

ROCKLAND COUNTY COMPREHENSIVE PLAN

Rockland County, New York

DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT

November 2010



**DRAFT GENERIC ENVIRONMENTAL IMPACT STATEMENT (DGEIS)
FOR THE ADOPTION OF THE
ROCKLAND COUNTY COMPREHENSIVE PLAN**

Rockland County, New York

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1.0 EXECUTIVE SUMMARY

1.1 Introduction

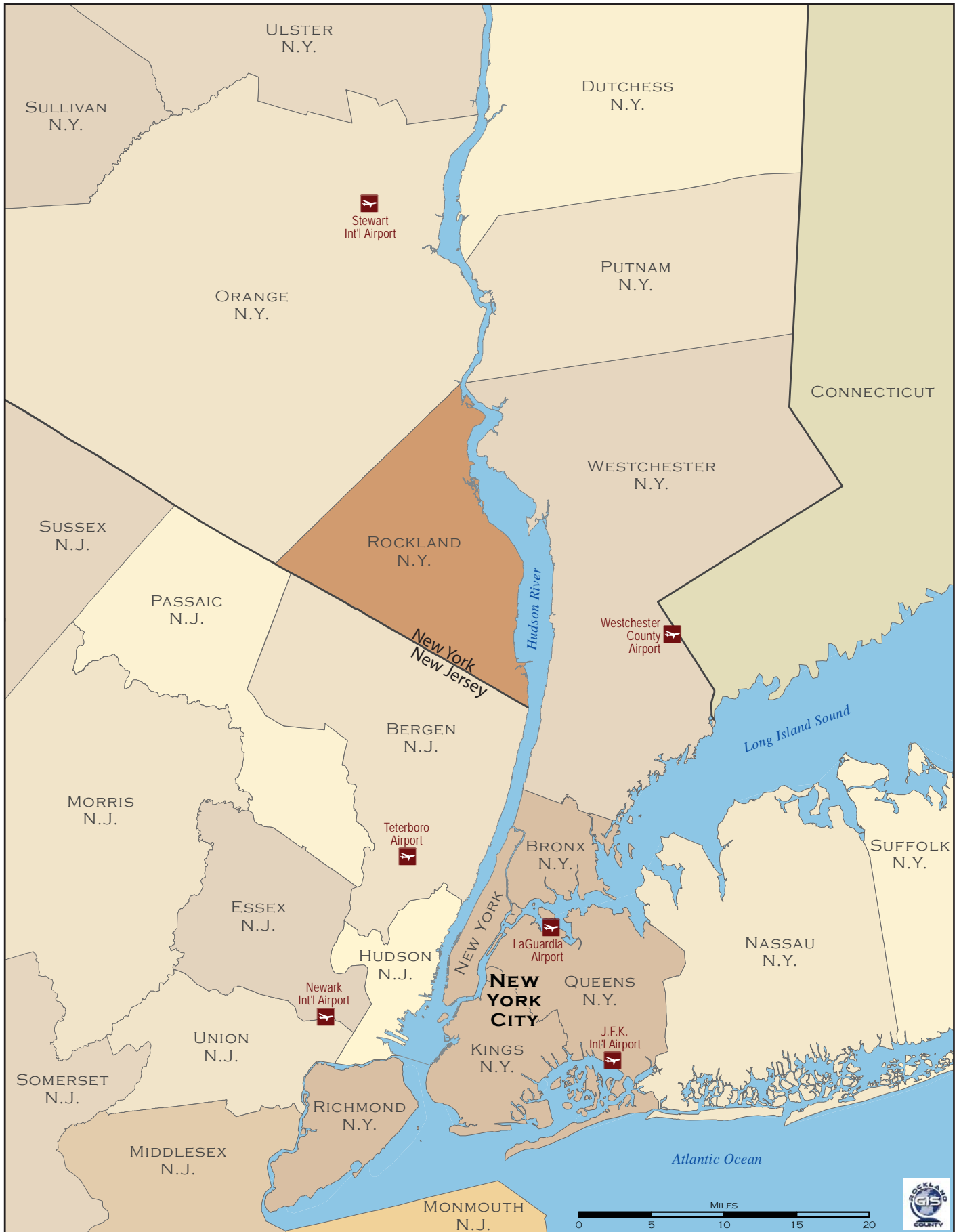
The Rockland County Comprehensive Plan (“Comprehensive Plan”) is a blueprint for the County’s future that will provide guidance for future municipal planning and zoning actions and serves as a basis for County government planning and development issues for the next 10-20 years. The plan creates a framework for future capital expenditure decisions by County government, while also providing general recommendations on future County land use issues and policies to implement these strategies, address key matters under direct County jurisdiction, and identify specific land use and zoning conflicts among municipalities that should be resolved to allow for better functioning of zoning regulations. The Rockland County Legislature proposes to adopt the Comprehensive Plan. For this Draft Generic Environmental Impact Statement (DGEIS), the adoption of the Comprehensive Plan constitutes the “Proposed Action”.

The County of Rockland is located in southern New York State (see Figure 1-1: Regional Location Map). The County has a total land area of 176 square miles and approximately 300,000 inhabitants. It is bordered to the northwest and west by Orange County, to the south by Bergen and Passaic counties, New Jersey, and to the east by the Hudson River. Westchester and Putnam Counties are located across the river to the east and northeast, respectively. The eastern boundary of Rockland County comprises nearly 40 miles of scenic river coastline. The County includes five towns and 19 incorporated villages, as well as eight school districts and numerous special districts that provide fire protection, water supply and other services.

The potential impacts resulting from the adoption of the Proposed Action are analyzed in this DGEIS. This DGEIS has been prepared in accordance with the New York State Environmental Quality Review Act (SEQR) and its implementing regulations (6 NYCRR Part 617). The Rockland County Legislature is the Lead Agency for this environmental review, and other involved agencies have been notified of the environmental review process (see Section 1.5).

Under SEQR, a “Generic” EIS, or GEIS, is prepared when a proposed action represents a comprehensive program having wide application and defining the range of future projects in the affected area. A GEIS, according to the New York State Department of Environmental Conservation (NYSDEC) SEQR handbook, is “a type of EIS that is more general than a site-specific EIS, and typically is used to consider broad-based actions or related groups of actions that agencies are likely to approve, fund, or directly undertake... A Generic EIS differs from a site or project specific EIS by being more general or conceptual in nature”.

FIGURE 1.1: REGIONAL LOCATION MAP



The DGEIS is intended to provide the Rockland County Legislature, the public and interested and involved agencies with an understanding of the type of potential environmental impacts that may be associated with adoption of the Proposed Action. An important aspect of the environmental review process is that it incorporates public review and commentary into the decision-making process.

The DGEIS presents a comprehensive assessment of the potentially significant adverse impacts associated with the Proposed Action, identifies impacts which will likely require mitigation, and considers alternatives to the Proposed Action, which includes a No-Action Alternative, a scenario in which the Comprehensive Plan isn't adopted.

The steps in preparing and finalizing the DGEIS include:

- **Scoping** – an optional process that allows the Lead Agency to review potentially significant adverse impacts and to eliminate consideration of those impacts that are irrelevant or nonsignificant. If scoping is conducted, it must also include an opportunity for public participation. Scoping for the Proposed Action was conducted on May 24, 2010 and written public comments on the draft scoping document were accepted by the Lead Agency through June 7, 2010.
- **DGEIS** – a draft document accepted by the Rockland County Legislature and released for public and agency review and comment.
- **Public review** of at least 30 days, including a public hearing at which any individual, group or agency may comment on the DGEIS.
- **Final GEIS (FGEIS)** – acceptance and publication by the Rockland County Legislature as Lead Agency, which incorporates relevant comments and responses, if any, made during public review of the DGEIS.
- **Findings Statement** – adopted and passed by the Rockland County Legislature as Lead Agency no sooner than 10 days, nor more than 30 days after publication of the FGEIS. The Findings Statement must: 1) consider the relevant environmental impacts, facts and conclusions presented in the GEIS; 2) provide a rationale for the agency's decision; 3) certify that SEQR's requirements have been met; and 4) certify that consistent with social, economic and other essential considerations, from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable, and that the adverse environmental impacts will be avoided or minimized to the maximum extent practicable.

1.2 Proposed Action

The Proposed Action is the adoption of the Rockland County Comprehensive Plan by the Rockland County Legislature. The Comprehensive Plan is not site specific but predominantly

area-wide, and therefore, generic in nature. Since the Comprehensive Plan is generic in nature, future development projects, which are not specific to the Comprehensive Plan, are subject to site-specific review under SEQR and will be handled at the municipal level (see Chapter 6.0 Subsequent SEQR Actions).

The Rockland County Comprehensive Plan addresses the many interrelated land use, socioeconomic, environmental, infrastructure and transportation issues confronting the County. The Comprehensive Plan is intended to build on and be consistent with existing town and village plans. It will provide guidance for future municipal planning and zoning actions and serve as the basis for all County government planning and development issues for the next 10-20 years. Specifically, it will provide general recommendations on future County land use issues and policies to implement these strategies, address key matters under direct County jurisdiction, and identify specific land use and zoning conflicts among municipalities that should be resolved to allow for better functioning of zoning regulations.

This DGEIS addresses issues associated with the existing conditions and No-Action alternative, as well as the potential county-wide impacts from the adoption of the Comprehensive Plan, such as impacts to land use and community character, traffic, housing and services, socioeconomics, and environmental resources.

A detailed discussion of the potential impacts of the Proposed Action is set forth in Chapter 3.0 of this DGEIS. In addition, an analysis of the No-Action Alternative to the Comprehensive Plan, which assumes that the Comprehensive Plan would not be adopted, is briefly discussed below in Section 1.3 and in more detail in Chapter 5.0. This SEQR process is intended to provide a review of potential impacts of the Comprehensive Plan and its alternative on a generic level and will not result in any site-specific review or approvals related to specific development projects discussed in the Comprehensive Plan.

The Comprehensive Plan does not supersede local plans and regulations, but rather will serve as a tool for local municipalities. As New York is a "home rule" state, Rockland County Comprehensive Plan components, related to town or village issues, are simply recommendations for consideration and are not regulatory in nature.

1.3 Alternatives

The alternative to the Proposed Action analyzed in this DGEIS is the No-Action Alternative (see Chapter 5.0 Analysis of Alternatives). The No-Action Alternative assumes that the Comprehensive Plan would not be adopted. Under this scenario, current land use patterns would generally continue as they are today, while towns and villages in the County would be guided by local plans, if available. In addition, Rockland County could potentially use the Comprehensive Plan as a reference document. The No-Action Alternative would also preclude

policy changes from being voluntarily incorporated into town and village master or comprehensive plans, new open space programs, or development projects.

1.4 Significant Impacts and Mitigation Measures

Adoption of the Proposed Action is anticipated to strengthen Rockland County's environment and natural resources and will therefore not result in any significant adverse environmental impacts. The Comprehensive Plan aims to reduce impacts to the environment by redirecting growth to existing centers while reinforcing those centers. Through various recommendations and guidelines, it also aims to improve the efficiency of the County's roadway corridors, improve air and water quality, expand conservation efforts, open spaces and parks, revitalize existing underutilized properties, and promote residential clustering for new residential developments.

In Chapter 3.0 the following components will be discussed: Demographics, Land Use and Zoning, Transportation, Natural Resources (land, water, air quality and noise), Open Space and Recreation, Historic and Cultural Resources, Housing, Economic Development, Infrastructure, and Public Services. For each of these components, the existing conditions will be discussed in detail and potential impacts of the Proposed Action will be discussed. In each section of Chapter 3.0, the potential impacts of the Proposed Action will be analyzed. However, it is important to note that the Comprehensive Plan's policy recommendations are intended to improve upon existing conditions and therefore are not anticipated to result in any significant adverse environmental impacts.

Because the adoption of the Comprehensive Plan is expected to have a beneficial impact on Rockland County as a whole, specific site or neighborhood-wide mitigation measures are not necessary. Future projects within Rockland County will require site specific analysis and future site specific SEQR review as noted in Chapter 6.0: Subsequent SEQR Actions, including the Tappan Zee Bridge Corridor Study, Desalination Plant proposal, and other local projects. Site specific mitigation measures will be developed as appropriate during future site specific SEQR review of development actions not associated with the adoption of this Comprehensive Plan.

1.5. Involved/Interested Agencies

Involved Agencies

Under SEQR, the lead agency is responsible for coordinating the SEQR review process, as well as discretionary decision making regarding the Proposed Action. For this DGEIS, the Rockland County Legislature is the lead agency, as well as an involved agency. As lead agency, the Rockland County Legislature is also responsible for preparing a determination of significance, determining the scope and adequacy of the DGEIS, coordinating the preparation of the Final GEIS, and preparing SEQR findings. The lead agency and the involved agencies have authority to fund, approve, or directly undertake some aspect of the Proposed Action. For this DGEIS, the Office of the Rockland County Executive is also an involved agency.

The contact information for the involved agencies is as follows:

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Interested Agencies

Unlike involved agencies, interested agencies do not have the authority to fund, approve, or directly undertake some aspect of the Proposed Action. Instead, interested agencies may contribute relevant scoping topics, submit written comments during the DGEIS comment period, and comment on the DGEIS at public hearings. For this DGEIS, interested agencies include Rockland's towns and villages (see the title page for a complete list of interested agencies).

1.6 Required Reviews and Approvals

Under Section 239-d of the New York State General Municipal Law, county legislative bodies may prepare a proposed county comprehensive plan. For the Rockland County Comprehensive Plan, the Rockland County Legislature will consider the Plan for adoption.

