads and bridges, water and sewer systems, electric lines, telecommunication lines, and other community systems. This chapter addresses the major infrastructure systems within the county and their existing demands, capacities, and required or planned expansion or improvements. Maintaining the infrastructure system is an important factor in preserving the quality of life and commerce within the county<sup>1</sup>.

### 12.1 Water Supply

During the course of developing this Comprehensive Plan, the county’s water supply has emerged as a critical issue for many residents, and the challenge is to achieve a balance between the amount of water needed for economic growth and the amount of water that can be saved through conservation measures and careful planning and zoning decisions.

Approximately 90% of Rockland County's water is provided by United Water New York (UWNY). Another 7% is provided by smaller public water suppliers with customer bases ranging from fewer than 50 customers to several thousand. The remaining 3% of the water supply is provided by an estimated 6,000 to 8,000 private wells.

The Rockland County Department of Health Water Supply Bureau enforces Article II and Article V of the County’s Sanitary Code as well as portions of the New York State Sanitary Code that pertain to regulation of public water supplies, specifically 10 NYCRR Part 5, Subparts 5-1 and 5-4; and New York State Public Health Law, Article 11, Title 2, that pertain to the adequacy of water supply for realty subdivisions. The Water Supply Bureau’s duties include regular testing of the public water supply quality; regulation of the operation, modification, or expansion of public water treatment and distribution facilities; regulation of the construction of private wells; and implementation and enforcement of Rockland County’s private well testing law.

#### Water Resources

The county’s water supply is derived from two sources: aquifers and surface water. Aquifers are underground layers of permeable rock or unconsolidated deposits (gravel, sand, silt, or clay) that are saturated with water. The water stored in aquifers is known as ground water and can be extracted using water wells. Aquifers are recharged by direct infiltration of water resulting from precipitation (rain and snow), or by discharge of water from surface water bodies, e.g., streams, lakes and wetlands, into adjacent interconnected aquifers. Surface water reservoirs are naturally replenished by precipitation, either directly by surficial runoff into streams during precipitation events, or by subsequent discharge of ground water into surface water bodies via base flow. Surface water bodies lose water through evaporation, subsurface seepage (infiltration) into aquifers and discharge downstream of surface water impoundments.

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<sup>1</sup> See Chapter 6.0: *Transportation*, for a description of existing and planned transportation networks and facilities in Rockland County.

Concerns over the viability of the fractured-bedrock aquifer that provides about one-third of Rockland County's water supply prompted a five-year study by the United States Geological Survey (USGS), which was conducted in cooperation with Rockland County and the New York State Department of Environmental Protection (NYSDEC). The draft report, titled "Draft Water Resources of Rockland County, New York, 2005–07, with Emphasis on the Newark Basin Bedrock Aquifer," by P.M. Heisig, and has now been provided to the county. Additional data analysis and summary of findings is available on the USGS website, <http://ny.water.usgs.gov/projects/rockland/>.

The USGS study also includes a companion report that uses the hydrogeology of the Newark Basin aquifer in the County as described by Heisig, to develop numerical groundwater flow models. The draft "Hydrogeology and Simulation of Groundwater Flow in Fractured Rock in the Newark Basin, Rockland County, New York" has been issued by the USGS. The report discusses the bedrock and glacial geology, documents the design and calibration of three-dimensional models that are used to simulate the pattern and rate of groundwater flow and to estimate hydraulic properties of the aquifer. Applications of model simulations are presented that were used to estimate groundwater age and to delineate capture zones of well fields in operation in 2005. Additional simulations show changes in water levels in response to changes in recharge and withdrawals, including monthly changes from 2000 through 2003 and annual changes from 1960 through 2006. This model will provide the County a "living" tool for the future evaluation of the bedrock aquifer.

### **Public Water Supply**

Public water supply in Rockland County uses three sources of water in roughly equal proportions: (1) the Newark Basin sedimentary bedrock aquifer that was the focus of the recent USGS study, (2) alluvial aquifers along the Ramapo and Mahwah Rivers, and (3) surface waters from the Hackensack River and from the Minisceongo watershed in the Highlands. All of these water sources are used pursuant to water allocation permits issued by the NYSDEC, which place general limitations on how much water can be used, and in some cases specify additional conditions on water use. For example, water withdrawals from the alluvial aquifer in the Ramapo River valley and the Lake DeForest Reservoir are subject to water-supply application permits that stipulate minimum flows that must be maintained downstream into New Jersey.

*Groundwater:* As discussed above, aquifers used for water supply in Rockland County include the fractured sedimentary bedrock aquifer that underlies most of the developed areas of Rockland and alluvial (sand and gravel) aquifers that are tapped primarily in the Ramapo and Mahwah River valleys. The alluvial aquifers and the Newark Basin sedimentary bedrock in the western half of the lowlands support the most productive supply wells in the county.

In 1992, the Ramapo aquifer was designated as a sole-source aquifer. Sole source aquifers are designated by the US Environmental Protection Agency (EPA) as the sole or main source of drinking water for a community, under provisions of the Federal Safe Drinking Water Act, and requires the EPA to review any federal project within its boundaries. In addition, the Ramapo-Mahwah aquifer has been designated a "Primary Water Supply Aquifer" (highly productive aquifers presently utilized as sources of water supply by major municipal water supply systems) by the New York State Department of Environmental Conservation (NYSDEC)<sup>2</sup>.

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<sup>2</sup> NYSDEC Division of Water Technical & Operational Guidance Series (TOGS) Section 2.1.3.

The Ramapo River is an important water source despite its relatively short length in the southwest corner of county. Most of the headwater drainage area of the Ramapo River (86.9 square miles at the Ramapo River at Ramapo, NY) is to the north in Orange County. Well fields operated by UWNY and the Village of Suffern are recharged via infiltration of water from this surface water resource. Tributary streams that enter the Ramapo River from the uplands include the following: from the north, Stony Brook and Torne Brook; and from the south, Nakoma Brook. Typical (and maximum) thicknesses of sand and gravel in all these valleys are as follows: Ramapo River 40–60 ft (up to 140 ft at Suffern, NY); Mahwah River 40 ft (up to 60 ft) but discontinuous (Moore and others, 1982).

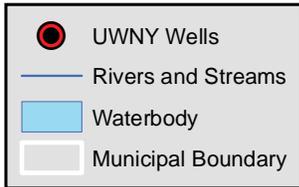
The Ramapo River valley alluvial aquifer in the western part of the county is a limited resource, despite the high yields well fields that use this source. UWNY's Ramapo Valley Well Field (RVWF) tap the alluvial aquifer supply about 3.73 billion gallons per year (31%) of UWNY public water supply (1990–2006 average). The RVWF field derives much of its water by infiltration of Ramapo River water through the permeable sand and gravel to the supply wells. Withdrawals are subject to limitations in a NYSDEC permit (WSA no. 6507) that requires maintenance of minimum flow in the Ramapo River (8 million gallon per day or 12.6 cubic feet per second) downriver of the well field and into New Jersey. When flows are below that threshold, pumping must be stopped. If summer precipitation is low in the Ramapo River drainage area, this resource may be unavailable when water demand is greatest. This resource has been extended for limited periods through artificial augmentation of flow in the Ramapo River via releases of water from Potake Pond. UWNY's RVWF is thus limited as a source of supply by low stream flows, unless additional surface water storage could be used for flow augmentation. The Village of Suffern draws 100% (approximately 475 million gallons per year) of their water supply from the Ramapo Valley alluvial aquifer, but is not subject to similar withdrawal restrictions.

The Newark Basin aquifer in Rockland County provides about 3.90 billion gallons per year of UWNY public water supply (1990–2006 average). Numerous smaller public supplies also rely upon this aquifer for their sole source of water. Over the last 50 years, water supply has shifted from mostly small public water supplies and private wells of low to moderate yield (<100 gallons per minute) to a more widely spaced network of deeper, higher-yield production wells operated by UWNY. The current number of active domestic, irrigation, and commercial wells outside the UWNY production network is about 6,000, based on records of the Rockland County Health Department. About 2,800 wells, per the Health Department records, are located within UWNY service areas and about 3,000 are outside of distribution areas. About 1,000 of the users of the 2,800 wells are also connected to the UWNY distribution system, but likely use the connection only if the well cannot meet domestic needs. This is especially true in the areas of New Square and Monsey, where there are high densities of wells despite being in UWNY service areas.

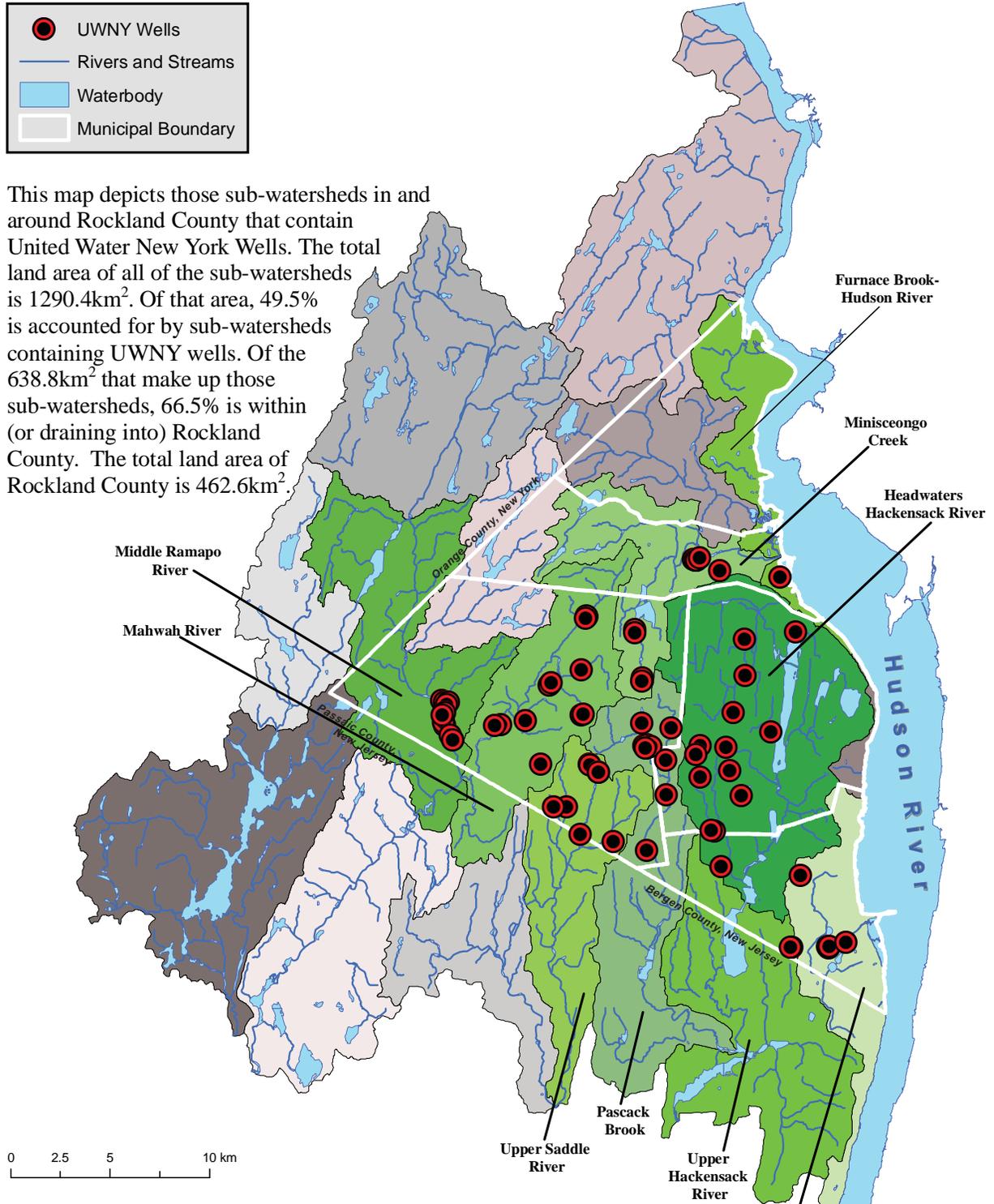
Approximately 46% of UWNY's supply comes from groundwater derived from more than 40 bedrock wells in the central and eastern part of the county, and approximately 31% is derived from the RVWF, which consists of 10 shallow wells in the alluvial aquifers of the Ramapo and Mahwah Rivers (see Figure 12.1).

In addition, Rockland contains 139 wells serving smaller public water supplies which constitute approximately 7% of total county water usage (see Figure 12.2). In addition privately-owned residential, commercial and industrial wells constitute the bulk of the remaining 3% of total County water usage

**FIGURE 12.1: SUB-WATERSHEDS CONTAINING UWNY WELLS**



This map depicts those sub-watersheds in and around Rockland County that contain United Water New York Wells. The total land area of all of the sub-watersheds is 1290.4km<sup>2</sup>. Of that area, 49.5% is accounted for by sub-watersheds containing UWNY wells. Of the 638.8km<sup>2</sup> that make up those sub-watersheds, 66.5% is within (or draining into) Rockland County. The total land area of Rockland County is 462.6km<sup>2</sup>.



Sub-Watershed Name	Hydrologic Unit Code	State	Area km <sup>2</sup>	Area km <sup>2</sup> draining outside Rockland	Number of Wells
Furnace Brook-Hudson River	20301010105	NY	33.3	0.0	1
Headwaters Hackensack River	20301030901	NY	119.1	0.0	14
Mahwah River	20301030203	NJ,NY	67.3	10.9	12
Middle Ramapo River	20301030204	NJ,NY	90.5	15.2	10
Minisceongo Creek	20301010104	NY	49.3	0.0	12
Pascack Brook	20301030902	NJ,NY	76.2	45.5	11
Sparkill Creek-Hudson River	20301010404	NJ,NY	47.3	16.6	5
Upper Hackensack River	20301030903	NJ,NY	97.3	86.9	2
Upper Saddle River	20301030702	NJ,NY	58.6	38.6	8
Total	N/A	NJ,NY	638.8	213.7	75

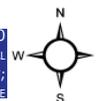
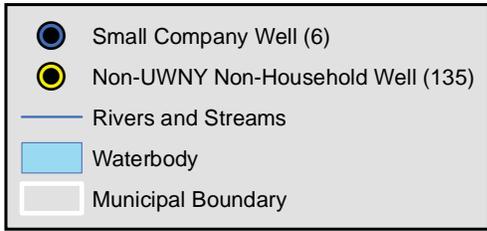
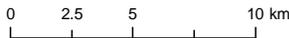
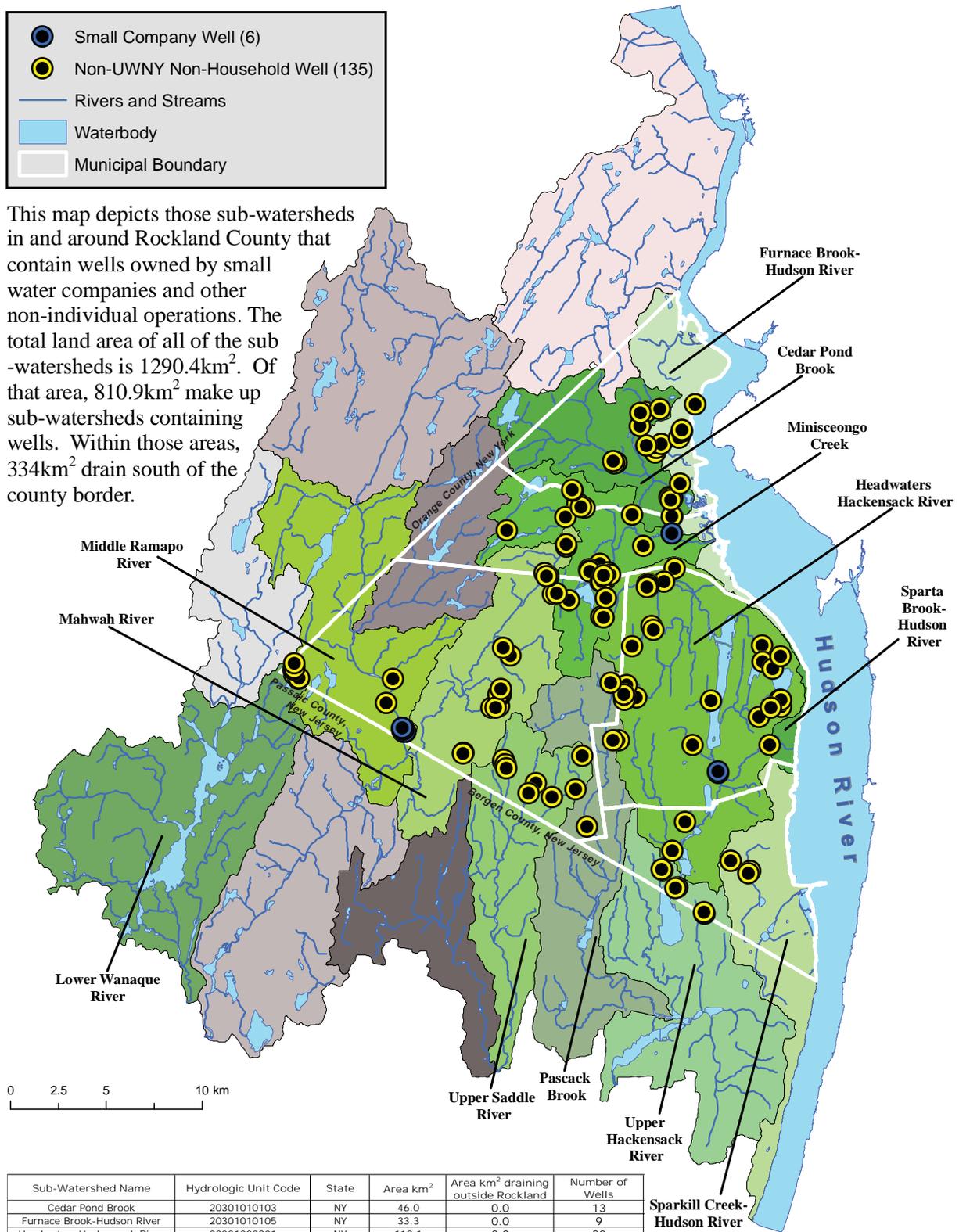


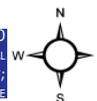
FIGURE 12.2: SUB-WATERSHEDS CONTAINING SMALL WATER COMPANY & OTHER NON-HOUSEHOLD WELLS



This map depicts those sub-watersheds in and around Rockland County that contain wells owned by small water companies and other non-individual operations. The total land area of all of the sub-watersheds is 1290.4km<sup>2</sup>. Of that area, 810.9km<sup>2</sup> make up sub-watersheds containing wells. Within those areas, 334km<sup>2</sup> drain south of the county border.



Sub-Watershed Name	Hydrologic Unit Code	State	Area km <sup>2</sup>	Area km <sup>2</sup> draining outside Rockland	Number of Wells
Cedar Pond Brook	20301010103	NY	46.0	0.0	13
Furnace Brook-Hudson River	20301010105	NY	33.3	0.0	9
Headwaters Hackensack River	20301030901	NY	119.1	0.0	32
Lower Wanaque River	20301030103	NJ,NY	121.2	120.3	5
Mahwah River	20301030203	NJ,NY	67.3	10.9	17
Middle Ramapo River	20301030204	NJ,NY	90.5	15.2	11
Minisceongo Creek	20301010104	NY	49.3	0.0	30
Pascack Brook	20301030902	NJ,NY	76.2	45.5	5
Sparkill Creek-Hudson River	20301010404	NJ,NY	47.3	16.6	3
Sparta Brook-Hudson River	20301010401	NY	4.8	0.0	1
Upper Hackensack River	20301030903	NJ,NY	97.3	86.9	6
Upper Saddle River	20301030702	NJ,NY	58.6	38.6	9
Total	N/A	NJ,NY	810.9	334.0	141



A loss of water from the local hydrologic system is inflow and infiltration of storm runoff and shallow groundwater into sanitary sewers, especially during wet periods. The loss of water through sanitary sewers in 2005 was about 14.6 billion gallons – roughly equivalent to double the annual flow of the Mahwah River. Prior to widespread sewerage of the county, about 90% of water pumped by domestic wells was returned to the local soil/aquifer system through onsite septic systems or cesspools. Today, wastewater is routed to treatment plants and exported out of the county to the Hudson or Ramapo Rivers.

Storm sewers rapidly route storm runoff from paved surfaces and sloped lawns to local streams and ultimately out of the county, which results in a decrease in aquifer recharge. Increased areas of impervious surface now result in loss of an estimated 820 million gallons of potential recharge from the Newark Basin aquifer.

*Surface Water:* About 33% of UWNYS supply is derived from the following surface water sources:

- **Lake DeForest Reservoir:** Lake DeForest is a 985-acre, 5.6-billion-gallon reservoir located in the Hackensack River watershed in the Town of Clarkstown. This reservoir began operation in 1956. Water withdrawn from Lake DeForest is treated at the Lake DeForest Water Treatment Plant at the southern end of the reservoir before being pumped into the water distribution system.

The 1952 DEC water allocation permit under which the Lake DeForest Reservoir was built defined the “safe yield” of the Lake DeForest Reservoir to be 19.75 mgd. The safe yield is the amount of water that can be continuously withdrawn from the Lake DeForest Reservoir during a period of drought equivalent to the worst drought of record within the lake’s drainage area. The permit for the reservoir also addressed the riparian rights of downstream users by allocating 2 mgd of the safe yield for use by the Village of Nyack, whose water intake is located approximately one mile downstream of the Lake DeForest dam, and by requiring a passing flow of 7.75 MGD downstream of the Nyack intake. The remainder of the safe yield, 10 mgd, was reserved for the needs of the inhabitants of Rockland County.

- **Letchworth Reservoirs:** The three Letchworth Reservoirs, located within the Highlands in Harriman State Park on the Minisceongo Creek watershed, have a total capacity of 173 million gallons. Historically, the Letchworth reservoir system served as the water supply for the former state psychiatric institution at Letchworth Village (in the Towns of Stony Point and Haverstraw). Water from the reservoirs is treated at the Letchworth Water Treatment Plant. In 2006, UWNYS began operating the Letchworth Water Treatment Plant as an additional source for its distribution system, and typically uses the Letchworth system as a “peaking” source, to provide water during periods of high demand.

Lake Tappan, which is located in the Town of Orangetown and consists of a series of surface water reservoirs that supply water to Northern New Jersey.

The Village of Nyack takes 100% of its water supply (approximately 730 million gallons annually) from a surface water intake on the Hackensack River approximately one mile downstream of the Lake DeForest dam.

## Public Water Demand

There are approximately 80 permitted public water systems in the county, including community, non-transient non-community and transient non-community water systems. Examples of the transient non-community systems include restaurants and camps. Non-transient non-community supplies include schools and office buildings. Community systems are comprised of residential properties, e.g., mobile home parks and apartment buildings. The large permitted water systems, in addition to UWNY, are the Village of Nyack Water system, serving a population of 14,700; the Village of Suffern water system, serving a population of 12,000; and the Village of Hillburn water system, serving a population of about 1,000.

### *Existing Public Water Demand*

The water supply required to meet consumption is typically evaluated by the peak and average annual demand. Peak demand describes the demand for water over relatively short periods, during which the need for water is greater when compared with the balance of the year. The “maximum day” demand, or the largest quantity of water used within a single day in a given year, is used to evaluate the peak demand. Average daily demand is the total quantity of water used over a one-year period, divided by the number of days. Peak demand and average daily demand are typically expressed as a rate that water is being used in terms of millions of gallons per day (mgd).

In 2007, the average demand on the UWNY system in Rockland County was 31.4 mgd. The average demand decreased in 2008 and 2009, which may be attributed to the recent economic downturn and the wet summers that have resulted in less demand for irrigation. Over the past 20 years, annual average water demand in the county has been rising. As shown in Table 12.1, below, in 1970 the annual average demand was 19.7 mgd, and by 2007 it was 31.4 mgd, an increase of approximately 59%.

**Table 12.1: UWNY Average Daily Demand (million gallons per day)**

<b>Year</b>	<b>Average Daily Demand</b>	<b>Year</b>	<b>Average Daily Demand</b>
1970	19.7	2002*	26.7
1975	23.2	2003	28.5
1980	25.9	2004	29.2
1985	24.3	2005	31.1
1990	27.4	2006	30.9
1995	28.4	2007	31.4
2000	28.6	2008	29.9
2001	29.7	2009	28.4

\* Note: Drought restrictions, which reduced water demand, were in place for a few months in 1995 and most of 2002.

Source: Haverstraw Water Supply Project DEIS for years 1970-2007. For years 2008-2009, NYS Public Service Commission Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of United Water New York Inc. for Water Service.

As shown in Table 12.2, the maximum day demand each year over the period from 2000 was an average 41.4 mgd, with a maximum peak daily demand of 47.2 mgd which occurred on July 5, 2010. The low maximum day demand in 2009 was caused by the summer months which had anomalously abundant rainfall.

**Table 12.2: United Water Maximum Day Demand (million gallons per day)**

<u>Year</u>	<u>Maximum Day Demand</u>	<u>Year</u>	<u>Maximum Day Demand</u>
1970	29.8	2002*	31.9
1975	35.7	2003	37.4
1980	40.8	2004	43.0
1985	27.7	2005	43.6
1990	34.2	2006	44.8
1995	40.0	2007	45.2
2000	39.1	2008	40.9
2001	46.5	2009	35.3
		2010	47.2 (7/5)

\* Note: Drought restrictions, which reduced water demand, were in place for three months in 1999 and for most of 2002. Source: Haverstraw Water Supply Project DEIS for years 1970-2007. For years 2008-2009, NYS Public Service Commission Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of United Water New York Inc. for Water Service.

The Village of Nyack water treatment plant withdraws water from the Hackensack River, north of Route 59. The treatment plant capacity is 3.7 mgd. The water supply allocation limit for taking water from Hackensack River is peak of 4.8 mgd, with annual average limit of 3 mgd. The plant operated with an average monthly flow of 1.33 mgd and 1.27 mgd in 2008 and 2009, respectively, with the highest maximum-day demand through year 2009 of 2.14 mgd.

The Village of Suffern, which draws water from wells in the Ramapo Aquifer, has an average day demand of 1.3 mgd and a maximum day demand of 2 mgd. The Village of Hilburn water system purchases water from UWNY. The water demand for the Village of Hilburn is included in the UWNY demand values.

According to the USGS study, in 2005 an estimated 12.9 billion gallons of potable water was used in the county. The overall annual pattern of water use (from UWNY data) is characterized by summer (growing) season increases that include lawn and garden irrigation, pool maintenance, and cooling. Non-growing season system draft (the total amount of groundwater and surface water extracted) is generally between 25 and 28 million gallons per day, but summer peak demand has reached 46.5 mgd in 2001 and 47.2 mgd in 2010. The actual use is about 16 percent less than these figures, because there is water leakage from the pressurized distribution system. The average domestic water use from private wells in 2005 was estimated at about 1.4 million gallons per day, or 3% of total County water use.

#### *Future Water Supply Demand*

Projected water demand information from the small public water supplies and private wells is not readily available; however because UWNY serves approximately 90% of the county population, the trends and increase in demand projected by UWNY are representative of the county as a whole.

As described in the Draft Environmental Impact Statement (DEIS)<sup>3</sup> for the proposed Haverstraw Water Supply Project (described more fully below), UWNY has developed projections of future water demand in Rockland County over the next two decades. These projections indicate that an annual average of 730 new connections to the UWNY supply system will be made each year through 2025. In Ramapo

<sup>3</sup> United Water New York: *Draft Environmental Impact Statement: Haverstraw Water Supply Project* (September 26, 2008); <http://haverstrawwatersupplyproject.com/index.php/draft-environmental-impact-study-deis.html>.

alone, an estimated 300 additional connections are projected per year until 2015. The total new connections to the system are projected as 1,030 per year through 2015, and 730 per year through 2025, resulting in a total of approximately 15,540 new connections between 2008 and 2025.

UWNY has developed 20-year projections of both the average annual demand and the maximum day demand. These projections, according to UWNY, account for relatively extreme conditions in order to provide sufficient supply. Table 12.3 provides UWNY’s historical and projected water system demands through 2020, including the average annual and the maximum day values.

**Table 12.3: United Water Projected and Actual Demand (million gallons per day)**

Year	Annual Average	Maximum Day	Rockland County
			Population
2005 (actual)	31.06	43.63	294,636
2006 (actual)	30.91	44.78	...
2007 (actual)	31.43	45.24	...
2008 (actual)	29.9	40.9	298,545
2009 (actual)	28.4	35.3	...
2010 (projected)	33.1	49.3	302,600
2015 (projected)	34.3	51.5	310,235
2020 (projected)	35.4	53.4	318,383

Source: Haverstraw Water Supply Project DEIS for 1970-2007. For 2008-2009, NYS Public Service Commission Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of United Water New York Inc. for Water Service. Years 2010-2020 are based on projections from the Rockland County Planning Department (see Chapter 3.0: Demographics).

Water supply and sewage disposal systems serving realty subdivisions (any tract of land which is divided into five or more parcels) in New York State are regulated under Article 11, Title II of the Public Health Law and Article 17, Title 15 of the Environmental Conservation Law. Realty subdivisions require approval by the Rockland County Health Department and must be filed with the County Clerk prior to the sale or offering for sale of lots. Realty subdivisions may be developed with either individual water and/or sewage systems or with community water and/or sewage systems. However, water supply demand is also impacted by the local approval of subdivisions with fewer than five lots. These projects are not regulated by the NYS Realty Subdivision Law, but the majority are addressed via other regulatory mechanisms.

#### *Fire Protection*

In areas of public water supply, the water distribution system generally provides water for fire protection by means of fire hydrants. A fire can impose a significant additional water demand on the water system. The design requirements for fire protection are based on the NYSDOH water supply regulations which require a minimum pressure of 20 psi in the distribution system at all times.

The ability of water systems to provide fire protection establishes the insurance premiums for residential and commercial properties. This rating is done through the ISO’s Public Protection Classification (PPCTM) program where ISO evaluates municipal fire-protection efforts in communities throughout the United States. The sufficiency of a community’s water supply for fire suppression beyond daily maximum consumption represents 40% of the rating. ISO surveys all components of the water-supply system, including pumps, storage, and filtration. They observe fire-flow tests at representative locations in the community to determine the rate of flow the water mains provide and review the location, condition, and maintenance of fire hydrants.

## **Existing Capacity**

### *Groundwater*

UWNY's Ramapo Valley Well Field has a total permitted capacity of 14 mgd on any given day, but a 10 mgd average production capacity per calendar month. UWNY has been able to reliably extract an annual average of about 7 mgd from the Ramapo Valley Well Field when it can be operated. Due to the NYSDEC permit restrictions, the Ramapo Valley Well Field cannot be operated when the flow in the Ramapo Valley River drops below 8 mgd, as measured at a U.S. Geological Survey (USGS) measuring gage in Suffern, near the New Jersey state line.

UWNY can discharge water from Potake Pond, a reservoir that straddles the New York-New Jersey border, into the Nakoma Brook, which is tributary to the Ramapo River upstream of the RVWF. During dry periods, this discharge is used to augment flow in the Ramapo River to maintain the minimum of 8 mgd permit condition and allow the well field to remain operational. Taking this augmentation into account, UWNY assumes a sustainable production rate of 4 mgd for the RVWF during peak summer conditions when Ramapo River flows are low.

### *Surface Water*

While the Lake DeForest Water Treatment Plant can treat and deliver up to 20 mgd; however, a recent condition on a NYSDOH approval currently limits their taking of water to an annual average of 10 mgd. A higher flow can be withdrawn from the reservoir during peak summer months, but flow must be reduced during other times of the year to maintain a total average that meets the annual average requirement.

The NYSDEC water supply permit for the Letchworth Water Treatment Plant allows withdrawal of a daily annual average of 1 mgd and a maximum of 45 million gallons in a month. The capacity of the Letchworth Water Treatment Plant is rated at 3 mgd, which is their allowable peak production capacity for any given day.

The Village of Nyack Water Treatment Plant has a capacity of 3.7 mgd. The WSA limit for taking water from Hackensack River is peak of 4.8 mgd, with annual average limit of 3 mgd

## **Planned Expansion**

As a public utility, UWNY is required to meet statutory, regulatory, and New York Public Service Commission (PSC)-ordered mandates with regard to supply water. With respect to issues relating to the adequacy of service and particularly the cost of that service, UWNY is regulated principally by the PSC. Additional regulatory oversight regarding the adequacy of service, particularly with respect to compliance with Realty Subdivision Law (Article 11, Title 2, Public Health Law), and the quality of water distributed (Part 5 of the New York State Sanitary Code), is provided by the New York State Department of Health, and by Rockland County Department of Health as a local agent of the NYSDOH. Finally, the NYSDEC regulates the allocation of the waters of New York State to UWNY for water supply purposes. Pursuant to New York State Public Service Law (PSL) § 89-b, UWNY must provide safe and adequate service to its New York State customers. To meet water supply commitments required by a 2006 Rate Order issued by the PSC, UWNY has developed a long- and short-term water supply program. The Rate Case commits UWNY to, among other things, increase the average water supply for Rockland by a total of 1.5 mgd and the peak supply by a total of 7.1 mgd by the end of 2015.

UWNY has implemented a short-term water supply program to develop new supplies and improve its infrastructure to maximize the use of existing sources of water supply. The program includes measures

to increase available capacity and emphasizes improvements to existing water supply infrastructure to meet the 7.1 mgd peak capacity commitment. UWNY has met its peak and yearly average day commitments through 2009 by pursuing some of the projects identified in the short-term water supply program. To meet the 2015 capacity commitments, UWNY is pursuing additional system improvement including the following:

- Deaeration treatment systems added to existing wells to allow increased use without problems associated with air entrainment.
- Test well conversion to production wells at Long Clove and Lime Kiln
- New wells at Red Schoolhouse Road and St. Agatha's
- Evaluation of the Potake Pond Diversion to increase the amount of water stored in Potake Pond, which could then be diverted to the Ramapo River to extend the use of the Ramapo Valley Well Field during dry conditions
- Lake DeForest spill skimming to use water that spills over Lake DeForest Reservoir dam during wet weather, when the reservoir is full. This project, which is under evaluation, would allow existing groundwater wells to be maintained at higher levels when surface water resources were abundant, thereby increasing their reliability. Spill skimming would not increase the safe yield of Lake DeForest, because the reservoir does not spill during drought conditions.

Following the 2006 PSC Order, UWNY filed a project description in January 2007 identifying six potential long-term sources of increased water supply as follows:

- New reservoir at Ambrey Pond
- Desalination of brackish Hudson River water
- Additional groundwater supplies
- Reuse of wastewater
- Increased use of Lake DeForest
- Use of the Suffern Quarry

Subsequent evaluation by UWNY determined that only Ambrey Pond and a desalination plant on the Hudson were found to meet the purpose and need for the long-term project, as they were both judged by UWNY to be able to provide a reliable and sustainable long-term water source for Rockland County. According to UWNY, an alternative that re-uses wastewater from the RCSD No. 1 WWTP could potentially meet the purpose and need but was rejected because of its high cost and the anticipated adverse public response to an alternative involving use of wastewater for drinking water, and Ambrey Pond was rejected because of the ultimate capacity, the time required to complete the project, and a range of adverse local impacts. In September 2007, UWNY filed a preliminary conceptual design for the Hudson desalination plant as the recommended long-term water supply project.

On September 26, 2008, UWNY submitted a Draft Environmental Impact Statement (DEIS) for the proposed Hudson River Desalination Plant, now named the Haverstraw Water Supply Project. To meet the demand commitments, UWNY initiated the project to construct a treatment plant with 7.5 mgd capacity. The treatment plant would be located in the Town of Haverstraw and it would draw water from Hudson River. This project is intended to result in completion and operation of the long-term water supply project by the end of 2015, subject to all governmental approvals and permits. The County does not have permitting authority for the project.

Currently a pilot plant with a 1 mgd capacity is under construction. This plant will be used to refine the design needed for the proposed treatment plant, and is expected to operate for 10 to 18 months. Water from the pilot plant will not be used for the public water supply.

Because Rockland County is not the designated lead agency for the State Environmental Quality Review (SEQR) process for the proposed desalination plant, it has no direct jurisdiction over the project's approval from a SEQR standpoint. Decisions in this case will be made by the Town of Haverstraw and by the NYSDEC, which is the lead agency on this project. As the lead agency, the NYSDEC has sole jurisdiction in granting United Water SEQR approval to build a desalination plant.

The process by which United Water is granted or denied a permit to build such a plant consists of a number of individual steps. Currently, the process is at the step in which United Water is seeking acceptance by the NYSDEC (as lead agency) of its DEIS. After the DEIS is accepted for public review, public comment will be invited, and the dates and location will be advertised. In addition, information will be given as to how to submit written comments. The project will then proceed to development and acceptance of a Final Environmental Impact Statement (FEIS) and then completion and acceptance of a Findings Statement. Once the SEQR process is complete, the project would then be subject to a number of local and County approvals (e.g. a Road Opening Permit from the Rockland County Highway Department, Town of Haverstraw Planning Board approvals, etc.).

## **System Constraints and Potential Additional Water Resources**

### *Groundwater Resources*

The following is a summary of the findings by the USGS draft

- Options for new production wells are limited by lower well yields in the eastern part of the Newark Basin aquifer, lack of available land, poor water quality, and potential impacts or liability issues with existing domestic supplies. From a hydrogeologic standpoint, additional water is available from the Newark Basin aquifer. The resource, in areas unaffected by supply wells, could be drawn from a distributed network of lower-yielding supply wells, which are not likely to be economically viable for a private water company. The availability of this additional resource is evidenced by the existence of, or historical information regarding, former supplies that served small developments, bungalow colonies, summer camps, and institutions.
- Review of well pumpage and water-level data from the bedrock aquifer as far back as 1989 suggests that there is not a year-to-year, aquifer-wide downward trend in water levels. There have been periods of several years where water levels at individual wells show declines, and groundwater levels have declined in response to new stresses as production wells have come online, especially if the wells have been used continuously. Large seasonal water-level fluctuations in the most productive west-central part of the aquifer indicate that recharge during the non-growing season, thus far, has been enough to replenish the aquifer prior to the next growing season
- The greatest concern regarding sustainability of groundwater resources is the aquifer response to the seasonal increase in pumpage from May through October (an average increase of 25% in 2005). Extrapolation of water-level decline rates under conditions of continuous pumping (worst case with respect to pumping rate, but best case with respect to assuming no change in yield over the summer) indicate that between 25% and 35% of production wells would not be able to

pump through the entire high-use season. In most cases, pumping rates would have to be reduced as aquifer yield declined. Historical records, which document large seasonal water-level fluctuations in the most productive parts of the aquifer, indicate that although wells are being pumped at unsustainable rates during the growing season, recharge during the non-growing season thus far has generally been sufficient to replenish the aquifer prior to the next growing season.

- Glacial deposits of variable thickness overlay the bedrock aquifer and offer limited protection from contamination by human activities. Some aspects of groundwater quality have degraded over the last 50 years, and during that time, at least 13 production wells were abandoned or taken offline until site investigations were completed and treatment systems installed. Gasoline, solvents, dry-cleaning agents, chlorofluorocarbons, and other industrial chemicals have contaminated groundwater across the county (Slayback and Rothenberg, 1984; Hoven and others, 1985; reports on file at NYSDEC, New Paltz, NY).
- Seasonal declines in the groundwater levels at production wells are the greatest limitation of water resources from the Newark Basin aquifer and the Mahwah River alluvial aquifer in Rockland County. Groundwater levels and the productivity of both aquifers decline during the growing season and especially during dry, hot summer periods as water demands increase and aquifer recharge and storage decrease. Low groundwater levels at the end of the summer (or at times during the summer) have historically recovered as demand decreases and recharge increases during fall, winter, and spring.
- Peak storm flow increases where drainage infrastructure connects impervious surfaces to streams. Reduction of infiltration also translates to reductions of evapotranspiration from vegetation, soil moisture, and groundwater recharge. Reduced groundwater recharge decreases groundwater levels in the aquifer and results in less groundwater discharge to streams, which sustains stream base flow during dry periods.

The USGS indicated the following potential additional water sources from a purely hydrologic perspective, recognizing that each has specific environmental and public concerns that would need further study:

- Additional development of the groundwater resource in the Newark Basin aquifer – large and small capacity wells, as well as aquifer storage and recovery. A few large-capacity wells with yields on the order of hundreds of gallons per minute are possible in the most productive areas of the aquifer, but these possibilities are limited by existing domestic wells, water quality, lack of land area, and potential interference with existing supply wells. Aquifer storage and recovery has been proposed as a means of enhancing aquifer storage in areas of high groundwater withdrawal. Distribution-system water would be pumped into the aquifer from a well. This does not represent a major new source – the goal is optimization of the resource.
- Surface Water from the Highlands reservoirs could take advantage of the high annual precipitation in this part of the county. UWNY has recently (2006) begun using reservoirs formerly used by the Letchworth Village State Mental Institution. Additional surface water resources could include, Ambrey Pond Reservoir, Stony Creek watershed impoundment to augment dry-weather flow in the Ramapo River, and small-capacity production wells.

- Capture of storm flows in retention basins or reservoirs - Storm water retention basins in areas of permeable glacial deposits can provide an opportunity for recharge of stormwater within local watersheds. Alternatively, storm water might be impounded and pumped into the Lake DeForest watershed for downstream use at the reservoir.
- Desalinization of Hudson River water - The Hudson River represents a large source of brackish to salty water along the east side of Rockland County. Raw water is therefore unpotable, but desalinization of this water is a large potential source of water for the county. This option is currently being pursued by UWNY.
- Recycled wastewater - Indirect reuse of recycled water is common practice in the United States at locations inland from salt-water bodies. Water is withdrawn for public supply, used, and then sent to wastewater treatment plants, which discharge it to “receiving water bodies” where biological activity and sunlight can further treat the water before reuse by downstream communities. The majority of treated wastewater in Rockland County is discharged by four treatment plants into the brackish water of the Hudson River, where it is unavailable to downstream users. If part of this water could be recycled at a high level of treatment, it could be used to meet downstream stream flow requirements to New Jersey or possibly within-county needs. Alternatively, direct use of recycled water might be a viable major water-supply source in the future. The primary concern with this type of water source is adequate treatment.

#### *Fire Protection*

Development not only increases requirements for domestic water supply but also additional need for fire protection. Extension of water mains can place additional fire flow demand on the existing water distribution system. For new development, the water system should not only be evaluated for overall ability to provide the water supply but to also provide fire protection to meet NYSDEC requirements and to not impact the community ISO fire protection classification. A lowering of this rating would have an impact on the residential and commercial property insurance premiums. It should be noted that improvements to water system capacity for fire protection purposes can be accomplished without increasing the water supply, through such measures as increasing water main size, storage, or pumping capacity, and by installing additional fire hydrants in urbanized areas.

#### *Drought*

Drought conditions can make it difficult to meet water demands. In any water supply system, surface water supplies, such as reservoirs and wells that derive a substantial portion of their yield from induced infiltration from nearby streams, e.g., the RVWF, are quickly affected under drought conditions. The Rockland County water supply system is particularly vulnerable to the effects of a drought, since its water supplies are all from the same geographic area (the county itself). All supplies are therefore simultaneously affected by drought conditions, including the more vulnerable supplies such as Lake DeForest, Letchworth Reservoirs, and Ramapo Valley Well Field, which together constitute more than half of UWNY’s overall capacity. Groundwater levels and recharge rates are also adversely affected by drought conditions, which diminish the robustness of groundwater resources.

Long-term precipitation records indicate that the Northeast experiences a short-term drought (a drought with duration of one to three months) once every two or three years, while long-term droughts (droughts longer than three months) occur once every 20 to 30 years. There is increasing concern that global climate change may bring greater fluctuations in weather conditions, including more frequent or severe drought conditions or more frequent storm events.

The Rockland County Department of Health implements emergency measures to reduce water demand pursuant to Article V when drought conditions impact the ability of a public water supplier to meet unrestricted demands. UWNY does not have the regulatory authority to mandate or regulate water conservation by consumers. Over the past 30 years, the county has faced drought-related water use restrictions five times, and three of those times have occurred in the past 13 years. Emergency drought conditions were in place for several months in 1995 and 1999 and for most of the year in 2002. In addition, both 2001 and 2005 were particularly dry, although drought restrictions were avoided in those years.

#### *Water Conservation*

The County should facilitate water conservation for its residents, as a means of offsetting some of the demand on water sources from the projected population growth. Water conservation measures could include, but not be limited to, the following:

- Public education and outreach to promote wise water usage and individual water conservation, including within schools to make the young generation aware of the need for conservation
- Collaboration with towns and villages to develop and implement water-conserving policies
- Repair of distribution systems to minimize loss of water
- Rainwater harvesting to provide water for irrigation or for groundwater recharge
- Reuse of recycled wastewater
- Promoting water efficient landscaping, which uses drought-tolerant plants
- Use of greywater
- Amendment of the County sanitary code to enforce odd/even day watering year-round and time-of-day restrictions to relieve peak day demand
- Investigation of the regulatory requirements to establish secondary water metering requirement for outdoor water use in the sanitary code and the institution of tiered rates for outdoor water use with the PSC

#### *Potential Shortfall in Water Supply*

On the basis of the most recent UWNY Engineering Report submitted in support of applications for Realty Subdivision approval, there is only 0.1213 mgd of “excess” annual average capacity available to support additional development in Rockland County. While UWNY has plans for additional small-scale increases in capacity to bridge the gap until a larger water supply project can be completed, such projects (primarily improvements to existing wells and distribution system infrastructure) are limited in scope, and ultimately limited by the availability of groundwater resources. Continued growth without development of some relatively large-scale water supply project will result in a shortfall in water resources in the future. On the basis of demand analyses presented during the 2006 and 2009 UWNY rate case hearings with the New York State Public Service Commission (PSC) requirements, such a shortfall could occur by 2015. If the projected demand for new development exceeds the available capacity, the Rockland County Department of Health would have no option but to disapprove all new major subdivisions pursuant to Article 11, Title 2 of the New York State Public Health Law.”

It is important to recognize that this is not simply an issue of excess summertime outdoor water use. Rather, a deficit in annual average capacity could also potentially limit future growth in Rockland County. Any conservation measures the County might choose to implement in an effort to obviate or postpone the need for new water supply capacity would have to be effective year-round. This scenario would have potential short and long term impact on Rockland's economy and the lifestyle of county residents. The county should implement further study to determine the need for regulatory changes to

the current codes to address such conditions and the potential impact to development and economics, both monetary and lifestyle, of the County. The study should also address measures to control potential impact for subdivision with less than five lots and the increases in demand resulting from increasing the density of development within existing areas.

## **12.2 Sanitary Sewers**

### **Existing Sanitary Sewer Facility Description**

The county's waste water is currently being collected and treated by seven municipal/public wastewater collection systems, small private systems, and approximately 6000 individual residential septic systems. The Rockland County Department of Health's Bureau of Water Pollution Control provides outreach and guidance in the promotion of public health and enforcement of the County's Public Health Law, as well as State and local Sanitary Codes relating to:

- Realty subdivisions (five or more residential lots and residential lots of five or less acres)
- Individual sewage disposal systems (review and approval of design plans for new systems, repair and replacement systems, site and construction inspection, complaint response)
- Sewage and industrial wastewater treatment plants (review and approval of design plans, reconnaissance and annual inspections, complaint response)
- Sewer main extensions
- All other phases of wastewater

The collection areas for the seven municipal wastewater treatment plants in the county are shown on Figure 12.3. A description of the facilities follows the figure.



1. Facility: Haverstraw Joint Regional Sewage Treatment Plant  
Owner/Operator: See below  
Receiving Water: Hudson River  
Year Build/Upgraded: 1971/1977  
Design Flow: 8 mgd  
Population Served: 40,000  
Other: The treatment plant serves the Town of Haverstraw, the Villages of Haverstraw and West Haverstraw, and a portion of the Village of Pomona. The portions of this sewer system within the Town of Haverstraw and Village of Pomona are maintained by the Haverstraw Joint Regional Sewer Board. The Villages of Haverstraw and West Haverstraw maintain their own collection systems.
  
2. Facility: Orangetown Wastewater Treatment Plant  
Owner/Operator: Town of Orangetown  
Receiving Water: Hudson River  
Year Build/Upgraded: 1959/1995  
Design Flow: 12.75 mgd  
Population Served: 51,800  
Other: The Orangetown Sewer Department operates and maintains the wastewater collection and treatment systems for Orangetown, and transports and treats wastewater from Nyack, Upper Nyack, South Nyack, Grand View, Upper Grandview, and Piermont. It also treats sewage from parts of the Boroughs of Rockleigh and Old Tappan in New Jersey. The collection system consists of over 200 miles of sewer pipe and 39 individual pump stations.
  
3. Facility: Rockland County Sewer District #1  
Owner/Operator: Rockland County  
Receiving Water: Hudson River  
Year Build/Upgraded: 1968/1988  
Design Flow: 38.9 mgd  
Population Served: 157,704  
Other: This system includes 22 pump stations and force mains, 106 miles of interceptor sewers, 530 miles of lateral sewers, 16,120 manholes, and 1,000 miles of building connections. The district operates and maintains the system's major interceptors and pumping stations and all sewers in the Villages of Spring Valley and New Square. The towns of Ramapo and Clarkstown maintain most of the 8-inch diameter sewers in their respective jurisdictions.
  
4. Facility: Sloatsburg Wastewater Treatment Plant  
Owner/Operator: Rockland County Sewer District #1  
Receiving Water: Ramapo River  
Year Build/Upgraded: 1973  
Design Flow: 30,000 gpd  
Population Served: 120

5. Facility: Stony Point Wastewater Treatment Plant  
 Owner/Operator: Town of Stony Point  
 Receiving Water: Hudson River  
 Year Build/Upgraded: 1969/1984  
 Design Flow: 1 mgd  
 Population Served: 10,000
  
6. Facility: Suffern Wastewater Treatment Plant  
 Owner/Operator: Village of Suffern  
 Receiving Water: Ramapo River  
 Year Build/Upgraded: 1935/1983  
 Design Flow: 1.8 mgd  
 Population Served: 13,000
  
7. Facility: Western Ramapo Advanced Wastewater Treatment Plant  
 Owner/Operator: Rockland County Sewer District #1  
 Receiving Water: Ramapo River  
 Year Build/Upgraded: 2009  
 Design Flow: 1.5 mgd

The sewer collection systems are either owned by the sewer district, town or village. Due to the undulating topography of hills and valleys in the county, many of the collection systems require pump station and force mains to convey the sewage flow to the treatment plants.

In accordance with the NYSDEC SPDES Permit List, there are 18 SPDES permits issued to private sewer facilities in Rockland County. Eleven of these facilities have permitted design flows with a total combined flows of 0.57 mgd., the largest of which are the New York State Thruway Sloatsburg-Ramapo Service Area, Bear Mountain State Park, and Lake Welch private sewage treatment facilities – all totaling 0.53 mgd. The remaining seven SPDES permits are for private subsurface treatment facilities.

Water quality of water bodies adjacent to sanitary sewer systems can be impacted by sewer discharges. This includes wet weather related sanitary sewer overflows, accidental sewer main breaks or pump station failure or planned discharges such as sewer bypass when infrastructure repairs are being made. These discharges impact water quality of the receiving water body and can pose unsafe conditions if those water bodies are used for water supply or recreation, e.g., swimming or other contact activities. [Note that as a result of inadequate water quality, there are no regulated bathing beaches on the Hudson River in Rockland County]. A recent study performed in collaboration with Riverkeeper, Lamont Doherty Earth Observatory of Columbia University and Queens College-CUNY collected nearly 1,800 samples along the entire tidal estuary of the Hudson River for NYC to Troy. The study found that poor water quality due to sewer inflow to the River was found at location along the county shoreline.

### Existing Sanitary Sewer Demand

In accordance with the NYSDEC 2009 Discharge Monitoring Report, the current average flow to each of the treatment plants is as follows:

1. Facility: Haverstraw Joint Regional Sewage Treatment Plant  
Design Flow: 8 mgd  
2009 Avg. Flow: 4.18 mgd
2. Facility: Orangetown Wastewater Treatment Plant  
Design Flow: 12.75 mgd  
2009 Avg. Flow: 7.87 mgd
3. Facility: Rockland County Sewer District #1  
Design Flow: 38.9 mgd  
2009 Avg. Flow: 19.58 mgd
4. Facility: Sloatsburg Wastewater Treatment Plant  
Design Flow: 0.03 mgd  
2009 Avg. Flow: 0.008 mgd
5. Facility: Stony Point Wastewater Treatment Plant  
Design Flow: 1 mgd  
2009 Avg. Flow: 0.79 mgd\*  
*\*When the Stony Point Plant exceeds permit limits, sewage is pumped to the Haverstraw Joint Regional Treatment Plant.*
6. Facility: Suffern Wastewater Treatment Plant  
Design Flow: 1.8 mgd  
2009 Avg. Flow: 1.22 mgd

The total average sewer flow to the sewage treatment plants in the county in 2009 was 33.91 mgd. The combined capacity of all the treatment plants is 54.98 mgd, exclusive of the 1.5 mgd of capacity to be provided by the West Ramapo advanced wastewater treatment plant.

The future demand on the sewage treatment plants will be a function of growth and future development, e.g., growth in population and/or, industry demands. The increase in sewage demand will closely follow the projected increase in the requirements for water supply. The ability of the existing treatment plants to handle future demand will depend on the growth within each service area and the ability of the infrastructure to convey flow the plants. According to the projections depicted in Table 12.3, Rockland County's population is expected to grow approximately 5% by 2020. Assuming the same growth in sewage demand, the increase should be able to be handled by the current treatment plants.

### Planned Expansion and Upgrades

#### *Rockland County Sewer District #1*

The sewer district is currently working on the reduction of inflow and infiltration (I&I) in the sewer system. The two primary goals have been the identification and elimination of inflow sources and control of sanitary sewer overflows (SSOs):

- **Minimize Inflow:** Wet weather inflow has been identified as the major cause of SSO discharges from the district's collection system. Locating and eliminating wet weather inflow sources (i.e., leaky manholes, illegal roof leader connections, cross connections with storm sewers) will help eliminate SSO discharges.
- **Optimize System Operation to Reduce SSO Occurrences:** The district's goal is to operate the collection system to eliminate SSOs. Through a comprehensive inflow identification and removal program, the district is committed to eliminating wet weather SSOs for rainfall events up to 3 inches in magnitude, and will reduce overflow from wet weather of greater magnitude.

Between 1988 and 2006, the district completed testing of 225,000 sewer joints, sealing 18,387 failed sewer joints, and rehabilitating 2,016 manholes. This program has eliminated 1 mgd to 1.75 mgd of infiltration to the system. This program is ongoing and is anticipated be completed at the end of 2011.

#### *West Ramapo Advanced Wastewater Treatment Plant*

Because of failing subsurface disposal systems and increased development pressures, the Villages of Sloatsburg and Hillburn and the Town of Ramapo petitioned the Rockland County Legislature to extend the Rockland County Sewer District No. 1 (RCSD No. 1) boundaries to include these areas and to provide sewer service to their constituents. At the direction of the Legislature, the sewer district developed maps and plans for proceeding with this extension.

A conceptual engineering and environmental report was prepared in June 1997. This report proposed a layout of the collection system and pumping stations, which would pump sewage flow to the existing RCSD No. 1 wastewater treatment plant in Orangeburg. The new collection system will include 70,000 linear feet of gravity sewers, 30,000 linear feet of force main, and four pumping stations. A DEIS was completed, the principal environmental concern of which was the out-of-basin transfer of sewage flow from the Ramapo River Basin to the wastewater treatment plant in Orangeburg, which discharges outside the Ramapo River Basin. To address this concern, a new advanced wastewater treatment plant was proposed to be located in the Ramapo River Basin. The plant is now in operation. A sanitary sewer collection system is under construction that will transport sewage to the new advanced wastewater treatment plant, which will discharge into the Ramapo River. This will keep all flow within the Ramapo River Basin.

#### *Stony Point Sewage Treatment Plant*

The Town of Stony Point has hired a consultant to study the inflow and infiltration of its sewer system. The Town is conducting a smoke testing program and has disconnected several residential sump pump connections to the sewer system. About 10% of the tested area was disconnected, and Stony Point is anticipating the significant reduction of sewage flow.

The Town is also pursuing the following:

- Application to NYSDEC to reassess the capacity of the existing plant 1.5 mgd from the existing plant limit of 1.0 mgd.
- Extension of district and sewer mains to the east of the Palisades Parkway and north of Wayne Avenue. Funding for these extensions is currently being secured from the State.
- Extension of sewer mains to residential houses that are within the Town boundary and are currently connected to the Haverstraw plant.

### 12.3 Solid Waste

In 1992, the DEC approved Rockland County's Final Integrated Solid Waste Management Plan (SWMP) and Generic Environment Impact Statement (GEIS). The DEC had charged the County's Solid Waste Management Committee, a subcommittee of the County Legislature, with developing a SWMP to help to resolve the County's past, present, and future solid waste issues. The Rockland County Solid Waste Management Authority was formed in accordance with the Public Authorities Law of the New York State, by resolution in 1994 of the County Legislature, to implement certain provisions of the SWMP and to construct solid waste management facilities. The Authority is governed by a 17-member board comprised of the supervisors of the five towns in the county, eight County legislators, two mayors of villages in the county, and two members appointed by the County Executive.

With the closure of all three of Rockland's municipal landfills, the Authority began working to implement the SWMP. Today the Authority's services have evolved into a network of integrated waste management facilities which include:

- Materials Recovery Facility (MRF): Aggregates and resells county recyclable materials including newspaper, mixed paper, corrugated containers, steel and aluminum cans, glass bottles, and plastics #1-7
- Biosolids Co-Composting Facility: Processes biosolids and clean wood waste into rich compost.
- Yard Waste Composting Facilities: Produces leaf compost and wood mulch
- Concrete and Asphalt Recycling Operations: Processes concrete and asphalt for recycling
- Household Hazardous Waste Facility (HHW): Household hazardous waste drop-off facility for residential dwellings and also accepts such waste from Rockland's Conditionally Exempt Small Quantity Generators
- Transfer Stations: Aggregates regional Municipal Solid Waste (MSW) for shipment to landfills

The Rockland County Sanitary Code (Article XVII) requires that all persons shall not combine non-offensive materials such as mixed paper, commingled containers, concrete and asphalt, yard waste, and scrap metal with any other non-offensive materials or with solid waste or hazardous waste. In addition, Article XVII includes mandatory reporting requirements for: persons (other than homeowners) who own or operate a facility of 10,000 square feet or more; who employ 15 or more employees; or who own or operate an apartment, condominium, or townhouse complex with three or more dwelling units. Specifically, such persons are required to submit a Separation of Non-Offensive Materials Plan to the Department of Health. The plan is reviewed every five years and must be updated. Pursuant to the New York State Public Health Law § 348[1], the provisions of the Rockland County Sanitary Code have the force and effect of law.

The Rockland County Legislature enacted the County Flow Control Law on May 20, 2008. The law regulates the countywide collection and disposition of solid waste generated in Rockland County, including garbage, recyclables, construction and demolition debris, and yard waste. The County Flow Control Law requires that wastes generated within the county must be delivered to designated, publicly owned solid waste facilities. The law imposes certain requirements on residents and businesses in the county for the set out, collection, and disposal of their waste. It seeks to increase the county's rate of recycling, while providing for the safe and environmentally sound handling and disposal of the solid waste generated within the county. The Commissioner of Health has the authority to enforce the Flow Control Law and to impose the civil sanctions and penalties proscribed in the law.

### Existing Sites and Facility Description

Three of the five towns and all of the villages in the county have responsibility for municipal solid waste, yard waste, and recyclables collection and disposal. In two of the five towns, Stony Point and Orangetown, homeowners contract directly with carters for these services. Four of the villages maintain their own municipal collection with village employees, and the remaining towns and villages provide such services to their residents through contracts with private haulers. All solid waste is transported to the County Solid Waste Management Authority facilities in accordance with the County Flow Control Law, and is then transferred to out-of-county disposal facilities.

The authority's facilities are operated by contract operators, with only the weighing stations manned by authority personnel. The authority operates facilities at five sites within the county, located to provide services to the entire county, to minimize travel from the communities, and to provide access via major transportation routes (See Figure 12.4).

A description of the authority sites and facilities is as follows:

- **Hillburn Site** – The authority's principal site is located in the western part of the county on Torne Valley Road in Hillburn. This site includes the authority's administrative offices, transfer station, recyclables preprocessing facility, biosolids co-composting facility, materials recovery facility, and a yard waste composting facility.

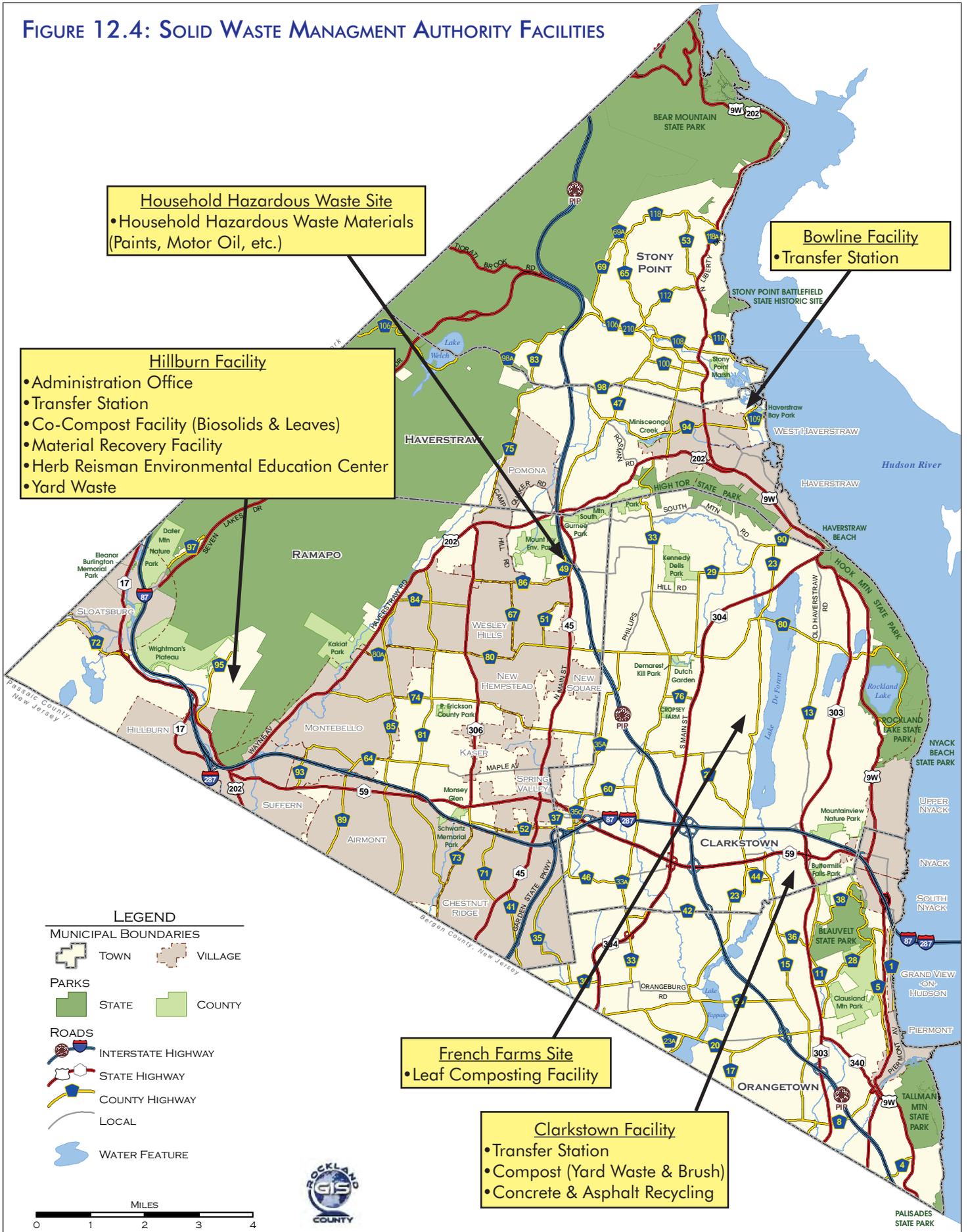
Administration and Herb Reisman Environmental Education Center – The authority's main offices and education center is located in the same building as the Materials Recovery Facility in Hillburn. The authority offers tours of the Herb Reisman Environmental Education Center to the public. The tour offers explanations of where garbage goes, how recycling really works, how to turn leaves, grass and food waste into compost, how to properly dispose of household hazardous materials and other important issues affecting the environment such as energy and water quality.

Transfer Station – The Hillburn Transfer Station primarily accepts solid waste from the Town of Ramapo and Villages of Airmont, Chestnut Ridge, Hillburn, Kaser, Montebello, New Hempstead, New Square, Pomona, Sloatsburg, Spring Valley, Suffern, and Wesley Hills. The facility accepts municipal solid waste for consolidation and transport to out-of-county solid waste disposal facilities via tractor-trailer, and accepts scrap metal and tires.

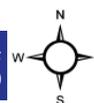
Recyclables Pre-Processing Facility – The Hillburn Transfer Station is subdivided to allow for a recyclables pre-processing facility within the same structure. The Recyclables Pre-Processing Facility has the capacity to pre-process certain residential recyclables, dry commercial wastes, mixed bulky wastes, and construction and demolition wastes for recycling. At present, the Recyclables Pre-Processing Facility is not operating, but is projected to become operational with the full implementation of the Flow Control Law for pre-processing of commercial recyclables.