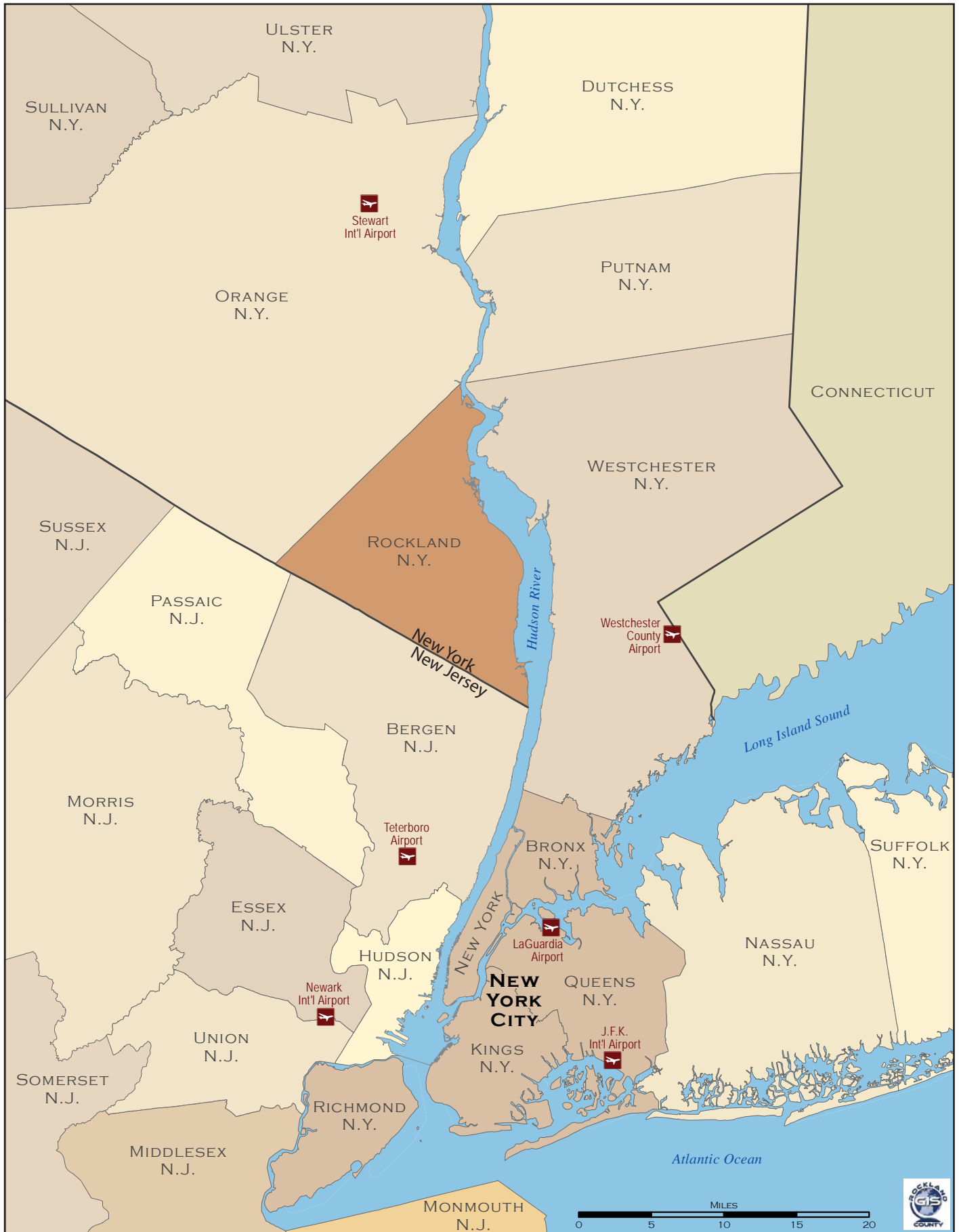
2.0 PROPOSED ACTION: COMPREHENSIVE PLAN ADOPTION

The Rockland County Comprehensive Plan (“Comprehensive Plan”) is a blueprint for the County’s future that will provide guidance for future municipal planning and zoning actions and serves as a basis for County government planning and development issues for the next 10-20 years. The plan creates a framework for future capital expenditure decisions by County government, while also providing general recommendations on future County land use issues and policies to implement these strategies, address key matters under direct County jurisdiction, and identify specific land use and zoning conflicts among municipalities that should be resolved to allow for better functioning of zoning regulations. The Rockland County Legislature proposes to adopt the Rockland County Comprehensive Plan. The Comprehensive Plan constitutes the “Proposed Action” for purposes of this Draft Generic Environmental Impact Statement (DGEIS).

The Comprehensive Plan does not supersede local plans and regulations, but rather will serve as a tool for municipalities. As New York is a "home rule" state, Rockland County Comprehensive Plan components related to town or village issues are simply recommendations for consideration and are not regulatory in nature. The Comprehensive Plan offers a “big picture” approach to regional planning in the County and is consistent with the New York State General Municipal Law §239-d, which allows the County to propose policies and goals for its long-range protection, enhancement, growth and development, in consideration of regional needs.

The Comprehensive Plan is a plan for the the entire County of Rockland, located in southern New York State (see Figure 2-1: Regional Location Map). The County has a total land area of 176 square miles and approximately 300,000 inhabitants. It is bordered to the northwest and west by Orange County, to the south by Bergen and Passaic counties, New Jersey, and to the east by the Hudson River. Westchester and Putnam Counties are located across the river to the east and northeast, respectively. The eastern boundary of Rockland County comprises nearly 40 miles of scenic river coastline. The County includes five towns and 19 incorporated villages, as well as eight school districts and numerous special districts that provide fire protection, water supply and other services.

FIGURE 2-1: REGIONAL LOCATION MAP



2.0 Proposed Action: Comprehensive Plan Adoption

As in many areas located within a larger metropolitan area, Rockland's early development was marked by agriculture and localized industry, which gave rise to modest suburban growth. From the early 20th Century on, the County's population grew with expansion of its rail and later its road systems. Development that had been centered in villages and along rail lines and historical transportation routes, such as the Ramapo Pass and the Hudson River, became more dispersed with the construction of Route 9W in the 1930s and the Palisades Interstate Parkway, Tappan Zee Bridge and New York State Thruway in the 1950s. This shift more closely linked Rockland with the greater region and led to the development of major growth corridors such as I-287 and Routes 17, 45, 59, 202, 303, 304, 306 and 340.

Today, land uses in Rockland County range from traditional mixed-use, relatively dense village and hamlet centers to lower-density suburban residential areas, and from regional shopping centers to light industrial parks. Park land is the single largest land use, comprising just over one-third of the County's total land area.

2.1 Project History

Since completion of Rockland County's 1973 Master Plan, the County has shifted from an outer fringe suburb of New York City to an inner ring, maturing suburban area. The presence of the Hudson River, Harriman State Park, and other preserved areas creates a strong sense of place and ensures that Rockland County will remain attractive for New York City commuters. However, the County has increasingly become a pass-through area for commuters to Manhattan, commuters traveling among Bergen and Passaic counties (NJ), Orange County (NY), and the City of White Plains, and for regional truck traffic. These elements raise concerns about Rockland County's ability to maintain the distinctive characteristics that give the County its quality of life, while promoting controlled growth, limiting sprawl and providing community amenities necessary to serve existing and future residents.

A comprehensive plan update effort undertaken in the late 1990s, "Rockland County: River to Ridge", addressed many of these emerging issues. The River to Ridge plan emphasized preserving residential areas and open space, creating additional amenities for residents and visitors, building selectively on the strengths of downtown areas, identifying areas for business development and integrating transportation initiatives. The plan was never adopted by the Rockland County Legislature, but has been used as a policy guide.

Several land use and transportation issues have arisen since the completion of River to Ridge, such as the arrival of sewer infrastructure to western portions of the County, the uncertain future of the County's fossil fuel power plants, current and projected water demands for a growing population, the impact of the Indian Point nuclear power plant, lack of capacity on the Tappan Zee Bridge, housing affordability and services for the County's growing senior and youth populations, retention of young adults, and continuing economic development competitiveness.

2.0 Proposed Action: Comprehensive Plan Adoption

As the lead agency for the Proposed Action, and in conjunction with BFJ Planning, the Rockland County Legislature has prepared the Rockland County Comprehensive Plan, which is scheduled to be adopted in 2011.

The Comprehensive Plan is a 10-20 year action plan for addressing identified problems, such as those mentioned above, and guiding current and future land use issues and policies. The Comprehensive Plan does not supersede local plans and regulations, but rather will serve as a tool for the County and its municipalities.

The Comprehensive Plan was developed during an 18-month planning process, incorporating ideas and recommendations of County and municipal officials, residents, business owners, various planning agencies, and the Rockland County Comprehensive Plan Technical Advisory Committee. Extensive input from Rockland residents was obtained from four public workshops and through the Comprehensive Plan website. The Rockland County Legislature and Rockland County Planning Department held the public workshops to assist in the development of the Comprehensive Plan's goals and objectives, vision, and policy recommendations. The Comprehensive Plan was prepared in conjunction with these public participation and outreach efforts to assure that public opinion and input were an integral part of the planning process and final recommendations.

2.2 Public Needs and Benefits

The Comprehensive Plan sets forth policies, goals and implementation techniques to preserve and enhance the County's assets, including its institutions, commercial areas, parks, open spaces and trails, waterfronts, man-made resources, and overall suburban and semi-rural character. A major component of the Comprehensive Plan is the reinforcement of Rockland's existing centers. These areas consist of existing downtown areas, quaint/historic villages, commercial hubs, and areas that contain transit. The Comprehensive Plan aims to support these areas with land use policies that will help retain their unique attributes and expand upon their strengths. The Plan also aims to reinforce and support existing roadway corridors and conserve open space through land use policies, such as cluster or conservation subdivisions. Furthermore, the Comprehensive Plan also supports local planning efforts, such as comprehensive or master plans that were adopted by Rockland's towns and villages.

While the goals, objectives, and policies set forth in Section 2.3 below are intended to help guide the future of Rockland County, they are not, in and of themselves, regulations. The power to make land use and zoning decisions rests with Rockland's towns and villages. Rather, the Comprehensive Plan recommendations provide municipalities and other policy makers with a regional overview in order to make sense of growth and development forces throughout the County. Understanding land use patterns and policies among Rockland's towns and villages can

2.0 Proposed Action: Comprehensive Plan Adoption

help planning and zoning officials identify and avoid potential land use conflicts along municipal borders, encourage inter-municipal cooperation, and understand development trends within each town and village that might affect land use decisions in their own municipality.

2.3 Comprehensive Plan Goals, Objectives, and Policies

The goal of the Comprehensive Plan is to create a positive impetus for future growth and development in Rockland County and address the County's challenges through implementation of a number of recommendations. The plan's objectives are to:

- Provide guidelines and offer general recommendations on future County land uses and possible alternative strategies.
- Recommend general policies that could be undertaken at both the County and municipal levels to implement these strategies.
- Address those matters that are under direct County jurisdiction.
- Identify specific issues of land use and zoning conflicts between and among municipalities that should be resolved to allow the various municipal zoning regulations to work more effectively.

The Comprehensive Plan also includes six main policies with respect to: 1) land use and sustainability; 2) transportation; 3) economy; 4) neighborhoods, housing and services; 5) open space and environment; and 6) energy. The following policies support the Plan's objectives:

1. Land Use and Sustainability

- Conserve open space.
- Promote conservation (cluster) subdivision design to help conserve valuable and sensitive open space.
- Reinforce existing county centers through investment in infrastructure and housing and support of businesses.
- Foster and maintain well-designed business and industrial corridors and clusters.
- Encourage smart growth, while preserving quality-of-life and existing community and neighborhood character.
- Foster a balance between the home rule authority of Rockland's municipalities with the legitimate concerns of adjoining communities.

2. Transportation

- Promote integrated vehicular, mass transit, paratransit, bicycle, and pedestrian transportation infrastructure for an efficient network of roadways, railways, and pathways.
- Enhance mobility and accessibility in order to provide greater choices of travel for all, including the growing aging population.
- Work to reduce dependence on the automobile as the major mode of ground transportation and increase the use of public transport.
- Promote and enhance safety for motorists and pedestrians.

3. Economy

- Foster opportunities for growth of businesses in the county.
- Ensure a broad range of employment opportunities for residents.
- Maintain a strong tax base for the county, communities, and taxing jurisdictions.
- Protect the county's diminishing stock of developable commercial land from rezoning in order to ensure a balanced and stable tax base and local employment opportunities.

4. Neighborhoods, Housing and Services

- Expand housing opportunities for Rockland County's diverse population.
- Promote high-quality residential communities with a range of appropriate densities.
- Work with municipalities to protect historic resources and support cultural uses.
- Provide sufficient and affordable housing stock for the aging and young adult population, caregivers, and emergency service volunteers.
- Ensure that educational and community facilities and services adequately and equitably serve Rockland County's current and projected population.

5. Open Space and Environment

- Improve parks and expand open space in high-density areas.
- Provide recreational resources serving the diverse needs of the population.
- Preserve and protect farmland and historic, cultural, and water resources.
- Ensure physical and visual access to the Hudson River.

6. Energy

- Encourage energy efficiency and purposeful conservation in all facets of development.
- Promote a whole-building approach to sustainability in the areas of site development, water savings, energy efficiency, materials selection, indoor environmental quality, and human and environmental health.

The above policies are intended to improve upon existing conditions in the County. These goals reinforce the Comprehensive Plan vision, which is to enhance Rockland's assets via reinforcing its centers, improving its corridors, conserving and expanding its open space, and clustering residential development.

2.4 Involved/Interested Agencies

Involved Agencies

For this DGEIS, the Rockland County Legislature is the lead agency, as well as an involved agency. Under SEQR, the lead agency is responsible for coordinating the SEQR review process, as well as discretionary decision making regarding the Proposed Action. As lead agency, the Rockland County Legislature is also responsible for preparing a determination of significance, determining the scope and adequacy of the DGEIS, coordinating the preparation of the Final GEIS, and preparing SEQR findings. The lead agency and the involved agencies have authority to fund, approve, or directly undertake some aspect of the Proposed Action. For this DGEIS, the Rockland County Executive's Office is also an involved agency.

The contact information for the involved agencies is as follows:

Rockland County Legislature (Lead Agency)
Allison-Parris County Office Building
11 New Hempstead Rd
New City, NY 10956
Contact: Hon. Harriet D. Cornell
T. 845.638.5269

Office of the Rockland County Executive
Allison-Parris County Office Building
11 New Hempstead Rd
New City, NY 10956
T. 845.638.5122

Interested Agencies

Unlike involved agencies, interested agencies do not have the authority to fund, approve, or directly undertake some aspect of the Proposed Action. Instead, interested agencies may contribute relevant scoping topics, submit written comments during the DGEIS comment period, and comment on the DGEIS at public hearings. For this DGEIS, interested agencies include Rockland's towns and villages (see the title page for a complete list of interested agencies).

2.5 Required Reviews and Approvals

Under Section 239-d of the New York State General Municipal Law, county legislative bodies may prepare a proposed county comprehensive plan. For the Rockland County Comprehensive Plan, the Rockland County Legislature will consider the Plan for adoption.

2.0 Proposed Action: Comprehensive Plan Adoption

3.1 DEMOGRAPHICS

The following section sets forth an examination of current trends in population change, household formation, patterns of settlement, labor force transformation, and aging. In this section, the potential impacts that could occur as a result of the adoption of the Comprehensive Plan, and any necessary measures needed to mitigate potential impacts, are identified.

3.1.1 Existing Conditions

Population

Prior to the opening of the Tappan Zee Bridge in 1955, Rockland County had less than 100,000 residents. In the 1960s and 1970s, growth proceeded rapidly, but between 1980 and 2000 a slowing pattern emerged. By 2008 Rockland County had grown four percent since 2000 to an estimated 298,545 persons¹. This number has likely exceeded 300,000 residents in 2010, given present trends. As shown in Table 3.1-1 below, Rockland County remains the smallest county in the region in terms of population but has grown slightly faster than Westchester or Bergen counties over the past decade.

Table 3.1-1: Population Growth, 1950-2008: Rockland and Neighboring Counties

	Number of Persons							Percent Change	
	1950	1960	1970	1980	1990	2000	2008	1950-2000	2000-2008
Rockland	89,276	136,803	229,903	259,530	265,475	286,753	298,545	221.2%	4.1%
Orange	152,225	183,734	221,657	259,603	307,647	341,367	379,647	124.3%	11.2%
Westchester	625,816	808,891	894,104	866,599	874,866	923,459	953,943	47.6%	3.3%
Bergen	539,000	780,255	898,012	845,385	825,380	884,118	894,840	64.0%	1.2%

Source: U.S. Census Bureau, 1950-2000 Census of Population & Population Division, 2008 Population Estimates Program

Components of Population Change

Rockland County's population growth is driven by the dual forces of natural increase and net migration. Natural increase is comprised of births less deaths of residents, while net migration reflects net international inflows (immigrants less emigrants) and net domestic relocation (US residents moving in, less those moving out of Rockland County). Over the last 18 years natural increase has become a larger determinant of population growth, increasing in importance from adding 2,225 new persons per year in the 1990s to 2,609 per annum in the current decade (see Table 3.1-2). This rise has been entirely attributable to the increase in births, which rose from

¹ Unless otherwise noted, population statistics are based on U.S. Census Bureau, Population Division, Population Estimates Program.