Biosolids Co-Composting Facility – The facility accepts bio-solids (sludge) from the wastewater treatment plants in Rockland County (Joint Regional Sewer District, Rockland County Sewer District No. 1, Town of Stony Point, Village of Suffern Waste Water Treatment Plant, Town of Orangetown Waste Water Treatment Plant and Western Ramapo Waste Water Treatment Plant), and Orange County's Harriman Facility. Bio-solids are mixed with clean wood waste and composted. The finished product is similar to peat moss and an excellent soil amendment for use on golf courses, flower gardens and landscaping projects. The facility is a state-of-the-art in-vessel agitated bin composting plant which processes clean brush, wood waste, and other organic residues for production of a quality compost.

**FIGURE 12.4: SOLID WASTE MANAGEMENT AUTHORITY FACILITIES**



**INFRASTRUCTURE**



Materials Recovery Facility - This facility, commonly known as the MRF (pronounced "murf"), processes commingled containers and commingled paper materials for recycling. These materials are then sorted to remove non-recyclable items, consolidated (baled) and shipped to manufacturing plants where they are made into new products. The MRF is capable of processing 250 tons of commingled paper and commingled containers per eight hour shift with a maximum of 750 tons per day. Commingled paper and commingled containers (cans, bottles, etc.) from all of the towns and villages in the county are delivered to the MRF by private haulers and recyclers. The commingled papers are separated by hand pickers by various grades, (e.g. newsprint, old corrugated, etc.) baled and shipped to plants that will recycle the paper into new products. Likewise, the cans and bottles are separated by the use of magnets, air blowers, and hand pickers into various components such as aluminum, ferrous materials, and various grades of plastic. These separated recyclables are then baled and shipped to companies that will recycle them. The companies generally pay the authority to recycle these materials. The MRF is housed in a 36,000-square-foot building which includes a 10,000-square-foot tipping floor. The process area includes 5,000 square feet for bale storage. The MRF has been in commercial operation since 1998.

Yard Waste Composting Facility – The yard waste composting facility, constructed in 2007, is a one acre site located on Torne Valley Road on top of the closed Ramapo Landfill. All operations occur outdoors. Deliveries are seasonal, occurring primarily in the fall and secondarily in the spring. The facility accepts only leaves from the Town of Ramapo and Villages of Airmont, Hillburn, Montebello, New Hempstead, Sloatsburg, Spring Valley, Suffern, and Wesley Hills. Finished compost is provided at no charge to the municipalities that deliver leaves to the facility, or it is sold to landscaper companies.

- Clarkstown Site – The Clarkstown Solid Waste Facilities site is located at the southeastern part of the county on Route 303, south of Route 59, in the Town of Clarkstown. The site includes the following operations:

Transfer Station - The facility accepts municipal solid waste for consolidation and transport to out-of-county solid waste disposal facilities. The facility primarily serves the Towns of Clarkstown and Orangetown and the Villages of Grand-View-On-Hudson, Nyack, Piermont, South Nyack, and Upper Nyack.

Yard Waste Composting and Wood Mulch Facility – The facility is located adjacent to the Clarkstown Transfer Station and accepts leaves, grass, and brush for composting. All of the municipally collected and much of the privately generated yard waste in the county are delivered to this facility. All finished compost is either made available for use by municipalities that deliver the yard waste to the Clarkstown Yard Waste Composting Facility, and the remainder is purchased by the private contractor that operates the facility.

Concrete and Asphalt Recycling Operations – The facility accepts and stockpiles incoming loads of uncontaminated broken concrete and asphalt, produces finished, screened recycled concrete aggregate and recycled asphalt product. The recycled concrete aggregate is generally used as a substitute for gravel in road sub-base, structural fill, and walkways. The recycled asphalt is generally used for patching roads.

- French Farms Site – This site is located in the Town of Clarkstown and is owned by the Town and licensed to the authority to operate a leaf composting facility at a location known as the French Farms Site. Municipally collected leaves are delivered to the French Farms Site and processed into compost.

- Haverstraw Site – The Bowline Transfer Station is located in the northeastern part of the county on Beach Road in the Town of Haverstraw. The facility accepts municipal solid waste for consolidation and transport to out-of-county solid waste disposal facilities. The facility primarily serves the Towns of Stony Point and Haverstraw and the Villages of Haverstraw and West Haverstraw. There are no other solid waste facilities located at this site.
  
- Household Hazardous Waste Site -- The authority operates a Household Hazardous Waste Facility located at Fireman's Memorial Drive in Pomona. The facility is a drop-off collection facility that accepts household hazardous waste materials from residents. Small businesses, institutions, municipalities, nonprofits, and schools in Rockland County that qualify for Conditionally Exempt Small Quantity Generator (CESQG) status may also deliver hazardous waste to the facility for a fee. Acceptable materials include such items as:
  - Paints
  - Motor Oil
  - Antifreeze
  - Pesticides, Fungicides, & Herbicides
  - Propane Tanks
  - Batteries
  - Electronic Equipment
  - Air Conditioners

The authority also engages in an ongoing program of outreach to the people, businesses, and institutions of Rockland County. It provides guest speakers and presentations in an effort to educate Rockland County residents on current solid waste management programs and practices. The authority also works with the communities and businesses to implement recycling and waste reduction for Rockland County. In 2009, the authority issued a “Guide to Recycling and Waste Reduction for Rockland County Businesses” to help the business community to develop or expand a sustainable solid waste recycling program.

Two private operators currently have solid waste facilities in the county: Interstate Waste Services in Airmont (recycling facility), Chestnut Ridge (closed transfer station) and Hillburn (active transfer station); C&A Carbone Inc. in Clarkstown (active transfer station). These operators generally process waste generated from outside of the county in accordance with the Flow Control Law.

### Existing Demand

The three-year totals for the three authority transfer stations are shown in Table 12.4 below. The increases reflect the changes of solid waste handling due to the County Flow Control Law.

**Table 12.4: Municipal Solid Waste Processed (tons)**

Location	2007	2008	2009
Hillburn	73,116	81,049	85,896
Bowline	31,672	23,814	27,726
Clarkstown	113,886	70,468	123,156
<b>Total</b>	<b>216,261 Tons</b>	<b>216,375 Tons</b>	<b>236,224 Tons</b>

*Note: This table does not include volumes processed at IWS Hillburn transfer station.  
Source: Rockland County Solid Waste Management Authority.*

The authority recycling facilities process material generated from within the towns and villages in Rockland County. In return, the authority provides rebates to all the municipalities based on the tonnage of their recyclables delivered to the MRF and the value of the recycled materials sold. The three-year totals for total recycling tons and rebates are shown in Table 12.5.

**Table 12.5: Authority Recycling and Rebates**

	2007	2008	2009
<b>Total Tons</b>	38,911	40,967	38,182
<b>Rebate</b>	\$528,227	\$516,874	\$456,476

*Source: Rockland County Solid Waste Management Authority.*

### **Existing Capacity**

Due to recent economic downturn, the authority’s waste load has declined, and the capacity of its facilities exceeds waste supply. Authority facilities have the capacity to meet the existing solid waste demand from the county and those of the immediate future.

### **Planned Expansion**

The authority is currently updating its SWMP, to further address current operations and plans to meet the growing demands for the future. The authority is investigating options for establishing a leaf compost facility in the northern portion of the county, to minimize trucking from the northern communities.

The authority is currently transporting materials from the transfer stations to out of county landfills by road using tractor-trailer trucks and is currently investigating the feasibility of train transport to allow use of landfill facilities south of New York.

## **12.4 Electricity and Energy**

Orange and Rockland Utilities, Inc. (O&R), a wholly owned unit of Consolidated Edison, Inc., is an electric and gas utility company headquartered in Pearl River. O&R. was created in 1899 as the Rockland Light & Power Co. in Nyack when S.R. Bradley combined a number of small local gas and electric companies. In 1999, it and its subsidiaries became part of Consolidated Edison.

O&R and its two utility subsidiaries, Rockland Electric Company and Pike County Light & Power Co., deliver energy to Rockland County and customers in seven counties in New York, northern New Jersey, and the northeastern corner of Pennsylvania. The company serves approximately 112,193 electric customers in Rockland County, including about 99,000 residential and 13,000 commercial and industrial customers.

### **Existing Facility Description**

Within Rockland County, O&R's electric delivery system consists of approximately 170,000 overhead services, 15,000 miles of overhead conductor attached to nearly 180,000 poles, and almost 1,000 towers. O&R also maintains an underground delivery system that consists of over 734 miles of conductor and almost 44,000 services.

O&R's electrical system is typical of others throughout the nation. The electricity is first produced at a generating station. Then the electricity is directed out of the generating station at a very high voltage to transmission lines designed to transport bulk electricity over long distances to areas of the service territory where it is then channeled through one of O&R's 14 substations in Rockland County. At the substations, the voltage is reduced to a level low enough to run through the distribution lines along the streets.

Until 1999, O&R had both generated and purchased electricity for its customers. That year, O&R sold all of its generating stations as part of the New York State Public Service Commission's plan to deregulate the electric utility industry and create a competitive marketplace. O&R now purchases all of the power for its customers from the power market administered by the New York State Independent System Operator (NYISO). Rockland County customers have the option of the "Energy Choice" program and can buy their own electric supply directly from independent energy suppliers.

The only operating power plant in Rockland County is the Bowline Generating Plant which, is owned and operated by Mirant Corp. Built in 1974, the West Haverstraw facility uses natural gas and oil to generate electricity. The plant has a capacity of 1,139 megawatts, equivalent to enough power for approximately 1.1 million homes. The Lovett Power plant in Stony Point, also owned by Mirant, was closed in 2007.

Cross-country transmission lines located in Rockland carry electricity to not only the county but also to the New York metropolitan area. These lines are located in right-of-ways that pass through many residential areas of the county. It is reported that there may be unused easement or right-of-ways within the county. The County should identify such locations and incorporate in Rockland and municipal planning process.

### **Existing Demand and Capacity**

The 2009 peak system demand for Rockland County's electric system was 519 megawatts. O&R has approximately 805 megawatt capacity to service the distribution load. The current five-year Rockland County Growth rate is approximately 2.1%.

### **Planned Expansion**

As a public utility, O&R is required to provide service to meet the system demand. To address future growth of electric demand, they develop 20-year planning studies to determine future system needs. This includes additional substations, upgrading of substations and the construction of new or replacement of transmission and distribution lines.

O&R plays a role in the economic development of Rockland County through a professional economic development staff that focuses on attracting new business customers and jobs to its service territory and assists current business customers with their expansion needs. The O&R economic development department maintains an up-to-date inventory of buildings and sites in Rockland County and also administers an Economic Development Rate (EDR) that provides a discount to qualified manufacturing and business service companies that relocate to or expand within Rockland County.

In order to not deter future development in the county, coordinated of planning among the county, local municipalities, and O&R is required to identify potential large users, such as data centers, large developments, etc., to plan for facilities to be available when such uses come online to the electric system, including industrial development within the County's Empire Zones, and any successor program.

The planning should determine the need for power redundancy to meet the needs of large users and to aid in the County's economic development efforts.

O&R maintains a working relationship with the County Planning Department on issues of available electric and gas supply and land planning, related to the company's ability to serve certain growth areas. O&R advises the Planning Department if there is sufficient power to serve a location where development is planned. If the ability to serve is questionable, O&R works constructively with county and local planners to provide the needed service. O&R also works closely with the Rockland Economic Development Corp. (REDC) in servicing new business inquiries, pointing out appropriately served locations that can accommodate their needs and coordinating incentive packages for these businesses.

## **12.5 Natural Gas**

Within Rockland County, O&R provides gas service to approximately 81,062 residential customers, 7,588 commercial customers, and 20 industrial customers. Natural gas is a fossil fuel composed almost entirely of methane, and is usually found in deep underground reservoirs formed by porous rock. Natural gas is transmitted thousands of miles through interstate pipelines owned and operated by pipeline companies to the end users. The natural gas reaches O&R at five Rockland County gate stations where it is metered, injected with odorant, and reduced in pressure, and then enters O&R's transmission and distribution system. O&R obtains gas from four interstate pipelines in Rockland County. The gas distribution system throughout the County has four pressure systems.

O&R has been working on a number of comprehensive projects in recent years, including a program to replace bare steel and cast iron gas mains, some of which were installed in the early 1900s; and an upgrade of older bare steel service pipes that run from the gas mains to individual buildings with new plastic pipe. These efforts have had a major impact on reducing the number of gas leaks in O&R's distribution system.

### **Existing Demand and Capacity**

The 2009 system demand for natural gas in Rockland County was 18,620,418 dekatherm<sup>4</sup>. O&R has supply contracts with several interstate gas pipeline companies with sufficient capacity to accommodate significant load growth. The O&R normalized load over the last five years has remained essentially flat.

### **Planned Expansion**

Similar to electric service, O&R develops 20-year plans to determine future natural gas system demands. A major ongoing project within the county is the replacement of the low- and medium-pressure systems with high pressure systems. This will provide greater flexibility for the system to meet high spot loads and future demands. O&R is also continuing with its gas main replacement program.

## **12.6 Drainage Infrastructure**

Stormwater runoff along roads and streets is conveyed to the streams and drainage ways by open ditches or collected by inlets and catch basins. The drainage systems are maintained by the entity that owns the roads – the villages, towns, County, or State. Streams and rivers that pass under roads are

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<sup>4</sup> DTH is a unit of energy equal to 1 million BTUs, or approximately 1,000 cubic feet of gas.

conveyed by culverts and or bridges. Localized flooding occurs throughout the county during heavy rainfalls. One contributing factor is that many of these drainage systems were installed prior to the development within the watershed and the pipes, culverts, or bridges do not have capacity to pass the developed runoff. A contributing factor is the maintenance and cleaning of the drainage system, which results in blocking of the inlets, pipes, and culverts that causes flooding during heavy rains. The maintenance and upgrade of the drainage systems is the responsibility of the municipalities, County, or State owning the systems

Further degradation of the existing drainage systems can be mitigated through maintenance of existing systems, upgrade and repair of systems in connection with road improvement projects or to address areas of chronic flooding and implementation of stormwater management, green infrastructure practices, and erosion and sediment for new construction. This includes implementation of the New York State Department of Environmental Protection's (NYSDEC) Pollution Discharge Elimination System (SPDES) for Discharges for Construction Activities, General Permit GPO-10-000, Rockland County Drainage Agency approval authority of regulated streams, local stormwater regulations and stormwater managements control training and programs such as those provided by the Rockland County Soil & Water Conservation District (SWCD).

## **12.7 Telecommunications Facilities**

Verizon provides land-line telephone service to Rockland County. Verizon's FiOS service, which is a bundled communications service (Internet, telephone, and television) operating over a fiber-optic communications network, is presently offered in all areas of the county, except a portion of Sloatsburg.

Cellular service is provided throughout the county by national carriers. Cell towers and transmitters are located on private and government property; there are seven cell towers located on County property. Due to the topography of Rockland County, there are areas with no or marginal coverage within the county, an issue which is being addressed.

The present system for emergency responders is comprised of radio networks on different frequencies that make it difficult to communicate. Rockland County has developed a plan to create a County network to allow all emergency responders (fire, police, and EMS) to communicate on a common network. The plan is now being implemented.

The location and local government ability to regulate cell towers is subject to the Federal Telecommunications Act. The development of a master plan for future cell tower locations could promote the location on public property. By addressing the county as a whole, the comprehensive plan could identify locations on the periphery of lands, identify stealth technology to minimize visual impacts, and address the needs for emergency service tower locations. The use of public land for cell towers can provide financial benefit to the County, as well as the towns and villages.

## 12.8 Issues and Recommendations

Rockland County's infrastructure supports its residential, commercial, and industrial uses, and maintaining this system is a key factor in preserving the quality of life and commerce in the county.

### ***Recommendation #1: Develop a Comprehensive County Water Policy***

The County Health Department should undertake further development of a comprehensive water policy, including specific objectives and recommendations, and measures for outreach and education. This effort would be guided in the short-term by current data such as the USGS study, as well as input from interested citizens, county planners and hydrologists, the New York State DEC, Lamont-Doherty Earth Observatory, and United Water. In the longer-term, other data will become available that will impact the comprehensive water policy, including completion of the SEQRA process for the proposed desalination plant in Haverstraw. Based on these additional sources of information, the County will further refine its water policy as appropriate. The water policy would develop a plan to address potential water supply shortfalls by investigating both conservation measures and potential new water sources such as wastewater reuse, new reservoir supplies, or desalination. This water policy effort would also address the need for regulatory changes to the current codes to deal with emergency conditions, and study the potential impact to the development and economics of the county.

### ***Recommendation #2: Promote Water Conservation***

Through public education and regulation, the County will facilitate water conservation for its residents, as a means of offsetting the demand on water sources from the county's projected population growth. As part of a comprehensive water policy, the County will explore adopting planning guidelines and policies to require more water conservation. To this end, Rockland should coordinate with leading experts on effective and innovative potential tools for water conservation.

### ***Recommendation #3: Employ Green Development and Infrastructure Practices***

As discussed in **Chapter 7.0, Natural Resources**, and throughout this Plan, Rockland County has the opportunity to lead by example in sustainable and "green" building practices by employing these techniques on County-owned property. The use of green construction techniques will be encouraged for all new County buildings, and retrofitting existing buildings, as practicable, will also be explored. To address the impact of impervious surfaces, the County and local municipalities should use planning for green infrastructure techniques as presented in the DEC Stormwater Management Design Manual, dated August 2010 (<http://www.dec.ny.gov/chemical/29072.html>). The green infrastructure approach for stormwater management reduces impact on the aquatic ecosystem through the use of site planning techniques, runoff reduction techniques, and certain standard stormwater management practices. When implemented throughout a development and watershed, green infrastructure can reduce runoff volume, peak flow, and flow duration, improve groundwater recharge, protect water resources, including wetlands, reduce downstream flooding and property damage, provide water quality improvements, and improve wildlife habitat. The Manual provides guidelines for preservation of natural features and conservation design, reduction of impervious cover and infrastructure techniques for runoff reduction.

### ***Recommendation #4: Adopt Regulations for Watershed Protection***

Rockland County currently regulates 14 streams within the county, restricting development and related activities within their 100-year floodplains. However, there are large portions of the county where smaller streams are not regulated. In addition, areas along regulated streams which fall outside the 100-year floodplain – but which still have significant potential to affect the quality of the stream – may

not be subject to regulation. Thus, the County will explore adopting and implementing regulations governing development along stream corridors that lead to public water supplies, providing further watershed protection.

***Recommendation #5: Identify Sanitary Sewer System Capacity Constraints***

Rockland County does not have direct control over all of the sanitary sewer facilities within the county; however, these facilities have the potential for significant impacts on Rockland's development. As such, the County should work with the towns and villages and the owners/operators of the sewer facilities to identify system or capacity constraints that could affect development.

***Recommendation #6: Reduce Inflow and Infiltration into Sanitary Sewer Collection Systems***

Rockland County should work with the owners and operators of the sewer systems to continue to implement projects that can reduce inflow and infiltration into the collection systems. The reduction of inflow and infiltration to the sewer system will provide additional capacity the treatment plants and increase aquifer recharge.

***Recommendation #7: Reduce and Monitor Untreated Sanitary Sewer Discharges to Rivers and Streams***

Rockland County should work with the owners and operators of the sewer systems to repair and upgrade sewer systems to eliminate untreated sewer discharges to rivers and streams. The County should investigate implementing a testing program to monitor water quality, especially in areas where swimming and contact recreation occurs, to identify sources of sanitary sewer discharge and to notify the public if unsafe conditions occur.

***Recommendation #8: Provide Coordination on Road and Infrastructure Projects, New Utility Projects, and Location of Utility Right-of-Ways and Easements***

Many road and infrastructure projects occurring within the county are under the purview of the State or the individual towns and villages, and there is often little coordination among these entities as to their timing and location. The County could play a useful role in the planning for these projects, helping to organize them in order to reduce repetitive construction, costs, and traffic delays. A positive first step in this project would be to work with utility companies and the towns and villages to identify, monitor, and track repaving and road improvement projects with utility infrastructure projects using the County GIS system. Depending on the quality and sensitivity of this information, it could even be publicly disseminated so that Rockland's residents have an idea of which projects are in the pipeline and can plan accordingly. Similarly, the County will work with the towns and villages to provide notification and coordination of upcoming projects with the utility companies to allow for better planning of large users and projects.

In addition, the County should develop an inventory of gas and electric transmission right of ways and easements to assist the towns and villages in planning and review of development adjacent to the facilities. The County GIS system could be used to map these elements for use by the municipalities.

***Recommendation #9: Encourage Use of Renewable Resources and Promote Recycling and Waste Reduction Policies***

The county will continue to encourage use of renewable resources at County-owned facilities and throughout Rockland, and continue to promote recycling and waste reduction policies. The removal of waste from the solid waste stream will reduce the demand for out-of-county disposal and will potentially increase the rebate to the municipalities.

***Recommendation #10: Develop a Master Plan for Potential Cell Tower Locations on Public Property***

Cell towers have the potential to substantially affect valued view sheds within the county. While no governmental entity can prohibit the location of these wireless facilities, counties and municipalities are empowered to guide their specific siting and impose certain conditions that can mitigate the visual impact. The County, in partnership with its municipalities, should develop a master plan for potential cell tower locations located on public property throughout Rockland. Although cell tower locations within municipalities are primarily regulated by local zoning codes, such a countywide master plan would provide the towns and villages with a clear understanding of the County's goals, and would help to open a dialogue on this issue.

***Recommendation #11: Encourage Upgrading Infrastructure to Support New Business***

**Chapter 11.0, *Economic Development***, discussed the need to develop "shovel ready" sites for future development. A major part of this process is ensuring that there is adequate infrastructure to support new or expanded business. Working with the municipalities and the county's economic development organizations, as well as other potential partners on grants, the County will encourage improvements and upgrades to existing infrastructure to facilitate economic development initiatives; for example, by determining the need for power redundancy.



## 13.0 SERVICES AND INFORMATION RESOURCES

The purpose of the Services and Information Resources chapter is to identify the community facilities and resources in Rockland County. It is not in the purview of this Plan to dictate the management or programming of these resources, but instead to look at the County's provision of services largely from a land use perspective. These facilities and resources include government and administrative services; health care and emergency medical services; fire and emergency management services; educational facilities and services; and general community facilities such as libraries. This chapter of the Plan can help determine whether or not existing public facilities and resources meet current and future needs, and can serve as a baseline for gauging future facilities needs based on growth rates, population trends, and the need for additional services.<sup>1</sup>

Rockland County provides a full range of services to its residents including education, public safety, health, transportation, economic opportunity and development, culture and recreation, home and community services, and general administrative support. The provision of governmental services plays a major role in land use planning decisions due to the requirement for adequate and efficient facilities and the housing and transportation needs of those employed in government. Government has an especially important function in Rockland. As discussed in **Chapter 11.0, Economic Development**, government – whether at the federal, state, county, or local level – is a major employer in the County, comprising some 18% of all jobs. This strong governmental presence reflects a range of demographic and historical factors. According to the Rockland County Planning Department, Rockland's population is projected to increase by 17% between 2005 and 2035, with the most significant increases found in the senior and youth populations. These age groups are typically the heaviest users of government services, particularly health care and social services. In addition, the percentage of foreign-born residents is a significant, and growing, portion of the County's population, increasing to 21% of the total population in 2008 from 19% in 2000. Accompanying this growth in foreign-born residents has been substantial growth in non-English-speaking households. From 2000 to 2008, the number of households in Rockland in which all household members 14 years and older had at least some difficulty with English (meaning these households are defined by the U.S. Census Bureau as linguistically isolated) had grown at a faster pace than total households. Such households now comprise 8% of all households in Rockland. The presence of such a large portion of non-English speakers creates a variety of special needs in providing governmental services. And, while income levels for Rockland County residents are significantly higher than state averages, pockets of poverty exist in the County, typically in areas of high population density and large numbers of foreign-born residents.

In addition to these demographic factors, Rockland has a unique background in social services. Two major mental health institutions which were historically among the State's largest – Letchworth Village and Rockland Psychiatric Center – have either significantly reduced in scale or closed altogether. The presence of these institutions created a legacy both in terms of need for and in the provision of services.

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<sup>1</sup> This chapter should be read in the context of New York State and Federal departments and agencies, as well as a network of nonprofit organizations, operating in Rockland County. While the County does not have direct control over these State, Federal, and nonprofit agencies, these groups have a significant role in the provision of community and social services.

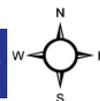
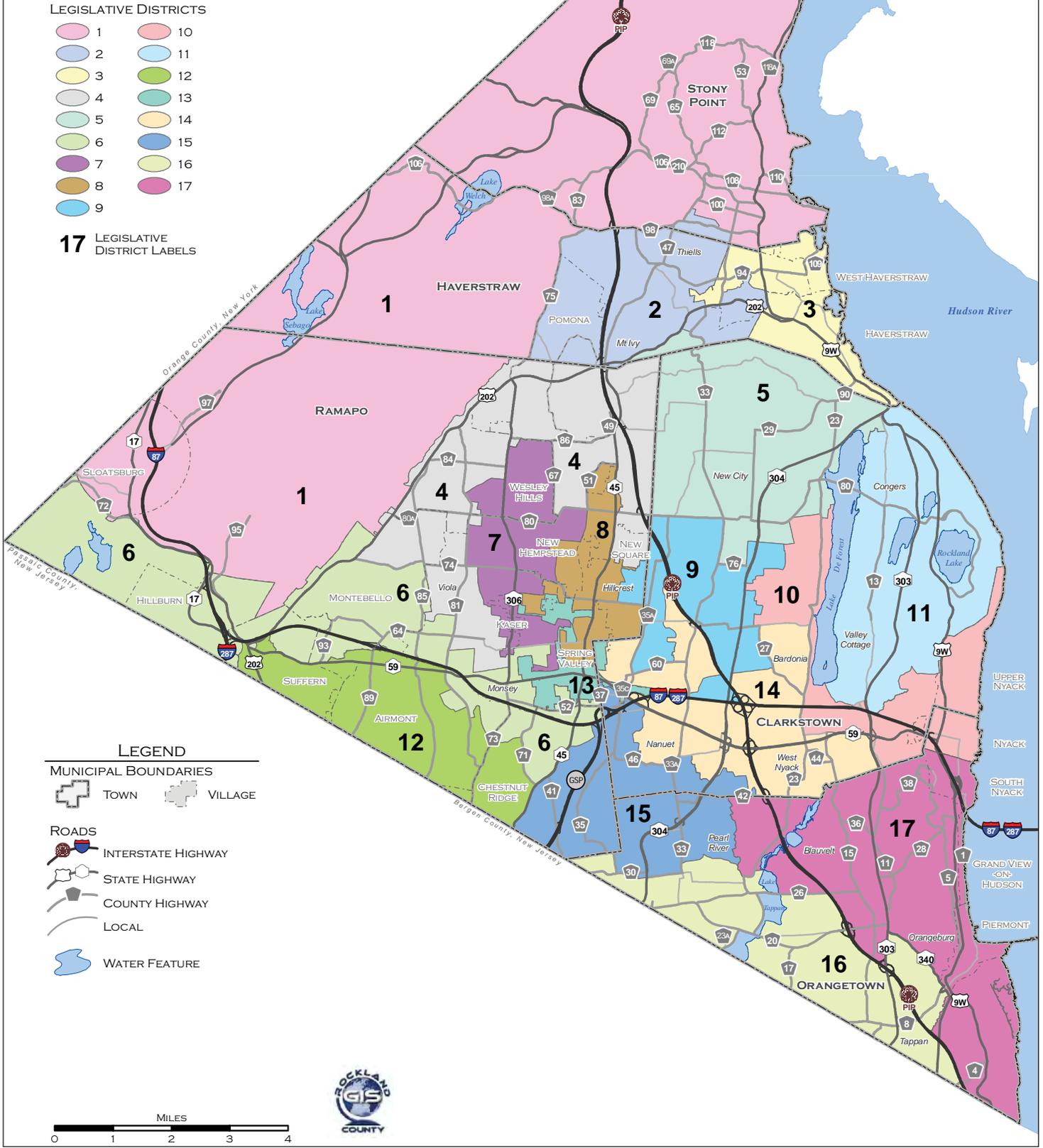
Finally, like all county and local governments, Rockland County is mandated by New York State as well as the Federal government to provide certain social services programs, although a major portion of funding for these programs is often the responsibility of the local government. Because of the State mandates, many County services are not able to be cut despite budget constraints, forcing cuts to be made elsewhere. According to the Rockland County 2010 Budget, the top four State-mandated programs together comprise some \$155.8 million, or nearly 22% of the total County Budget of \$709 million. The County's share of the Medicaid Management Information Systems (MMIS) program alone represents almost 10% of the overall budget. The job functions of many Rockland County employees relate entirely to State-mandated programs. With the projected increase in senior and youth populations, and the likely ongoing existence of certain pockets of low-income residents, these mandated social services will continue to constitute a major element of Rockland's roster of governmental services.

### **13.1 General County Government**

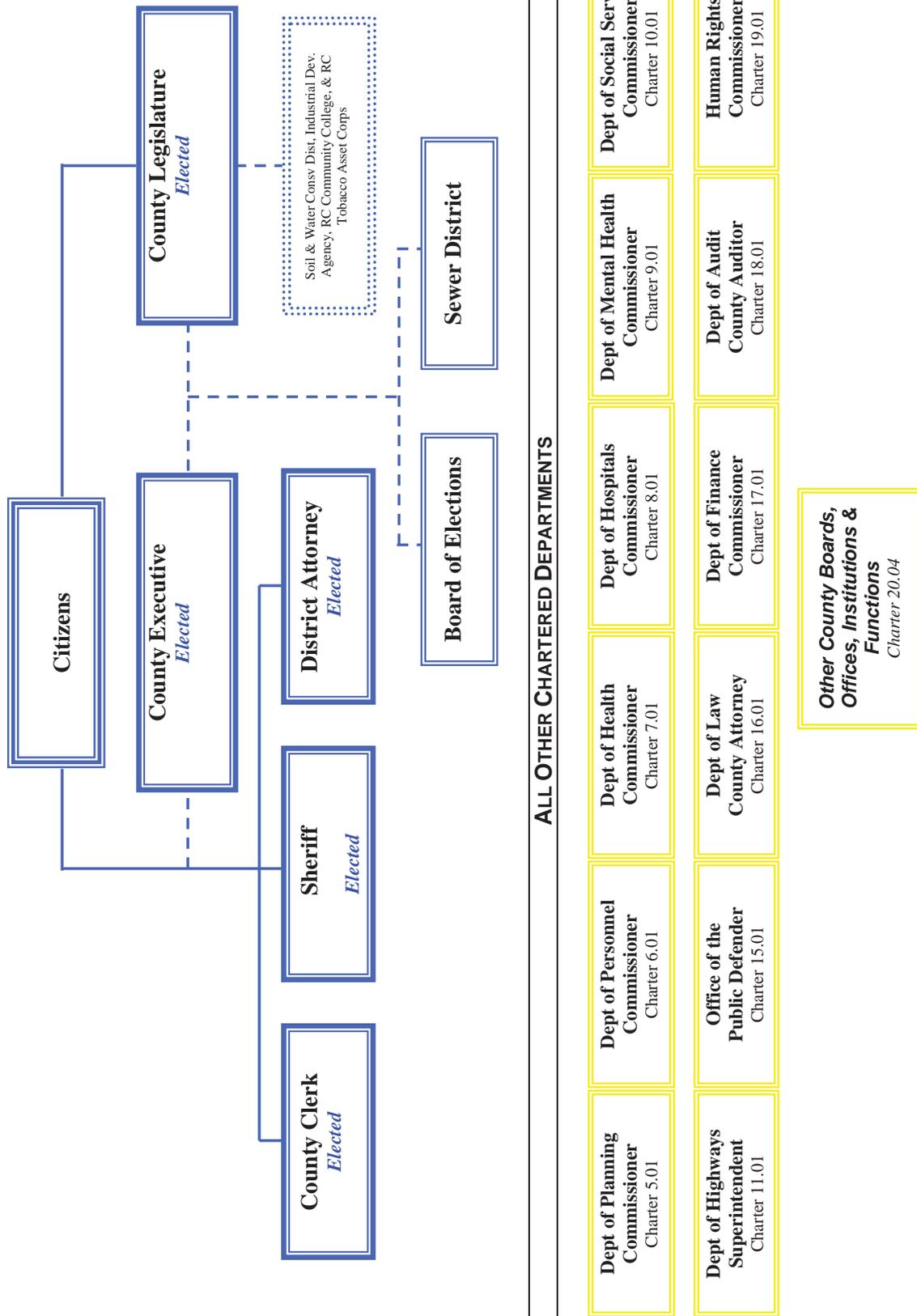
Rockland County is governed by an elected County Executive and an elected 17-member County Legislature. Each Legislator represents one of the 17 Legislative Districts comprising the County (see Figure 13.1). The County Seat is located in New City, and primary government functions are conducted from the Allison-Parris County Office Building at 11 New Hempstead Road. Governmental administration also occurs in the Sain Building at 18 New Hempstead Road, a number of nearby satellite offices, and in the Dr. Robert L. Yeager Health Center at 50 Sanatorium Road in Pomona. Functions housed in the Allison-Parris Building include the Board of Elections, Board of Ethics, County Executive Office, Department of Law, Legislature, Public Defender, and the Probation Department. Offices and departments operating out of the Sain Building include the Department of Audit, Office of Consumer Protection, Department of Finance and Budget, Insurance Department, Personnel Department, Office of Tourism, Youth Bureau, Department of Weights and Measures, and Workers' Compensation. Ancillary buildings in New City house the County Clerk's Office and Office of the District Attorney (County Courthouse); the Department of Highways and the Drainage Agency (23 New Hempstead Road); the Veteran's Service Agency (20 Squadron Boulevard); Sheriff's Department and County Jail (55 New Hempstead Road); and Human Resources and Employee Relations, Commission of Human Rights, and Office for People with Disabilities (Chase Bank Building). The Robert L. Yeager Health Center – a 151-acre complex with 17 office buildings – contains the Office for the Aging, Archives, Division of Environmental Resources, Department of General Services, Department of Health, Department of Hospitals, Daycare Center, Office of the Medical Examiner, Department of Mental Health, Department of Planning, Department of Public Transportation and Department of Social Services. Other satellite offices in the County include the Office of Community Development housed at the Rockland Community College satellite campus in Spring Valley; the Rockland County Sewer District #1 in Orangeburg; and the Office of Fire and Emergency Services in Pomona. The Rockland County Solid Waste Management Authority is located on Torne Valley Road in Hillburn.

The County also maintains a website at <http://www.rocklandgov.com>, which provides information about all agencies and departments of Rockland County as well as other contract agencies. Figure 13.2 provides an organizational chart of the County Government.

**FIGURE 13.1: LEGISLATIVE DISTRICTS  
(BASED ON 2000 CENSUS)**



**FIGURE 13.2: ORGANIZATION OF ROCKLAND COUNTY GOVERNMENT**



## 13.2 Law Enforcement Services

### Rockland County Sheriff's Office

The Rockland County Sheriff's Department is based at 55 New Hempstead Road in New City, with satellite locations throughout the County. The Sheriff is the County's chief law enforcement officer, with primary duties of crime prevention, law enforcement, and administration of criminal justice. The Sheriff's Office is comprised of six divisions, as described below, and also participates in a number of initiatives to maintain and improve public safety and emergency management in the County.

#### *Police Division*

The Rockland County Sheriff's Patrol is responsible for the protection of County properties, roads, thoroughfares, holdings, and interests. The Division is headed by a Chief, with two captains, four lieutenants, 11 sergeants and 60 patrol officers. Six units operate under the auspices of the Police Division, each staffed by police officers and supported by clerical and technical workers:

- Uniform Patrol (road patrol, mounted, marine, and sub-station units)
- Bureau of Criminal Investigations
- Special Operations
- Traffic Safety
- Community Policing, and
- Criminal Transport

#### *Civil Enforcement Division*

The Civil Enforcement Division is a State-mandated function of the Sheriff's Department, whose purpose is to serve and enforce court mandates that are issued out of village, town, county, state, or federal courts and require service or enforcement within Rockland. These mandates include income and property executions; Sheriff sales of real and personal property; family court orders; orders of seizure; orders of attachment; orders to show cause; warrants to remove; warrants of arrest; and citations.

#### *Corrections Division*

The Corrections Division is responsible for servicing and maintaining detention facilities for adults (over age 16) who are either awaiting trial or are sentenced to serve one year or less (having been legally committed by a judge). The Rockland County Correctional Center, located in New City, accepts all individuals legally remanded to the custody of the Sheriff from all State- and Federally-constituted courts and law enforcement agencies at every level of government.

The Correctional Center has a capacity of 256 males and 22 females, although with a variance approval from the Corrections Commission, it can accommodate 276 males and 29 females. The Correctional Center reports that its population is currently below average, consistent with recent state and national trends. As of early August 2010, the facility was housing 180 males and 22 females. The Correctional Center has an ongoing plan for as-needed repairs and renovations. A proposed \$10 million project to add a mental health unit to the facility has been on hold for approximately five years.

#### *Communications Division*

The Communications Division, located at the Fire Training Center in Pomona, is responsible for dispatching fire departments throughout Rockland. The Division, which is comprised of 12 full-time and seven part-time officers, also maintains a countywide radio system and police alarm database for all

municipalities within Rockland. This division also oversees the countywide Mobile Data Terminal System (MDT), which provides each town and village with several computers used in patrol vehicles.

#### *Police & Public Safety Academy*

The Rockland County Police and Public Safety Academy is housed in the Fire Training Center at 35 Fireman’s Memorial Drive in Pomona. The Academy provides comprehensive training to law enforcement personnel, and also offers an 11-week Citizen Police Academy program to Rockland residents, and provides hands-on training in firearms, arrest control and building searches.

#### *Reserve Police Force*

The Reserve Police Force is an all-volunteer force, comprised of 75 specially trained members, whose purpose is to augment the functions of full-time law enforcement personnel. Recognized as the “eyes and ears” of regular police officers and the community, the Reserve Force can assist during times of declared emergencies and disasters or war, as well as with general crime prevention, residential house checks, traffic safety, and traffic and crowd control at special events.

#### **New York State Police**

The New York State Police (Troop F) operates a sub-station on Thiells Mount Ivy Road in Pomona. State Police troopers conduct patrol and criminal and non-criminal investigations, and provide motor assistance and emergency and disaster services, among other duties. Troop F covers Greene, Orange, Rockland, Sullivan, and Ulster Counties, with substations located throughout the troop’s three geographical zones.

#### **New York State Park Police**

The New York State Park Police, part of the Office of Parks, Recreation, and Historic Preservation, patrol the State’s parks to ensure they are safe and enjoyable. State Park Police assist park users, make arrests, conduct criminal and non-criminal investigations, and provide emergency services. Other special services include marine law enforcement and educational duties on New York waterways, snowmobile enforcement and education, and rope rescue teams. The headquarters of the State Park Police, Palisades Region, are in Rockland County at Bear Mountain.

#### **Local Law Enforcement**

Municipal police forces are the primary patrol forces in many of Rockland’s towns and villages. Each of the County’s five towns has its own police department, as do the Villages of Piermont, Spring Valley, and Suffern. The Villages of South Nyack and Grand View share a police department. Since 1991, the Village of Nyack, Haverstraw, and Sloatsburg have each merged their local village police departments with town police, and in each case town police services have taken over patrol responsibility in those communities. This might be a trend that continues in the future, given the budget constraints facing municipalities.

### **13.3 Fire and Emergency Services**

Fire protection and emergency services are provided to Rockland County through 26 all-volunteer fire departments, some of which are comprised of more than one company. There are 51 fire stations operating throughout the County (see Figure 13.3). Fire department personnel provide fire suppression,

rescue, and accident victim extrication, and respond to hazardous material calls and other emergency situations.

The Rockland County Office of Fire and Emergency Services is based at the Fire Training Center in Pomona. The 13-acre campus houses the Facilities Training Program, which provides training to Rockland's local fire departments, emergency medical services, law enforcement agencies, industrial fire brigades, and others requiring emergency response training.

In addition to fire protection and emergency training services, the Office directs countywide emergency-response operations through its collaboration with the Rockland County Department of Health, County and local law enforcement agencies, and area hospitals. These operations focus on major threats to County residents, both natural and man-made, as described in the following section.

### **Emergency-Response Operations**

#### *Hazardous Materials Incident Response Team*

The Hazardous Materials Incident Response Team responds to calls for mitigation of chemical-related hazards, and is also trained to respond to terrorist attacks. Over the last decade, members have cultivated partnerships with local, state and federal agencies to improve tactical procedures for responding to reports of suspicious substances. The team is comprised of 70 trained volunteer members from police, fire, and medical services; County Health Department employees; and local businesses.

#### *Hazard Mitigation Initiative*

Through a grant from the Federal Emergency Management Agency (FEMA), the Office of Fire and Emergency Services has undertaken a Natural Hazard Mitigation Planning program. The program meets the requirements of the Disaster Mitigation Act of 2000, which mandates that states and local governments must have hazard mitigation plans approved by FEMA to be eligible for certain types of federal disaster mitigation project funding. Rockland is using its grant to prepare a "multi-jurisdictional" plan, and is encouraging involvement from all municipalities in the County.

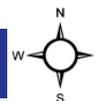
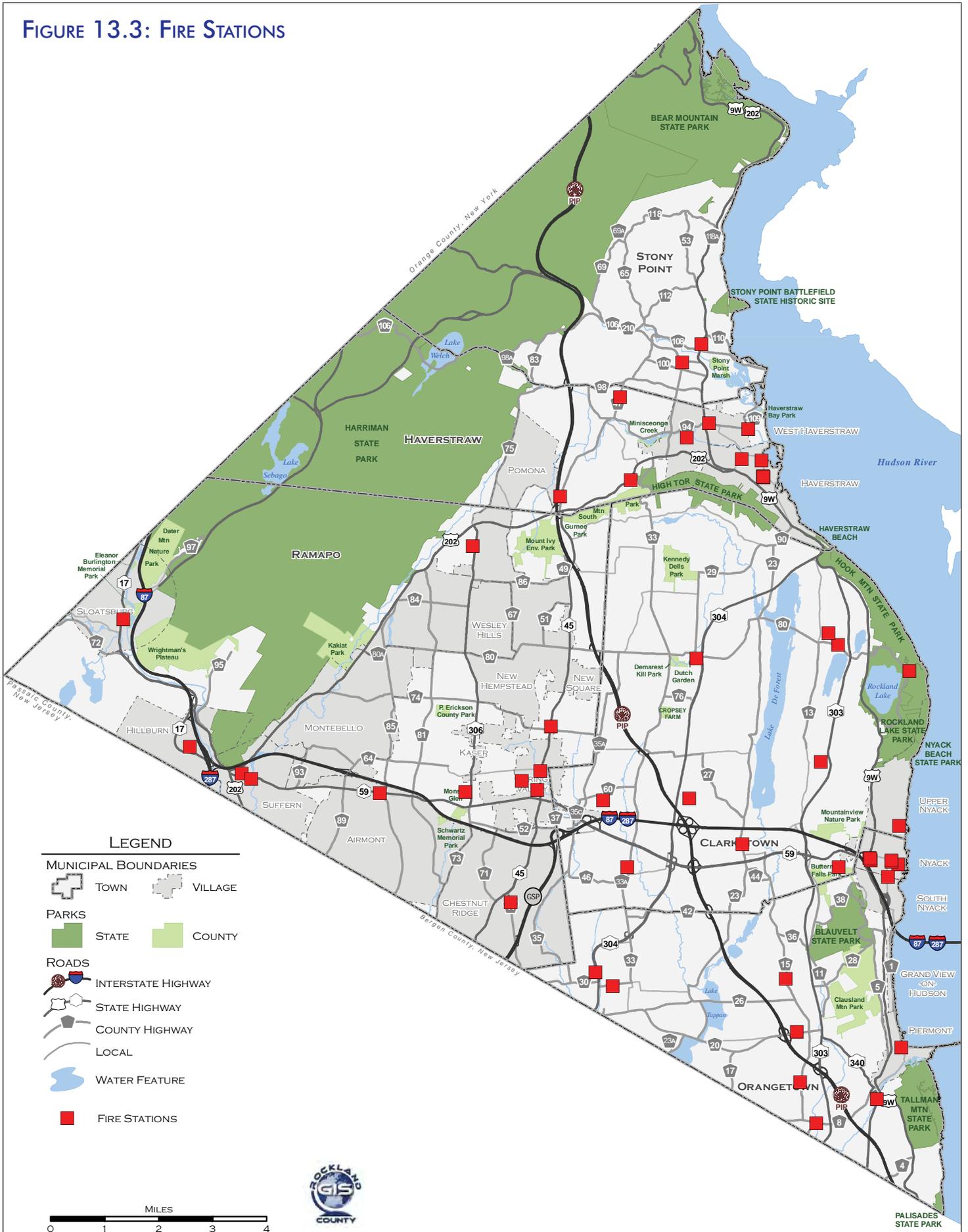
#### *Indian Point Emergency Preparedness Program*

More than 120,000 of Rockland County's residents reside within the ten-mile emergency planning zone for the Indian Point Nuclear Energy Center. The federal government requires municipalities that lay within this area to develop, maintain and exercise emergency response plans. The Rockland County Office of Fire and Emergency Services is the lead agency in Rockland County for facilitating this mission. Preparedness partners include: fire, police, emergency medical services, local municipalities, schools, residents, private sector, and State and Federal agencies.

#### *Enhanced 911*

Rockland County has a decentralized 911 system comprised of seven primary land-line Public Safety Answering Points (PSAPs). The PSAPs are located in local police departments in Clarkstown, Haverstraw, Orangetown, Ramapo, Stony Point, Spring Valley, and Suffern, and receive all of the 911 calls for their respective jurisdictions.

FIGURE 13.3: FIRE STATIONS



#### *Helicopter Emergency Lift Program (H.E.L.P.), Inc.*

This program works with the Office of Fire and Emergency Management, the County Sheriff's Department, Emergency Medical Services, and local fire departments and hospitals to provide (through an all-volunteer staff) emergency-related services including search and rescue missions, evacuations, aerial firefighting and aerial ambulance work.

#### *Technical Rescue Team*

The Rockland County Regional Technical Rescue Team, formed in 2005, is comprised of fire fighters, emergency medical technicians from several volunteer fire departments and emergency medical services agencies. The specialized team responds to building collapses, high-angle rescues and trench and confined space emergencies.

#### *Rockland Paramedic Services*

Formed in 1985 and based in Nanuet, Rockland Paramedic Services is a not-for-profit Advanced Life Support Service operating in conjunction with local volunteer ambulance corps. RPS operates seven rapid-response vehicles outfitted with emergency medical equipment, and responds with volunteer ambulance corps to all medical emergencies.

#### *Committee to Promote Volunteerism in Rockland County Emergency Services*

Rockland's communities are finding recruiting for new emergency-services volunteers increasingly difficult. To combat this issue, the Committee to Promote Volunteerism in Rockland County Emergency Services was formed in 1995 to raise awareness of the County's reliance on volunteers for fire and ambulance services, and represent the County's 26 fire departments and 14 ambulance corps.

### **13.4 Educational Facilities, Libraries, Religious Institutions and Houses of Worship**

#### **Public and Private Schools**

The Rockland County public school system is comprised of eight school districts containing a total of 63 primary and secondary schools (see Figure 13.4 and Table 13.1, below). As Table 13.1 shows, in the last 10 years, public school enrollment has varied widely in the County. While most districts have seen growth – most significantly Nanuet and South Orangetown – enrollment in Nyack and East Ramapo has fallen. In fact, East Ramapo has recently shuttered some facilities and is planning more closures.

A key explanation for the decline in public school enrollment in certain areas of the county – even as overall school-age population has increased – is a shift in preferences toward private or parochial schools. Private and charter schools serve a significant portion of Rockland's school-age population. For example, the Green Meadow Waldorf School in Chestnut Ridge has nearly 400 students from pre-K through 12<sup>th</sup> grade, and Rockland Country Day School in Congers has approximately 140 students in pre-K through 12<sup>th</sup> grade. Further contributing to the rise of non-public education is the growth of Rockland's yeshivas, which enroll school-aged children primarily in the Town of Ramapo, as well as the county's Catholic school system, which operates one high school (Albertus Magnus High School, in Bardonia), seven elementary (K-8) schools, and a preschool. It should be noted that growth of religious schools in Rockland is not uniform; Catholic schools have actually experienced a decline in enrollment, resulting in the closure of four elementary schools since 2003.

There is no board of education or other centralized agency in place that oversees the County's eight public school districts, but the Rockland Board of Cooperative Educational Services (BOCES) performs a coordinating role through its BOCES Board of Education. BOCES, in partnership with the eight local school districts and their communities, the Board of Regents, and the Commissioner of Education, provides regional, shared educational services for Rockland residents. The eight component school districts of Rockland County are each represented on the Rockland BOCES Board of Education.

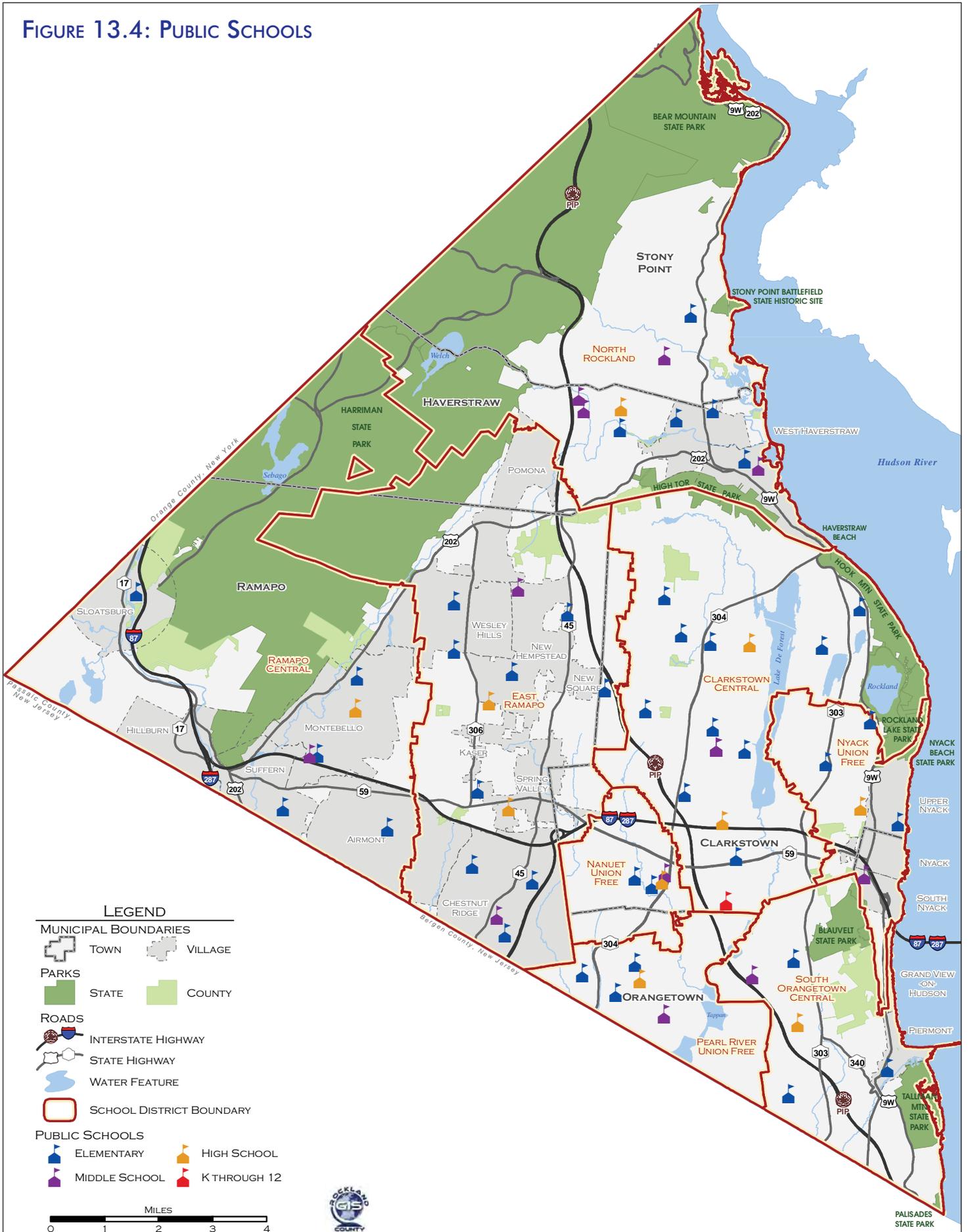
**Table 13.1: Rockland County K-12 Public School Enrollment, 1998-1999 to 2008-2009**

	1998- 1999	1999- 2000	2000- 2001	2001- 2002	2002- 2003	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	Change 1998- 2009
Clarkstown Central School District	8,670	8,878	8,990	9,113	9,196	9,350	9,463	9,443	9,473	9,463	9,305	7.3%
East Ramapo Central School District	9,299	9,022	9,028	9,159	9,170	8,997	8,566	8,313	8,244	8,003	7,901	-15%
Nanuet Union Free School District	1,871	1,928	1,997	2,065	2,164	2,192	2,243	2,261	2,314	2,303	2,295	23%
North Rockland Central School District	7,747	7,844	7,730	7,911	8,093	8,247	8,104	8,115	7,992	7,880	7,923	2.3%
Nyack Union Free School District	3,002	2,932	2,917	2,855	2,906	2,858	2,881	2,865	2,940	2,960	2,916	-2.9%
Pearl River Union Free School District	2,290	2,354	2,403	2,392	2,409	2,493	2,549	2,583	2,641	2,629	2,647	16%
Ramapo Central School District	4,247	4,279	4,357	4,436	4,505	4,596	4,689	4,751	4,688	4,676	4,681	10%
South Orangetown Central School District	2,794	2,920	2,986	3,125	3,258	3,347	3,409	3,419	3,478	3,429	3,434	23%
<b>Total*</b>	<b>40,090</b>	<b>40,334</b>	<b>40,580</b>	<b>41,229</b>	<b>41,874</b>	<b>42,080</b>	<b>42,076</b>	<b>41,750</b>	<b>41,770</b>	<b>41,343</b>	<b>41,102</b>	<b>2.5%</b>

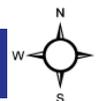
\*Note: Includes enrollment at the Edwin Gould Academy, a multi-service center for homeless young adults formerly located in Chestnut Ridge (closed in 2005). Rockland County enrollment in this facility ranged from 168 to 177 students.

Source: New York State Education Department, New York State District Report Card Comprehensive Information Report

FIGURE 13.4: PUBLIC SCHOOLS



SERVICES & INFORMATION RESOURCES



### **Higher Education Institutions**

Rockland is home to a number of institutions of higher education (see Figure 13.5). While most of these institutions exist as satellite facilities for colleges or universities located outside of the County, there are four whose main campuses are in Rockland:

*Dominican College:* Located on a 26-acre campus in the Town of Orangetown, Dominican College is an accredited four-year independent institution founded in 1952 with approximately 1,800 students.

*Nyack College:* Established in 1882 in Nyack, Nyack College is the county's oldest institution of higher education. It is an accredited college with an enrollment of nearly 600 students, almost half of whom intend to train for ministry-related occupations.

*Rockland Community College (SUNY Rockland):* With a current enrollment of more than 6,200 students in its credit programs, Rockland Community College (RCC) was founded in 1959 and is the only public institution of higher education in the county. In addition to its 175-acre Suffern campus, RCC operates satellite sites in Haverstraw and Spring Valley.

*St. Thomas Aquinas College:* St. Thomas Aquinas is a four-year liberal arts college occupying a 48-acre campus on Route 340 in Orangetown. With a total enrollment of approximately 2,700 students, the college offers nearly 100 programs at the associate and bachelor levels, and graduate programs in education, teaching, and business administration.

Other institutions of higher learning in Rockland are the Cornell University Cooperative Extension in Stony Point; Purchase College (SUNY) Extension at RCC in Suffern; Empire State College (SUNY) in Nanuet; Alliance Theological Seminary in Nyack; Iona College – Rockland Graduate Center in Pearl River; New York University's School of Social Work at St. Thomas Aquinas College in Orangetown; Long Island University – Rockland Graduate Campus in Orangeburg; and the Lamont-Doherty Earth Observatory, a world-renowned research unit of Columbia University in Palisades, specializing in the origin, evolution, and future of the natural world.

### **Public Libraries**

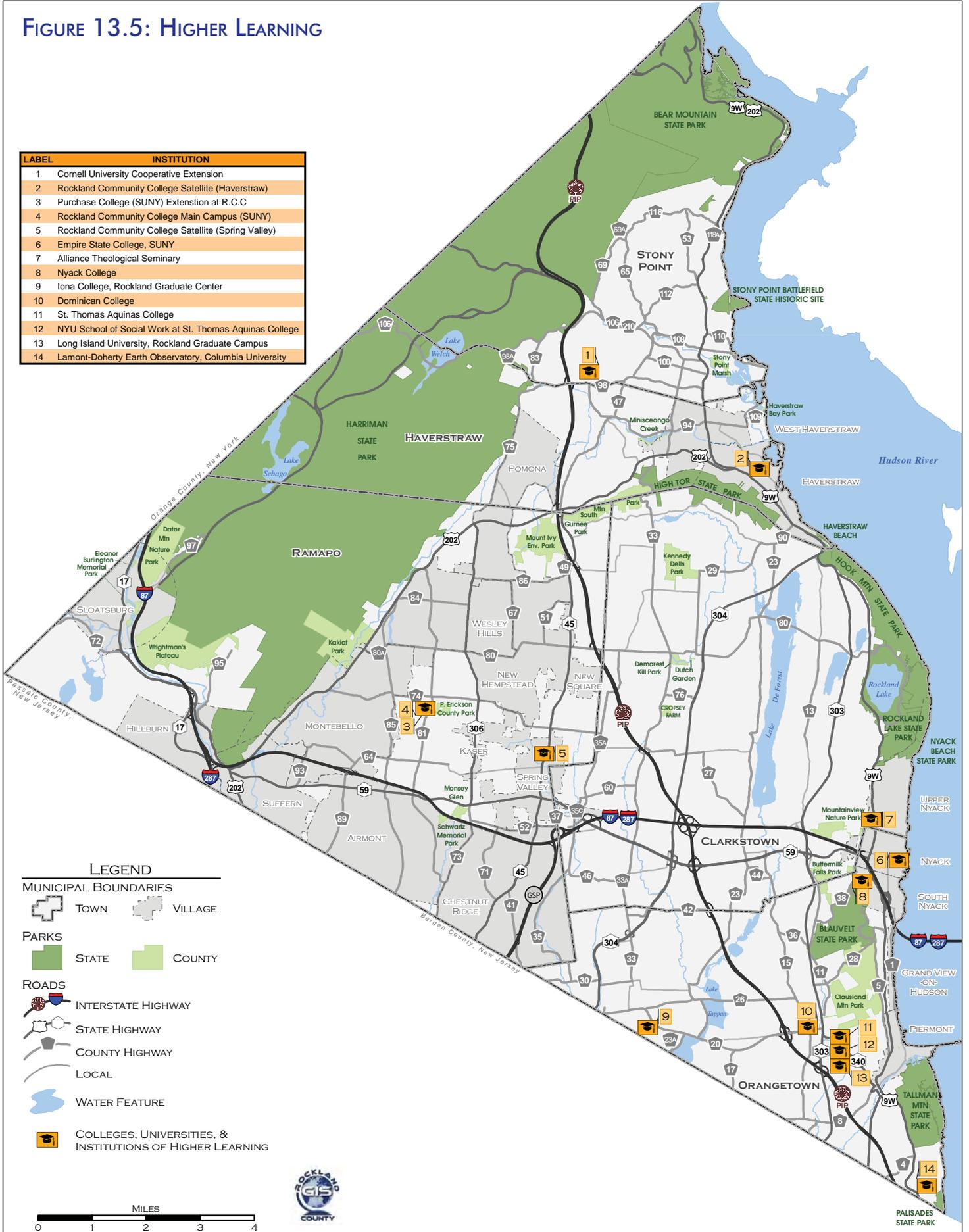
Rockland County's public library system is comprised of 19 branches within 17 districts (see Figure 13.6). The County's public libraries have an intra-library loaning program, allowing a resident of one municipality to borrow from another municipality's library.

Rockland's libraries are part of the Ramapo Catskill Library System (RCLS), a nonprofit cooperative public library system chartered in 1959 by the New York State Board of Regents. RCLS, based in Orange County, provides coordinated services, training, support, and leadership to member library trustees and staff. The system is governed by an 11-member volunteer Board of Trustees who are elected to five-year terms by the member libraries' trustees.

In addition, the Library Association of Rockland County (LARC) is a nonprofit group seeking to promote library growth, cooperation, and development in Rockland. Initiatives include the Rockland Images project, which began in 2005 as an effort to digitize the libraries' historical images collections. LARC also provides scholarships and maintains a list of community organizations in the County.

**FIGURE 13.5: HIGHER LEARNING**

LABEL	INSTITUTION
1	Cornell University Cooperative Extension
2	Rockland Community College Satellite (Haverstraw)
3	Purchase College (SUNY) Extension at R.C.C
4	Rockland Community College Main Campus (SUNY)
5	Rockland Community College Satellite (Spring Valley)
6	Empire State College, SUNY
7	Alliance Theological Seminary
8	Nyack College
9	Iona College, Rockland Graduate Center
10	Dominican College
11	St. Thomas Aquinas College
12	NYU School of Social Work at St. Thomas Aquinas College
13	Long Island University, Rockland Graduate Campus
14	Lamont-Doherty Earth Observatory, Columbia University



**LEGEND**

**MUNICIPAL BOUNDARIES**  
 TOWN (dashed line with cross-hatch) VILLAGE (dotted line with cross-hatch)

**PARKS**  
 STATE (dark green) COUNTY (light green)

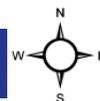
**ROADS**  
 INTERSTATE HIGHWAY (thick line with shield) STATE HIGHWAY (line with shield) COUNTY HIGHWAY (line with shield) LOCAL (solid line)

**WATER FEATURE**  
 (blue area)

**COLLEGES, UNIVERSITIES, & INSTITUTIONS OF HIGHER LEARNING**  
 (yellow icon with graduation cap)

MILES  
 0 1 2 3 4

**SERVICES & INFORMATION RESOURCES**

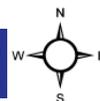


**FIGURE 13.6: LIBRARIES**

- 1 BLAUVELT FREE LIBRARY
- 2 FINKELSTEIN MEMORIAL LIBRARY
- 3 HAVERSTRAW KINGS DAUGHTERS PUBLIC LIBRARY
- 4 HAVERSTRAW KINGS DAUGHTERS PUBLIC LIBRARY
- 5 NANUET LIBRARY
- 6 NEW CITY FREE LIBRARY
- 7 NYACK LIBRARY
- 8 ORANGEBURG LIBRARY
- 9 PALISADES FREE LIBRARY
- 10 PEARL RIVER LIBRARY
- 11 PIERMONT LIBRARY
- 12 ROCKLAND COMMUNITY COLLEGE LIBRARY-MEDIA
- 13 ROSE MEMORIAL LIBRARY
- 14 SLOATSBURG PUBLIC LIBRARY
- 15 SUFFERN FREE LIBRARY
- 16 TAPPAN LIBRARY
- 17 TOMKINS COVE PUBLIC LIBRARY
- 18 VALLEY COTTAGE LIBRARY
- 19 WEST NYACK FREE LIBRARY



SERVICES & INFORMATION RESOURCES



Shown as above

### **Religious Institutions and Houses of Worship**

The many religious institutions and houses of worship found throughout Rockland are reflective of the County's rich ethnic and religious diversity. Churches, synagogues, and mosques are just a small sample of the wide range of places of worship and prayer found throughout the county. More than a few of Rockland's religious structures date back to the mid-18<sup>th</sup> Century, and a number are listed on the National and/or State Register of Historic Places (see **Chapter 9.0: Historic and Cultural Resources**). Religious institutions and places of worship are generally recognized as serving the public interest. As such, local zoning codes have largely permitted – either as-of-right or through special permit – the existence of religious uses in areas zoned for residential or commercial use. Religious exercise in the land use context is further recognized on the Federal level (see **Chapter 5.0: Land Use and Zoning**, for a discussion of religious exercise in the land use context).

## **13.5 Health Care and Hospitals**

Rockland County has a range of health-care options for its residents, including acute-care facilities, a County-operated skilled nursing facility, Federally funded community health centers, and private providers located throughout the County. In addition to these health-care providers, a number of community groups in Rockland play a role in the health-care process as part of a larger social services mission. These community organizations are discussed in the section dealing with social services and not-for-profits. The following section identifies Rockland's health-care resources, as well as several issues and priorities for the future.

### **Rockland County Community Health Assessment**

The 2010-2013 Rockland County Community Health Assessment (CHA) is intended as a summary document that includes health and demographic data, information on the County Health Department and other health-care providers in the County and identification of local health system priorities for the period. The CHA examines how demographic trends might affect health behaviors and access to care, the current capacity of the County Health Department and Rockland's community health system and outlines a set of local health priorities and implementation actions. The CHA identifies nine priority areas for future attention and collaborative efforts:

- Access to quality care
- Obesity and diabetes
- Heart disease
- Cancer
- Care of the elderly
- Immigrant health
- Community preparedness
- Mental health
- Safe and healthy environment

The CHA outlines actions to be undertaken by the County Health Department and other stakeholders to address the priority areas, driven by improved collaboration between the County and the community. Under New York State law, the governing bodies of each hospital in the State are required to issue periodic reports on how they meet the needs of the communities they serve. In Rockland, these community service plans include steps to address the CHA priority areas.

## Hospitals

Rockland is home to five hospitals (see Figure 13.7). Nyack Hospital and Good Samaritan Hospital are acute-care facilities with fully equipped emergency departments, while Helen Hayes Hospital specializes in rehabilitation; Rockland Psychiatric Center provides mental and emotional care services; and Summit Park Hospital - a County-operated long-term acute care hospital - offers extended acute care and chronic disease management.