4,246 live births per year in the 1990s to 4,718 per year in the 2000s. Deaths, which negate the impact of births, have also increased, reflecting the aging of the County’s population.

Table 3.1-2: Components of Rockland County’s Population Growth, 1990-2008

	<i>In Persons over Period</i>		<i>Persons per Year</i>		<i>As % of Total</i>	
	1990 to 1999	2000 to 2008	1990 to 1999	2000 to 2008	1990 to 1999	2000 to 2008
Population at Start	265,475	286,753	--	--	--	--
Population Change	21,278	11,792	2,128	1,474	100.0%	100.0%
Natural Increase	22,551	20,869	2,255	2,609	106.0%	177.0%
+Births	42,461	37,745	4,246	4,718	199.6%	320.1%
-Deaths	-19,910	-16,876	-1,991	-2,110	-93.6%	-143.1%
Net Migration	-1,983	-15,565	-198	-1,946	-9.3%	-132.0%
Int'l Migration	12,036	10,807	1,204	1,351	56.6%	91.6%
Domestic Migration	-14,019	-26,372	-1,402	-3,297	-65.9%	-223.6%
Statistical Discrepancy	710	6,488	71	811	3.3%	55.0%
Population at End	286,753	298,545	--	--	--	--

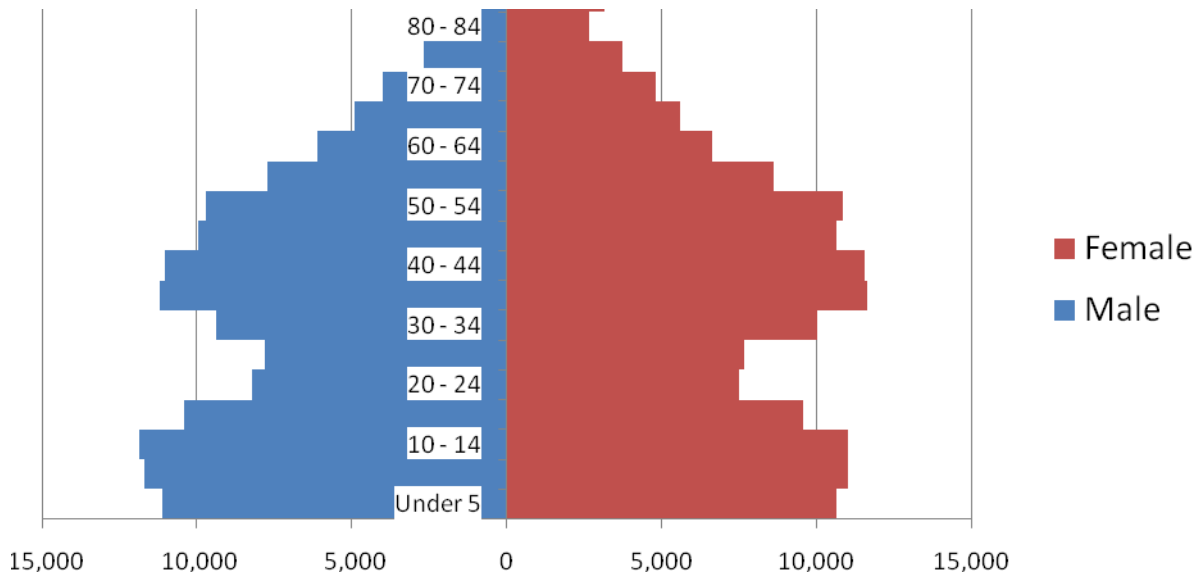
Source: Urbanomics, based on U.S. Census Bureau, Population Division, Population Estimates Program

Even though foreign immigration has been on the rise, the overall net migration component has declined further as a cause of growth. In the 1990s, on average, a net of 200 persons per year moved out of Rockland County, taking into consideration migrants moving in and out per year. In the current decade, net migration flows have created an annual loss of 1,946 residents or tenfold the 1990 decade average. Now, nearly 3,300 Rockland residents move out of the County annually, while 1,351 foreign immigrants settle in the County annually on a net flow basis.

Age Structure of the Rockland County Population

Chart 3.1-1 presents the age/sex structure of Rockland County residents in 2008 by five-year age cohort and gender. The chart depicts a broad base of children and young adults under 25 years of age, followed by a narrow waist of residents in young labor force ages (25-34 years), a broader scale of middle-aged inhabitants associated with home-owning and baby boom generations (35 to 64 years), and a tapering profile of retirement ages (65 years & older).

Chart 3.1-1: Age Structure of Rockland County’s Population in 2008



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

Recent changes in the age structure of Rockland County’s population have produced a measureable increase in the median age. Now 38.2 years, the median age has risen by two years or 5.5 percent from a median age of 36.2 years in 2000.

Projections of Growth

The Rockland County Planning Department, in partnership with Cornell University’s Applied Demographics Program, prepared population projections of Rockland County to 2035. It is important to note that these County population projections are not predictions of future population size and composition, nor do they necessarily reflect desired population growth, but rather are projections illustrating the impact of recent rates of population change and demographic characteristic shares. Based upon these cohort-component projections, the County’s population is expected to increase by 49,000 persons or 16.6 percent between 2005 and 2035. This growth amounts to an increase of only 0.6 percent each year and yields a total population of 343,636 by 2035.

Over the 30 year period, Rockland’s growth will be driven by the natural increase of 58,400 persons offset by the out-migration of 9,400 persons. Although the number of out-migrants is relatively low over 30 years, significant in- and outflows of residents will occur.

Significant shifts will also occur in the age structure of Rockland County’s population. As the Baby Boom Generation continues to age, the corresponding cohorts will grow exponentially; those 65-74 increasing by more than 10,000 persons or 52 percent, those between the ages of

3.1 Demographics

75 and 84 increasing by 8,500 or 70 percent, and the elderly (85 or older) increasing by 4,700 persons or 103 percent. The increasing share of elderly population is balanced by an increase in those under the age of 20. Growing by 19 percent, the under 20 cohort is expected to expand by more than 17,500 persons between 2005 and 2035, while the Prime Labor Force Age group will lose members, decreasing by 1.2 percent over the 30 year period (See Table 3.1-3).

Table 3.1-3: Projected Population by Age Group, 2005-2035

Age Grouping	2005	2010	2015	2020	2025	2030	2035	Change	Percent Change
Under 20	90,604	91,559	92,682	95,229	98,880	103,599	108,156	17,552	19.4%
Young Adults (20-29)	30,737	32,881	34,571	35,130	35,355	35,629	36,244	5,507	17.9%
Prime Labor Force Age (30-44)	62,464	58,082	56,596	58,098	60,628	61,428	61,708	-756	-1.2%
Mature Labor Force Age (45-64)	74,407	80,094	81,770	81,450	79,009	77,254	77,750	3,343	4.5%
Early Retirement (65-74)	19,673	21,332	24,738	26,885	28,486	30,331	29,795	10,122	51.5%
Established Retirement (75-84)	12,194	13,267	13,674	14,963	17,574	19,364	20,727	8,533	70.0%
Elderly (85+)	4,557	5,385	6,204	6,628	7,028	7,843	9,256	4,699	103.1%
Total	294,636	302,600	310,235	318,383	326,960	335,448	343,636	49,000	16.6%

Source: The Rockland County Department of Planning; Cornell University, Program on Applied Demographics; U.S. Census Bureau, 2005 Population Estimates

Recent population trends have brought greater diversity in race-ethnicity and religious affiliation, more retiring baby boomers and pending elderly, fewer residents in prime workforce-ages, larger families and households, increased foreign born and linguistically-challenged residents, fewer married and more single persons, lower rates of disability, and higher levels of educational attainment. As shown in Table 3.1-3 above, population projections also suggest that Rockland County is getting both older and younger at the same time with increases in children under 20 and seniors over the age of 65. Meanwhile, the prime labor force population (ages 30-44) is anticipated to shrink.

See the Rockland County Comprehensive Plan for more information on existing demographic conditions and trends, as well as demographic projections.

3.1.2 Potential Impacts

As can be seen in recent trends and projections, Rockland County's population is growing and is expected to continue to grow. At the same time, its demographic make-up is also changing with increased youths and seniors. These anticipated changes have ramifications for social service delivery, physical and economic development, housing needs, transportation and infrastructure demand, and educational needs of Rockland County. The Comprehensive Plan suggests that

3.1 Demographics

land uses will have to address the needs of senior citizens and youthful householders, and address the demands that result from growth, such as increased elder-care costs, and potential impacts on local government tax revenues from increased demands in education, community facilities, health and other services.

In terms of economic development, the limited expansion of prime and mature labor force ages may inhibit economic development efforts, while skill advancement among youthful entrants and retraining of existing senior age workers will be needed. There is also a need for affordable, workforce, and moderate density housing. Finally, investments in public transportation and highway improvements will need to be considered for this growing and changing population.

In order to address the current demographic trends, projections, and challenges, the Comprehensive Plan proposes the following 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.
- Foster strategies to encourage aging in place, including providing affordable access to modifying existing homes.
- Provide opportunities for seniors to maintain healthy minds, such as encouraging challenges that require utilization of memory and reasoning skills.
- 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.
- 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.
- Continue employment services and job skills development for seniors through coordination between the Office for the Aging, Rockland Community College, and other local stakeholders.
- Enhance efforts to inform seniors and their families about existing services and resources.

None of the above recommendations are anticipated to result in any significant adverse environmental impacts. If implemented, some of the above recommendations may have minor fiscal impacts to cover a specific community feature, program, or service. For example, a new community facility for seniors would require capital costs to construct new community space or retrofit an existing space. However, the long-term benefits of these programs and services outweigh the initial funding costs. The recommended programs and policies of the

Comprehensive Plan would expand services to Rockland’s growing youth and seniors, as well as benefit community character from enhanced community and public spaces.

The Comprehensive Plan encourages seniors to age in place; that is, potentially retrofitting their existing homes to accommodate their needs. This would keep seniors in Rockland County so that they could continue to positively contribute to their communities. By supporting new affordable housing alternatives for seniors, such as smaller rental or condo units and moderate- to higher-density development in village or hamlet centers, this recommendation could potentially impact transportation and utility demands in these areas. However, the Plan recommends placing housing only in strategic areas that can support these uses. For example, it only supports new housing for seniors in municipalities that will support it. By encouraging housing options in centers, most of these areas already contain utilities and alternative transportation modes, such as buses or transit that can support housing. These possible future site-specific environmental impacts will be addressed and appropriate mitigation measures will be developed during the SEQR reviews of future projects and actions.

Concentrating limited growth and development within existing centers that want to grow will protect against out-of-scale development in other parts of Rockland, as well as increases in traffic from additional scattered or sprawled development. Centrality of development helps preserve the character of low-density, rural and open space areas. It also leads to the more efficient use of infrastructure, particularly water and sewer systems, can reduce traffic congestion, and improve air quality. It will also help preserve Rockland’s environmental, scenic, and historic resources.

The Comprehensive Plan is an area-wide policy document, not a development application or development project. It includes the adoption of general policy initiatives to guide and facilitate future development in Rockland County, rather than directly resulting in physical changes to the environment. Since the Comprehensive Plan directs policy on a county-wide basis, it does not necessitate changes to any municipal zoning code (i.e. city, town or village). All future actions (i.e. policy or development) at the County level or municipal level will be required to undergo future environmental review under SEQR (6 NYCRR Part 617).

3.1.3 Mitigation Measures

Impacts that are associated with the Comprehensive Plan’s demographic recommendations are beneficial. Some minor fiscal impacts may occur but these do not constitute significant environmental impacts for purposes of SEQR. Therefore, adoption of the Comprehensive Plan is not anticipated to result in any significant adverse impacts to people or housing, and no mitigation measures are required.

3.2 LAND USE AND ZONING

The following section sets forth an examination of the existing land uses and generalized zoning within Rockland County, as well as a discussion of existing issues and future county-wide development trends. In this section, the potential impacts that could occur as a result of the adoption of the Rockland County Comprehensive Plan (“Comprehensive Plan”) are explored, and any necessary mitigation measures needed to mitigate potential impacts are identified.

3.2.1 Existing Conditions

As in many areas located within a larger metropolitan area, Rockland’s early development was marked by agriculture and localized industry, which gave rise to modest suburban expansion. From the early 20th Century on, the County’s population grew with expansion of its rail and later its road systems. Development that had been centered in villages and on rail lines and historical transportation routes such as the Ramapo Pass and the Hudson River became more dispersed with the construction of Route 9W in the 1930s and the Palisades Interstate Parkway, Tappan Zee Bridge and New York State Thruway in the 1950s. This shift more closely linked Rockland with the greater region and led to the development of major growth corridors such as I-287 and Routes 17, 45, 59, 202, 303, 304, 306 and 340.

Land Use

Today, land uses in Rockland County range from traditional and relatively dense village and hamlet centers to lower-density suburban residential areas, from regional shopping centers to light industrial parks (see Figure 3.2-1: Generalized Land Use Map – Rockland County).

As shown in Table 3.2-1, park land is the single largest land use, comprising just over one-third of the County’s total land area of 176 square miles. Most of this preserved open space consists of New York State parks in the northwestern portion of Rockland and a series of interconnected green spaces along the Hudson River that together comprise a 33-mile stretch that is intertwined with the Long Path regional hiking trail. Park land and open space also includes the Palisades Interstate Parkway, a Scenic Byway and a Natural National Landmark. The Parkway provides extensive landscaping and protection of scenic views. Other open space – local parks, private recreation areas and water areas – totals approximately eight percent of the total land area, making the total amount of open space to comprise nearly 40 percent of Rockland’s land use.