Because Nyack Hospital is in the southeast portion of the County and Good Samaritan is in the southwest, residents of the Towns of Haverstraw and Stony Point have the longest distance to travel to reach one of the county's two emergency departments. Rockland's location within the New York City metropolitan area enables many residents to travel outside of the County for their health-care needs; but again, residents in the northern portions of the County must travel the farthest to reach New York City hospitals.

*Nyack Hospital* has 375 licensed acute-care beds. The facility's programs include acute renal dialysis, alcohol rehabilitation, ambulatory surgery, cystoscopy, emergency department, MRIs, nuclear medicine, occupational therapy, pediatric services and speech-language pathology. Its Union State Bank Cancer Center opened in 2000 and has clinical trials available to Rockland County residents. Other specialized programs include a pediatric emergency department, a wound care center, a maternity center, the Edythe Kurz Center for Sleep Medicine, the Helen Hayes Hospital Outpatient Rehabilitation Center, and the outpatient Recovery Center located in Spring Valley. Nyack Hospital is a member of the New York-Presbyterian Healthcare System. In 2001, nearly one-half of all hospital discharges for Rockland County were from Nyack Hospital. The hospital has a medical staff of nearly 600 physicians, and a staff of more than 1,400, most of whom are Rockland residents.

According to its 2009-2011 Community Services Plan, Nyack Hospital will undertake initiatives to address three CHA priority areas: mental health, obesity and diabetes, and breast cancer. These include:

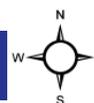
- Proposed comprehensive Psychiatric Emergency Program, including the relocation of the County's Intake Center and Inpatient Service to Nyack Hospital
- Expand efforts to combat obesity and diabetes, including a program aimed specifically at teens in Rockland's public schools
- Continued efforts to target underserved women for breast cancer screening

*Good Samaritan Hospital* in Suffern is part of the Bon Secours Charity Health System and has 370 licensed beds, with a staff of over 600 doctors and 2,000 employees. The facility provides emergency, medical, surgical, obstetrical, gynecological, and acute-care services, with specialties including a cardiac catheterization laboratory, comprehensive cancer treatment, maternal/child health services, a children's diagnostic center, stroke center, and an Area Level II Trauma Center. Good Samaritan is a regional provider of kidney dialysis and primary angioplasty services and provides social, psychiatric, and substance abuse services. Its Active International Cardiovascular Institute is the lower Hudson Valley's only cardiovascular program to offer angioplasty, advanced imaging technology, and open-heart surgery. About a quarter of hospital discharges in the county in 2001 were from Good Samaritan.

FIGURE 13.7: HOSPITALS



SERVICES & INFORMATION RESOURCES



Strategic actions identified in Bon Secours' 2009 Community Services Plan include assisting patients in obtaining health insurance, raising public awareness of heart disease, and establishing cancer-screening programs at Good Samaritan. The report also outlined plans to close the hospital's 19-bed in-patient behavioral health unit in April 2010 and working with the State Office of Mental Health and Rockland County Department of Mental Health to ensure care will be offered by another community provider.

*Helen Hayes Hospital* in West Haverstraw is a specialty rehabilitation hospital providing treatment for people with physical disabilities and chronic disabling diseases. Founded in 1900, the 155-bed facility is the largest physical rehabilitation hospital in New York State. Staff includes specialists in physical, occupational and respiratory therapy; speech pathology; rehabilitation nursing; therapeutic recreation; nutrition; social work; and prosthetics and orthotics. Other services include dental services, aquatic therapy, an osteoporosis center and a wellness center. The hospital is operated by the New York State Department of Health and affiliated with the New York-Presbyterian Healthcare System. Helen Hayes Hospital operates two Outpatient Rehabilitation Centers: one within the main rehabilitation hospital in West Haverstraw, and the second within Nyack Hospital in Nyack. The Hospital is also a prominent research hospital, with a world-renowned osteoporosis research team in its Clinical Research Center and Regional Bone Center, and hosts a Neurology Research Center.

*Rockland Psychiatric Center*, located in Orangeburg, provides treatment, rehabilitation and support to adults with severe, complex mental illness. The 410-bed center also provides community-based mental health services in Rockland and Westchester Counties. RPC emphasizes medication management; family support; activities that build social, vocational, and educational skills; and post-care planning. The Center shares a 600-acre campus with other state and voluntary agencies. This campus also includes the Rockland Children's Psychiatric Center, which serves exclusively children and adolescents. The children's facility, which is separately administered from RPC, provides an intensive, short-term, family-based inpatient treatment program, with a focus on a rapid return from the hospital to the community. The Nathan S. Kline Institute for Psychiatric Research conducts psychiatric research on treatments for schizophrenia and major mood disorders, and the application of computer technology to mental health services. RPC has recently undergone a shift in services, and has begun opening outpatient clinical service facilities in the community.

#### *Rockland County Department of Hospitals*

The Rockland County Department of Hospitals, located at the Yeager Health Center in Pomona, operates two facilities, Summit Park Hospital and Summit Park Nursing Care Center. Summit Park Hospital is a 100-bed facility classified as a long-term acute care hospital (LTACH) by the Center for Medicaid and Medicare Services. Under the New York State Department of Health, 57 beds are for physical medicine/rehabilitation, and 43 are for inpatient psychiatric care. Summit Park Hospital is one of four LTACHs in the state and is the only certified physical medicine and rehabilitation unit in Rockland. This facility provides extended acute care (including acute hemodialysis) to individuals with complex, multiple acute, or chronic conditions. As a "specialty" hospital, Summit Park Hospital treats patients who are clinically complex with multiple co-morbidities that complicate their primary diagnosis. Summit Park Hospital provides extended acute care (up to 25-30 days) to individuals who are no longer in need of an acute care hospital level of care, but remain too ill to go home. This level of care is especially important for geriatric patients who might be unable to care for themselves in the home and need rehabilitative therapies, assistive devices, and comprehensive discharge planning to ensure adequate home care and other community services. About 90% of the hospital's patients are on Medicare.

Summit Park Nursing Care Center is a 341-bed, hospital-based skilled nursing facility, with a dedicated Alzheimer's and other related dementias unit. The facility provides medical, nursing, social work, rehabilitation, recreational therapy, dental, and nutritional services, as well as other services provided by the on-site laboratory, pharmacy, and x-ray departments. Approximately 80% to 85% of the Nursing Care Center's residents are on Medicaid. Summit Park Nursing Care Center also offers a medical-model Adult Day Health program (nursing home without walls), enabling individuals to live at home and participate in a rehabilitative day-care program to restore and maintain their maximum level of functioning.

Summit Park Hospital and Summit Park Nursing Care Center are located in a ten-story building at 50 Sanatorium Road at the Yeager Health Center. The facility's design is outdated and inefficient, forcing caregivers to travel among multiple floors, and its equipment is obsolete, causing particular problems with telecommunications and evacuation. As a result, the New York State Department of Health has approved plans for a new long-term acute care hospital and skilled nursing facility to replace the existing Summit Park complex. Rockland County intends to provide for the continued mission and services of the Summit Park Hospital and Nursing Care Center, but alternative ownership structures of the hospital and nursing care center are being evaluated.

#### **Federally-Funded Community Health Centers**

The federal Community Health Centers program, launched in 1965, aims to bring comprehensive primary care health services to low-income, underserved rural and urban communities. Nationwide, the vast majority of these patients are either uninsured or on Medicare/Medicaid, nearly two-thirds are part of a racial or ethnic minority group and nearly all have family incomes below 200% of the federal poverty line. Rockland has six federally-funded Community Health Centers: Refuah Health Center in Spring Valley; Hudson River Health Care, Inc. in Haverstraw; Jawonio Health Center in New City; and Ben Gilman Spring Valley Center, Monsey Medical and Dental Center and ARC Health Resources of Rockland in Congers. The Refuah Health Center is currently adding a second building that will double its size, and is building a new facility in Sullivan County.

#### **County Clinics**

The Rockland County Health Department administers 12 clinics at its main site in Pomona and at clinics in Spring Valley and Nyack, covering various areas of physical and behavioral health. These clinics include Prenatal, Chest Clinic (TB), Family Planning, STD, Infectious Disease, Immunization and Child Health. The Infectious Disease Clinic is held in Pomona and Nyack and a Prenatal Clinic is also held in Nyack. The WIC program (nutrition assistance for women, infants, and children) has five sites in the community for eligible residents. Staff members are cross-trained to work in all clinics and most clinics require an appointment. The Department of Mental Health also administers two County clinics: one at the Yeager Health Center in Pomona and one in the Village of Haverstraw.

### **13.6 Rockland County Agencies**

Rockland County's social service needs are provided through a combination of County agencies as well as hundreds of community nonprofit organizations. Many of these agencies and organizations overlap in their mission and programs, and there is considerable collaboration among them. The Department of Social Services, Office for the Aging, the Department of Mental Health, and the Department of Health

are all located at the Yeager Health Center in Pomona, while the Office for People with Disabilities, the Department of Probation, the Veterans Service Agency, and the Youth Bureau are in New City.

In addition, Rockland has contract agencies upon which it relies for critical and necessary services; however, the County has been seeking ways to decrease its contract agency-related costs, which in 2009 represented nearly \$5 million of its total budget. In 2010, the County Executive formed the Contract Agency Review Task Force to create a community partnership to maximize the taxpayer dollars that help fund the not-for-profit agencies. The Task Force is seeking ways for the County's nonprofits to work more effectively and cohesively with one another to avoid duplication of services. Some of the Task Force's primary goals are to help reduce sole reliance on County funding, increase productivity and outreach to the community and reduce the cost of operation for agencies. The Task Force is comprised of members of the public, a liaison from the Legislature and County staff including experts from the departments of Health, Finance, Purchasing and Social Services.

The following section provides information on Rockland's direct services provided by County local government to the general public.

### **Department of Social Services**

The Department of Social Services, in addition to its headquarters in Pomona, has satellite offices in New City and Spring Valley/ Monsey. The Department's services include a 41-bed adult home at the Yeager Health Center, adult and child protective services, child support enforcement, arranging foster care and adoptions, community-based home health care, child-care subsidies, domestic violence services, employment assistance, home energy assistance, administration of food stamps and Medicaid, and temporary assistance.

The Department of Social Services has approximately 425 employees. Because of the current economic recession coupled with New York State's budget issues, the Department is experiencing significant pressure, as caseloads and community needs are increasing while State and federal funding has declined. Thus, for nearly all of its functions, the department's workload has increased, while staff has generally, with some exceptions declined or remained unchanged. Compounding these issues is the pressure exerted on the department by the increase in the elderly population and the rise in the number of children living below the poverty level in Rockland County.

### *Information Rockland-NY Connects*

Information Rockland-NY Connects, hosted by the Department of Social Services, serves as the County's most comprehensive clearinghouse of information for health and human services, County government, and community agencies and organizations. It is also the point-of-entry for NY Connects, a program for consumers to obtain information and assistance on long-term care services for seniors and adults and children with disabilities. Information Rockland-NY Connects' website, [www.informationrockland.com](http://www.informationrockland.com), allows people to search for resources 24 hours a day and contains resource listings targeted toward specific needs. Information Rockland-NY Connects typically receives approximately 1,000 to 1,200 live calls per month. The majority of these calls are seeking information on basic needs (housing, temporary financial assistance, transportation, etc.), income support and employment, and individual and family support services. In addition, queries for the same categories of information are made via the web site. Another key role of Information Rockland-NY Connects is as the first point of contact for County residents and professionals to make referrals for Adult Protective and Preventive services for children at

risk. Appropriate referrals for these services are entered into ASAP and Connections, respectively, as the statewide systems responsible for case management.

### **Office for the Aging**

The Office for the Aging provides a range of services targeted to Rockland's growing senior population. Services include Bridges to Change – a directory of senior support services, residential options, and skilled nursing facilities in Rockland County – an Alzheimer's task force; a senior care helpline; in-home services; energy assistance and weatherization programs; counseling; and employment training.

Beyond its direct programs, the Office for the Aging also provides guidance to seniors on programs available from other County agencies, local governments, and throughout the community. For example, the Office completed a study in 2001 on transportation options available to the elderly, which highlighted the population's growing demand for the T.R.I.P.S. public paratransit bus service.

As Rockland's senior population continues to grow, the County will see significantly greater need for its existing programs serving this group, and might be required to create or expand its senior services, or to partner with nonprofit organizations to meet seniors' needs. The projected growth of the aging population, and the ramifications for the County, are discussed in more detail in **Chapter 4.0: Aging**.

### **Department of Health**

The Department of Health offers various health and social service programs. The Department's Emergency Medical Services division provides emergency response through 14 volunteer Basic Life Support ambulance corps and an Advanced Life Support agency. The Environmental Health Division, among many duties, inspects temporary residences and rental units; investigates complaints on housing deficiencies; issues permits to children's camps, public swimming pools, and food service operations; inspects public water supplies and provides well sampling services; operates the mosquito control program; enforces drought regulations; reviews and approves subdivision engineering plans; responds to hazardous materials spills; and inspects air emission sources. The Public Health – Nursing & Patient Services division provides a number of clinical programs, and in a joint program with the Department of Social Services, its nurses evaluate and supervise the Personal Care Aide program. The Department of Health Social Work unit coordinates the Early Intervention, Preschool, Transportation program and the Physically Handicapped Children's Programs. The Public Health - Social Work division also works in Prenatal, HIV (ID) and Chest clinics. The Infectious Disease Program is comprised of Nursing and Social Work staff and offers Clinics in Pomona twice weekly for HIV positive residents. The ID Clinics Staff also works in Nyack Hospital once monthly at their Pediatric Immunotherapy Clinic and they also coordinate with Westchester Medical Center on a medical van that comes to Pomona once monthly to provide GYN services to their HIV positive patients. The ID Staff provides HIV positive residents with case management and medical services. The ID workers conduct rapid testing at various community sites throughout the County. The communicable disease staff follows up on suspected or confirmed communicable disease in the County. The Women's, Infants, and Children program (WIC) provides nutritional supplementation to eligible families. The Department also works to improve health education by providing clinics and workshops on a range of issues.

The Rockland County Bioterrorism Committee is part of the County Health Department, and includes representatives from the County Health Department; Planning Department; law enforcement; hospitals; fire and emergency services; and other federal, state, and local agencies. The Committee facilitates

coordination among these entities to ensure that response teams are prepared for terrorist acts or biological or chemical attacks. Planning efforts include a surveillance program to monitor unusual illnesses or infectious disease outbreaks, knowledge-sharing initiatives among emergency response teams, public communication programs, and prevention education.

The Health Department recently reorganized its main offices into two buildings at the Yeager Health Center, which has eased congestion but, at the same time, has created some operational issues. Some of the clinical space at this complex would be able to be used more efficiently if it were updated or upgraded. Most of the Department's satellite clinics are leased, and this could provide some flexibility in long-term planning. The Health Department recently re-negotiated its leases; however, over the long-term, it might want to explore relocating some of its leased operations, especially if suitable space opens up in village and hamlet centers. These sites could offer locations that are easily reachable by public transportation, at favorable rates. The Department should continue exploring options to improve its satellite offices as such opportunities arise.

The Health Department has shifted its focus from traditional public health functions to health promotion and prevention, with a concentration on creating sustainable, walkable communities—thereby fostering a link between land use planning and public health. For example, the Department recently secured a grant for a community garden in Haverstraw, published a brochure to encourage residents to take the bus to local farmers markets and has pressed farmer's markets to accept food stamps. These smart-growth initiatives further a number of goals found elsewhere in the Comprehensive Plan, and should be encouraged.

The Department also has pushed for the creation of more “one-stop shopping” sites that combine a number of health and social service functions throughout Rockland's communities. While funding for this effort has been reduced, the Department should continue to pursue grants and other funding as they become available.

### **Department of Mental Health**

The Department of Mental Health, located at the Yeager Health Center, delivers a range of behavioral health services that are coordinated with other mental health, chemical dependency, developmental disability, health and social service agencies.

The Department operates a 32-bed Psychiatric Inpatient Unit for short-stay crisis stabilization for people in an acute episode of mental illness or life crisis. Other services include: 24-hour crisis assessment and evaluation, partial hospitalization, continuing day treatment, an outpatient mental health clinic; methadone substance abuse treatment; case management; forensic mental health services, behavioral health services in the Rockland County Jail; and an employee assistance program.

In 1975, Rockland County entered into a non-negotiable planning and funding agreement with New York State known as Unified Services. The enhanced Unified Services funding formula allowed the County to develop a system of care for individuals with mental illness, developmental disabilities, and chemical dependency to serve Rockland residents as well as non-residents discharged from three regional State facilities: Rockland Psychiatric Center, Letchworth Village Developmental Center (now closed), and the Blaisdell Addiction Treatment Center.

There are also approximately 857 adult home beds located in Rockland, occupied, for the most part, by people not originally from the County. Of these beds, approximately 78% (672) are occupied by individuals with mental illness. As the mental health sector becomes increasingly de-institutionalized, in-community, small-scale adult homes are a crucial resource for the County's mentally disabled and intellectually challenged residents. These homes should be accommodated by local zoning ordinances.

The Department of Mental Health has continued to streamline services in response to reductions in State deficit funding and the loss of staff through attrition and early retirement incentives. Approximately 20 years ago, the Department began a planned course of restructuring and redesigning service delivery and, from a staffing perspective, is now one-half the size that it was. However, ongoing budget issues will require the Department to restructure and update the mental health services delivery system for adults, children and families in Rockland. The focus is on a system that is recovery-based and person-centered, and uses existing resources in a more efficient manner.

### **Office for People with Disabilities**

The Office for People with Disabilities advocates on behalf of those residents with disabilities, and their families, to ensure that they are afforded equal rights under the law. The Office primarily serves as an informational entry point, providing information on available programs, relevant news and events, and links to other appropriate agencies. The status of people with disabilities has become more important in housing and land use decisions, particularly since the passage of the Americans with Disabilities Act of 1990, which requires disability access to be provided to public transportation and public and commercial buildings. Additionally, the U.S. Supreme Court's *Olmstead* decision in 1999 affirmed the right of individuals with disabilities to live in their community rather than in institutions. These federal actions have underscored the importance of ensuring that those with disabilities are able to live and work in their communities and fully participate in community amenities.

### **Department of Probation**

The Department of Probation operates within the County to promote public safety, ensure offender accountability, provide restitution to victims of crimes and reduce recidivism. Officers conduct pre-sentence, pre-disposition and custody investigations for criminal and civil courts; assist victims of domestic violence in preparing family offense petitions; and assist petitioners in Family Court with custody and visitation petitions. They also provide court-ordered supervision to adult offenders and those adjudicated juvenile delinquents or persons in need of supervision through Family Court and offer court diversion for eligible youth. The Department of Probation is the agency designated in Rockland to collect and disperse court-ordered restitution to victims of crime.

### **Rockland County Veterans Service Agency**

Founded in 1945, the Veterans Service Agency seeks to help veterans and their families obtain the various federal and state benefits to which they are entitled. The agency provides assistance related to pension benefits, disability compensation, post traumatic stress, alcoholism/chemical dependence, vocational rehabilitation, and membership in veterans organizations.

### **Youth Bureau**

The Rockland County Youth Bureau was established in 1974 and acts as a public planning, funding, advocacy and coordinating agency for the County's youth and family programs. The bureau operates the Rockland County Youth Employment Program and the BRIDGES Academy work-force preparation,

training and placement programs; the Rockland Employment Connections Program; Gang Awareness and Prevention community-based programs and public presentations; and a runaway and homeless youth shelter and related services. In addition, the Youth Bureau runs the Rockland County Americorps (which includes the Environmental Corps), the Literacy Corps, the Docent Program and a large volunteer resource database that can be accessed for localized to countywide initiatives.

The Youth Bureau and the Volunteer Board of Directors allocates and monitors NYS Office for Children and Family Services, providing local assistance funding to 53 nonprofit and municipal agencies that provide services for the children, youth and families of Rockland.

### **13.7 Role of Nonprofits**

Rockland health and social service agencies are augmented by a substantial number of nonprofit organizations, many of which maintain deep roots in the county's communities and play a critical role in the delivery of health and human services.<sup>2</sup>

According to Cornell University Cooperative Extension's Institute for Non-Profits, there are nearly 600 nonprofit organizations currently operating in Rockland County, providing a full range of services to individuals as well as families. In addition to filling vital needs for county residents, these organizations are an important resource for the County government; many serve as contract agencies to governmental departments to provide health and social services in fulfillment of State or Federal mandates.

### **13.8 Projects and Initiatives**

#### *Rockland County Public Safety Network*

As part of its effort to re-band and reconfigure radio frequency licenses to better allocate frequency bandwidth, the Federal Communications Commission (FCC) is requiring emergency-response organizations to replace their old systems with systems that provide first responders with multiple countywide channels for different talk groups, cross-agency tactical channels, countywide Police/Fire/EMS mutual-aid channels and regional use channels to facilitate communication with bordering jurisdictions. In response to these requirements, the County has undertaken efforts to develop an interoperable communications system. The Public Safety Network project began with the award of nine T-Band frequencies by the FCC. These frequencies, along with one frequency issued to Orangetown, will be used as the backbone of a single, robust, world-class communications network, providing shared access to all of the County's public safety agencies (police, fire, and EMS).

The Rockland County Public Safety Network initiative will provide for seamless communications among the County's local responders and the New York State Police; Westchester, Orange, Putnam, and Bergen Counties; and New Jersey State public safety agencies. The use of an interoperable public safety

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<sup>2</sup> A comprehensive list of community nonprofit organizations is not practicable; however, the Institute for Non-Profits (<http://www.rocklandcce.org/services.htm>) and Information Rockland - NY Connects (<http://www.informationrockland.com/>) maintains complete, continually updated listings of these organizations.

communications system by the County and its municipalities will eliminate the constraints faced by first responders during cross-jurisdictional emergencies. Additionally, enabling first responders to communicate with their counterparts from other agencies will improve cooperation and allow jurisdictions to work together during major man-made or natural disasters.

The use of 10 recently released 700-megahertz public safety broadband spectrum frequencies to the County has made additional “clean slate” narrow-banded (12.5-KHz) spectrum available for the County’s public- safety first responders. Using narrowband channels will ensure that agencies take advantage of more efficient technology, and, by reducing channel width, will allow additional channels to exist within the same spectrum space. This additional capacity will ensure that the County public safety agencies can build a broadband public-safety network that will accommodate future growth in the number of first responder users as well as outside support agencies. Additionally, building the County’s public-safety interoperable communications on a 700-MHz system will place Rockland County at the forefront of the New York State and national emergency-response network. This network will provide the County’s public-safety entities access to new broadband technologies across the country, thereby allowing the County the ability to address inadequacies in the nation’s emergency communications system which were identified on September 11, 2001, and in the aftermath of Hurricane Katrina.

#### *Rockland Wireless Broadband Feasibility Study*

Rockland’s 2008 Wireless Broadband Feasibility Study concluded that the potential business models that were in existence, along with infrastructure and geographical issues, prevented the County from moving forward with any substantive initiative to improve countywide access to broadband technology. Since then, the County has closely monitored increasing opportunities to implement and make available broadband networks—particularly as business models, market conditions and funding levels have changed. With the ongoing evolution of broadband technology, many possible partnerships and opportunities might exist that did not exist or were not feasible in 2008.

In 2009, the County was partner to an application for Federal stimulus funds that were available as a result of the American Recovery and Reinvestment Act of 2009 (ARRA). The State Office of Information Technology, the New York State Association of Counties (NYSAC), and numerous affiliated counties of NYSAC joined to submit an application to the U.S. Commerce Department’s National Telecommunications and Information Administration (NTIA) and the U.S. Department of Agriculture’s Rural Utilities Service (RUS) for funding to build a statewide and county-based broadband public safety network. This broadband initiative would improve overall public safety for Rockland residents and support and enhance the current network infrastructure for first responders and emergency personnel. It would significantly increase the ability of the County’s emergency personnel to build a better, more effective communication network. The results of this funding application are pending; however, regardless of the outcome, the County should continue to pursue funding and partnership opportunities to expand its wireless broadband network.

#### *Rockland CARES*

Rockland CARES is a County initiative promoting the responsive, effective, and efficient provision of services to Rockland’s children, youth and families through integrated planning among various County departments. Member County agencies include the Youth Bureau; the Office of the County Executive; and the departments of Planning, Health, Social Services, Probation and Mental Health.

### *Rockland 21C (Rockland 21<sup>st</sup> Century Collaborative for Children)*

This organization, founded in 1995, works to improve outcomes for children by building a comprehensive support system linking family, school and community. Rockland 21C includes the County's eight school districts, Rockland Board of Cooperative Educational Services (BOCES), early education and child-care centers, after-school programs, youth development and recreation programs, colleges, government, business leaders and other public and private agencies. The group operates Family Resource Center programs in more than 40 school buildings.

### *Rockland FACTS (Family and Children Trend Statistics)*

Developed through a Rockland CARES initiative and expected to be released in 2011, Rockland FACTS is a public, web-based database of well-being indicators for the County's children, youth, families and seniors. It provides County and subcounty trend data from federal, state and local sources that can aid in assessing the well-being of Rockland residents, developing and improving programs, conducting research and supporting grant writing and funding applications. The Rockland FACTS Web site ([www.rocklandfacts.org](http://www.rocklandfacts.org)) is designed for use by all County residents and is maintained by the Rockland County Department of Planning.

### *Rockland County Department of Planning GIS Portal*

The Department of Planning's Geographic Information System (GIS) division is the lead agency responsible for developing the County's digital mapping program, for use by other County agencies as well as the public. The division has developed the Rockland County GIS Portal, intended to serve as a gateway to all Rockland County mapping resources. Using a standard Internet browser, users of the GIS Portal have access to interactive mapping applications and the County's online GIS map gallery, and the ability to download digital GIS data.

## **13.9 Issues and Recommendations**

Rockland County's service providers face an extremely challenging time. The populations most in need of their services – the young, seniors, recent immigrants and non-native English speakers – are all growing in the County. And the economic downturn has both increased the need for assistance for financially struggling households and generated new needs for households that were previously economically stable (i.e., creation of the "newly poor"). At the same time, budget constraints at every level of government have forced cutbacks in many of these programs, and required the county's service providers to be creative in balancing the population's needs and funding availability.

This difficult situation makes it necessary for the County to have clear priorities so that it can achieve the best outcomes with limited resources, and also be prepared to act when economic and budget conditions improve. The following section provides key recommendations to address some of the County's most pressing issues.

### ***Recommendation #1: Promote Greater Cooperation between Nonprofit Agencies and Government***

Given the current economic downturn, which has both increased the need for assistance for financially struggling households and has resulted in budget constraints within every level of government, it is imperative that the County promote greater cooperation between nonprofit agencies and governmental social service departments (Federal, State, and County). The County will utilize nonprofit agencies as a resource and to fill in gaps in providing services where budget constraints have negatively affected specific County departments.

***Recommendation #2: Expand Housing Opportunities for the Emergency-Service Volunteer Population and Caregiver Work Force***

A key population in Rockland that is adversely affected by the high cost of market-rate housing is the emergency-service volunteer population. As discussed above, the functioning of Rockland’s fire and emergency-service organizations depends largely on citizen volunteers. Housing for this group is generally considered affordable at approximately 80% of the County’s median household income. Given the lack of market-rate housing available at these pricing levels in Rockland, the County is losing many of its emergency-service volunteers to more affordable locations.

Although the County does not have the authority to dictate affordable housing regulations, municipalities might consider crafting zoning that encourages more affordable housing for the County’s emergency-service volunteers. For example, Clarkstown’s 2009 Comprehensive Plan calls for creating a mechanism for providing tax relief to volunteer emergency-service personnel, and for adopting zoning that requires a “set-aside” of new units for the volunteer work force.

Similarly, the caregiver work force – including nurses, home health aides, and child-care workers – is a fast-growing sector in need of affordable housing. As discussed throughout this Plan, the two age groups projected to grow most significantly in Rockland are the senior and youth populations. In addition to being the heaviest users of the County’s health and social services, these age cohorts also tend to be the most dependent on the caregiver work force. There is no single occupational category that encompasses the entire caregiver work force in Rockland. However, analyzing detailed occupational data from the Census can determine the number of employees in several related occupations that can serve as a proxy of the caregiver sector. Based on this analysis, it is estimated that a total of approximately 3,178 people are employed in the caregiver sector within the County, and about 3,730 Rockland residents are employed in the sector.

Although the caregiver work force represents a relatively small proportion of Rockland’s work force, given the demographic trends in the County, it is likely to grow significantly in the next 20 years. Jobs in this sector, as in most service industries, are typically low-wage jobs, and locating decent, affordable housing is a challenge for these workers. For employees in this sector, housing is typically affordable at about 50% of the median household income of the County. Because of the scarcity of such housing, some workers are likely to be forced to live far from their place of employment – even outside the County – and commute long distances to their jobs.

In the context of these circumstances, municipalities should consider – and the County should facilitate – developing zoning that allows for set-asides in multi-family developments. Set-aside programs are based on existing tax program incentives available through the U.S. Department of Housing and Urban Development. For example, in an 80/20 set-aside, the developer receives tax incentives for allocating 20% of units to those in the caregiver work force who earn less than 50% of the median household income of the County.

To further foster the development of affordable housing for emergency-service volunteers and the caregiver work force, the County will examine its own property and tax-delinquent parcels – and ask

that the towns and villages do the same – for affordable housing opportunities. In addition, the County will continue to partner with nonprofit organizations working in Rockland communities to increase housing opportunities. More detailed discussion of affordable housing measures is found in **Chapter 10.0: Housing**.

***Recommendation #3: Create “One-Stop Shop” Centers for County Health and Social Services***

In 2004, Rockland County engaged the Center for Governmental Research Inc. (CGR) to conduct a comprehensive analysis of its human services departments (the Departments of Social Services, Health, Mental Health, and Probation) to determine their efficiency and effectiveness and make recommendations for improvements in these areas. One of the key recommendations that emerged from the study was to seek the co-location of services provided by different departments to the same client population, either within the same building or in close proximity to one another—especially in communities with high poverty rates. To further this goal, CGR recommended that the County consolidate and reconfigure its satellite offices to provide an integrated “front door” to health and human services, particularly in the high-need and high-density centers of Monsey/Spring Valley and Haverstraw. This plan called for the creation of “one-stop shop” Rockland Service Centers, which would create opportunities for improved communication and coordination of functions, as well as promote cross-training and flexible deployment of staff.

In response to the CGR recommendation, the Departments of Health and Social Services made some headway in developing Rockland Service Centers; however, the recent economic downturn has limited full implementation. Co-location of services remains a viable strategy to improve access to care and patient experience, and was also suggested in the 2010-2013 Rockland County Community Health Assessment. Thus, as economic conditions improve and funding permits, the County will continue to explore opportunities for consolidating and co-locating certain of its health and social services functions, while also looking for opportunities to integrate mental health services into existing and new Rockland Service Centers. A key consideration for location of these one-stop shop sites is proximity to village and hamlet centers, public transportation and institutional partners such as hospitals. In selecting sites for these centers, the County can be creative; as leases expire, the departments should explore usable vacant buildings in the area, including former retail locations. As discussed in **Chapter 11.0: Economic Development**, several villages in Rockland have significant vacant retail space available, and some of the highest vacancy rates are in areas both of highest need for health and social services and areas with strong public transportation access. With some initial investment, the County could convert some of these spaces into one-stop centers, providing much-needed services and potentially helping to jump-start revitalization in these villages. Creating consolidated and targeted service centers could also spread out the tax impact by ensuring that municipal and nonprofit uses are not concentrated too heavily in certain municipalities.

***Recommendation #4: Integrate Housing and Social Services for Groups with Special Needs***

Housing needs and social services are often intertwined but too often treated as separate matters of concern. While nonprofit housing organizations are known to work closely with social service providers, to date, there exists no institutionalized process that integrates housing development with the provision of social services for groups with special needs such as elderly and homeless persons as well as people with physical and/or intellectual disabilities. The County will encourage efforts – among municipalities, in the non-profit sector and within its own agencies – to formally integrate the planning and

implementation of these provisions, particularly during the funding stage, but also during the design, development and ongoing operation of these facilities.

***Recommendation #5: Ensure that Public Accommodations and Commercial Facilities Comply with ADA Standards for Accessible Design.***

Title III of the Americans with Disabilities Act of 1990 states that, “No individual shall be discriminated against on the basis of disability in the full and equal enjoyment of the goods, services, facilities, privileges, advantages, or accommodations of any place of public accommodation by any person who owns, leases (or leases to), or operates a place of public accommodation.” The County should work with towns and villages to ensure that all public accommodations and commercial facilities in Rockland are brought into compliance with ADA Standards for Accessible Design. Such guidelines should be followed during the design, construction and alteration of such buildings and facilities in accordance with federal regulations under the ADA.

***Recommendation #6: Promote Walkability and Sustainability at the Robert L. Yeager Health Center***

Rockland County’s Yeager Health Center holds the most significant concentration of the County’s governmental functions, making it a major center of employment and source of services for many residents. Because it is situated on County-owned land, on a County road, it represents perhaps the single best opportunity for the County to “lead by example” in promoting walkability and sustainability.