FIGURE 3.2-1: GENERALIZED LAND USE MAP

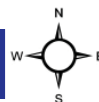
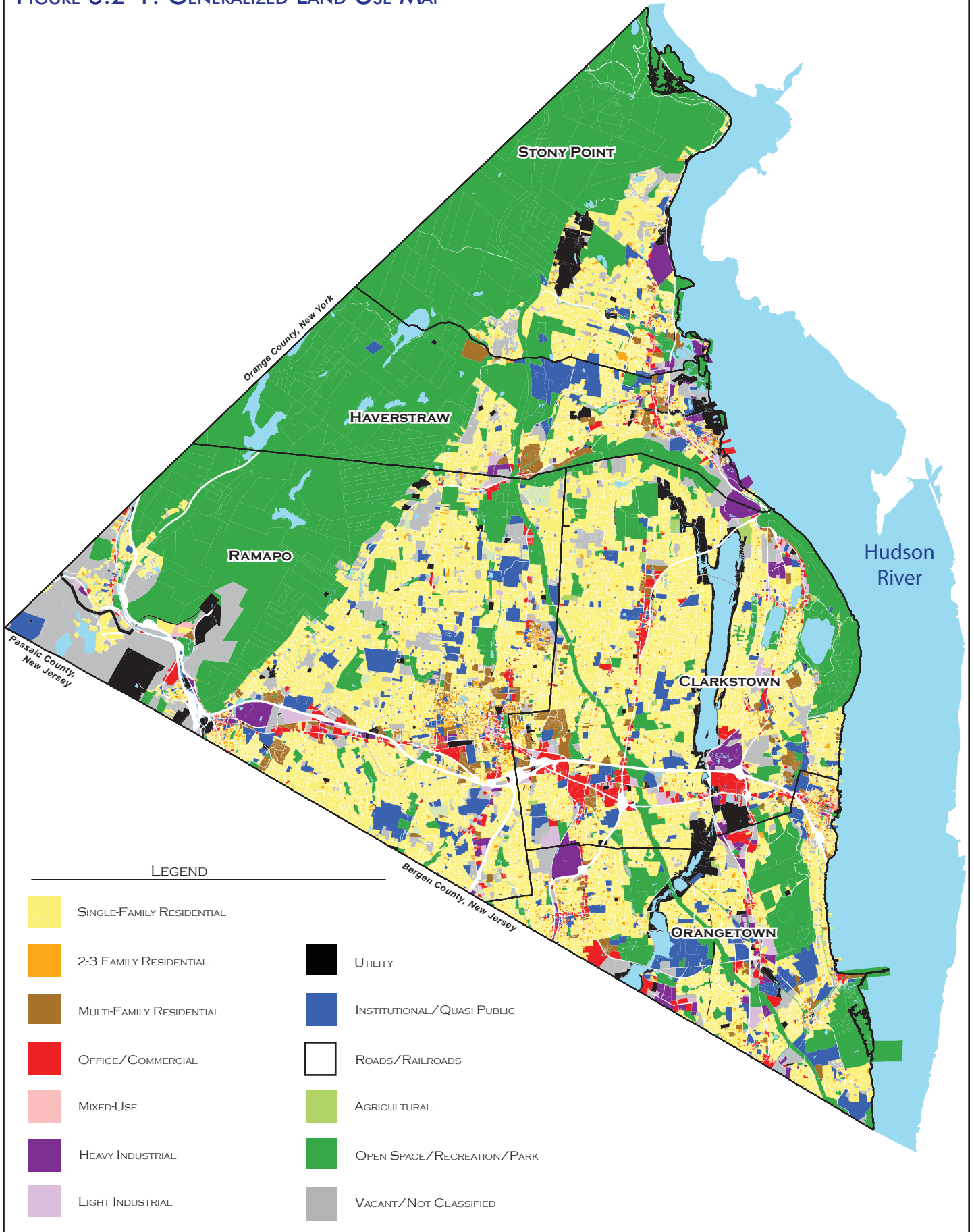


Table 3.2-1: Countywide Generalized Land Uses

Generalized Land Use Classifications	Acreage	Percent
Residential		
One-Family	32,832	28.7
Two-Family	1,307	1.1
Three-Family	189	0.2
Multifamily	2,160	1.9
Multifamily – Senior Housing	205	0.2
Total	36,693	32.1
Commercial/Office		
Local Neighborhood	288	0.3
General Business	1,349	1.2
Regional Commercial	233	0.2
Office	622	0.5
Total	2,492	2.2
Mixed Use	119	0.1
Industrial		
Light Industrial/Warehouse	871	0.8
Heavy Industrial	1,845	1.6
Total	2,716	2.4
Institutional/Quasi-Public	6,319	5.5
Utilities/Transportation		
Utilities*	3,445	3.0
Railroad	379	0.3
Roadways	9,023	7.9
Total	12,847	11.2
Agricultural/Parks/Open Space		
Agricultural	475	0.4
Public Park/Open Space	34,747	30.4
Local Park/Open Space	3,441	3.0
Private Recreation/Private Open Space	2,614	2.3
Water	3,294	2.9
Total	44,571	39.0
Other		
Vacant	8,349	7.3
Not Yet Classified	145	0.1
Total	8,494	7.4
TOTAL	114,251	99.9

Source: Rockland County Planning Department, 2009

1. Land use based on 2008 RPS databases (PCC codes), ongoing field verifications and 2007 orthophotos. Land use calculations do not include any areas underwater in the Hudson River.
2. Acres based on GIS calculations, rounded to the nearest whole number.
3. Geography based on 2008 tax map parcels. Water category based on lakes and County-regulated streams.
4. The Palisades Interstate Parkway (PIP) is classified as parcels and not as rights-of-way, and is thus reflected in the public park/open space totals rather than the roadways.

*Includes Lake DeForest, a County reservoir.

Single-family residences make up the largest category of developed land uses, representing more than 28 percent of the total land area in Rockland County. Pockets of medium- and higher-density residential uses, consisting of two- and three-family housing and multifamily housing (including senior housing) exist throughout the County, and together comprise approximately three percent of the land area, located primarily in village centers and along major roadways. Commercial and business uses, including both regional commercial development such as the Palisades Center Mall and “local neighborhood” uses found in village centers and downtown areas, make up just over two percent of the total land area.

Industrial uses in the County have not represented as much land area as had been anticipated by the 1973 Rockland County Master Plan, but these uses comprise approximately two percent of land area, mainly along the major thoroughfares of Routes 59, 303 and 304, and in older industrial areas on the Hudson River. Institutional land uses are found throughout the County and make up nearly six percent of the total land area, while land that is either vacant or not yet classified represents another roughly seven percent.

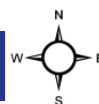
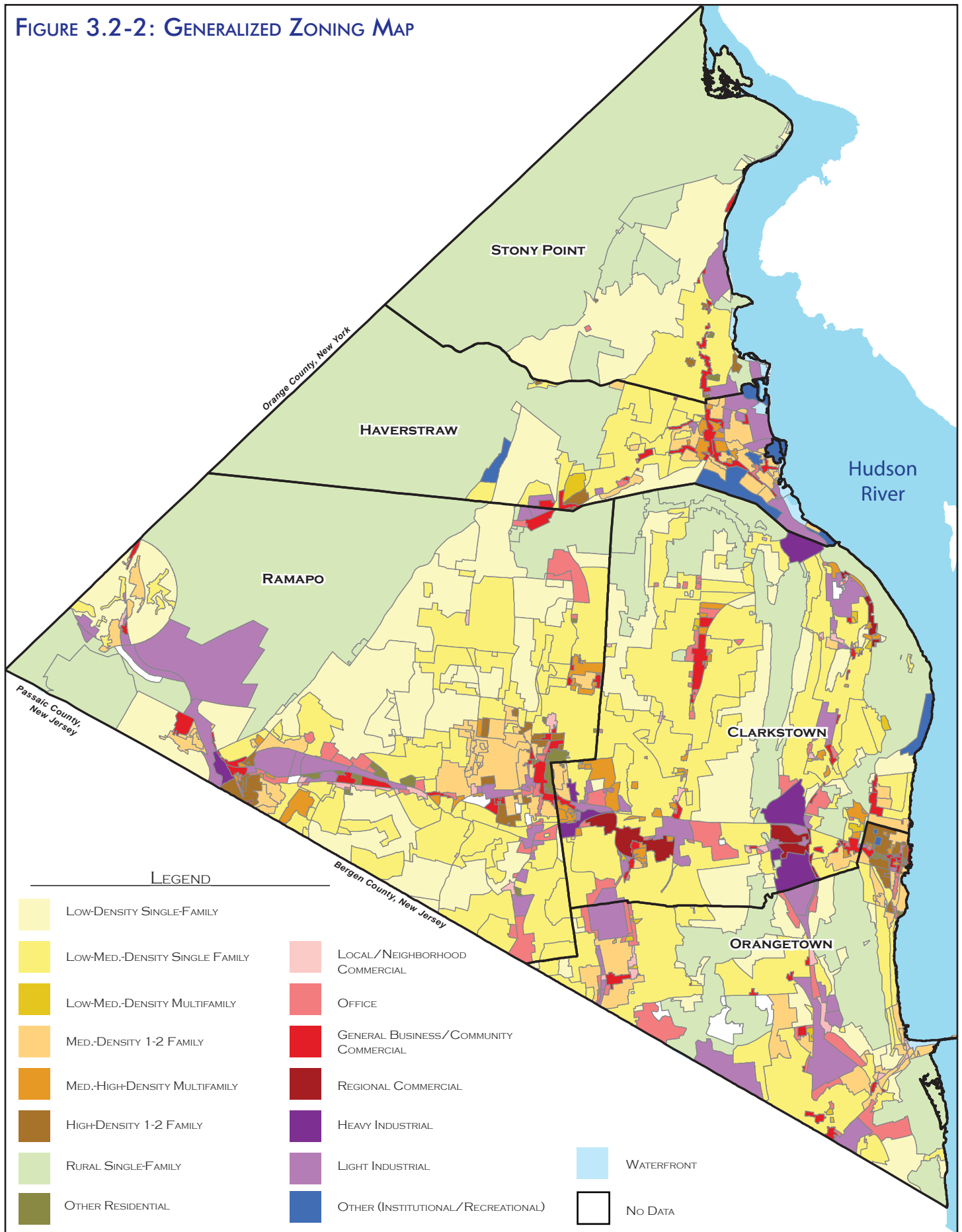
Zoning

The primary tools for controlling or implementing any plans to change land use are zoning and subdivision regulations. These governmental powers are not under the direct control of Rockland County due to the home-rule provisions of the State enabling legislation, but a discussion of county-wide zoning is useful because of the County’s role in reviewing site plans, subdivisions, variances, zone changes, zoning code amendments, special permits and other local actions under the State-mandated General Municipal Law (GML) application process. Under Section 239 of the GML, development proposals that require action by a municipal board, planning board or zoning board of appeals and are within 500 feet of a County stream, municipal boundary, the Long Path, or an existing or proposed State or County road, park, or facility, require referral to the County Planning Commissioner.

Zoning in the County is regulated by some two-dozen distinct codes, ranging from small villages with few zoning districts to larger municipalities with many zones. Because of this wide variation in zoning, significant differences can exist in how each local government addresses density requirements, setback rules, and treatment of environmentally sensitive areas.

Figure 3.2-2 presents a generalized zoning map of Rockland County, based on the best available data obtained by the Rockland County Department of Planning (i.e. municipal zoning maps and resolutions).

FIGURE 3.2-2: GENERALIZED ZONING MAP



Build-Out Analysis

In 2007, the Rockland County Department of Planning launched a residential build-out analysis designed to provide a general estimation of the future residential growth potential in the County consistent with the existing zoning and development patterns, as part of a population projection effort.

Rockland County Planning now estimates the potential for 17,948 additional housing units to be developed based on current zoning and constraints. The results of this build-out analysis are shown in Figure 3.2-3. As the figure indicates, the areas with greatest build-out potential include western portions of Ramapo (including the Village of Sloatsburg), Stony Point, the Village of Pomona, the central and western portions of Orangetown, and the Village of Chestnut Ridge.

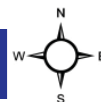
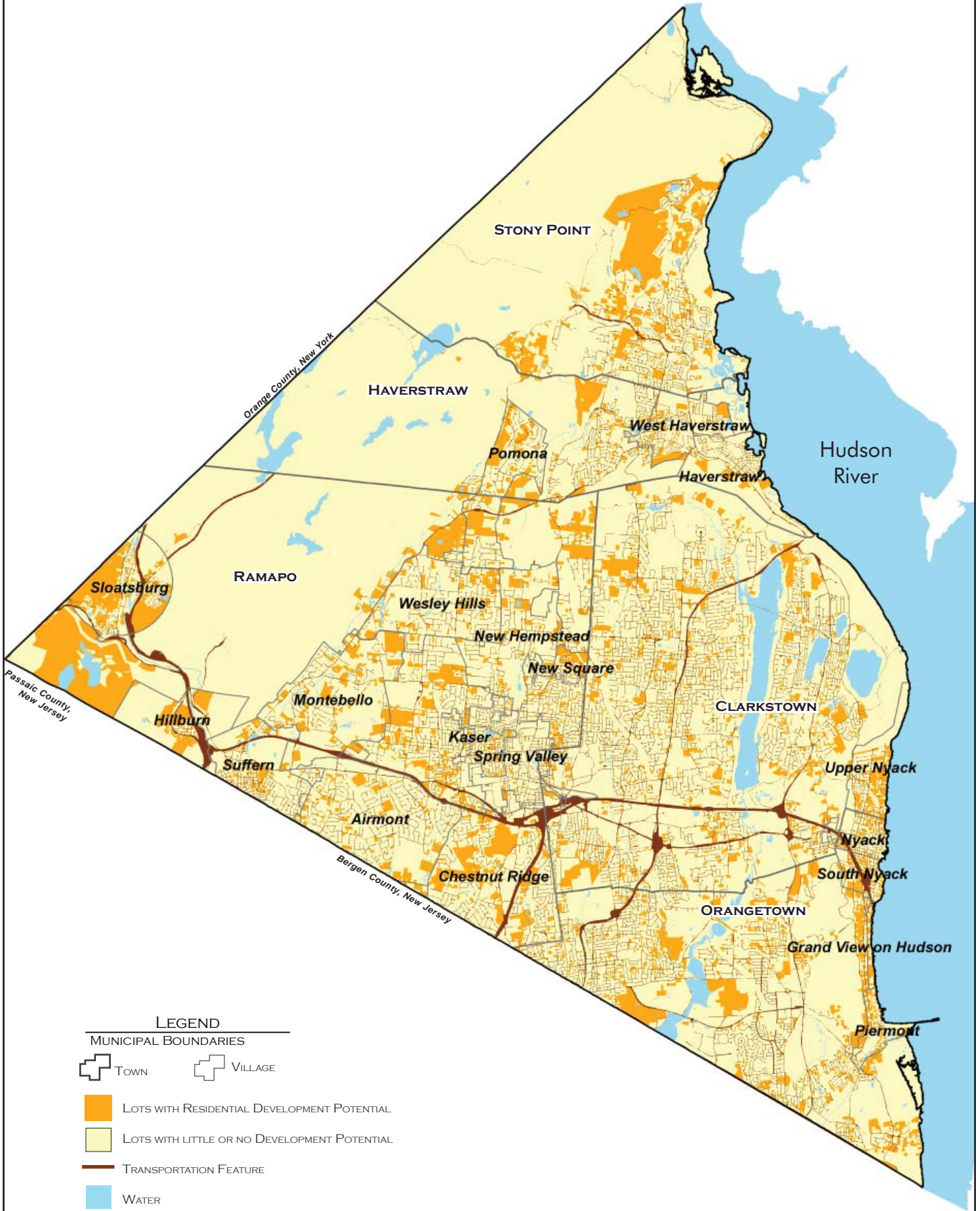
The results of the build-out analysis are theoretical; therefore, any future development is contingent on a variety of factors, including the availability of land and the local economy. The build-out analysis is a potential saturation point scenario that assumes all of the undeveloped residentially zoned land in Rockland County is actually developed; this information is a guide and does not suggest actual, or desired, building levels.

A number of other growth factors are examined in Chapter 3.1 Demographics and Chapter 3.8 Economic Development, including population projections, household size estimates, and economic growth opportunities. According to population projections, which are more plausible than the above build-out analysis, the County's population is expected to increase by 49,000 persons or 16.6 percent between 2005 and 2035. This growth yields a total population of 343,636 by 2035.

The population projections suggests that growth is occurring in Rockland County, which may impact or result in the need for more housing and services, infrastructure capacity, and transportation demand. The dynamic of future land uses may also be affected, including open space and recreation, residential, commercial, industrial, and institutional uses, which could negatively impact environmental and natural resources.

See the Rockland County Comprehensive Plan for additional information on existing conditions, land use trends, and population projections.

FIGURE 3.2-3: BUILD-OUT ANALYSIS



3.2.2 Potential Impacts

As described in Chapter 2.0, the Comprehensive Plan is a blueprint for the County's future that will provide guidance for future municipal planning and zoning actions and serve as the basis for all County government planning and development issues for the next 10-20 years. It will provide general recommendations on future County land use issues and policies to implement these strategies, address key matters under direct County jurisdiction, and identify specific land use and zoning conflicts among municipalities that should be resolved to allow for better functioning of zoning regulations.

The Comprehensive Plan recommends six land use and sustainability policies. Just as Rockland's land use issues are interrelated, so are the following Plan policies, which overlap with other chapters in this DGEIS:

- Conserve open space and protect environmentally sensitive areas, such as the Hudson River.
- Promote conservation (cluster) subdivision design to help conserve valuable and sensitive open space.
- Reinforce existing county centers through investment in infrastructure and housing and support of businesses.
- Foster and maintain well-designed business and industrial corridors and clusters.
- Encourage smart growth, while preserving quality-of-life and existing community and neighborhood character.

In support of the above policies, the Comprehensive Plan provides the following land use recommendations:

- Promote investment in centers by supporting a mix of uses including office, retail, and residential.
- Identify brownfields and greyfields for potential redevelopment and promote adaptive reuse of older buildings.
- 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.
- Support zoning that encourages work-force housing for Rockland's volunteer emergency-services and caregiver populations.
- Encourage intermunicipal communication and cooperation.
- Coordinate and integrate transportation and land use planning on all scales by fostering collaboration among Rockland's municipalities and continued cooperation with regional transit providers.

3.2 Land Use and Zoning

Although general in nature, the above land use policies and recommendations are designed to preserve and enhance natural and manmade resources through a pattern of controlled development and redevelopment strategies that encourages reinforced centers and other commercial and industrial areas that are already developed. The Comprehensive Plan is anticipated to strengthen Rockland County's environment and natural and coastal resources, while addressing current land use trends.

The effects of the Comprehensive Plan on land use will be largely measured by how it responds to anticipated population growth in the County (see Chapter 3.1), while conserving open space and protecting its natural resources (i.e. air and water). In this regard, the Comprehensive Plan focuses on the above policies, which are aimed at preserving environmental and natural resources and maintaining Rockland's existing character and quality of life.

A focus of the Comprehensive Plan is to reinforce Rockland's existing centers. A center is defined here as an area's commercial or mixed-use focal point. Centers may consist of areas that contain existing rail stations, including Suffern and Sloatsburg on the Port Jervis/Main/Bergen Line and Spring Valley, Nanuet, and Pearl River on the Pascack Valley Line; historic riverfront villages, such as Piermont, South Nyack, Nyack, and Haverstraw Village; growing centers, such as New Square, Kaser, Haverstraw Village (also a riverfront village), West Haverstraw and Spring Valley (also an existing transit center); neighborhood centers, found along some of the existing commercial corridors in the County; and commercial centers, such as the Palisades Center Mall.

Reinforcing centers may be in the form of focusing growth (i.e. population or economic) toward the centers that want to grow, encouraging infrastructure improvements in centers that need assistance, or encouraging policies that protect other centers, such as Rockland's historic riverfront villages. Impacts that may result from this policy include infrastructure, transportation, housing, and service demands in centers that want to grow. However, most of these growing centers already contain adequate utilities and some transportation options, such as bus or rail.

Concentrating limited growth and development within existing centers that want to grow will protect against out-of-scale development in other parts of Rockland, as well as increases in traffic from additional scattered or sprawled development. Centrality of development helps preserve the character of low-density, rural and open space areas. It also leads to the more efficient use of infrastructure, particularly water and sewer systems, can reduce traffic congestion, and improve air quality. It will also help preserve Rockland's environmental, scenic, and historic resources.

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. Some of these corridors include Routes 17, 45, 59, 202, 303, 304, 306 and 340. The Comprehensive Plan does not

encourage expanding the existing commercial corridors and clusters but does see the reinforcement and enhancement of these areas as essential to the economic well-being of Rockland. As the economic engines in Rockland County, these areas contain a mix of commercial and light industrial uses. A focus of the Comprehensive Plan is to support these areas and ensure they balance traffic flow and safety, access to adjacent uses, support various modes of transportation, and revitalize abandoned and underutilized properties.

In order to preserve Rockland's current open space, the Comprehensive Plan recommends that towns and villages consider incorporating cluster (or conservation) subdivisions into their zoning/subdivision codes, as well as smart growth policies. The clustering of homes in new residential developments allows for the preservation of natural site features and can provide savings in infrastructure costs. Regarding smart growth policies, the Comprehensive Plan recommends that land uses be placed in areas where they can be compatible with and in support of each other. For example, the Comprehensive Plan recommends that new housing occur as infill or be placed in proximity to transit, services, and jobs.

The majority of land use decisions in Rockland County are made by the towns and villages, and are not under the direct purview of the County. However, 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 GML. The Comprehensive Plan recommends that the County should take the lead on regional land use issues and on activities involving County-owned property, while encouraging its municipalities to take appropriate local actions to address land use issues affecting their communities. Toward these ends, the Comprehensive Plan encourages intermunicipal communication and cooperation to ensure that land use, planning and zoning policies among neighboring towns and villages are regionally-minded and mutually beneficial. Furthermore, the Comprehensive Plan supports municipal zoning changes that encourage diverse housing options.

None of the above recommendations are anticipated to result in any significant adverse impacts. Proposed Comprehensive Plan policies and recommendations are intended to preserve a majority of Rockland County, while mainly focusing on centers and corridors. Therefore, the Comprehensive Plan aims to reduce impacts to the environment by focusing growth to those existing centers - only when supported by the municipality - and retaining the same density in those centers that want to remain "as-is". The Comprehensive Plan proposes land use policies that aim to improve both of these types of centers. At the same time, the Comprehensive Plan aims to promote smart growth that will respond to the County's growing population and support Rockland's diverse population.

The Comprehensive Plan is an area-wide policy document, not a development application or development project. It includes the adoption of general policy initiatives to guide and facilitate future development in Rockland County, rather than directly resulting in physical changes to the environment. Since the Comprehensive Plan directs policy on a county-wide basis, it does not

3.2 Land Use and Zoning

necessitate changes to any municipal zoning code (i.e. city, town or village). All future actions (i.e. policy or development) at the County level or municipal level will be required to undergo future environmental review under SEQR (6 NYCRR Part 617). Land use decision-making occurs at the local level through zoning as promulgated by the New York Municipal Home Rule Law (Chapter 843 of New York State Consolidated Laws Chapter).

3.2.3 Mitigation Measures

Impacts that are associated with the Comprehensive Plan's land use recommendations are beneficial. Therefore, adoption of the Comprehensive Plan is not anticipated to result in any significant adverse land use or community character impacts, and no mitigation measures are required.

3.3 TRANSPORTATION

The following section sets forth an examination of the existing transportation conditions within Rockland County, as well as a discussion of existing issues and future county-wide trends. In this section, the potential impacts that could occur as a result of the adoption of the Rockland County Comprehensive Plan (“Comprehensive Plan”) are explored, and any necessary mitigation measures needed to mitigate potential impacts are identified.

3.3.1 Existing Conditions

Although most trips in Rockland are made by private motor vehicle¹, other modes, such as bus, rail, ferry, bicycle and pedestrian trips, are important for providing mobility and reducing traffic congestion. Therefore, the Comprehensive Plan identifies a balanced, multi-modal transportation network - on both a local and regional level - in order to provide for economic growth and environmental preservation.

Roads and Traffic Volume

The road network serving Rockland has four functional classifications: interstate highways and parkways, principal and minor arterials, collectors, and local streets. Excluding the interstate highways and parkways, there are approximately 1,150 miles of roads serving Rockland—owned and maintained by New York State (100 miles), Rockland County (170 miles), and the five towns and 19 villages in Rockland (880 miles). Road classification types include interstate, State, County and local roads (See Figure 3.3-1).

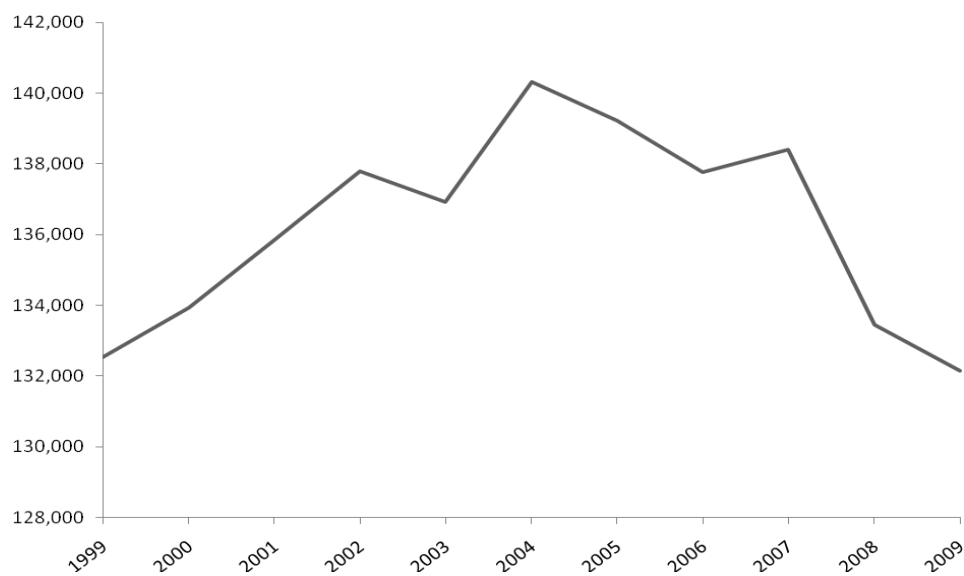
The New York State Department of Transportation maintains the Average Annual Daily Traffic (AADT) statistics for the principal arterials and limited access highways serving Rockland County. AADT measures the average flow of traffic on an average day, for all lanes in both directions.

Figure 3.3-2 shows the 2007 AADT for eight principal arterials in Rockland. The traffic volumes range from a low of approximately 6,400 vehicles per day to a high of approximately 145,600. AADT levels were highest on I-87/287 from the Tappan Zee Bridge to the NYS Route 17 interchange in Suffern, ranging from 105,000 between Airmont Road and Route 17 (exits 14B and 15A) to 130,000 to 145,000 between the Garden State Parkway extension and the Tappan Zee Bridge. The Palisades Interstate Parkway, between the New Jersey state line and Route 202, carried the second highest traffic volumes, ranging from 50,000 between the state line and Route 303 (exit 5) and 82,000 between Route 59 (exit 8) and I-87/287 (exit 9). These are the two major highways in Rockland County, and both currently operate above capacity.

¹According to the U.S. Census Bureau’s American Community Survey (ACS) 2006-2008, more than 80 percent of Rockland County residents rely on vehicular transportation for their journey to work.

Average daily traffic on the Tappan Zee Bridge (I-87/287) showed a steady increase between 1999 and 2002, rising to nearly 138,000 vehicles per day from approximately 132,500. Following a moderate one-year decline in 2002, traffic spiked to more than 140,000 vehicles per day in 2004 – the highest volume recorded between 1999 and 2009. Since then, traffic volume on the bridge, on the whole, has declined. As shown on Chart 3.3-1, the most pronounced decrease came in 2007, when bridge traffic dropped to approximately 133,500 vehicles per day from 138,000. This sharp decrease over the past three years is likely reflective of the onset of the 2007 financial crisis and ongoing job losses. It should be assumed, however, that an improved national economy will impact traffic volume on the Tappan Zee Bridge and I-287 in the future.

Chart 3.3-1: Tappan Zee Bridge Average Annual Daily Traffic, 1999 – 2009



Source: NYSDOT Highway Data Services Bureau

FIGURE 3.3-1: ROAD MAP

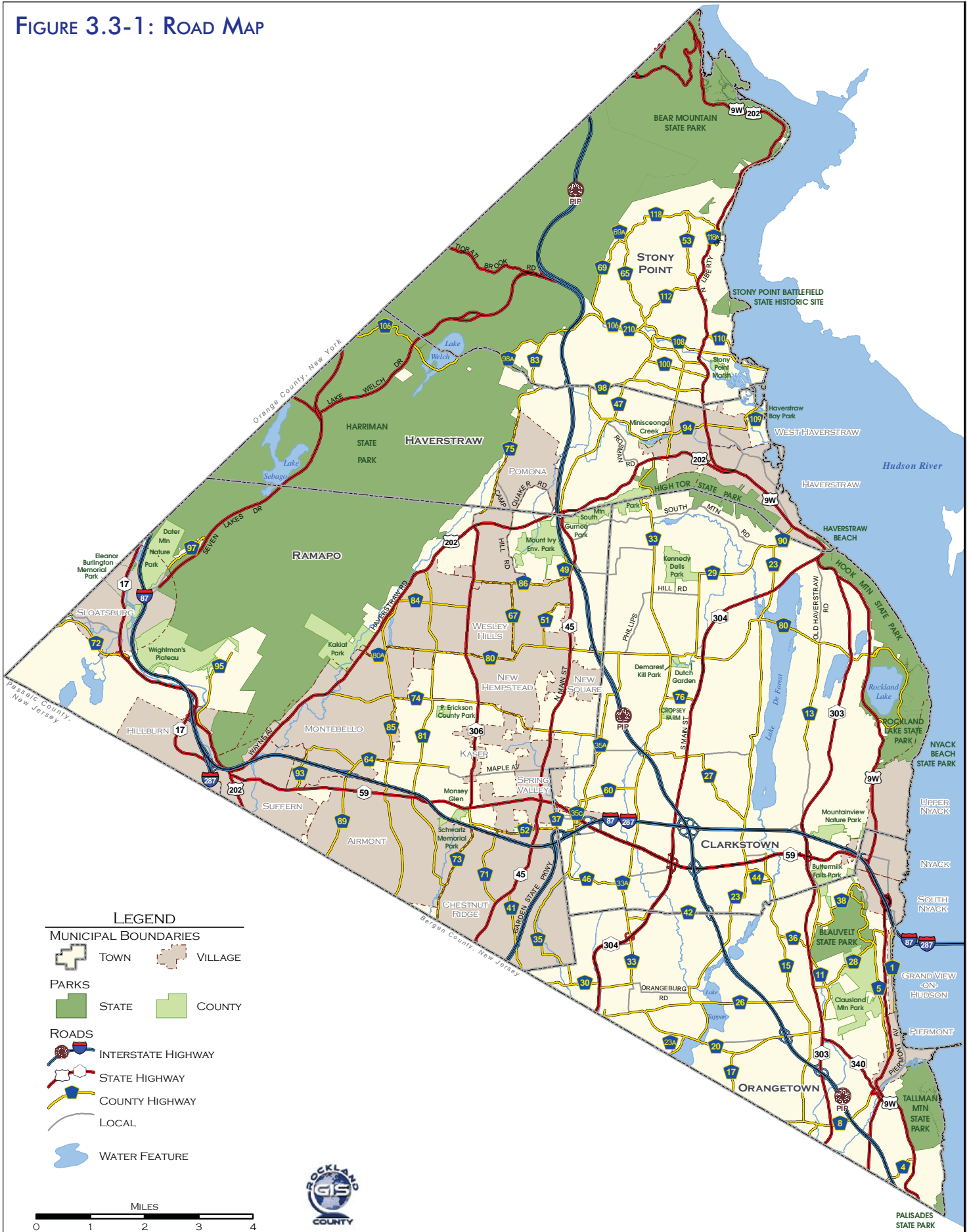
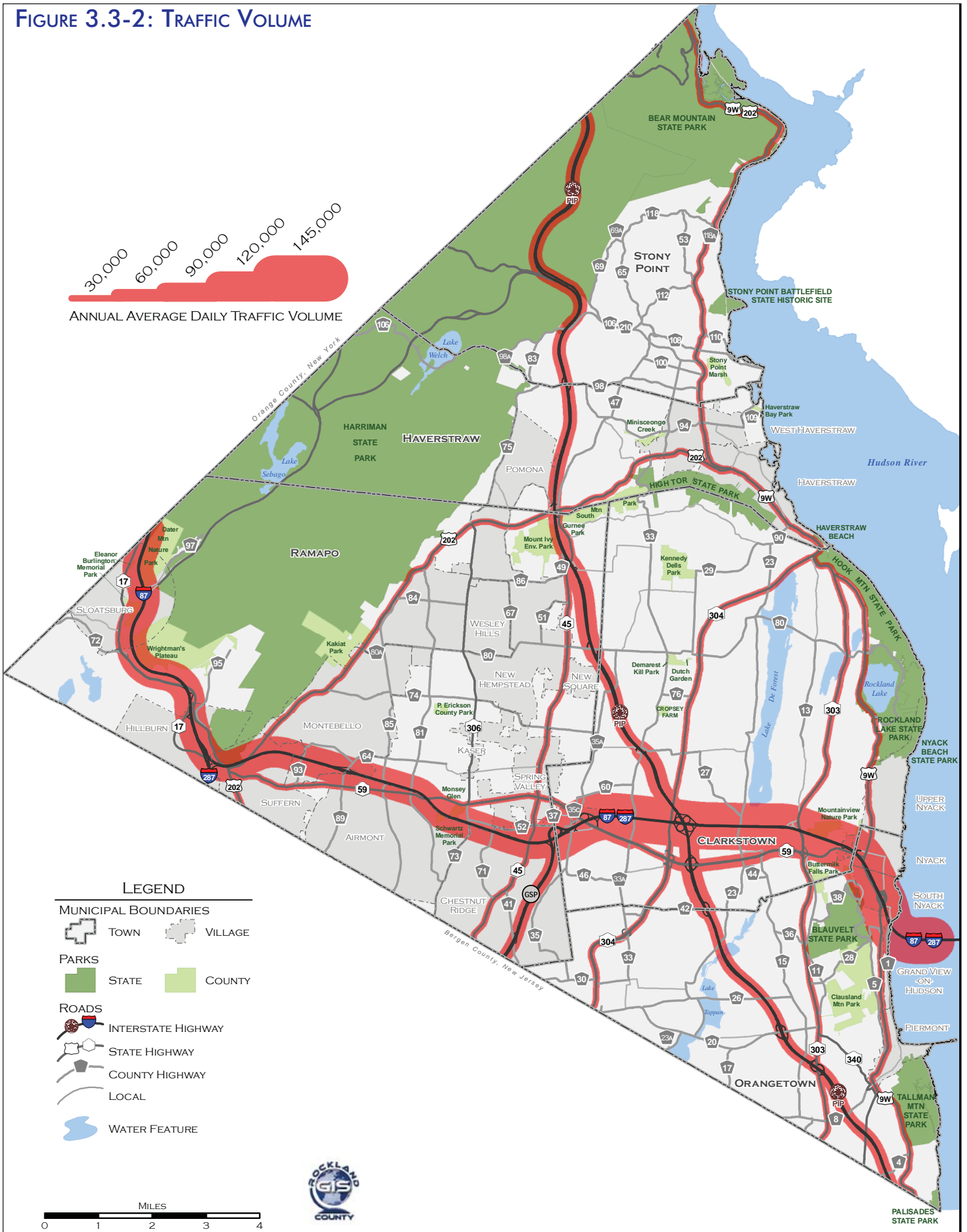