For example, while the various buildings at the Yeager Health Center are located in close proximity to each other, walking among them is extremely difficult because of the limited number of sidewalks. As practicable, the County should install sidewalks along Sanatorium Road (County Route 51) as well as along all service roads within the complex. This would make it easier for employees and facility users to travel among the buildings safely without having to use their cars, and would improve the user experience for those traveling to the Yeager Health Center via public transportation. The two TOR buses serving the complex stop only at Buildings A and L, requiring users who need to reach other buildings to walk. Also, improved signage and wayfinding would assist site visitors in navigating the complex.

In addition, the County should explore rehabilitating and retrofitting the facilities at the Yeager Health Center to convert them to “green” buildings. Open and vacant areas of the complex could be used for alternative energy generation, such as solar and wind power. Not only would such measures help the County show true leadership in sustainability, but they could result in significant cost savings. A variety of grants and other funding sources exist for such efforts, and the County should pursue these options.

As discussed in **Chapter 9.0: *Historic and Cultural Resources***, several of the buildings at the Yeager Health Center might be eligible for listing on the National Register of Historic Places, and the County should pursue their designation. Listing of these County facilities on the National Register would allow the County to pursue historic preservation grants for the rehabilitation of these buildings, and could also encourage Rockland’s municipalities to explore designation of their own eligible facilities.

The County should also look into facilitating additional uses at the Yeager Health Center. Currently, employees and users of the complex have few options for restaurants or convenience shopping in the area. To reach these amenities, they must get in their cars and leave the Center. Leasing available space for dining and convenience retail at the Yeager Health Center would greatly enhance the experience of its users, lessening the need for automobile use and allowing users of public

transportation to have access to these amenities while at the complex. Leases also could generate revenue for the County. Other amenities that the County should consider providing at the Yeager Health Center include a regular farmer's market and community garden.

***Recommendation #7: Provide Supported Housing for Mentally Disabled and Intellectually Challenged***

In the 1960s and 1970s, New York State shuttered a number of large, State-run psychiatric hospitals – including Letchworth Village in Rockland County – in a process known as de-institutionalization, and began relying instead on for-profit adult homes. In recent years, there has been a shift toward more “family-type” housing for mentally disabled and developmentally disabled adults who need minimal assistance, allowing these individuals to become better integrated with the wider community. This type of housing, also called supported housing, typically involves several individuals with non-debilitating mental or developmental disability living together with support from trained staff.

Supported housing residents essentially function as a single household unit and can thus blend in seamlessly with existing single-family or multi-family neighborhoods. As such, the New York State Community Residence Site Selection Law (called the Padavan Law for its sponsor), passed in 1978, prohibits municipal zoning that blocks family-type housing for the mentally and developmentally disabled. Municipalities can have some input in the siting of these units, but cannot make them subject to variance or special permit.

As stated throughout this Plan, the County does not have the authority to enact or revise local zoning ordinances. However, the County should continue to do all in its power to facilitate family-type housing for mentally or developmentally disabled residents who are able to live on their own. This type of housing has been shown to be an effective treatment for these individuals, with minimal impact on the surrounding community.

***Recommendation #8: Seek Institutional and Corporate Partners to Reinforce and Revitalize Centers***

A significant opportunity for supporting and revitalizing Rockland's existing village and hamlet centers, as well as developing the County's work force, exists within its major institutions and corporations. As discussed in **Chapter 11.0: Economic Development**, a major growth sector identified for Rockland is the biomedical industry. Many of Rockland's major institutions and corporations – notably Pfizer and the hospitals – are in the health-care sector, and linking them with the County's educational institutions and small businesses has clear economic development benefits, which can, in turn, help to reinforce and revitalize Rockland's centers. The County should work with the municipalities, especially the existing centers, to develop housing and amenities necessary to attract the kind of work force that Rockland's institutions and corporations need. The County will then encourage these institutional partners to consider locations in existing centers as part of any expansion plans, and could work to draw new institutions and corporations to the village and hamlet centers.

***Recommendation #9: Ensure that Education and Community Services and Facilities are Adequate to Serve the Projected Population***

As discussed in **Chapter 3.0: Demographics**, the growth of Rockland's senior population will comprise a major expansion in the county's residents, adding more than 23,300 persons, or accounting for 48% of total growth. Although many retired and elderly residents are considered economically active and financially secure, this shift in age structure will demand many new resources focused on services for seniors. More specifically, there is the potential for an increased role for, and an increased use of,

services from agencies such as the Office for the Aging, the Office for People with Disabilities and the Youth Bureau, as well as the Departments of Social Services, Health and Mental Health. In addition, the increase in the retirement-aged and elderly populations can be expected to result in higher demand for educational services in the form of lifetime learning programs. At the same time, the growth in the under-20 age cohort will require substantial public and private investment across the range of lower-to-higher educational facilities. Finally, an increasingly diverse population will require more multilingual resources. Rockland's social and educational facilities and services will thus need to reflect these changing needs. While much of the planning and programming will occur at the local level, the County must continue to ensure that its own services and facilities are equitable and tailored to fit its residents' needs.

***Recommendation #10: Continue to Support, Promote and Expand E-Governance***

According to the National Academy of Public Administration, e-governance can be defined as "the transformation of governance processes resulting from the continual and exponential introduction into society of more advanced digital technologies. E-governance focuses on how these new technologies can be used to strengthen the public's voice as a force to reshape democratic processes, and refocus the management, structure, and oversight of government to better serve the public interest."<sup>3</sup> As discussed above, Rockland maintains several government agency websites, including Information Rockland-NY Connects, Rockland FACTS, and the GIS Portal. These communication tools have been instrumental in the dissemination of countywide services and information resources, reducing operating costs, developing and improving programs, maintaining transparency in governmental operations and decision-making, and fostering citizen participation. The County will continue to support e-governance tools and products, both at the County and municipal level, and will encourage municipalities to develop or enhance their own web-based services. Possible future e-governance capabilities might include zoning and parcel information; building permit applications; public communication and notification systems; and, as discussed in **Chapter 12.0: Infrastructure**, online notification and permitting applications for highway and utility projects.

A major element to the development and expansion of e-governance tools is ensuring the technological infrastructure is present to support them. As discussed earlier, Rockland County has recently worked to enhance the availability and use of broadband wireless technology and networks, and was part of a 2009 application for Federal stimulus funds to build a statewide and county-based broadband public safety network. Regardless of the outcome of that funding application, the County will continue to seek funds and partnerships to move forward with both the public safety network and countywide wireless broadband. With the ongoing evolution of this technology, potential partnerships and funding opportunities may now exist that were not available just a few years ago.

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<sup>3</sup> *American Planning Association*, Planning Advisory Service, Report No. 525: "E-Government" (May 2004).



## 14.0 SUMMARY OF RECOMMENDATIONS AND IMPLEMENTATION

*NOTE: For the complete discussion of the recommendations itemized herein, reference the corresponding chapter in the Plan.*

### Introduction

Comprehensive plans can be described as blueprints used to provide guidance and recommendations for a community's future. By its nature, the Rockland County Comprehensive Plan is a broad planning document, providing an overview of existing conditions and major trends. In some instances, these conditions and trends give rise to problems that should be resolved over the 10-year life of this Plan. Each chapter ends with recommendations for developing programs and regulations to assist municipalities in directing the development and conservation of Rockland County as a whole.

It is important that others outside Rockland understand the County's position on planning issues. Federal, State, and other local and regional governments, as well as private individuals, are making decisions that will affect the quality of life of Rockland County. One of this Plan's most valuable functions is to provide a voice for the region, to make a stronger case in matters of regional importance.

This chapter summarizes the major recommendations in each of the foregoing chapters. The final recommendations draw on the results of the research, public workshops, online comments, and ongoing collaboration with the Technical Advisory Committee conducted over the course of the comprehensive planning process. While the program of recommendations set forth below intends to help guide the future of Rockland County, it is not, in and of itself, a regulation. The power to make land use and zoning decisions rests with Rockland's towns and villages. Rather, the recommendations provide municipalities and other policy makers with a

regional overview in order to make sense of the larger forces shaping growth and development throughout the county. Understanding how the land use patterns and policies among Rockland's towns and villages "add up" can help planning and zoning officials identify and avoid potential land use conflicts along borders, encourage intermunicipal cooperation, and learn about development trends within each town and village that might affect localized land use decisions. In addition, the Comprehensive Plan can inform future capital budget decisions to be made for County facilities and programs. Finally, the Plan provides a reference for State and Federal expenditures within the county.

### 14.1 THE VISION: CONSERVATION, CENTERS, CORRIDORS AND CLUSTERS

The Comprehensive Plan seeks to preserve what residents love about Rockland. At the same time, it addresses the very real challenges facing the county, including affordable housing, job creation and retention, traffic, preservation of the natural and scenic quality of the Hudson River, and threats to open space and other environmental resources. The Plan recognizes Rockland's historical suburban development patterns, the importance of abundant open space and scenic vistas, and the central role of the automobile in suburban living, while at the same time suggesting housing and transportation alternatives that can help preserve or otherwise improve the quality of life for the county's residents in the coming decades.

Through the second half of the 20<sup>th</sup> Century, and present, Rockland has sought to achieve the delicate balance between physical development and the preservation of natural environments. However, as undeveloped land grows scarce, the regional economy changes and market conditions shift, Rockland will need

to focus on the kind of growth and development that is both environmentally sustainable and generates a balanced tax base that does not create a burden on homeowners. The updated Comprehensive Plan is integral to shaping this process.

Rockland's primary land use issues therefore focus on the need to preserve the high quality of life enjoyed by its residents by guiding a limited amount of new development – commercial, office, mixed uses and housing for young adults and seniors – into existing town and village centers and in areas currently zoned for commercial and industrial uses. These areas currently account for approximately 5% to 10% of the county's land area, based on estimates from the Rockland County Planning Department. Concentrating growth in this small portion of the county will preserve, in the balance of Rockland, the single-family suburban landscape for which it is known.

To this end, the Plan's vision can be interpreted as a three-part strategy to guide land use patterns: Conservation, Centers, and Corridors and Clusters.

### **Conservation**

There is a general overall public appreciation of Rockland's semi-rural character, and the County advocates for the preservation of these qualities. The Plan therefore supports conservation of the 90% to 95% of Rockland's land area that exists outside its commercial centers and corridors, including the single-family suburban landscapes, parks and farmland, physical and visual access to the Hudson River, and other natural and environmental resources. Within this conservation area, there may be single sites and properties that are optimal for redevelopment and revitalization efforts; the Plan supports efforts to enhance these sites, as consistent with local zoning and planning policies.

### **Centers**

A key focus of the Plan is to reinforce Rockland's existing centers, defined here as an area's commercial or mixed-use focal point. The market analysis done for the economic development chapter of this Plan indicated some retail weakness in some of the county's historic downtowns. These are places largely served by existing water and sewer lines and, in some cases, bus and/or rail transit. The County should encourage a mix of uses in these areas including office, retail, residential, recreation, and entertainment. In addition, multifamily residential uses are appropriate to a downtown and can bring spending power that supports businesses. Compact, multifamily housing normally produces very few school children and, as a result, usually provides a tax benefit to the community. This type of housing can also support the elderly and the young – two segments of Rockland's population that are expected to grow and are in need of more housing options. Finally, healthy town and village centers create focal points to support mass transit and pedestrian and bike traffic. Concentrating limited growth and development within existing centers will protect against out-of-scale development elsewhere in Rockland and against increases in traffic from additional scattered development. It also will provide developers with a clear understanding of where growth is desired and appropriate.

### **Corridors and Clusters**

There are several commercial corridors and office and industrial clusters in Rockland that provide a major job base as well as retail and community services. However, at workshops held during the development of the Plan, the loss of industrially and commercially zoned land to residential use was cited as a serious threat to the county's tax base and overall economic sustainability. The Plan does not encourage expanding the existing commercial corridors and clusters, but does see the preservation, redevelopment, and enhancement of these areas as essential to the economic well-being of Rockland.

## 14.2 REGIONAL SETTING

Because of Rockland’s proximity to New York City, the county is subject to a number of extra-regional forces, including transportation policies and economic conditions of the metropolitan area and the Hudson Valley Region. The County therefore should take a leadership role not only in monitoring regional projects that could directly affect its towns and villages, but in maintaining close coordination with policymakers and stakeholders. To this end, Rockland should have a proactive role in intercounty and interstate collaboration, particularly for issues that cross political borders such as transportation and infrastructure projects, preservation of natural resources, protection and expansion of the region’s open space network, and utilization of the Hudson River.

### ***Regional Recommendations:***

- Coordinate with the I-287/Tappan Zee Bridge Corridor Study Team to ensure that the public transit alternative for the corridor is properly integrated with the county’s existing transit network. Also, work with the Corridor Study Team to support shared bus rapid transit/high-occupancy vehicle lanes in the corridor and that the new bridge is designed for commuter rail, should that transit option be available in the future. See **Chapter 6.0: *Transportation***, and Section 14.6 below.
- Coordinate with the MTA and NJ Transit to ensure that, if a rail line connecting New York City to Stewart International Airport is approved, the regional service will adequately serve the residents of Rockland and will not adversely impact the surrounding towns and villages. See **Chapter 6.0** and Section 14.6 below.

- Foster regional cooperation and coordination with NJ Transit, the Port Authority of New York & New Jersey, and Bergen County to ensure increased rail service and that the Access to the Region’s Core (ARC) project, if it moves forward, is properly integrated with the Metro-North rail lines serving Rockland. See **Chapter 6.0** and Section 14.6 below.
- Actively promote the Hudson River and other key assets as vital regional resources, conserving their environmental and scenic quality and maintaining physical and scenic access to the greatest extent practicable.
- Support a regional strategy for preserving scenic, natural, historic, cultural, and recreational resources by establishing full participation in the Hudson River Valley Greenway Program. Continue efforts through the Greenway Land Trail Program to establish a regional system of trails that link these valuable resources. See **Chapter 8.0: *Parks & Open Space***, and Section 14.8 below.

## 14.3 DEMOGRAPHICS

Rockland’s population is aging, and its young adults and families find it financially difficult to reside in the county. This trend, often referred to as “brain drain” or “human capital flight,” has an economic cost. The creativity and energy of young adults fuel innovation and economic development, and a strong working-adult population is crucial to support a growing elderly population as baby boomers enter retirement. The needs of these populations have dramatically shifted. To remain economically and socially sustainable, the County must find ways to maintain and attract young people to live and work in Rockland, and to allow the senior population to age in place. In addition, the population under the age of 20 is projected to grow significantly in the county, with resultant implications on service needs.

This trend further indicates the need to provide job, education, and housing opportunities for young adults and young families.

**Demographic Recommendations:**

- Expand housing options for young singles and young families by encouraging the production of multi-family developments in or in close proximity to existing centers and public transit.
- Create and maintain job opportunities for the young adult population.

**14.4 AGING**

Rockland’s elderly population is increasing both in actual numbers and percentage, outpacing both New York State and national averages. This trend threatens to strain Federal, State, and local government resources. The County should continue its concerted efforts to help the senior population remain vital and provide care and support to those who are struggling. Further efforts must be undertaken to meet the needs the Rockland’s aging residents.

**Aging Recommendations:**

- Support affordable housing options and housing type alternatives in strategic locations such as village centers.
- Encourage zoning regulations that address senior housing needs by permitting moderate- to higher-density development in appropriate locations and require amenities that meet the needs of elderly residents. See also **Chapter 10.0: Housing**, and Section 14.9 below.
- Create intergenerational housing opportunities through the development of new affordable living communities for all ages and by permitting greater regulatory

flexibility for modifying single-family houses for “mother-daughter” or two-family living.

- Facilitate modification of existing homes to accommodate senior relatives (e.g. “mother-daughters”) and to create safer, more elder-friendly environments in seniors’ existing homes. Provide information on available grants for such modifications.
- Foster strategies to encourage aging in place so that Rockland residents can continue to live near their families and friends. Strategies could include:
  - Enhancing and expanding mobility options for seniors, including expanding transit alternatives and better informing seniors of existing transit options;
  - Creating vibrant public spaces to facilitate interaction among all residents, and providing supportive community features and services that incorporate the needs of seniors, as well as provide opportunities for intellectual pursuits and volunteerism; and
  - Ensuring safety and security through measures such as improved lighting and signage, retiming of traffic signals, and maintenance of sidewalks and bus shelters.
- Continue employment services and job skills development for seniors through coordination among the Office for the Aging, Rockland Community College, the Workforce Investment Board, and other local stakeholders, recognizing that some seniors may choose or need to remain in the work force.
- Enhance efforts to inform seniors and their families about existing services and

resources, through the use of various media including mailings, organizational newsletters, newspaper advertisements, and online notices.

- Provide intellectual opportunities for the aging population, keeping seniors involved in the community and avoiding isolation. Opportunities should be provided for seniors to explore creative endeavors such as music, art, and writing, and to participate in computer training classes and similar intellectual pursuits. The County and its municipalities should coordinate marketing efforts of existing senior programs.

#### **14.5 LAND USE AND ZONING**

Most of the land use decisions in Rockland are made by the towns and villages, and are not under the direct purview of the County. However, as discussed above, the County does have a role in reviewing site plans, subdivisions, variances, zone changes, zoning code amendments, special permits, and other local land use actions under Section 239 of the New York State General Municipal Law (GML). Rockland should take the lead on regional land use issues and on activities involving County-owned property, and encourage its municipalities to take appropriate local actions to address land use issues affecting their communities, while being cognizant of potential impacts on neighboring communities.

##### ***Land Use and Zoning Recommendations:***

- Encourage investment in the county's existing centers to help preserve the character of low-density, rural, and open space areas outside these centers. This will also promote the more efficient use of infrastructure, particularly water and sewer systems, and reduce traffic congestion and improve air quality. Centrality of development can be achieved through policy, planning, and zoning decisions made

by towns and villages, as well as by developers and individual property owners.

- Promote investment in centers by supporting a mix of uses including office, retail, and residential.
- Identify brownfields, greyfields, and Superfund sites for potential redevelopment and promote adaptive reuse of older buildings, to facilitate infill development in centers.
- Upgrade the infrastructure and amenities of Rockland's existing centers, including lighting, sidewalks, street furniture, bike lanes, shade trees, and utilities.
- Preserve existing commercially and industrially zoned areas to support the county's economic base and foster job growth. Work with the Rockland Economic Development Corporation (REDC), the Industrial Development Agency (IDA), and the Rockland Business Association (RBA) to identify candidate sites for attracting major commercial and industrial users; and encourage municipalities to maintain their non-residential development potential through appropriate land use regulations.
- Protect Rockland County's existing character and quality of life through the conservation of environmentally sensitive areas such as the Hudson River and the continued acquisition of open space, focusing primarily on contiguous park and open space areas.
- Promote conservation (cluster) subdivision design to help preserve valuable and sensitive open space and natural areas in residential developments. See Section 14.8, below.
- Support zoning that encourages affordable housing for Rockland's emergency-services volunteers and caregiver work force.

Encourage municipalities to craft zoning that permits affordable senior housing and multigenerational development. The Towns of Clarkstown and Orangetown are to be commended for their efforts in producing affordable senior housing by adopting senior housing floating zones. See 14.8 below.

- Create regular opportunities for intermunicipal communication and cooperation to ensure that land use, planning, and zoning policies among neighboring towns and villages are regionally minded and mutually beneficial.
- Coordinate and integrate transportation and land use planning on all scales by fostering collaboration among Rockland's municipalities and continued communication and cooperation with regional transit providers. Promote the wisdom of land use and transportation decisions that respond not only to existing conditions but also to future needs and demands of the county and its residents. Continue to advocate for the interests of its towns and villages and county residents in the planning and implementation of major regional transportation projects in the pipeline.

## 14.6 TRANSPORTATION

Rockland County should coordinate with its towns and villages, the State, and other transportation agencies to develop a balanced transportation system that uses a variety of modes operating in a complementary way to provide access to places of employment, residence, recreation, and commercial activity. The county's regional and local transportation system must be designed to reduce congestion; save energy; improve air quality and highway safety; strengthen existing commercial centers and corridors; and meet the needs of all

residents, including the transit-dependent and the disabled.

### ***Transportation Recommendations:***

- Work with state, regional, and federal officials to secure necessary financing for replacement of the Tappan Zee Bridge. The replacement bridge should be built bus rapid transit (BRT)-ready and designed for possible future commuter rail transit.
- Promote BRT and high-occupancy vehicle (HOV) lanes on the Tappan Zee Bridge/I-87/287 corridor. Ensure that any transit component of the corridor project fully addresses impacts to Rockland's community character.
- Expand and enhance the local and regional public transit bus network through innovative transportation planning strategies such as allowing buses to use shoulder lanes along major arterials and highways; converting abandoned rail rights-of-way to busways; and study the use of "clean air" hybrid buses on particular segments of the Palisades Interstate Parkway during peak travel times in conjunction with the future transit component in the Tappan Zee Bridge/I-287 corridor project.
- Actively promote available transit/carpool options for people living and working in Rockland County, including the reverse commute options.
- Continue ongoing efforts with New Jersey Transit and Metro-North to enhance service upgrades along the Pascack Valley and Port Jervis Rail Lines, whether or not the Access to the Region's Core (ARC) project moves forward.
- Support improvements to the arterial and collector roadway systems to help alleviate congestion and enhance safety. Roadway

improvements should also include prevention and repair of flooding and drainage systems, as well beautification projects, where feasible.

- Improve the pedestrian and bicycle circulation system by increasing connections between municipalities, and by using “complete street” design strategies to safely accommodate all users. For example, the new bicycle and pedestrian lanes on the proposed replacement Tappan Zee Bridge should be tied into existing pedestrian and bicycle trail networks in Rockland County, where possible. Such designs should promote the safety of all users, and the County and municipalities should encourage users to follow all appropriate traffic regulations to ensure safety.
- Encourage trucks to use limited-access highways that allow for commercial traffic and State arterials to help keep truck traffic from disturbing residential areas. This could be accomplished through a truck signage program and interagency cooperation.
- Encourage reuse of the county’s abandoned railways for pedestrian and bike ways, transit corridors, or some combination of such. Ensure that the possibility for future reuse of the West Shore Line for passenger rail is left open by avoiding development in its right-of-way.
- Support enhanced west-east ferry service on the Hudson River.
- Support ongoing initiatives aimed at expanding and enhancing mobility options for seniors.

## **14.7 NATURAL AND ENVIRONMENTAL RESOURCES**

Rockland must protect and enhance its significant environmental features, including floodplains and wetlands, water resources, steep slopes and significant ridgelines, soils, critical environmental areas, waterfront areas, and threatened and endangered species.

### ***Natural and Environmental Resources Recommendations:***

- Continue to protect the Hudson River as a critical regional resource, ensuring that development along its shoreline does not impair the river’s environmental and scenic quality, and that physical and visual access to the Hudson is maintained. Work with the Hudson River Estuary Program to develop a river stewardship ethic and identify and adopt strategies for protecting the river and all surface water resources.
- Work to establish Haverstraw Bay as an important estuary learning area, including an educational component to increase public awareness of the importance of the bay’s tidal marshlands as a unique habitat.
- Identify and develop actions plans for the woodland areas that are significant to the health of the headwaters of Rockland’s major rivers and streams.
- Implement a water quality notification program for the Hudson River (and potentially other surface water resources) so that the public is fully informed of all sewage discharge events. Explore providing regular water quality reports on Rockland’s rivers and streams, and distribute to municipalities for use in current and future planning and zoning decisions.
- Continue and expand volunteer community and nonprofit programs that assess the

health of Rockland's streams, such as the Volunteer Stream Monitoring Program.

- Promote water conservation through infrastructure repairs, water-efficient landscaping, education on wise water usage, reuse of greywater recycled wastewater, and other means. See **Chapter 12.0: Infrastructure** for discussion of water conservation.
- Assist in updating uniform, shared-language municipal stormwater regulations that look at both water quality and quantity.
- Consider mapping, for planning purposes, the point sources of large, medium, and regulated small municipal separate storm sewer systems who are required to obtain National Pollution Discharge Elimination System (NPDES) permits.
- Continue to improve road salt application techniques – as well as explore the use of alternative de-icing materials – to prevent groundwater pollution due to runoff from roadways.
- Adopt the Rockland Riverfront Communities Council's model Ridgeline Protection Ordinance for County-owned property and encourage municipalities to adopt it, together with viewshed protection, tree preservation, steep slopes, wetlands, and impervious surfaces regulations.
- Study current wellhead protection regulations to determine if they need strengthening. Create and enforce buffers around reservoirs and watershed lands that drain into drinking water sources. Explore forming aquifer recharge areas to prevent pollution and preserve water supply in these areas. Continue to strictly enforce the well testing law.
- Adopt and implement regulations governing development in County wellhead protection zones, and encourage the municipalities to adopt groundwater protection regulations.
- Research whether additional streams or water bodies should be included as regulated County streams. Encourage the municipalities to establish buffers along streams as appropriate, with the specific distance dictated by conditions on the ground and scientific study.
- Explore the creation of County Critical Environmental Areas (CEAs) to afford greater protection of key County resources, and encourage towns and villages to adopt their own CEAs.
- Continue to educate towns, villages, and the public about the risks to biodiversity from invasive species; hiking in non-designated areas; wildfires; and the use of fertilizers, pesticides, and herbicides. Encourage County staff members to participate in ongoing educational opportunities on natural and environmental resources, including key regional conferences and workshops.
- Continue steps to reduce air pollution under the New York Metropolitan Air Quality Initiative. Explore establishing a "Clean Air Toolbox" with general guidelines and strategies that municipalities can use to reduce air pollution at the local level.
- Evaluate the need for a Quiet Zone study on the Pascack Valley and Port Jervis/Main/Bergen rail lines.
- Continue to work with Rockland's Federal Congressional delegation and the Federal Aviation Administration (FAA) to ensure that mitigation measures on regional air traffic control initiatives will eliminate adverse impacts on Rockland residents.
- Encourage the Tappan Zee Bridge study team to include additional sound barrier

walls along the Thruway corridor, using appropriate sound-absorbing materials to reduce any noise reflection to uphill areas, as the right-of-way will be entirely used once the project construction is complete.

- Encourage the study of decking over highways to reduce noise and vibration pollution and to possibly capture and scrub vehicular emissions.
- Encourage municipalities to establish uniform codes to ensure consistency among noise mitigation guidelines, taking into consideration all facets of noise control.
- Develop guidelines for local lighting laws to address light pollution. Retrofit County facilities to have full cutoff lighting fixtures to reduce light pollution.
- Work with towns, villages, and private property owners to promote the reuse of abandoned quarries, brownfields, Superfund sites, or other underutilized areas for potential recreational or cultural use and for the creation of new habitats or other beneficial uses. Continue to work with the Environmental Protection Agency (EPA), the State DEC, and property owners, as appropriate, to eliminate threats to residents or wildlife from any known site contaminations.
- Continue climate change efforts through membership with New York State's Climate Smart Community program, a partnership program between the State and local governments that focuses on local actions that will lower operating costs, promote economic growth, improve operational efficiency, and upgrade infrastructure, while protecting the climate. Encourage municipalities to become Climate Smart Communities as well.
- Incorporate climate protection and sustainability into County economic

development plans, and encourage work-force training and public education for energy efficiency and renewable energy. Establish a set of specific climate change goals, with measurable outcomes and attainable milestones (**see Chapter 7.0: *Natural & Environmental Resources***).

- Coordinate the County's climate change and energy efficiency initiatives and develop specific short-term goals to address climate change. A structure will be established to provide centralized coordination and guidance among relevant departments as a means to implement these efforts.
- Develop model sustainability laws for use at the local level, provide technical assistance to municipalities in developing and implementing climate change goals, and create tax incentives for green building and conservation measures.
- Provide educational programs for homeowners and members of the development community to promote green building products and techniques, and consider making knowledge of sustainable development techniques a part of licensing requirements for contractors and other key members of the development community. Work with Cornell Cooperative Extension on an educational campaign for landowners and landscapers to discourage the use of pesticides and herbicides.
- Create an environmental task force including staff from County departments and other agencies as appropriate, as well as town and village appointees and volunteers from a range of sectors in the county, to act as an informational clearinghouse for regional environmental issues, to coordinate municipal environmental efforts, and to provide training programs on climate change initiatives.

- Encourage smart growth development and construction methods to enhance the existing environment.
- In the course of the County’s GML reviews and as allowed under the General Municipal Law, promote land use policies to reduce sprawl, minimize development in floodplains, and protect forests. This can be accomplished through such means as retaining existing mature trees, implementing appropriate new landscaping using native species, using permeable rather than impervious surfaces, and reducing the footprint of new structures if feasible.
- Use tools and techniques to reduce the amount of impervious surfaces in all future development of County-owned land, and use retrofit technology to limit impervious surfaces in existing County developments. Encourage municipalities to incorporate design standards into their codes that will promote the reduction of impervious surfaces.
- Continue the use of “green” building techniques for all new County buildings, retrofit existing buildings as practicable, and encourage the municipalities to do the same.
- Promote the protection of existing wetlands, potentially requiring creation of new wetlands when existing wetlands are to be filled. Promote the creation of new wetland areas in future developments where existing wetlands do not meet regulatory thresholds.
- Explore launching a suburban reforestation program to address the impact of climate change, reduce hot spots and improve aesthetics. Protect mature trees and prevent clear-cutting of large tracts through development of model tree regulation laws. Communicate and advocate with the Public

Service Commission (PSC) on improving utility tree cutting and removal.

- Continue to work with the towns and villages to address the issue of “creeping” realty subdivisions, or properties that have been subdivided multiple times in a way that avoids the required approval from the County Health Department.
- Promote efficient alternative transportation networks. For example, the County should capitalize on opportunities for the creation of trails along regulated streams, focusing first on the portions passing through parks and then later working with private property owners to secure access agreements elsewhere. Trail creation should ensure that sensitive environmental areas and habitats are preserved; trails should be of pervious (permeable) surface and should ideally (based on the County Official Map, Part III) have 100-foot buffers on either side of the trails, as topography and other ground conditions permit.
- Create efficient traffic routes and patterns and promote alternative forms of transportation (e.g. bus transit, walking, and biking) as part of a daily routine in order to have the greatest impact on reducing air pollution. See **Chapter 6.0**.

## **14.8 PARKS AND OPEN SPACE**

An extensive variety of public and private open space forms a comprehensive green network across Rockland County. Since the publication of the previous County comprehensive plan (not adopted) nearly 10 years ago, Rockland has increased significantly its total acreage of open space holdings. Over the next decade, the challenge lies in acquiring additional open space holdings, improving physical and/or visual access, maintaining the properties, identifying the proper use of these open spaces, and

pursuing funding for future acquisition and maintenance.

***Parks and Open Space Recommendations:***

- Work with the municipalities on creating accurate parkland and recreation inventories for use on County Official Maps and for County planning purposes.
- Focus future open space acquisition efforts on land adjacent to existing open spaces or able to be connected to existing trails and bikeways. Possible connection opportunities include roadway and waterway corridors or linear features such as abandoned railway rights-of-way. For example, the new bicycle and pedestrian lanes on the proposed replacement Tappan Zee Bridge should, where possible, be tied into existing pedestrian and bicycle trail networks in Rockland County.
- Explore opportunities to provide public access along streams, (as appropriate to preserve habitats and environmentally sensitive areas) particularly as they run through parks or through the use of parallel roadway rights-of-way, street ends, and space under highway and railroad bridges. In cooperation with the Palisades Interstate Park Commission and the New York State Department of Transportation, support the proposed creation of a bicycle/pedestrian path using the Parkway's right-of-way.
- Add existing trails to the County Official Map as recognition of their importance and validity. As additional trails are developed in the future, they would also be added to the map.
- Link open spaces together, whether through continuous trail systems, by acquiring adjacent lands that link two existing parks, or by providing an uninterrupted buffer along a stream or the

Hudson River. Linkages can be added through several means:

- Voluntary donation of land, often to a land trust that assumes stewardship of the property
- Purchase of land by a municipality; the County, State, or Federal government; or private land trust
- Granting or purchasing of easements, including scenic easements, allowing for access across land or restricting use of the land to open space.
- Protect against the loss of Rockland's remaining farmland and orchards, and support the development of small acreage community farms and farm operations.
- Explore public-private partnerships with land trusts or other nonprofit organizations to preserve private recreation facilities (e.g. golf courses, day camps) in the county.
- Collaborate with the towns and villages to ensure that development along the Hudson River shoreline does not impede waterfront access or views, and facilitates access by various potential users.
- Work to ensure an appropriate balance of active and passive recreation uses, seeking to meet residents' recreational needs while ensuring preservation of environmentally sensitive areas.
- Work cooperatively with the towns and villages and private land owners to preserve open space using conservation easements. Again, the focus of these efforts could be to promote the retention and creation of native vegetation and wildlife habitat on private property with the goal of increasing biodiversity and improving the overall health of the natural environment. Conservation easements can be used to help protect a range of open space

resources including agricultural land, scenic viewsheds, and “green cemeteries.”<sup>1</sup>

- Continue to pursue funding for proper stewardship of the County’s parkland and open space holdings through a variety of sources, including State funding and partnership with land trusts.
- Make use of State and Federal funding opportunities – such as the New York State Brownfield Opportunities Area program – to redevelop and reuse strategic areas for parks and open space.
- Support a regional strategy for preserving scenic, natural, historic, cultural, and recreational resources by establishing full participation in the Hudson River Valley Greenway Program. Continue efforts through the Greenway Land Trail Program to establish a regional system of trails that link these valuable resources. **See Chapter 8.0: Parks & Open Space**, and Section 14.1 above.
- Examine the feasibility of incorporating open space components in the I-287 Tappan Zee Corridor Project. The County supports exploration of construction of a “lid park” in South Nyack, which would connect existing trails, create new open space, and help to mitigate negative impacts from the new bridge construction.
- Continue efforts to address deer overpopulation through participation in the State’s deer management programs and advocating for Rockland’s needs.