FIGURE 3.3-2: TRAFFIC VOLUME

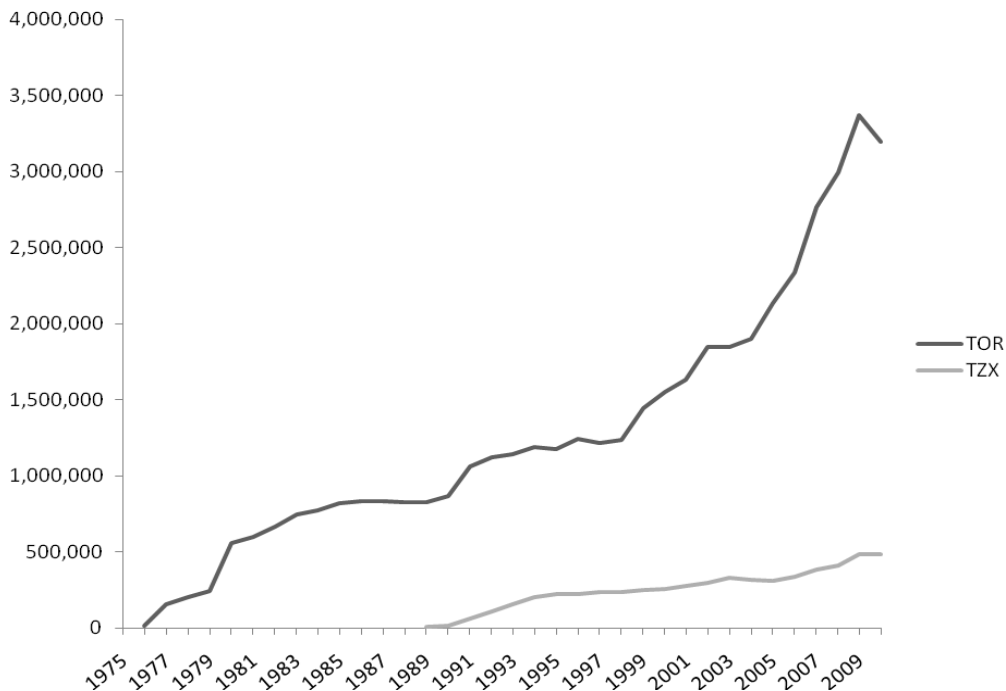


The Comprehensive Plan has identified the capacity and function of I-87/287, the Palisades Interstate Parkway and Route 59, as critical transportation issues in coming decades. If these regional roadways do not function properly – that is, if the volume exceeds capacity by a significant degree – drivers may increasingly seek by-pass routes to these roads. High traffic congestion levels have the potential to degrade the quality of life for Rockland County residents who live in the neighborhoods served by these unintended by-pass routes. Other issues in Rockland County include: (1) increased air pollution from stop-and-go traffic and (2) a significant economic cost in lost time (see the Economic Development chapter of the Comprehensive Plan).

Public Transit and Paratransit

There are several municipal and private bus systems serving Rockland. Some are local circulator or shuttle routes, some serve corridors where there is relatively dense development, and some connect to major destinations outside of the County. As indicated in Chart 3.3-2, Transport of Rockland (TOR), Rockland’s intra-county bus service, and the Tappan ZEEExpress (TZx), Rockland’s inter-county bus service, have shown continuous growth in bus ridership through 2008. A combination of service enhancements and, to some extent, rising fuel costs contributed to the dramatic increase in ridership from 2004-2008. Since 2009, however, both TOR and TZx ridership have seen decreases, which is consistent with bus operations throughout the nation and reflective of the current economy.

Chart 3.3-2: Annual Ridership: Transport of Rockland (TOR) & TappanZEEExpress (TZX)



Source: Rockland County Department of Public Transportation

In addition to public transit, Rockland County operates Transportation Resources, Intra-county, for Physically Disabled and Senior Citizens (T.R.I.P.S.), which provides a curbside-to-curbside, shared-ride, demand-response bus service for Rockland residents with physical or mental disabilities, or, who are age 60 or older. Service is reserved for individuals who find regular, fixed-route bus service difficult or impossible to use.

Demand for T.R.I.P.S. service has increased as Rockland's population has aged. One of the reasons for this is because T.R.I.P.S. offers paratransit service on a broader spectrum than what is required under the Americans with Disabilities (ADA) Act of 1990. T.R.I.P.S. does not have eligibility requirements as strict as other paratransit services around the country, enabling a larger portion of the County's population to be eligible for regular (non-ADA) T.R.I.P.S. service.

Passenger Rail Service

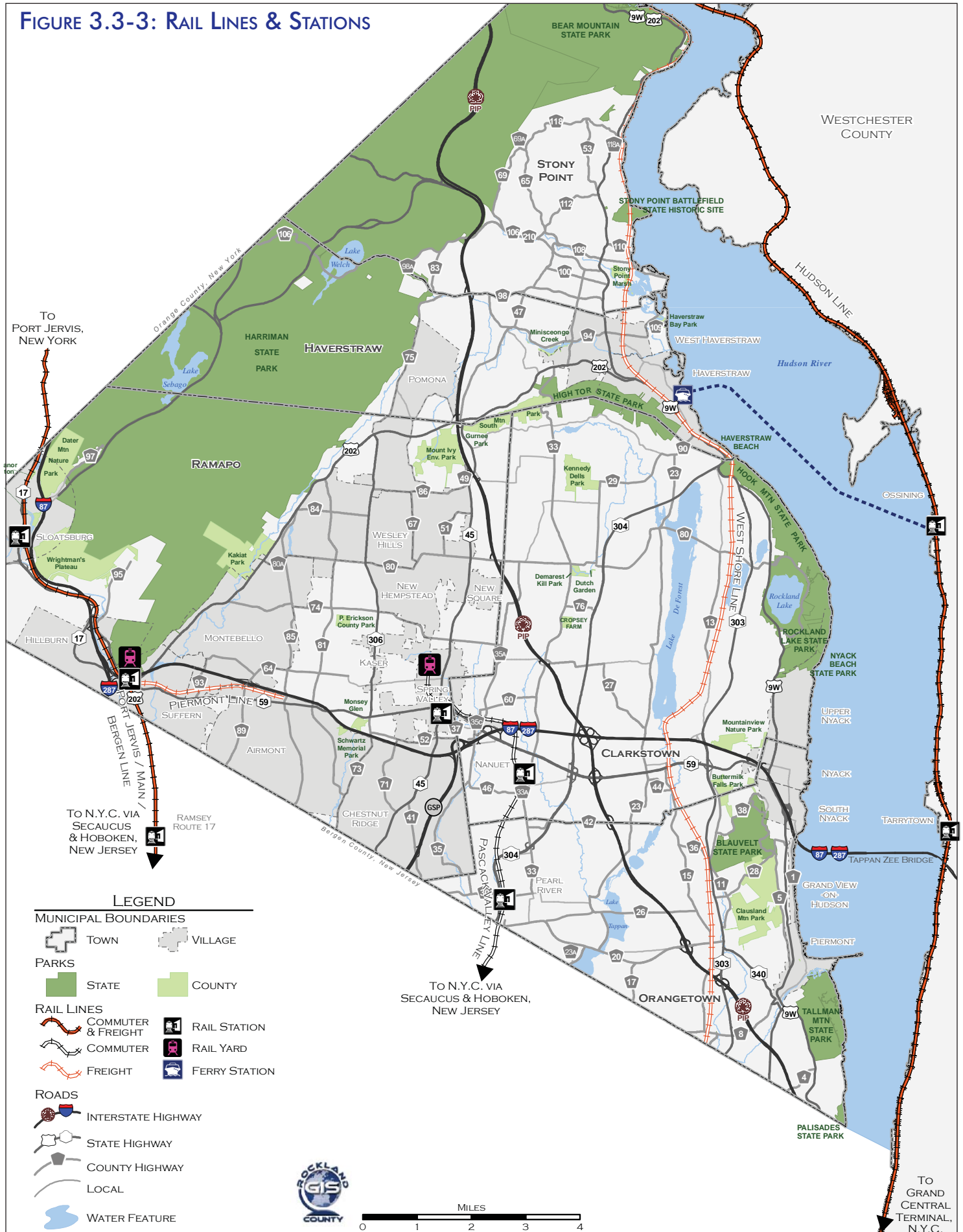
There are currently two rail lines in Rockland providing passenger service: the Port Jervis line and the Pascack Valley line. Passenger service is provided by the Metropolitan Transportation Authority's (MTA's) Metro-North Railroad through an operating contract with New Jersey Transit. Five stations support these two rail lines – Sloatsburg, Suffern, Spring Valley, Nanuet and Pearl River – as well as the Woodbine train yard in Spring Valley (see Figure 3.3-3).

The Port Jervis/Main/Bergen Line connects Port Jervis in Orange County, New York, and Hoboken, New Jersey, and has two passenger stations within Rockland – Suffern and Sloatsburg. Travelers to New York City can transfer at Hoboken for PATH or ferry service, or at Secaucus for NJ Transit trains to Penn Station. While the Port Jervis Line is used primarily for passengers, Norfolk Southern does operate freight.

The Suffern railroad station has the highest level of train service in the county, but the physical layout of the station, vehicle and pedestrian circulation, ADA access and parking could be improved.

The Pascack Valley Line connects Spring Valley and Hoboken and has three stations: Spring Valley, Nanuet, and Pearl River—as well as the Woodbine train yard in Spring Valley. Travelers to New York City can transfer at Hoboken for PATH or ferry service, or at Secaucus for NJ Transit trains to Penn Station NY. This line provides important rail service and has a potential for enhanced future service. However, the Pascack Valley Line is constrained by a number of issues, including a mostly single-track alignment; a small rail yard; and a high number of at-grade crossings in New Jersey.

FIGURE 3.3-3: RAIL LINES & STATIONS



As discussed in more detail below (in Section 3.3.2 Potential Impacts), the Comprehensive Plan recommends that Metro-North should seek improved service for the Port Jervis/Main/Bergen Line and Pascack Valley Line in light of the current value gap of service to Rockland residents. According to the MTA's 2008 Cost Benefit Analysis Report, in 2005, Rockland County residents paid \$88 million to the MTA with a return of \$46.5 million in MTA service and direct funding, leaving a value gap of approximately \$42 million. This value gap increased by approximately \$10 million since 1999 and the implementation of the Mobility Tax in 2009 has added approximately \$18 million more annually to the value gap.

Freight

Most trucks that travel within Rockland have one of four purposes: delivering consumer goods to retail and service establishments, moving raw materials and finished products to and from industrial and manufacturing facilities, providing public services such as utilities and communications, and disposing of waste from homes and businesses. I-87/287 is the only limited-access freight route in Rockland. U.S. 9W and Route 303 serve as the County's major north/south corridors for truck traffic.

The major freight rail line is the West Shore line, which is owned and operated by CSX Transportation for freight service only. The West Shore line extends between New Jersey and Selkirk, New York. The volume of freight has grown substantially since Conrail was acquired by CSX Transportation.

The Comprehensive Plan suggests that the growth in rail freight is important to alleviating regional truck traffic but it also disrupts traffic in some communities. Rail freight can delay emergency response vehicles at rail crossings and increases the time that nearby communities are exposed to noises associated with train operation. However, the Plan also suggests that efficient freight distribution is necessary for the economic functioning of businesses.

Commutation

According to the U.S. Census Bureau's American Community Survey (ACS), more than 80 percent of Rockland residents rely on vehicular transportation for their journey to work, while nine percent rely on mass transit. Of those relying on vehicular transportation, approximately 72 percent drive alone, while 10 percent carpool. In addition, only two percent of commuters take the train, and approximately seven percent commute by bus. Some three percent walk or bike to work, and four percent reportedly work at home.

Approximately 58 percent of workers who reside in Rockland also work in the county. Another 27 percent of Rockland residents commute to jobs in another New York State county, while about 15 percent commute to jobs outside New York State. More specifically, according to the 2000 U.S. Census, 20 percent of Rockland residents commute to jobs in New York City, 10 percent commute to Bergen County, and eight percent commute to Westchester County.