## 14.9 HISTORIC AND CULTURAL RESOURCES

Rockland County is home to a rich variety of historic and cultural resources. Its location on the Hudson River; its Revolutionary-era history; its many performing and visual artists; and its strong arts, history, and cultural organizations can play a critical role in the economic growth of Rockland County. The task now is to coordinate and publicize these assets. The County should take the lead by encouraging the agencies charged with economic development and tourism to promote Rockland’s arts, history, and educational resources as key elements in attracting economic growth. The County and its municipalities should partner with certain groups on grants and other initiatives. The County can also provide technical assistance and guidance with relevance to historic designations, scenic byways, and similar planning issues.

### *Historic and Cultural Resources Recommendations:*

- Pursue a countywide marketing strategy to publicize Rockland’s arts, history, and cultural activities, building on the strength of the many destinations in Rockland, as well as elsewhere in the Hudson Valley. The County’s availability to visitors from New York City is an asset and can be described as “The Plum near the Big Apple.”
- Seek initial and ongoing funding to establish and operate visitor centers to provide stop-off facilities and information for visitors and residents.
- Provide assistance, including funding, to arts organizations which are enhancing opportunities for Rockland residents to participate in the arts, for the purposes of arts programming, inter-group cooperation, and maintenance and expansion.

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<sup>1</sup> Green cemeteries are an environmentally sustainable alternative to conventional cemeteries, whereby natural burial procedures are followed.

- Create a County Historic Roads program, and facilitate the creation and enhancement of trails to connect historic and cultural sites. Consider including lands abutting designated scenic byways or historic roads in the County’s open space acquisition plans.
- Pursue the nomination of additional roads to the State Scenic Byways program, helping to coordinate development of corridor management plans.
- Support the creation of weekend ferry service to connect visitors from New York City to Rockland County and explore other ways to increase public transportation access to cultural resources.
- Conduct a countywide wayfinding and signage study to create uniform signage indicating distances between communities and directing visitors to major shopping; river villages; historic sites; arts and cultural attractions; and food, lodging, and traveler services.
- Continue to educate municipalities on the model CLG local law developed by the State Historic Preservation Office (SHPO) for the historic preservation of sites, districts, and roads.
- Support towns and villages in researching and nominating structures, sites, and districts eligible for listing on the National and State Registers. Pursue the listing of eligible County-owned properties as well.
- Work with the Hudson River Valley National Heritage Area to designate additional sites as Heritage Sites and include them on future thematic trails.
- Promote beneficial adaptive reuses of historic structures, and work with municipalities to ensure that these uses (e.g. inns and bed and breakfasts) are

permitted and promoted in appropriate areas.

## **14.10 HOUSING**

Housing is a matter of regional interest to Rockland because the condition, variety of housing types, and range of affordability relate directly to county’s ability to retain and attract both jobs and people. Despite the recent recession and the resulting decrease in housing values and corresponding low level of interest rates, decent, affordable housing in Rockland is still out of reach for many. This is especially true for low- and mid-level employees, the elderly on fixed incomes, young households, emergency-service volunteers (fire and ambulance), caregiver work force (nursing, psychiatric and home health aides), and others who cannot afford the most readily available types of housing. The challenge for Rockland lies in preserving its existing predominant single-family, owner-occupied housing character while encouraging new housing opportunities for all ages and income groups. Other challenges include balancing preservation of open space and natural environments with new residential developments, protecting against the construction of out-of-scale housing, and coordinating residential land use patterns with ongoing transportation initiatives.

### ***Housing Recommendations:***

- Protect Rockland’s sensitive and valuable open space resources and natural environments by encouraging conservation (cluster) subdivision design in residential housing developments.
- Encourage context-sensitive townhouse and multifamily development where appropriate. Optimal locations could include siting these developments in or near existing centers and near mass transit.

- Provide a range of affordable housing for the county’s emergency-service volunteers and caregiver work force by encouraging “set-asides” in multifamily developments. For example, in an 80/20 set-aside, the developer would receive tax incentives for allocating 20% of units to the caregiver work force or emergency-service volunteers.
- Encourage a range of affordable housing options for the county’s young adult and senior populations. Diverse housing options can include mixed-use developments with commercial uses on the first floor and residential units on second and upper floors. It can also include accessory apartments, in-law suites attached to existing homes, smaller lots, townhouses, and housing cooperatives for young families and seniors.
- Co-locate senior housing with local shopping centers, community facilities, and recreational areas.
- Integrate housing and social services for groups with special needs, such as the elderly, homeless persons, and people with physical or mental disabilities. Facilitate the development of appropriate housing types for these populations, such as group homes and assisted-living facilities.
- Strengthen existing and cultivate new partnerships with nonprofit organizations that are dedicated to improving housing opportunities for Rockland’s low- to moderate-income populations.
- Continue efforts to seek federal and state grants to provide affordable housing and improve the quality of life for low and moderate income residents of Rockland.
- Discourage out-of-scale residential development patterns.

## 14.11 ECONOMIC DEVELOPMENT

Rockland should strive to strengthen the economic base to preserve the county as a desirable place to live, work, and raise a family. Reflecting its inherent resources, evolving trends and competitive advantages, Rockland County’s economic development plan should reinforce its strengths; address its weaknesses; and engage residents, businesses, institutions, and local governments in efforts to attract and retain the economic activities that will enhance overall well-being.

### *Economic Development Recommendations:*

- Support the efforts of the Rockland Economic Development Corporation (REDC) and Rockland Industrial Development Agency (IDA).
- Prepare a comprehensive economic development strategy prioritizing sector and geographic goals and coordinating activities among municipalities. This strategy should also include guidelines for making sites shovel-ready, attaining incentive and public financing, and preparing cost-benefit and market analyses, as well as a marketing strategy. The primary goal of any economic development strategy should be job retention and creation.
- Craft an economic development plan that focuses on strengthening three discrete sectors: 1) biomedical, 2) front offices and professional services, and 3) tourism, including arts and cultural opportunities. Support opportunities for data centers.
- Support on all levels the existing certified businesses in the Rockland’s Empire Zones and its successor program, the Excelsior program.
- Create a process to identify vacant or potentially redevelopable sites that are

deemed to be suitable for economic development from a zoning, terrain, size, and locational perspective. The focus should be on redeveloping abandoned or underutilized sites before developing vacant land. With input from the REDC on marketing potential, a number of sites should be made “shovel-ready.”

- Encourage municipalities to create local economic development offices and formulate strategic plans. Work with towns and villages to foster more cross-jurisdictional economic development initiatives.
- Expand job skill training programs based on current jobs and future potential jobs, determined by any recognized gap in skill levels.
- Provide job opportunities for high school and college graduates. Increase collaboration with high school and college curriculum planners to match educational programming with employer needs.
- Initiate a program that addresses the impact of housing and transportation costs on labor force availability. The lack of affordable work-force housing and accessible public transportation inhibits Rockland’s ability to retain and attract a broadly based work force, including its young adults.
- Attract venture capital resources to support research and development, particularly in the biomedical field.
- Collaborate with institutions of higher learning, hospitals, and other institutions to create programs aimed at nurturing the development of executive skills in existing and emerging businesses, and improve outreach efforts that support entrepreneurship.

- Reinforce existing centers by encouraging mixed-use and/or multifamily development, to help foster job creation and support public transit systems.
- Foster “green job” growth in Rockland, particularly in the construction sector, i.e. retrofitting existing structures – solar panels, geothermal heating, and other energy saving devices.

#### **14.12 INFRASTRUCTURE**

Infrastructure – the roads and bridges, water and sewer systems, electric and telecommunication lines, and other community systems that form the underpinnings of Rockland’s development – is one area of planning where the county’s towns and villages are closely linked and share common concerns. The County therefore should take a leadership role in maintaining and, where necessary, improving its infrastructure system to preserve the quality of life and commerce within Rockland.

##### ***Infrastructure Recommendations:***

- Further develop a comprehensive Rockland County water policy, including specific objectives and recommendations, and measures for outreach and education for municipalities, residents, and businesses.
- Investigate potential additional water sources within the county, as recommended by the final USGS study.
- Develop a plan to address potential water supply shortfalls, including possible changes to current codes to address emergency conditions and a study of their potential impact on development and the county’s economic base.

- Promote water conservation through county regulations and public education, and adopt planning guidelines that require more water conservation. Coordinate with leading water experts on potential tools for conservation.
- Employ green development and infrastructure practices by use of “green” building techniques for all new County buildings. Retrofit existing buildings as practicable.
- Use planning techniques for green infrastructure and stormwater management, as provided by the New York State Department of Environmental Conservation (DEC).
- Explore adopting and implementing regulations governing development along stream corridors that lead to public water supplies.
- Work with towns and villages and the owners and operators of sewer systems to continue to identify system or capacity constraints that could impact development and impair economic development initiatives.
- Work with the owners and operators of the sewer systems to continue implementing projects that can reduce inflow and infiltration into the sanitary sewer collection systems.
- Work with the owners and operators of the sewer systems to repair and upgrade sewer systems to eliminate untreated sewer discharges to rivers and streams. Investigate implementing a testing program to monitor water quality and to notify the public if unsafe conditions occur.
- Using County or municipal GIS systems, consider developing an inventory of gas and electric transmission rights-of-way and

utility easements to assist towns and villages in planning and review of development adjacent to these facilities.

- Take the lead in encouraging communication and coordination between utility and highway companies, and in developing a “master schedule” for the permitting and notification process on major projects.
- Encourage use of renewable resources and continue to promote recycling and waste reduction policies.
- In partnership with the municipalities, develop a countywide regional plan for potential wireless telecommunication facility locations on public property.
- Encourage improvements and upgrades to existing infrastructure to facilitate economic development initiatives.

#### **14.13 SERVICES AND INFORMATION RESOURCES**

County facilities, services, and information resources involve a broad range of functions that serve the general public or provide for their specific needs. Rockland’s ability to provide community services in a thorough and efficient manner is critical to the quality of life for its residents.

##### ***Services and Information Resources Recommendations:***

- Promote greater cooperation between Rockland’s nonprofit agencies and governmental social service departments (Federal, State, and County).
- Expand housing opportunities for Rockland’s caregiver work force and emergency-service volunteers. See Section 14.11 above and **Chapter 10.0: Housing**.

- Identify opportunities to co-locate Rockland’s health and social service centers. Space consolidation and/or reconfiguration should also take into consideration proximity to village and hamlet centers, public transportation, and important institutional partners such as hospitals.
- Integrate housing and social services for groups with special needs, such as the elderly, homeless persons, and people with physical or mental disabilities.
- Work with towns and villages to ensure that all public accommodations and commercial facilities are in compliance with ADA standards for accessible design.
- Promote walkability and sustainability at the Robert L. Yeager Health Center through the installation of sidewalks and improved signage. Explore retrofitting the facilities with green technology; pursue National Register listing of eligible buildings at the complex; and facilitate additional uses, such as dining, convenience retail, a farmer’s market, and a community garden.
- Provide supported housing for mentally disabled and intellectually challenged, allowing these individuals to become better integrated into the community.
- Seek institutional and corporate partners to reinforce and revitalize centers. Work with the municipalities, especially those with existing centers, to develop housing and amenities necessary to attract the work force that Rockland’s major institutions and corporations need.
- Ensure that education and community facilities are adequate to serve the projected population.
- Continue to support, promote and enhance e-governance at the County and municipal level. Ensure that the technological

infrastructure is present to support the advancement of e-governance.

#### **14.14 IMPLEMENTATION**

The Rockland County Comprehensive Plan is composed of a number of elements that together form a guidepost to future conservation and development decisions in the county. For the Plan’s recommendations to become effective, they should be properly implemented.

There are at least seven methods that Rockland County can follow to ensure that this Plan, through its recommended actions, is implemented:

- 1. Adoption of Comprehensive Plan:** The Rockland County Comprehensive Plan intends to serve as both a “snapshot” of Rockland today, and a guide for its growth, development and conservation for the next 10 years. A necessary first step in putting the Plan to work for Rockland is its adoption by the Rockland County Legislature. As stated in Section 239-d of the New York State General Municipal Law (GML), an adopted comprehensive plan mandates that (1) all County land acquisitions and public improvements are in accordance with the comprehensive plan, and (2) all municipal or State capital project plans take into consideration the County’s concerns when such projects take place on land included in the plan. With an adopted comprehensive plan, the County’s position is in effect and on record and must be taken into consideration (see, also, #5: Continuing Planning, below).
- 2. Capital Programming:** A comprehensive plan should link its vision and strategies to implement that vision with capital investment. How Rockland spends public revenue for public improvements – on water and sewer utilities, road construction,

a new senior center, a new government building or new or renovated parks and recreational facilities – and the standards to which they are built have a major effect on the County’s image and function. Once the Comprehensive Plan is adopted, Rockland should evaluate and choose capital projects based on Plan recommendations.

3. **County Official Map:** The Rockland County official map shows the location and width of both existing and proposed roadways, streams and parks. Its primary purpose is to guide the planning and development of the County’s roads and sites for public development. When a County legislative body adopts an official map, the map becomes “final and conclusive with respect to the location, width and dimensions of all rights-of-way and sites shown thereon.” It serves as an addition to, or amendment of, an official town or village map, and as the official map for municipalities without one.

Rockland has three components of the official map:

- County Roads
- County Streams
- Greenways, Parks, County Facilities

The County will pursue updates and subsequent adoption of these three components of the official map as an implementation tool to this Plan.

4. **Model Codes & Guidelines:** The Comprehensive Plan makes clear distinguishments between the County’s recommendations regarding growth, development and preservation, and the power of towns and villages to undertake their own planning projects and enact municipal land use and zoning controls. In fact, some of Rockland’s municipalities have undertaken unique approaches to planning and crafted innovative regulations. For example, when Clarkstown prepared its comprehensive plan, instead of following

the traditional centralized planning process – wherein one committee oversees all elements of the plan – the town created several subcommittees that worked with individual subconsultants to produce specific elements of the plan (e.g. housing, economic development, transportation). When the plan was complete, the specialized subcommittees became responsible for implementing the respective goals and recommendations, thereby ensuring active and ongoing use of the plan itself.

This Plan has made an effort to recognize local planning approaches that reflect the vision of the County and thus could serve as a model for Rockland as a whole. The County should continue to support towns and villages that (1) demonstrate innovative and regionally-minded approaches to planning, and (2) foster intermunicipal cooperation and collaboration during their local planning and policymaking actions.

5. **Continued Planning:** The key component to continuing planning is the County government’s sustained work with regional agencies, authorities and municipalities on issues that are of countywide significance. As these entities plan, the County makes clear its concerns and preferences. Under New York State Law, certain local planning and zoning actions must be referred to the County for review before the municipality takes final action on the proposal. The so-called “239-m Review” (Section 239-m of the GML) mandates that County concerns are considered in the local planning process. With an adopted comprehensive plan, Rockland’s position is in effect and on record and must be taken into consideration.

The County also should continue to capitalize on technological innovations within the planning profession to enhance collaboration with its municipalities. For

example, this Plan has employed a cutting-edge computer modeling software application known as *CommunityViz* to perform hypothetical 3-D build-out analyses used to communicate about important community geographic decisions. Beyond mere textual description and analysis, this tool allows Rockland residents to see their land “as it is and as it could be” by viewing animations such as virtual walk-throughs and fly-overs.

6. **Periodic Review:** The state of our built and natural environment is not, by nature, a static force, and neither should comprehensive plans. Investment in the comprehensive planning process should produce an effective tool that both reflects existing conditions and adapts to changing

ones. It is recommended that the issues raised and recommendations offered in this Plan be officially updated every 10 years. This will ensure that the Plan remains a relevant and useful instrument, and serves that for which it is intended: to guide growth, development and conservation; anticipate currents of change and respond accordingly; and chart a course toward a healthy, sustainable and prosperous environment for all.

7. **Ongoing Training:** The County should promote the continuing education and training of its staff by encouraging them to attend regional conferences and workshops so that they can stay updated on revisions to pertinent laws, new technologies and best practices, and other relevant changes in their fields.



## Index

- A**
- Access to the Region's Core (ARC) 13, 16, 71, 90, 92, 97, 98, 248, 313, 329, 332
- Access management 99, 100
- Adult homes (see Housing)
- Affordability (see Housing)
- Aging 1, 4, 22, 31, 33, 33, 44, 45, 47, 48, 50, 71, 104, 219, 220, 225, 226, 315, 330, 329, 330, 331
- Agriculture 12, 51, 54, 62, 115, 127, 134, 136, 137, 147, 152, 153, 159, 163, 164, 173, 189, 190, 225, 231, 234, 241, 253, 315, 319, 338
- Apartments (see Housing)
- Aquifers
- Newark Basin Aquifer 111, 116, 262, 263, 266, 272, 273
- Ramapo-Mahwah Aquifer 60, 109, 262
- Arts 45, 50, 55, 167, 173, 175, 177, 186, 187, 188, 189, 191, 192, 229, 230, 231, 235, 240, 241, 258, 283, 306, 331, 338, 339, 340
- Assisted living (see Housing)
- B**
- Biking, bicycles 4, 58, 67, 71, 81, 95, 98, 101, 102, 103, 128, 131, 135, 145, 147, 148, 150, 151, 152, 158, 162, 163, 165, 328, 331, 333, 336, 337
- Biodiversity 7, 134, 135, 136, 140, 147, 164, 260, 334, 337
- Biomedical 233, 235, 237, 238, 243, 255, 256, 257, 259, 324, 340, 341
- Broadband 319, 325
- Brownfields 66, 67, 133, 137, 142, 147, 158, 165, 331, 335, 338
- Building permits 68, 214, 215, 223, 325
- Build-out 65, 107, 108, 345
- Buses (see Transit)
- C**
- Caregivers 4, 35, 45, 47, 68, 225, 259, 313, 321, 331, 339, 340, 342
- Carpooling 81, 95, 137, 142, 242, 332
- Centers (hamlet, village) 1, 2, 3, 7, 13, 14, 15, 21, 44, 45, 48, 49, 50, 51, 52, 55, 56, 57, 58, 59, 60, 66, 67, 81, 82, 95, 102, 104, 112, 139, 141, 144, 147, 150, 153, 159, 168, 173, 175, 177, 178, 179, 186, 187, 188, 189, 190, 191, 192, 193, 198, 226, 250, 251, 255, 257, 258, 259, 283, 288, 296, 299, 300, 301, 304, 306, 309, 310, 312, 313, 314, 315, 316, 320, 322, 323, 324, 327, 328, 330, 343, 344
- Centenary 174, 185, 188
- Children 12, 23, 23, 24, 25, 29, 35, 37, 38, 40, 41, 50, 66, 67, 68, 167, 175, 188, 189, 219, 220, 225, 303, 310, 312, 313, 314, 315, 317, 318, 319, 320, 321, 328
- Clean air 1, 131, 332
- Climate Action Plan 142, 143, 144
- Climate change 3, 105, 111, 112, 123, 131, 137, 138, 141, 142, 143, 144, 274, 335, 336
- Cluster development, conservation subdivision 2, 3, 14, 59, 60, 68, 156, 158, 198, 223, 224, 233, 235, 237, 238, 243, 256, 259, 327, 328, 331, 339
- Colleges, universities 25, 26, 29, 30, 45, 46, 50, 59, 60, 104, 116, 119, 128, 129, 133, 138, 147, 158, 168, 173, 177, 189, 207, 208, 209, 219, 248, 250, 252, 253, 257, 258, 259, 261, 263, 269, 274, 279, 283, 285, 287, 289, 291, 296, 306, 307, 309, 317, 318, 320, 323, 328, 330, 331, 332, 333, 340, 341, 343
- Commercial uses 2, 3, 4, 7, 14, 32, 51, 52, 54, 55, 57, 58, 59, 60, 61, 66, 67, 83, 95, 98, 102, 103, 323
- Commutation 19, 81, 96, 239, 242, 252
- Condominiums (see Housing)
- Congestion (traffic) 2, 13, 16, 66, 98, 252
- Conservation 1, 2, 3, 5, 12, 15, 62, 66, 68, 105, 111, 115, 116, 118, 119, 125, 127, 134, 135, 136, 139, 143, 147, 148, 156, 158, 161, 164, 179, 223, 261, 269, 275, 290, 291, 327, 328, 331, 334, 335, 337, 339, 342, 343, 345
- Cooperatives, co-ops (see Housing)
- Counties
- Bergen 7, 16, 17, 19, 79, 82, 83, 95, 98, 107, 141, 204, 221, 242, 250, 318, 329, 334
- Essex 8, 250
- Hudson 8, 266, 271, 274, 278, 279, 285, 310, 313
- Morris 8, 253
- Orange 7, 8, 10, 13, 16, 17, 19, 61, 79, 82, 95, 98, 105, 152, 177, 182, 191, 204, 230,

231, 232, 233, 235, 238, 242, 248, 263, 283,  
287, 300, 306, 318  
Putnam 7, 8, 95, 105, 130, 177, 232, 253,  
318  
Westchester 7, 8, 12, 13, 15, 16, 18, 19, 74,  
82, 95, 96, 97, 98, 105, 107, 111, 130, 133,  
137, 152, 177, 204, 221, 229, 230, 231, 232,  
233, 235, 238, 242, 250, 252, 253, 255, 312,  
315, 318  
Critical environmental areas (CEA) 1, 105, 127,  
140, 333  
Culture, cultural resources 156, 159, 167, 186,  
187, 190, 191, 257, 259, 295, 338, 339

**D**

Demographics 1, 19, 29, 30, 31, 33, 46, 195,  
207, 208, 209, 219, 226, 251, 269, 295, 309,  
321, 324, 330  
Ethnicity 20, 21, 23, 31, 33, 34, 179, 309, 313  
Gender, sex 23, 33, 34  
Race 20, 33, 34  
Desalination (for water supply) 61, 116, 271,  
272, 274, 291  
Development 1, 2, 3, 5, 7, 10, 11, 12, 14, 15, 17,  
21, 32, 46, 48, 50, 51, 52, 55, 57, 59, 60, 61,  
62, 63, 66, 67, 68, 82, 95, 103, 105, 107, 111,  
112, 115, 117, 118, 125, 127, 128, 132, 135,  
137, 138, 140, 141, 142, 143, 144, 145, 152,  
153, 156, 158, 159, 160, 162, 163, 164, 173,  
174, 180, 185, 186, 190, 191, 192, 193, 196,  
198, 205, 208, 213, 216, 217, 222, 223, 225,  
226, 227, 228, 229, 233, 238, 239, 243, 250,  
252, 253, 255, 256, 257, 258, 259, 260, 272,  
273, 274, 275, 276, 280, 281, 288, 289, 290,  
291, 292, 293, 295, 296, 306, 320, 321, 322,  
324, 325, 327, 328, 330, 331, 332, 333, 334,  
335, 336, 337, 339, 340, 341, 342, 343, 344,  
345  
Disabilities 20, 26, 40, 41, 58, 74, 79, 141, 198,  
222, 226, 248, 312, 314, 316, 317, 322, 323,  
324, 332, 340, 343  
Dr. Robert Yeager Health Center 30, 60, 130,  
193, 296, 312, 313, 314, 316, 323, 324, 343  
Drainage 51, 58, 66, 107, 121, 118, 119, 133,  
139, 263, 266, 273, 289, 290, 296, 333  
Drinking water 112, 115, 144, 262, 271, 334  
Drought 266, 267, 268, 271, 274, 275, 315  
Dutch Garden 55, 150, 170, 168, 186, 187

**E**

Earnings, income, wages 35, 38, 39, 57, 186,  
202, 204, 205, 206, 209, 211, 214, 216, 217,  
221, 225, 227, 229, 230, 231, 232, 233, 237,  
239, 240, 243, 252, 253, 257, 258, 295, 296,  
299, 313, 314, 321, 339, 340  
Economic development 1, 14, 16, 20, 31, 32,  
58, 62, 68, 142, 159, 168, 179, 190, 193, 219,  
229, 233, 238, 239, 240, 243, 252, 253, 255,  
256, 257, 258, 259, 260, 288, 289, 293, 324,  
328, 329, 335, 338, 340, 341, 342, 344  
Cluster analysis 233  
Location quotient analysis 233, 238  
Planning 257, 258, 259, 260  
Shift-share analysis 233, 235, 238, 239  
Education 25, 26, 29, 31, 32, 45, 47, 83, 88, 103,  
112, 117, 118, 123, 128, 137, 140, 142, 143,  
153, 159, 167, 173, 177, 183, 186, 188, 189,  
190, 229, 235, 236, 238, 239, 240, 259, 275,  
283, 291, 295, 300, 303, 304, 306, 315, 316,  
320, 324, 330, 334, 335, 341, 342, 343, 345  
Elderly 1, 20, 29, 30, 31, 32, 33, 35, 38, 39, 40,  
48, 49, 57, 103, 104  
Emergency Services  
Fire protection 269, 274, 300, 301, 302  
Police 104, 225, 290, 299, 300, 301, 318  
Volunteer population 4, 49, 50, 68, 111, 116,  
139, 144, 167, 174, 178, 185, 187, 192, 198,  
225, 256, 300, 301, 303, 306, 315, 318, 321,  
331, 333, 334, 335, 339, 340, 342  
Empire Zone Program 240, 250, 253, 254, 255,  
256, 257, 258, 288, 340  
Employment 3, 4, 29, 31, 32, 47, 50, 55, 82,  
97, 102, 137, 138, 219, 225, 229, 230, 231,  
232, 233, 235, 237, 238, 239, 240, 241, 243,  
244, 245, 246, 247, 248, 249, 253, 255, 256,  
257, 258, 259, 260, 314, 315, 317, 321, 323,  
330, 332  
Forecasts 232  
Endangered species (see Threatened and  
endangered species, habitats)  
Energy 1, 5, 32, 47, 125, 131, 132, 137, 138, 142,  
143, 219, 260, 283, 287, 288, 289, 301, 314,  
315, 323, 329, 332, 335, 341  
Electricity 137, 142, 287, 288  
Geothermal 260, 341  
Solar 137, 145, 260, 323, 341

Wind 129, 137, 323  
Estuaries 111, 112, 123, 134, 135, 136, 138, 139,  
153, 279, 333

Excelsior program 253, 258, 340

## F

Families 2, 20, 24, 25, 32, 36, 37, 43, 44, 48, 50,  
52, 54, 57, 58, 59, 67, 68, 128, 178, 189, 196,  
204, 207, 208, 209, 213, 214, 215, 216, 219,  
221, 222, 223, 225, 227, 228, 234, 240, 299,  
312, 313, 314, 315, 313, 317, 318, 319, 320,  
321, 324, 328, 329, 330, 339, 340

Farms 1, 2, 5, 15, 125, 147, 152, 153, 154, 156,  
157, 158, 163, 169, 174, 189, 285, 328, 337

Ferry service (see Transit)

Floodplains 62, 63, 105, 112, 115, 121, 122,  
142, 291, 333, 336

Freight 10, 60, 79, 83, 84, 85, 90, 102, 103

Foreign-born, immigrants 20, 21, 22, 23, 29, 295,  
309, 320

## G

General Municipal Law (GML) 14, 51, 62, 66,  
135, 142, 144, 156, 173, 185, 331, 336, 343,  
344

Geographic Information Systems (GIS) 54, 81,  
292, 320, 325, 342

Government, governance 1, 14, 32, 33, 49, 50,  
55, 62, 63, 117, 121, 127, 129, 130, 137, 142,  
143, 156, 159, 161, 167, 173, 174, 175, 180,  
185, 187, 229, 231, 232, 234, 240, 243, 248,  
256, 257, 290, 295, 296, 299, 301, 314, 315,  
318, 320, 325, 327, 330, 335, 337, 340, 343,  
344

Green programs/policies 3, 17, 51, 118, 137,  
142, 143, 144, 145, 164, 165, 193, 260, 290,  
291, 303, 323, 335, 336, 338, 341, 342, 343

Green development 342

Green jobs 260, 341

Green technology 119, 343

Greenways 7, 15, 16, 17, 95, 128, 152, 159,  
160, 161, 163, 165, 180, 182, 185, 190, 191,  
329, 338, 344

Greenway Compact Plan/Program 16, 17, 159,  
161, 165, 190, 329, 338

Greyfields 66, 67, 137, 331

Groundwater 109, 110, 115, 116, 119, 123, 138,  
139, 165, 261, 262, 263, 266, 268, 270, 271,  
272, 273, 274, 275, 291, 334

Group homes, quarters (see Housing)

## H

Habitats 102, 111, 112, 115, 123, 127, 133, 134,  
135, 136, 139, 141, 145, 147, 150, 153, 158,  
162, 163, 164, 166, 179, 291, 333, 335, 336,  
337

Hamlets

Bardonia 55, 303

Blauvelt 55, 58, 148, 168, 169, 177, 180, 183,  
189, 248

Central Nyack 55

Congers 55, 175, 189, 248, 255, 303, 313

Garnerville 12, 188, 189, 191, 248

Grassy Point 61

Hillcrest 202

Monsey 21, 60, 74, 78, 202, 243, 248, 250,  
251, 252, 263, 313, 314, 322

Mount Ivy 58, 60, 103, 150, 300

Nanuet 55, 57, 79, 189, 243, 248, 250, 251,  
252, 303, 304, 306

New City 18, 55, 148, 169, 170, 177, 178, 179,  
187, 189, 243, 248, 250, 296, 299, 313, 314

Orangeburg 58, 175, 178, 187, 189, 243, 248,  
250, 281, 296, 306, 312

Palisades 58, 127, 169, 170, 171, 174, 176,  
185, 248, 306, 308

Pearl River 12, 58, 59, 79, 82, 169, 170, 178,  
185, 243, 248, 250, 251, 252, 287, 304, 306

Rockland Lake 55

Sparkill 58, 112, 127, 129, 169, 170, 189

Tappan 58, 168, 169, 170, 171, 174, 179,  
185, 189, 308

Thiells 248, 300

Tomkins Cove 61, 177

Upper Grandview 127, 278

Valley Cottage 55

Viola 182

West Nyack 55, 121, 133, 169, 170, 174, 178,  
188, 243, 248, 250, 251, 252

Handicapped 148, 222, 226, 315

Hazardous wastes 109, 282, 286

Haverstraw Water Supply Project 267, 268,  
269, 271

Health care 31, 32, 39, 45, 234, 295, 314

High Occupancy Toll lane (HOT) 15, 96, 97, 145,  
273, 336

High Occupancy Vehicle lane (HOV) 15, 96, 97, 332

Higher education 25, 32, 306, 325

Hiking 51, 112, 128, 135, 140, 147, 148, 150, 151, 152, 153, 162, 179, 334

Historic resources 4, 5, 7, 15, 16, 17, 19, 55, 58, 60, 61, 62, 66, 67, 99, 123, 127, 128, 147, 148, 150, 156, 158, 159, 161, 163, 167, 168, 169, 170, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 185, 186, 189, 190, 191, 192, 193, 226, 252, 257, 258, 259, 300, 309, 323, 328, 329, 338, 339

Historical markers 175, 183, 184

Historic and scenic roads (local) 174, 181, 182, 193, 339

Historic designation (local) 174, 338

Historic districts 62, 128, 168, 171, 174, 176, 179, 185, 191, 226

Historic places 17, 167, 168, 169, 170, 171, 172, 173, 178, 186, 190, 309, 323

Historic Preservation Organizations (local) 175

Historic sites 61, 159, 161, 169, 170, 172, 173, 174, 175, 176, 178, 185, 192, 339

Historic sites and structures survey 185

Home Rule 1, 3, 156, 159, 174, 175

Homeless population 222, 304, 318, 322, 340, 343

Households 20, 24, 25, 27, 35, 36, 37, 38, 39, 43, 44, 57, 63, 74, 81, 195, 202, 204, 205, 206, 207, 208, 209, 210, 211, 215, 216, 217, 218, 219, 220, 221, 225, 228, 282, 283, 286, 295, 320, 321, 324, 339

Age of head of household 205, 207

Projections 202, 209

Size 24, 63, 207, 209, 216

Housing

Adult homes 198, 200, 221, 226, 314, 317, 324

Affordability 2, 4, 23, 31, 32, 44, 45, 47, 48, 49, 57, 62, 68, 128, 133, 188, 193, 198, 201, 205, 215, 216, 217, 219, 220, 221, 222, 225, 226, 227, 239, 259, 260, 321, 327, 330, 331, 339, 340, 341