According to the 2008 ACS, nearly 72 percent of individuals employed in Rockland are also residents of the county. For individuals commuting to jobs in Rockland, 10 percent reside in Orange County, six percent reside in Bergen County, and four percent reside in Westchester County.

Regional Transportation Projects

There are currently three substantial transportation projects or studies by others that have the potential to have major impacts on Rockland County. These projects/studies include the I-287/Tappan Zee Bridge Corridor Project, Access to the Region's Core, and West of Hudson Regional Transit Access. More information on these projects/studies can be found in Chapter 6.0 Subsequent SEQR Actions.

See the Rockland County Comprehensive Plan for more information on existing transportation conditions and trends, as well as projects and studies by others.

3.3.2 Potential Impacts

The Comprehensive Plan recommends the following four transportation policies:

- Promote integrated vehicular, mass transit, paratransit, bicycle, and pedestrian transportation infrastructure for an efficient network of roadways, railways, and pathways.
- Enhance mobility and accessibility in order to provide greater choices of travel for all, including the growing aging population.
- Work to reduce dependence on the automobile as the major mode of ground transportation and increase the use of public transport.
- Promote and enhance safety for motorists and pedestrians.

The Comprehensive Plan proposes to reduce traffic congestion with a set of integrated solutions that aim to reduce auto congestion by increasing the accessibility and attractiveness of public transportation and encouraging pedestrian activity, save energy, improve air quality and highway safety, strengthen existing commercial centers and corridors, and, finally, to meet the needs of all residents, including the transit-dependent and the disabled. The Comprehensive Plan transportation policies are anticipated to benefit Rockland County by reducing the impacts of vehicular traffic and carbon emissions that are anticipated to increase as a result of continued traffic congestion (see Section 3.3.1 above), while encouraging alternatives to auto dependency. This will be achieved by expanding mass transit options and improving infrastructure for Rockland's bus transit system, bikes and pedestrians. By increasing multi-modal options for Rockland residents, its transit dependent population - which includes its growing number of

seniors, as well as persons with disabilities, persons with low income, and persons who don't own a vehicle – will be better served. In addition, the Comprehensive Plan aims to enhance Rockland's existing roadways in order to improve safety for motorists and pedestrians.

As discussed in Chapter 3.2 Land Use and Zoning, the Comprehensive Plan also aims to reinforce centers. Support may be in the form of focusing growth (i.e. population or economic) toward the centers that want to grow, encouraging transportation infrastructure improvements in centers that need this type of assistance, or encouraging policies that preserve other centers, such as Rockland's historic riverfront villages. An important benefit of focusing development in Rockland's existing centers is that it may reduce local vehicular trips and carbon emissions in areas that encourage people to "park once" and walk to multiple destinations. This pattern would most likely occur in those centers that already contain a mix of uses, such as commercial and residential uses, that support walking from one use to another. Specific future developments within centers may result in site specific impacts at certain localized intersections. Each municipality will need to consider project specific traffic impacts as part of the individual approvals of future projects (including environmental impact statements when required by SEQR).

In support of the above policies – and to address current and future transportation challenges in Rockland County – the Comprehensive Plan also proposes the following recommendations:

- Support necessary financing for replacement of the Tappan Zee Bridge, and promote bus rapid transit and high-occupancy vehicle (HOV) lanes on the Tappan Zee Bridge/I-87/287 corridor.
- Ensure that any transit component of the Tappan Zee Bridge/I-87/287 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; convert 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.
- Enhance and promote transit/carpool options for people living and working in Rockland County, including the reverse commute options.
- Support service upgrades along the Pascack Valley and Port Jervis Rail Lines, in conjunction with the opening of the Access to the Region's Core (ARC) project.
- Support improvements to the arterial and collector roadway systems to help alleviate congestion and enhance safety.
- Improve the pedestrian and bicycle circulation system by increasing connections between municipalities, and by designing certain roads to accommodate all users. 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.
 - 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.

Although general in nature, these policies and recommendations are designed to preserve and enhance natural and manmade resources through a pattern of controlled development and redevelopment strategies that encourages reinforced centers and other commercial areas that are already developed. The Comprehensive Plan is anticipated to strengthen Rockland County's environment and natural and coastal resources, while addressing current and projected transportation issues and trends. At the same time, the Comprehensive Plan aims to improve Rockland's main roadway corridors by maintaining a high level of efficiency, encouraging walking and biking, and supporting Rockland's diverse population.

The Comprehensive Plan's transportation recommendations aim to ameliorate traffic congestion, encourage policies that will reduce carbon emissions, and support mobility options for all Rockland County residents. The Comprehensive Plan supports alternative transportation measures, improvements to Rockland's transportation infrastructure, and transportation best practices. If implemented at the municipal level, many of these policies may serve to reduce or lessen the rate of increase of vehicle miles traveled and other transportation impacts associated with future site-specific development projects. For example, the Plan's recommendation to design roads to accommodate all users (i.e. automobiles, bicyclists, and pedestrians) where appropriate could benefit the immediate and surrounding areas by encouraging some drivers to use alternative means of transportation. This could also help reduce or sustain the amount of carbon emissions associated with automobile use. Future site-specific environmental impacts will be addressed and appropriate mitigation measures will be developed during the SEQR reviews of future projects and actions.

None of the above recommendations are anticipated to result in any significant adverse impacts. However, if implemented on a county-wide or municipal basis, some of the above recommendations may require municipal finances to cover a specific transportation policy or proposed improvement. For example, by encouraging the use of the County's abandoned railways for pedestrians and bicyclists, infrastructure improvements or maintenance may be required. Also, transitioning the County's bus fleet to hybrid buses would also require

investment in new buses. However, the long-term benefits of these programs outweigh the initial funding costs. By transitioning the County's bus fleet to hybrid buses, air quality would improve, and costs savings would result from the more fuel efficient bus fleet.

As discussed in *Section 3.3.1 Existing Conditions*, there are currently three substantial transportation projects or studies by others that have the potential to have major impacts on Rockland County. These projects/studies include the I-287/Tappan Zee Bridge Corridor Project, Access to the Region's Core, and West of Hudson Regional Transit Access. More information on these projects/studies can be found in Chapter 6.0 Subsequent SEQR Actions.

The Comprehensive Plan is an area-wide policy document, not a development application or development project. It includes the adoption of general policy initiatives to guide and facilitate future development in Rockland County, rather than directly resulting in physical changes to the environment. Since the Comprehensive Plan directs policy on a county-wide basis, it does not necessitate changes to any municipal zoning code (i.e. city, town or village). All future actions (i.e. policy or development) at the County level or municipal level will be required to undergo future environmental review under SEQR (6 NYCRR Part 617).

3.3.3 Mitigation Measures

Impacts that are associated with the Comprehensive Plan's transportation recommendations are beneficial. Some minor fiscal impacts may occur but these do not constitute significant environmental impacts for purposes of SEQR. Therefore, adoption of the Comprehensive Plan is not anticipated to result in any significant adverse transportation impacts and no mitigation measures are required.

3.4 NATURAL RESOURCES

The following section sets forth an examination of existing natural resources and programs within Rockland County, as well as gaps in these resources and programs. The potential impacts that could occur as a result of the adoption of the Rockland County Comprehensive Plan (“Comprehensive Plan”) are explored, and any necessary mitigation measures needed to mitigate potential impacts are identified.

3.4.1 Land Resources

3.4.1.A Existing Conditions

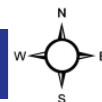
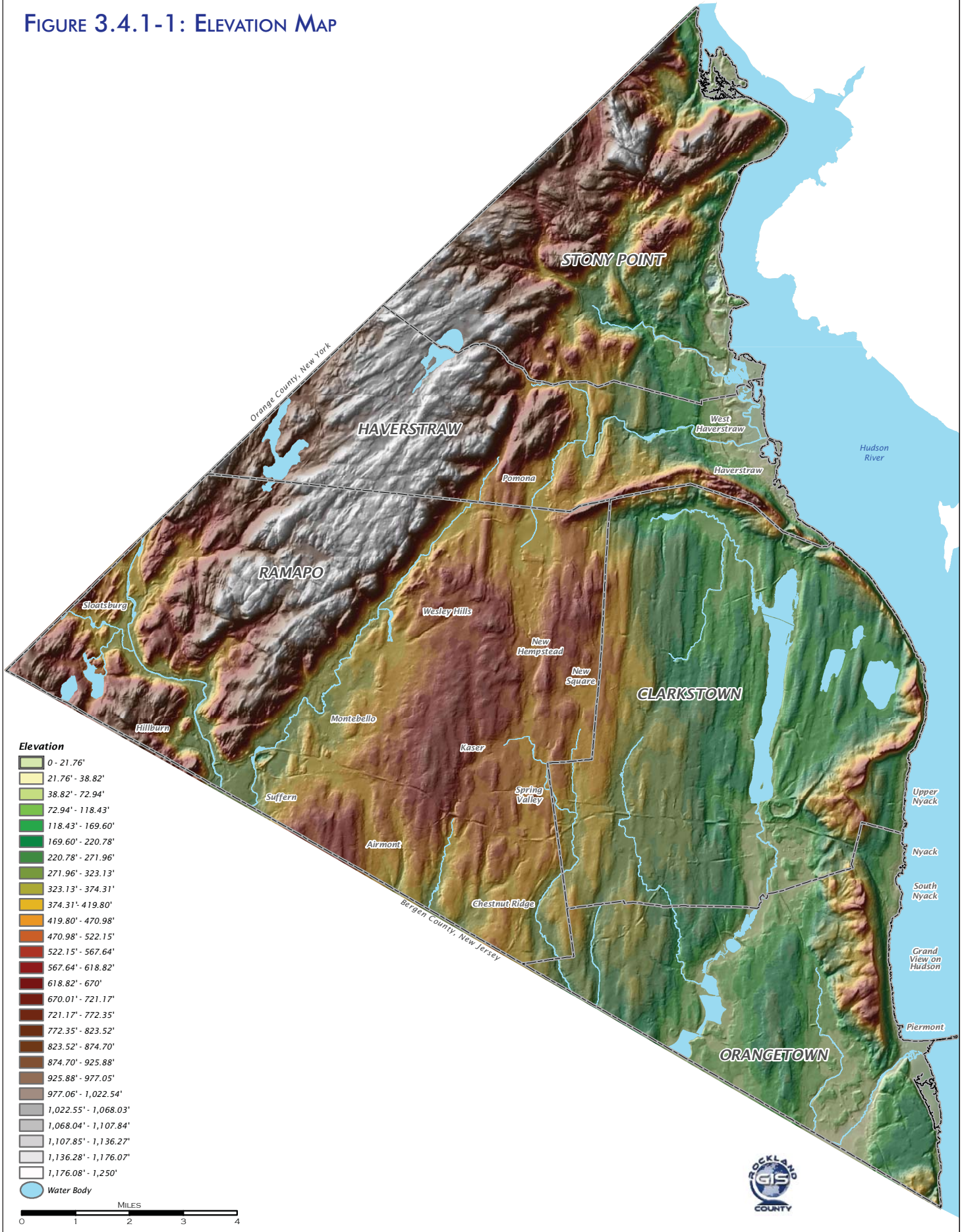
Topography and Elevation

Rockland is located in the Lower Hudson Valley, and much of its land is rocky and steeply sloped (see Figure 3.4.1-1: County Elevation Map). The western portion of the county contains the most significant topographic relief because of the Hudson Highlands, which traverse Harriman and Bear Mountain State Parks along the Rockland and Orange County boundaries. The Highland Mountains span from Pennsylvania into New Jersey, crossing New York in Rockland, Orange, Westchester, and Putnam counties, continuing northward into Connecticut. The Hudson Highlands also link the northern end of the Appalachians to the Berkshire Mountains, and contain many important plant and animal species.

East of the Highlands, the rest of the County largely consists of two terrain basins, separated by the Palisades Ridge that turns and runs east/west along High Tor State Park and South Mountain County Park. Along the southeastern portion of the county, the Palisades Ridge runs along the Hudson River linking High Tor and Hook Mountain State Parks before turning and heading south to the southernmost tip of the county at Palisades State Park. From a high point of 1,283 feet at Rockhouse Mountain, northwest of Lake Welch in Harriman State Park, the county’s elevation drops to sea level along the Hudson River. Located along the Hudson are the Palisades Sill – the geological name given to the massive Palisades cliffs – which represent only a handful of such intrusions in the world.

Steady population growth and increased land values have resulted in development of some steeply sloped areas, which were once considered too difficult and prohibitively expensive to develop (see Chapter 3.1 Demographics and Chapter 3.7 Housing). While much of the County’s locations of highest elevation are protected as parkland, the Rockland County Planning Department’s build-out analysis identifies major areas of potentially developable lands throughout the County, and shows that some of these areas are found in steeply sloped areas (See Chapter 3.2 Land Use and Zoning).

FIGURE 3.4.1-1: ELEVATION MAP



Overdevelopment of steeply-sloped areas can cause the loss of topsoil and vegetation, erosion and potential slides, alteration of drainage patterns, and impairment to viewsheds. Most of Rockland's towns and villages have regulations limiting development on steep slopes, but the regulations vary significantly. Development that is allowed on the crest of a ridgeline can also be visually intrusive and seen from distant viewpoints. Ridgeline development has cross-jurisdictional impacts, which are difficult to capture in local regulation.

Impervious Surfaces

An impervious surface is one that is resistant to penetration by stormwater, and includes paving, concrete, asphalt, and roofs. The pavement materials seal the soil surface, eliminating rainwater infiltration and natural groundwater recharge.

From 2000 to 2007, Rockland experienced a slight increase in total impervious surfaces, from 13 percent of the County's total acreage to 14 percent. Most towns and villages saw an increase of 1.5 percent or less during this period, with the Village of Hillburn actually reporting a 0.6 percent decline in impervious surfaces. However, several villages had greater increases: New Square (6.8%), Kaser (2.5%), Pomona (1.9%), Montebello (1.6%), and South Nyack (1.6%).

Soils

The physical properties of soils have a direct impact on land use and carry important implications for future development and runoff. However, consideration of the engineering properties of soils is generally done at the local level as part of site design and review. On a county level, soil classification is important in areas where there are no sewers, and the soils need to have a higher infiltration rate so that the septic systems work properly. Some areas in the northern and western parts of Rockland have limited sewer systems. In addition, soil properties affect land development projects, as soil erodability issues can have impacts on down-slope properties.

Most of the western portion of the county – largely corresponding to the location of Harriman and Bear Mountain State Parks – consists of moderately well-drained to well-drained soils with a moderate potential for runoff. Much of Rockland's eastern two-thirds consist of more poorly-drained soils with a slow to very slow infiltration rate.

Critical Environmental Areas

Under the New York State Department of Environmental Conservation's (DEC's) Critical Environmental Area (CEA) program, local agencies may designate specific geographic areas within their boundaries as CEAs.

Development proposed in a CEA is subject to a more rigorous review than other areas. Proposed development wholly or partially within or substantially contiguous to a CEA under State Environmental Quality Review (SEQR) requires the lead agency to study potential impacts

on the characteristics of a CEA in an Environmental Assessment Form or Environmental Impact Statement. The following four areas have been designated by the State DEC as CEAs in Rockland: Upper Grandview and environs in Orangetown, and the Palisades slope area, Sparkill Creek area, and pier area of Piermont (which together comprise all of the Village of Piermont). Some towns and villages have created their own CEAs.