Apartments 32, 43, 47, 48, 196, 197, 198, 208, 217, 219, 220, 221, 227, 267, 282, 340

Assisted living 32, 44, 200, 226

Condominiums, cooperatives 43, 48, 195, 196, 197, 198, 215, 216, 282

Costs 31, 205, 206, 215, 216, 217, 220, 221, 222

Group homes, quarters 35, 220, 340

Mobile homes 196, 197, 198, 267

Multifamily homes 196

Nursing homes 35, 38, 44, 45, 48, 198, 200, 220, 226, 313

Overcrowding 202, 217

Owner occupied 44, 58, 67, 109, 115, 121, 128, 134, 139, 141, 142, 145, 158, 164, 168, 169, 174, 193, 196, 202, 205, 206, 208, 209, 213, 215, 216, 217, 218, 219, 221, 227, 278, 279, 292, 331, 335, 336, 337, 339, 342

Projections (households) 207, 208, 210, 211

Projections (units) 208, 209

Public assistance 196, 200

Renter occupied 109, 196, 202, 205, 206, 208, 209, 215, 216, 217, 218, 219, 221

Senior housing 44, 45, 48, 52, 57, 62, 198, 199, 221, 225, 226, 227, 330, 332, 340

Single-family homes 47, 48, 68, 196, 208, 212, 214, 215, 216, 219, 223

Structure type 43, 198, 202, 208

Tenants 222

Tenure 196, 202, 205, 208, 209, 216, 217, 218

Value 32, 44, 98, 111, 128, 134, 167, 182, 186, 192, 204, 215, 216, 221, 227, 253, 257, 287

Hudson Highlands 7, 10, 159, 177, 183, 262, 266, 273

Hudson Valley 7, 13, 15, 16, 45, 83, 104, 177, 186, 191, 232, 233, 234, 235, 237, 239, 248, 256, 258, 259, 310, 329, 338

Hunting 166, 231, 241

Hybrid vehicles 74, 98, 99, 131, 137, 142, 332

Hydrology 107, 112, 125, 126, 134, 179, 266, 273

I

Impervious surface 68, 115, 117, 119, 120, 125, 134, 140, 144, 164, 223, 228, 266, 273, 291, 334, 336

Industrial uses 3, 12, 14, 51, 52, 54, 55, 57, 61, 67, 83, 102, 115, 116, 117, 128, 129, 133, 141, 147, 158, 164, 189, 229, 235, 237, 239,

240, 243, 248, 252, 253, 257, 261, 263, 273,  
276, 287, 288, 289, 291, 301, 328, 331, 340  
Industry 12, 42, 51, 58, 83, 153, 175, 186, 188,  
193, 225, 229, 231, 232, 233, 234, 235, 237,  
238, 241, 253, 255, 256, 259, 280, 288, 321,  
324  
Industrial Development Agency (IDA) 67, 253,  
255, 257, 258, 331, 340  
Infiltration (of water) 125, 261, 263, 266, 273,  
274, 280, 281, 292, 342  
Insurance 39, 47, 121, 125, 231, 235, 241, 250,  
255, 269, 274, 296, 312  
Intelligent Transportation System (ITS) 81, 97, 98  
Intergenerational (housing) 48, 221, 330  
**J**  
Jobs 1, 2, 3, 14, 25, 31, 32, 47, 50, 61, 67, 82,  
86, 96, 186, 225, 229, 230, 231, 232, 233,  
235, 238, 239, 240, 241, 243, 252, 253, 255,  
256, 257, 258, 259, 260, 288, 295, 296, 321,  
327, 328, 330, 331, 339, 340, 341  
**L**  
Labor, labor force 23, 29, 30, 31, 32, 42, 47, 50,  
192, 205, 214, 219, 229, 230, 231, 232, 233,  
235, 237, 238, 239, 240, 241, 242, 252, 253,  
259, 341  
Lakes 10, 54, 55, 105, 109, 112, 115, 121, 123,  
135, 136, 147, 148, 177, 161, 180, 261, 262,  
266, 270, 271, 274, 279  
Congers Lake 55  
Lake DeForest 54, 55, 262, 266, 270, 271,  
274  
Lake Lucille 55  
Rockland Lake 12, 55, 175, 177  
Swartout Lake 55  
Landmarks 51, 128, 167, 169, 170, 174  
Land uses 1, 2, 14, 31, 32, 46, 48, 51, 52, 53,  
54, 55, 57, 58, 59, 60, 62, 63, 66, 67, 68, 69,  
71, 83, 96, 109, 116, 125, 128, 138, 140, 142,  
143, 144, 156, 159, 173, 174, 175, 188, 191,  
193, 222, 223, 225, 226, 228, 250, 256, 295,  
309, 316, 317, 327, 328, 331, 332, 336, 339,  
344  
Languages 26, 27, 35, 118, 139, 310, 334  
Letchworth Reservoir 266, 274  
Letchworth Village 58, 61, 266, 273, 295, 316

Letchworth Water Treatment Plant 266, 270  
Libraries 32, 45, 48, 49, 118, 170, 173, 175, 177,  
178, 235, 295, 303, 306, 308  
Lid park 158, 165, 338  
Linguistically challenged, Linguistically isolated  
26, 27, 295  
**M**  
Manufacturing 12, 61, 83, 102, 229, 231, 232,  
233, 234, 236, 237, 238, 239, 240, 241, 243,  
245, 247, 248, 253, 255, 258, 259, 285, 288  
Mental health 1, 40, 131, 295, 299, 309, 310,  
312, 316, 317, 322  
Metro-North 7, 13, 16, 17, 71, 74, 79, 90, 96,  
97, 98, 103, 329, 332  
Metropolitan Transit Agency (MTA) 7, 13, 17,  
90, 98  
Migration 21, 22, 23, 29, 32, 219  
Mixed-uses 3, 15, 51, 52, 57, 58, 61, 62, 67,  
137, 144, 228, 260, 328, 340, 341  
Municipal waste 137, 276, 284  
Museums 128, 148, 150, 173, 175, 177, 178,  
179, 183, 185, 192  
Multifamily homes (see Housing)  
**N**  
Nanuet Mall 57, 250, 251  
National Natural Landmark 128  
National Register of Historic Places 17, 167,  
168, 169, 170, 171, 172, 173, 177, 178, 179,  
183, 185, 186, 323, 343  
Native-born 21  
Natural gas 129, 137, 288, 289  
Natural increases 21, 22, 29  
Births 21, 22, 23, 29, 31  
Deaths 21, 22, 23, 29  
Natural resources 1, 14, 15, 68, 112, 123, 134,  
135, 137, 139, 140, 141, 147, 164, 175, 190,  
191, 329  
Neighborhoods 3, 4, 48, 52, 54, 55, 67, 115,  
145, 150, 195, 226, 227, 228, 250, 324  
New York City 7, 8, 10, 12, 14, 15, 16, 19, 20,  
49, 74, 79, 82, 90, 97, 98, 131, 133, 167, 177,  
186, 187, 189, 191, 242, 253, 279, 310, 329,  
338, 339  
New York Metropolitan Area/Region 7, 15, 17,  
19, 23, 83, 130, 131, 141, 230, 252, 334

New York Metropolitan Transportation Council (NYMTC) 7, 15, 17, 23, 74, 83, 95, 130, 131, 252

New York State 1, 7, 10, 12, 13, 14, 15, 17, 19, 33, 51, 66, 67, 71, 81, 82, 83, 86, 90, 109, 111, 115, 116, 117, 119, 127, 128, 130, 133, 134, 135, 136, 137, 142, 147, 152, 153, 158, 159, 161, 163, 165, 166, 168, 169, 170, 173, 174, 178, 179, 180, 182, 183, 185, 187, 188, 189, 191, 192, 195, 212, 213, 221, 229, 230, 231, 232, 233, 235, 237, 241, 256, 261, 262, 269, 270, 275, 279, 282, 288, 290, 291, 295, 296, 300, 304, 306, 309, 312, 313, 314, 316, 318, 319, 324, 330, 331, 335, 337, 338, 342, 343, 344

New York State Department of Environmental Conservation (NYSDEC) 67, 109, 111, 117, 118, 119, 123, 127, 130, 133, 134, 135, 136, 137, 138, 139, 142, 158, 161, 166, 262, 263, 268, 270, 272, 273, 274, 279, 280, 281, 282, 290, 291, 335, 342

NJ Transit 7, 13, 16, 79, 90, 97, 98, 131, 329, 332

Nonprofit, not-for-profit 49, 61, 67, 81, 116, 139, 156, 163, 167, 173, 175, 177, 179, 180, 186, 188, 192, 193, 227, 240, 255, 295, 303, 306, 309, 313, 314, 315, 318, 320, 322, 333, 337, 340, 342

Nursing homes (see Housing)

**O**

Occupation 42, 43, 232, 235, 240, 241, 306, 321

Office uses 2, 3, 15, 42, 47, 50, 54, 55, 59, 66, 67, 82, 95, 104, 115, 128, 143, 148, 169, 170, 173, 178, 183, 187, 191, 192, 193, 220, 226, 227, 229, 230, 233, 235, 237, 238, 241, 243, 250, 252, 256, 257, 258, 267, 283, 296, 299, 300, 301, 303, 312, 313, 314, 315, 316, 317, 318, 319, 325, 328, 330, 331, 340, 341

Open space 1, 2, 3, 5, 14, 15, 32, 51, 54, 55, 57, 58, 59, 60, 61, 66, 68, 102, 105, 115, 119, 127, 138, 144, 147, 148, 150, 152, 153, 156, 158, 159, 161, 162, 163, 164, 165, 178, 179, 182, 190, 193, 223, 225, 327, 329, 331, 336, 337, 338, 339

Orange and Rockland Utilities (O&R) 248, 287, 288, 289

Orchards 130, 147, 148, 152, 153, 154, 157, 163,

174, 189, 337

**P**

Padavan Law 324

Palisades Center Mall 12, 52, 55, 57, 98, 130, 169, 250, 251

Palisades Sill 105, 128

Parks and mountains

Bear Mountain State Park 10, 12, 61, 105, 125, 148, 149, 152, 162, 169, 170, 179, 180, 183, 279, 300

Bowline Point Park 57, 149

Cheesecote Mountain 57, 149, 152

Clausland Mountain State Park 58, 148, 149, 150

Harriman State Park 57, 58, 59, 61, 105, 109, 149, 152, 153, 180, 183, 266

Haverstraw Bay Park 148, 149,

High Tor State Park 10, 55, 57, 103, 105, 148, 149

Hook Mountain State Park 10, 55, 148, 149, 152, 175, 180

Nyack Beach State Park 55, 149, 152, 161

Ramapo Mountain 60, 149

Rockhouse Mountain 105, 148, 149

Rockland Lake State Park 148, 149

South Mountain Park 57, 149

Tallman Mountain State Park 58, 148, 149, 159

Park-and-ride 71, 73, 79, 97, 102

Parking 60, 71, 79, 99, 115, 119, 128, 133, 137, 162, 168, 178, 192, 257

Pedestrians 4, 15, 47, 58, 62, 71, 79, 83, 88, 95, 99, 101, 102, 103

Pfizer 59, 82, 248, 324

Planned Unit Development (PUD) 62, 142, 156, 256, 257, 335, 340

Population 1, 4, 5, 14, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 46, 47, 48, 49, 50, 51, 55, 57, 63, 66, 68, 71, 74, 75, 79, 82, 83, 103, 104, 107, 112, 136, 166, 195, 198, 207, 219, 220, 221, 222, 225, 226, 227, 238, 241, 242, 243, 257, 259, 267, 268, 269, 278, 279, 280, , 295, 296, 299, 303, 314, 315, 320, 321, 322, 324, 328, 329, 330, 331, 340

Projections 4, 29, 30, 31, 46, 63, 221, 275, 291, 343

Port Authority of New York & New Jersey 13, 16, 329  
 Poverty, low income 38, 39, 295, 313, 314, 322  
 Preservation (historic) 2, 3, 5, 14, 15, 60, 62, 66, 67, 68, 107, 115, 123, 136, 138, 140, 145, 147, 153, 156, 158, 159, 162, 163, 164, 167, 169, 170, 173, 174, 175, 177, 178, 179, 180, 182, 190, 191, 193, 223, 225, 291, 300, 323, 327, 328, 329, 331, 334, 337, 339, 340, 341, 344  
 Preserve America Program 173  
 Public Health Law 119, 261, 269, 270, 275, 276, 282

## Q

Quarries 12, 55, 60, 83, 133, 138, 141, 271, 335

## R

Rail (see Transit)  
 Recreation 1, 2, 3, 5, 7, 14, 15, 16, 17, 45, 47, 49, 51, 54, 55, 58, 61, 68, 95, 103, 111, 112, 115, 119, 123, 127, 128, 131, 133, 135, 138, 141, 144, 147, 148, 150, 153, 155, 156, 158, 159, 161, 162, 163, 164, 165, 166, 173, 175, 179, 180, 185, 187, 189, 190, 192, 220, 223, 229, 230, 231, 235, 240, 241, 257, 258, 279, 292, 295, 300, 312, 313, 320, 328, 329, 332, 335, 337, 338, 340, 344  
 Private recreation 153, 155, 163  
 Recycling 137, 141, 142, 282, 283, 285, 286, 287, 292, 342  
 Redevelopment 1, 2, 5, 15, 55, 57, 58, 60, 66, 67, 71, 105, 117, 128, 137, 165, 251, 257, 328, 331, 338  
 Reforestation 138, 145, 179, 336  
 Religious affiliation 20, 21  
 Religious institutions 63, 309  
 Religious Land Use and Institutionalized Persons Act (RLUIPA) 63  
 Renewable resources 125, 137, 142, 292, 335, 342  
 Reservoirs 54, 140, 261, 262, 266, 270, 271, 273, 274, 289, 291, 334  
 Residential uses 3, 4, 32, 51, 52, 54, 55, 57, 58, 59, 61, 62, 63, 66, 67, 68, 103, 107, 116, 119, 128, 132, 133, 136, 138, 140, 147, 158, 162, 195, 208, 214, 219, 222, 223, 225, 226, 228, 238, 252, 261, 263, 267, 269, 274, 276, 281,

282, 283, 287, 288, 289, 291, 300, 309, 315, 328, 331, 333, 339, 340  
 Retail uses/trade 3, 43, 57, 61, 66, 83, 98, 192, 229, 231, 234, 239, 240, 241, 243, 246, 250, 251, 252, 253, 255, 257, 259, 322, 323, 328, 331, 343  
 Reuse (of a building or land) 55, 58, 61, 67, 103, 165, 271, 275  
 Revitalization (of a building or land) 1, 2, 58, 67, 111, 112, 118, 127, 128, 133, 139, 141, 142, 158, 165, 173, 182, 190, 193, 260, 274, 291, 322, 324, 328, 331, 333, 334, 335, 338, 343  
 Ridgelines 105, 107, 138, 140, 333, 334  
 Rivers  
 Hackensack River 112, 262, 266, 268, 270  
 Hudson River 1, 2, 5, 7, 10, 12, 15, 16, 17, 51, 52, 54, 55, 57, 58, 61, 66, 68, 79, 83, 90, 97, 103, 105, 109, 111, 112, 116, 121, 123, 128, 129, 132, 133, 134, 135, 136, 138, 139, 140, 147, 148, 152, 153, 156, 159, 161, 163, 164, 165, 167, 168, 177, 179, 180, 182, 183, 185, 187, 188, 190, 191, 192, 193, 195, 227, 271, 274, 278, 279, 313, 327, 328, 329, 331, 333, 337, 338, 339  
 Mahwah River 109, 112, 262, 263, 266, 273  
 Ramapo River 112, 136, 262, 263, 266, 270, 271, 273, 278, 279, 281  
 Roads  
 NYS Thruway, I-87/I-287 1, 7, 9, 12, 13, 15, 16, 17, 51, 59, 60, 71, 72, 86, 88, 90, 96, 97, 99, 102, 129, 132, 158, 165, 192, 195, 202, 252, 259, 279, 329, 332, 338  
 Palisades Interstate Parkway (PIP) 7, 9, 12, 51, 54, 58, 59, 60, 72, 86, 99, 103, 152, 162, 170, 180, 192, 195, 252, 259, 332  
 Route 9W 7, 9, 51, 57, 58, 61, 72, 168, 180, 192  
 Route 17 9, 10, 51, 60, 72, 79, 86, 182  
 Route 59 9, 10, 51, 52, 55, 57, 60, 72, 82, 86, 88, 97, 98, 99, 103, 152, 198, 202, 250, 268, 285  
 Route 202 9, 51, 58, 60, 72, 86, 152, 180, 182, 202  
 Route 303 9, 10, 51, 52, 55, 57, 59, 72, 86, 285  
 Route 304 9, 36, 51, 52, 55, 57, 59, 72, 152  
 Rockland Business Association (RBA) 67, 257, 331

Rockland County Departments, Divisions and Bureaus

Bureau of Water Pollution Control 117, 119, 276

Division of Environmental Resources 118, 125, 144, 296

Department of Health 109, 115, 117, 119, 145, 261, 263, 269, 270, 275, 276, 291, 301, 309, 313, 315, 316, 336

Department of Hospitals 312

Department of Mental Health 312

Department of Probation 296

Department of Social Services 296, 313, 314, 315

Highway Department 125, 139, 272

Office for People with Disabilities 226, 296, 314, 317, 325

Office for the Aging 44, 45, 47, 50, 103, 104, 296, 313, 315, 325, 330

Office of Fire and Emergency Services 121, 296, 301

Planning Department 15, 29, 46, 103, 107, 131, 144, 174, 183, 185, 196, 269, 295, 328

Sherrif's Department 88, 177, 187, 296, 298, 299, 303

Veterans Service Agency 314, 317

Waste Management Authority 142, 282, 283, 284, 286, 287, 296

Water Supply Bureau 261

Youth Bureau 296, 314, 317, 318, 319, 325

Rockland Economic Development Corporation (REDC) 248, 253, 255, 257, 258, 289, 331, 340, 341

Rockland County Executive 1, 2, 15, 187, 188, 282, 296, 298, 314, 319,

Rockland County Legislature 1, 2, 10, 14, 45, 47, 50, 88, 142, 166, 173, 179, 182, 187, 193, 253, 281, 282, 296, 297, 298, 314, 343, 344

Rockland Psychiatric Center 59, 187, 248, 295, 310, 312, 316

**S**

Safety 4, 49, 58, 60, 71, 83, 88, 89, 95, 99, 101, 102, 103, 112, 116, 131 141, 152, 164, 166, 295, 299, 300, 301, 317, 318

Sanitary code 261, 270, 275, 276, 282

Scenic Areas of Statewide Significance (SASS) 182

Scenic roads/byways 174, 179, 180, 181, 182, 190, 192, 193, 338, 339

Schools 23, 25, 26, 32, 43, 55, 66, 67, 102, 103, 144, 170, 177, 183, 188, 189, 248, 258, 259, 267, 275, 286, 301, 303, 304, 305, 306, 310, 320, 328, 341

Enrollment 25, 303, 304, 306

Seniors 31, 32, 33, 35, 36, 37, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49, 50, 52, 54, 57, 59, 62, 66, 68, 74, 79, 81, 95, 103, 104, 188, 198, 220, 221, 225, 226, 227, 295, 296, 314, 315, 320, 321, 324, 328, 329, 330, 331, 332, 333, 340, 344

Senior housing (see Housing)

Sewage treatment 109, 279, 280

Sewers 32, 60, 66, 115, 116, 117, 119, 125, 139, 258, 261, 266, 278, 279, 280, 281, 292, 296, 328, 331, 334, 341, 342, 343

Sewer districts 277, 279, 280, 281, 296, 298

Single-family homes (see Housing)

Smart growth 3, 107, 143, 336

Social services 235, 240, 241, 295, 296, 309, 318, 321, 322, 340, 343

Soils 105, 116, 117, 118, 123, 125, 126, 163, 266, 273, 283, 333

Solid waste 109, 142, 143, 282, 283, 284, 285, 286, 287, 292

Sprawl 14, 142, 336

State Environmental Quality Review Act (SEQR) 2, 15, 127, 168, 272

State Historic Preservation Office (SHPO) 167, 169, 170, 175, 185, 191, 193, 339

State Pollution Discharge Elimination System (SPDES) 117, 118, 279, 290

Stewart International Airport 8, 13, 16, 17, 18, 60, 90, 93, 98, 329

Stony Point Battlefield State Historic Site 61, 148, 161, 169, 173, 178, 183, 185, 190

Stormwater 115, 117, 118, 119, 139, 274, 289, 290, 291, 334, 342

Streams 1, 15, 47, 54, 57, 62, 66, 95, 102, 109, 112, 114, 115, 116, 117, 118, 121, 123, 125, 134, 135, 139, 140, 145, 148, 158, 162, 261, 263, 266, 273, 274, 289, 290, 291, 292, 333, 334, 336, 337, 342, 344

Superfund sites 67, 133, 142, 158, 165, 331, 335

Surface water 109, 111, 112, 116, 117, 123, 138,

139, 153, 261, 262, 263, 266, 268, 271, 273,  
274, 333  
Sustainability 2, 3, 5, 15, 137, 142, 143, 144,  
145, 153, 164, 270, 271, 272, 286, 291, 316,  
323, 328, 329, 335, 338, 343, 345

## T

Tappan Zee Bridge 12, 13, 15, 17, 18, 19, 51, 57,  
59, 60, 71, 86, 88, 90, 96, 97, 99, 102, 132,  
136, 141, 163, 165, 173, 180, 192, 195, 329,  
332, 333, 334, 337

Tappan Zee Bridge/I-87/287 Corridor Study 15,  
91, 96, 165, 329

Technical Advisory Committee (TAC) 2, 327

Telecommunication 32, 62, 63, 261, 290, 313,  
319, 341, 342

Threatened and endangered species, habitats 7,  
12, 134, 135, 138, 333

Tourism 58, 68, 153, 167, 179, 183, 186, 187,  
190, 191, 192, 193, 233, 237, 253, 256, 257,  
258, 296, 338, 340

### Towns

Clarkstown 7, 10, 28, 55, 56, 57, 62, 74, 78,  
88, 107, 115, 118, 121, 127, 136, 150, 152,  
153, 158, 169, 170, 174, 179, 182, 190, 191,  
198, 225, 226, 248, 250, 253, 266, 278, 285,  
286, 301, 304, 321, 332, 344

Haverstraw 7, 10, 12, 21, 28, 56, 71, 74, 79,  
83, 97, 103, 121, 128, 133, 139, 148, 150,  
152, 153, 159, 161, 169, 170, 177, 185, 187,  
188, 190, 191, 196, 198, 202, 251, 252, 253,  
266, 267, 268, 269, 271, 272, 278, 280, 281,  
286, 291, 300, 301, 306, 310, 312, 313, 316,  
322, 333

Orangetown 7, 10, 28, 55, 56, 58, 59, 62, 63,  
127, 148, 150, 152, 159, 202, 226, 248, 250,  
253, 266, 278, 280, 283, 285, 301, 303, 304,  
306, 318, 332

Ramapo 7, 10, 12, 28, 51, 55, 56, 57, 58, 59,  
60, 63, 74, 88, 107, 109, 112, 115, 121, 125,  
130, 136, 148, 150, 153, 169, 170, 174, 175,  
177, 178, 179, 182, 189, 190, 198, 202, 248,  
253, 262, 263, 266, 268, 270, 271, 273, 274,  
278, 279, 280, 281, 283, 285, 301, 303, 304,  
306

Stony Point 7, 10, 12, 28, 55, 56, 57, 58, 61,  
63, 83, 103, 115, 116, 121, 125, 128, 148,  
150, 153, 161, 169, 170, 173, 174, 175, 178,

182, 183, 185, 189, 190, 191, 198, 253, 266,  
279, 280, 281, 283, 286, 288, 301, 306, 310  
Traffic 2, 13, 16, 32, 49, 51, 57, 66, 83, 86, 87,  
88, 90, 95, 96, 97, 98, 99, 101, 102, 103, 119,  
129, 131, 132, 145, 228, 252, 257, 259, 292,  
299, 300, 316, 327, 328, 330, 331, 332, 333,  
334, 336

Trails 17, 51, 102, 103, 115, 128, 136, 140, 145,  
148, 151, 152, 159, 160, 161, 162, 163, 165,  
185, 188, 190, 191, 193, 329, 333, 336, 337,  
338

Appalachian 10, 151, 152, 162

Long Path 51, 55, 62, 150, 151, 152, 162, 163,  
165, 185

Transfer Stations (solid waste) 7, 282, 283, 284,  
285, 286, 287

Transit 4, 13, 14, 15, 16, 44, 47, 48, 49, 59, 62,  
66, 69, 71, 74, 75, 76, 79, 81, 88, 90, 95, 96,  
98, 99, 102, 103, 104, 131, 137, 142, 145,  
165, 223, 225, 228, 257, 259, 328, 329, 330,  
332, 333, 336, 339, 341

Buses 7, 13, 15, 16, 32, 44, 47, 48, 49, 50, 58,  
66, 71, 74, 76, 77, 78, 79, 81, 90, 96, 97, 98,  
99, 103, 131, 188, 242, 248, 315, 316, 323,  
328, 329, 330, 332, 336

Bus Rapid Transit (BRT) 13, 15, 90, 96, 99,  
329, 332

Commuter Rail Transit (CRT) 90, 332

Ferry service 7, 12, 13, 15, 58, 71, 79, 97,  
103, 128, 185, 191, 242, 333, 339

Light rail 13, 90

Paratransit 4, 32, 44, 47, 79, 103, 104, 315

Rail 7, 11, 13, 15, 16, 51, 60, 66, 79, 80, 83,  
90, 94, 96, 97, 98, 102, 103, 131, 132, 141,  
152, 242, 328, 329, 332, 333, 334

Pascack Valley Line 7, 9, 16, 79, 80, 90, 94, 97,  
98, 103, 141, 249, 332, 334

Port Jervis Line 7, 9, 13, 15, 16, 79, 80, 83, 90,  
94, 97, 98, 141, 249, 332, 334

TAPPAN ZEE Express (TZx) bus service 74, 77,  
78, 97, 98

Transport of Rockland (TOR) 47, 49, 74, 77,  
78, 79, 98, 103, 137, 323

Transportation Resources, Intracounty, for  
Physically disabled and Senior citizens  
(T.R.I.P.S.) 44, 47, 49, 78, 79, 81, 103, 315

Transit Oriented Development (TOD) 137

Transportation Demand Management (TDM) 95

## U

Unemployment 205, 239, 240, 259  
United States Geological Survey (USGS) 111,  
116, 262, 268, 270, 272, 273, 291, 341  
United Water New York (UWNY) 261, 263, 264,  
266, 267, 268, 269, 270, 271, 273, 274, 275

## V

Vacancies (buildings or land) 51, 52, 54, 55, 58,  
59, 60, 61, 66, 144, 209, 213, 216, 250, 251,  
252, 253, 256, 257, 258, 259, 322, 323, 340  
Veterans 296  
Viewsheds 107, 140, 147, 164, 293, 334, 338  
Villages 1, 2, 12, 7, 14, 15, 16, 21, 28, 32, 45, 48,  
51, 52, 55, 56, 57, 58, 59, 60, 61, 62, 63, 66,  
67, 68, 69, 71, 103, 107, 109, 118, 119, 121,  
123, 125, 127, 128, 132, 137, 138, 140, 141,  
143, 144, 150, 152, 156, 158, 159, 161, 163,  
164, 165, 174, 174, 177, 178, 182, 185, 188,  
189, 190, 191, 192, 193, 196, 202, 204, 225,  
226, 228, 250, 251, 252, 253, 257, 258, 263,  
266, 267, 268, 270, 273, 275, 278, 279, 281,  
282, 283, 285, 286, 287, 290, 292, 293, 295,  
299, 300, 313, 316, 322, 323, 324, 327, 328,  
329, 330, 331, 332, 334, 335, 336, 337, 339,  
341, 342, 343, 344  
Airmont 28, 56, 86, 98, 190, 283, 285, 286  
Chestnut Ridge 28, 56, 63, 158, 177, 190,  
248, 253, 283, 286, 303, 304  
Grand View-on-Hudson 28, 56, 58, 150, 152,  
170, 185, 190, 191, 278, 300  
Haverstraw Village 56, 169, 170, 185  
Hillburn 28, 56, 119, 148, 170, 185, 190, 248,  
253, 267, 281, 283, 285, 286, 296  
Kaser 21, 28, 56, 74, 78, 119, 190, 196, 202,  
283  
Montebello 28, 56, 59, 60, 119, 125, 127,  
174, 182, 185, 190, 253, 283, 285  
New Hempstead 21, 28, 56, 169, 190, 283,  
285, 296, 299  
New Square 21, 28, 56, 119, 190, 196, 202,  
263, 278, 283  
Nyack 10, 12, 28, 51, 55, 56, 58, 59, 74, 128,  
148, 150, 152, 161, 165, 168, 169, 170, 174,  
175, 177, 187, 189, 190, 191, 196, 198, 202,  
243, 248, 251, 252, 266, 267, 268, 270, 278,  
285, 287, 300, 303, 304, 306, 310, 312, 313,  
315

Piermont 10, 12, 28, 56, 58, 83, 103, 118,  
123, 127, 128, 150, 152, 161, 169, 170, 178,  
182, 185, 190, 191, 278, 285, 300  
Pomona 28, 56, 57, 59, 60, 63, 119, 130,  
150, 170, 174, 175, 178, 189, 248, 250, 278,  
283, 286, 296, 299, 300, 301, 312, 313, 314,  
315  
Sloatsburg 28, 56, 60, 62, 63, 79, 83, 109,  
168, 169, 170, 174, 178, 190, 300  
South Nyack 12, 28, 56, 58, 119, 127, 150,  
152, 158, 161, 165, 169, 170, 190, 191, 196,  
198, 202, 248, 300, 338  
Spring Valley 12, 28, 55, 56, 59, 60, 74, 78, 79,  
82, 98, 103, 131, 150, 170, 177, 185, 189,  
190, 196, 198, 202, 243, 248, 250, 251, 252,  
253, 296, 300, 301, 306, 310, 313, 314, 322  
Suffern 10, 12, 15, 28, 56, 59, 60, 74, 79, 83,  
86, 96, 103, 109, 121, 131, 133, 152, 170,  
178, 185, 187, 189, 190, 198, 202, 243, 248,  
250, 251, 252, 253, 263, 267, 268, 270, 271,  
279, 280, 283, 285, 300, 301, 306, 310  
Upper Nyack 28, 55, 56, 161, 168, 169, 170,  
185, 190, 191, 278, 285  
Wesley Hills 21, 28, 56, 59, 283, 285  
West Haverstraw 28, 56, 57, 150, 169, 190,  
191, 198, 202, 248, 251, 252, 253, 278, 286,  
288, 312

## W

Waste management 241, 282, 284  
Water  
Conservation 109, 139, 144, 275, 291, 334,  
342  
Demand 263, 267, 268, 269, 273, 274, 275,  
291  
Quality 51, 112, 115, 116, 117, 118, 123,  
129, 139, 272, 273, 279, 283, 291, 292, 333,  
334, 342  
Resources 5, 105, 111, 112, 118, 127, 138,  
139, 273, 275, 291, 333  
Supply 60, 109, 111, 116, 140, 261, 262,  
263, 266, 267, 268, 269, 270, 271, 272, 274,  
275, 279, 280, 291, 334, 341  
Waterfront 7, 12, 14, 55, 58, 61, 105, 112, 127,  
128, 138, 147, 156, 159, 161, 163, 164, 168,  
182, 188, 190, 191, 333, 337

Watersheds 15, 55, 113, 117, 118, 123, 134,  
140, 158, 262, 264, 265, 266, 273, 274, 290,  
291, 292, 334  
Wellhead protection 140, 334  
West of Hudson Regional Transit Access 13, 16,  
17, 90, 93, 98  
Wetlands 15, 58, 60, 61, 63, 105, 109, 111, 123,  
124, 125, 134, 135, 138, 139, 140, 145, 223,  
261, 291, 333, 334, 336  
Wildlife 111, 112, 115, 123, 125, 127, 129, 134,  
135, 137, 139, 140, 142, 147, 148, 150, 153,  
158, 164, 166, 179, 291, 335, 337  
Work force 4, 14, 32, 42, 47, 50, 68, 221, 225,  
238, 239, 240, 241, 242, 258, 259, 260, 321,  
324, 330, 331, 339, 340, 341, 342, 343

## Y

Young adults, youths 4, 23, 31, 32, 50, 66, 167,  
189, 222, 259, 260, 295, 296, 304, 314, 317,  
318, 319, 320, 321, 325, 328, 329, 330, 340,  
341

## Z

Zoning 1, 2, 48, 49, 51, 57, 59, 61, 62, 63, 64,  
66, 67, 68, 69, 83, 121, 122, 128, 131, 139,  
140, 141, 156, 174, 182, 193, 217, 223, 225,  
226, 227, 228, 252, 253, 255, 258, 261, 293,  
301, 309, 317, 321, 324, 325, 327, 328, 330,  
331, 332, 333, 334, 341, 344