Quarries

Quarries, or open pit mines, have played a major role in Rockland County due to their environmental and economic impacts. Historically, quarries in Rockland have provided stone for structures in the County and elsewhere. Like other heavy industrial uses, quarries offer economic and standard-of-living benefits, but they can also affect the natural environment, through air pollution impacts from ash piles and noise issues. Also, mining quarries results in the loss of the natural resource itself. In Rockland, the source of quarries is generally an open pit that can often be found next to the hillside slopes of several mountain ranges. In Rockland, there is at least one abandoned quarry; the former Tilcon quarry in Suffern.

Threatened and Endangered Species and Habitats

Rockland County is home to a variety of wildlife, largely due to its location within the Lower Hudson watershed basin. The basin, which includes the Hudson River Estuary, is one of 28 Estuaries of National Significance. Together with the Long Island Bays and Atlantic Ocean watershed basins, the watershed basins of southeastern New York State contain some of the most diverse ecosystems in the state. According to the DEC, 267 Species of Greatest Conservation Need have been identified in these three basins, accounting for nearly 50 percent of all such species statewide.

In Rockland County, significant biodiversity areas in the Hudson River Estuary that have been identified by the DEC consist of the Hudson River Estuary and Tidal Wetlands, the Hudson Highlands and the Palisades. With such biodiversity, a number of State-listed threatened, endangered and special concern animal and plant species have been documented within the County.

There are other risks to biodiversity in the County, such as invasive species, which are non-native species that can cause harm to the environment or to human health, and humans themselves. Invasive wildlife, plants, and insects can result in habitat loss. In some cases, invasive species are accidentally introduced to areas by humans.

Climate Change

According to the DEC's policy for assessing energy use and greenhouse gas emissions in environmental impact statements (EISs), global climate change is a significant environmental challenge, and one that will continue to affect the environmental and natural resources (i.e. land, water, air, animal and plant habitats, etc.) of New York State. There is scientific consensus

that human activity, such as land development and the use of private motor vehicles, is increasing the concentration of greenhouse gases in the atmosphere, and that this, in turn, is leading to climate change.

Rockland County recently took steps to become a member of New York State's Climate Smart Communities program. This program, a partnership between the State and local governments, focuses on local actions that will lower operating costs, promote economic growth, improve operational efficiency and upgrade infrastructure, while protecting the climate. Climate Smart Communities seek to minimize the risks of climate change and reduce its long-term costs by reducing greenhouse gas emissions and adapting the built and natural environment in anticipation of predicted climatic changes or in response to actual changes. Rockland adopted the Climate Smart Communities Pledge in August 2010, and upon the DEC's confirmation of its inclusion in the program, the County will begin receiving notification of grant opportunities, presentations, and training.

Light Pollution

Light pollution has several adverse consequences, including energy waste, effects on public health, and disruption of plant and animal ecosystems. The Comprehensive Plan suggests that one of the most effective ways to reduce light pollution is by using full cutoff lighting fixtures that prevent light from shining in unwanted areas and allowing lower wattage lamps to be used. While the types of lighting proposed for new development is typically addressed during the site plan review process at the municipal level, the Comprehensive Plan encourages its towns and villages to adopt laws that promote dark sky-friendly lighting.

See the Comprehensive Plan for more information on existing land resources, inventory of conditions and habitats, climate change, impacts of pollution, and other issues.

3.4.1.B Potential Impacts

Rockland County has a wealth of land resources, including its parks and designated open spaces, ridgelines, and sensitive environmental areas. These features are critical components of the county's ecosystem. However, the County's location within a major urban region means that some of these resources may be threatened by obtrusive development and pollution.

In order to address these challenges, the Comprehensive Plan proposes the following land resource recommendations:

- 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.
- Explore the creation of County Critical Environmental Areas (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.
- Work with towns, villages, and private property owners to promote the reuse of abandoned quarries for potential recreational or cultural use and for the creation of new habitats or other beneficial uses.
- Provide educational programs for homeowners and members of the development community to promote green building products and techniques.
- Work with Cornell Cooperative Extension on an educational campaign for landowners and landscapers to discourage the use of pesticides and herbicides.
- Encourage smart growth development and construction methods.
- In the course of the County's GML reviews, 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.
- Use "green" building techniques for all new County buildings, retrofit existing buildings as practicable, and encourage the municipalities to do the same.
- Develop guidelines for local lighting laws to address light pollution. Retrofit County facilities to have full cutoff lighting fixtures to reduce light pollution.
- Explore launching a suburban reforestation program.
- Continue to work with the towns and villages to address the issue of "creeping" realty subdivisions.
- Continue climate change efforts through membership with New York State's Climate Smart Community program.
- 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.
- Create a Rockland County Office of Sustainability to coordinate the County's climate change initiatives and develop a Countywide Climate Action Plan.
- 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.

Although general in nature, the above land resource recommendations are aimed at preserving Rockland's quality of life and protecting its significant environmental features, such as its ridgelines, steep slopes, and threatened and endangered species. These recommendations also aim to expand natural resources, such as trees in suburban areas, as well as encourage sustainable "green" building practices. The Comprehensive Plan identifies several tools, such as model ordinances at the municipal level that can help to protect Rockland's ridgelines, the promotion of pervious paving materials to help water infiltrate into the ground and replenish groundwater, and potentially reusing abandoned quarries for cultural/recreation resources or revitalization of habitats. In addition, the above recommendations suggest establishing specific goals for climate protection and sustainability in Rockland County. The implementation of these goals would further benefit the environment from reduced greenhouse gas emissions and the increased use of renewable energy, while providing public benefits from long-term energy savings and reduced health risks associated with pollution.

As discussed in Chapter 3.2 of this DGEIS, the Comprehensive Plan recommends minimizing the impact of new development by channeling growth into the county's existing village and hamlet centers. Focusing development on infill sites, areas with existing drinking water and wastewater infrastructure, and places near transportation hubs is significantly less harmful to the environment – and much more cost-effective – than developing in rural and vacant areas. Smart-growth land use policies that encourage mixed-use development in close proximity to public transportation help to reduce climate change impacts by reducing automobile usage.

None of the above recommendations are anticipated to result in any significant adverse environmental impacts. If implemented, some of the above recommendations may have minor fiscal impacts that, in and of themselves, do not constitute environmental impacts for purposes of SEQR. For example, municipal finances may be required to establish new programs, educate municipalities, and adopt new ordinances. In addition, there may be costs incurred from investing in new "green" technologies for buildings, retrofitting County facilities to have full cutoff lighting fixtures, expanding recreational opportunities in abandoned quarries, as well as costs associated with reducing impervious surfaces for County and municipal roads. However, these recommendations are anticipated to protect land resources, biodiversity and threatened and endangered species, as well as improve the energy efficiency of buildings by converting to "green" technologies. Increased pervious surfaces would reduce stormwater runoff and improve soil infiltration and drainage. The long-term benefits of these programs also outweigh the initial funding costs.

In addition, there are potential short term costs with developing model sustainability laws for use at the local level, providing technical assistance to municipalities in developing and implementing climate change goals, and creating tax incentives for green building and conservation measures. The long-term benefits of these actions outweigh the initial funding costs. As discussed in Chapter 3.1 Demographics, the County's population is projected to

increase. The above climate change goals respond to these projections by setting specific thresholds that would at least reduce the impacts of growth and further benefit the environment and public.

The Comprehensive Plan is an area-wide policy document, not a development application or development project. It includes the adoption of general policy initiatives to guide and facilitate future development in Rockland County, rather than directly resulting in physical changes to the environment. Since the Comprehensive Plan directs policy on a county-wide basis, it does not necessitate changes to any municipal zoning code (i.e. city, town or village). All future actions (i.e. policy or development) at the County level or municipal level will be required to undergo future environmental review under SEQR (6 NYCRR Part 617).

3.4.1.C Mitigation Measures

Impacts that are associated with the Comprehensive Plan's natural and land resource recommendations are beneficial. Some minor fiscal impacts may occur but these do not constitute significant environmental impacts for purposes of SEQR. Therefore, adoption of the Comprehensive Plan is not anticipated to result in any significant adverse impacts to natural or land resources and no mitigation measures are required. Future site specific actions stated above must comply with SEQR.

3.4.2 Water Resources

3.4.2.A Existing Conditions

Groundwater and Surface Water Resources

The County is distinctive in that its water supply comes almost entirely from within its borders. However, not all of Rockland's water stays within the county; some of its water supplies more heavily populated downstream communities in New Jersey. Significant amounts of water are also lost to sewage treatment discharges into the Hudson River (see Chapter 3.9 Infrastructure for more information on Rockland's water quantity and supply).

Groundwater

Rockland's water supply comes from two sources: aquifers and surface water. The Ramapo-Mahwah aquifer, a highly productive stratified drift deposit located along the Ramapo and Mahwah River corridors beneath western Ramapo, including the villages of Sloatsburg and Suffern, and bordering Harriman State Park, is one of 18 principal aquifers in New York State, and one of three aquifers in Rockland County that are major sources of public water supply. It is as a sole-source aquifer, requiring any federal project within its boundaries to be reviewed by

the United States Environmental Protection Agency (EPA). The land use restrictions and regulations for sole-source aquifers only apply to federally-funded activities within the limits of the aquifer, while the DEC designation addresses protection of the aquifer only with respect to hazardous waste releases and solid waste disposal facilities. Thus, some private and non-federal land use activities may not be regulated with regard to the protection of the aquifer.

The Newark Basin aquifer, a fractured, sedimentary bedrock aquifer underlying southeastern Rockland, is another major source of public water supply. The Newark Basin stretches from Rockland County, through New Jersey and Pennsylvania. This bedrock aquifer has been the focus of a study on Rockland's water resources by the U.S. Geological Service (See Chapter 3.9 Infrastructure).

To help protect the County's water supply, the Rockland County Department of Health has established general groundwater protection zones (see Figure 3.4.2-1) corresponding to the overall locations of wells as defined by the State Department of Health. The County has not adopted legislation or implemented regulations for these zones.

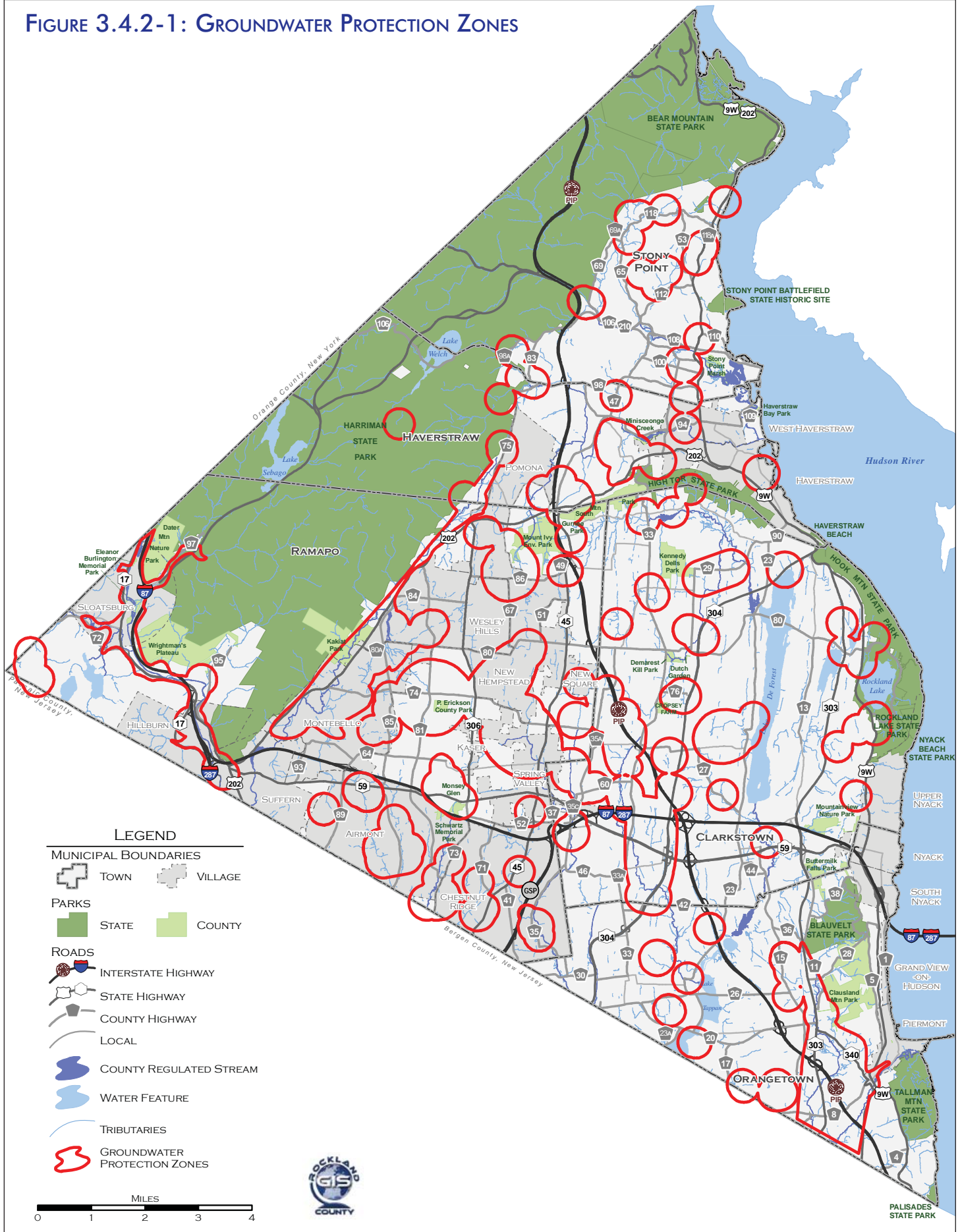
Surface Water

Perhaps the most significant surface water resource for Rockland County – in terms of its historical impact on development and commerce, its scenic beauty, and its role as a major ecosystem – is the Hudson River. The Hudson River Estuary is a spawning and nursery ground for more than 200 important fish and shellfish species.

Besides the Hudson River, other surface water resources include Rockland's other major rivers – such as the Mahwah, Ramapo, and Hackensack Rivers – as well as many lakes, ponds, and streams throughout the county. Several of these surface water resources are included among the 14 County-regulated streams, which carry restrictions on development and related activities within their 100-year floodplain (See Figure 3.4.2-2: County Regulated Streams). However, there are large parts of the County where smaller streams are not regulated and do not contain buffers that prevent development encroachment.

Removal of riparian areas, modification of stream channels, and increasing impervious surfaces can cause changes to watershed hydrology that place the water and habitat quality of tributary streams at risk in the County. Hudson Valley streams are also affected by a loss of vegetative cover, agricultural and lawn runoff, failing wastewater treatment and septic systems, fish barriers, and atmospheric deposition of pollutants. These stresses can cause erosion, polluted stormwater runoff, flooding, loss of groundwater recharge and unnaturally low stream flows. Water withdrawals and large-scale sewer infrastructure (that draws water from one basin, and discharges it into another basin) also affect stream flow. Streams and rivers can become degraded from these stresses, no longer providing healthy drinking water, outdoor recreation or productive fish and wildlife habitat.

FIGURE 3.4.2-1: GROUNDWATER PROTECTION ZONES



LEGEND

MUNICIPAL BOUNDARIES

- TOWN
- VILLAGE

PARKS

- STATE
- COUNTY

ROADS

- INTERSTATE HIGHWAY
- STATE HIGHWAY
- COUNTY HIGHWAY
- LOCAL

COUNTY REGULATED STREAM

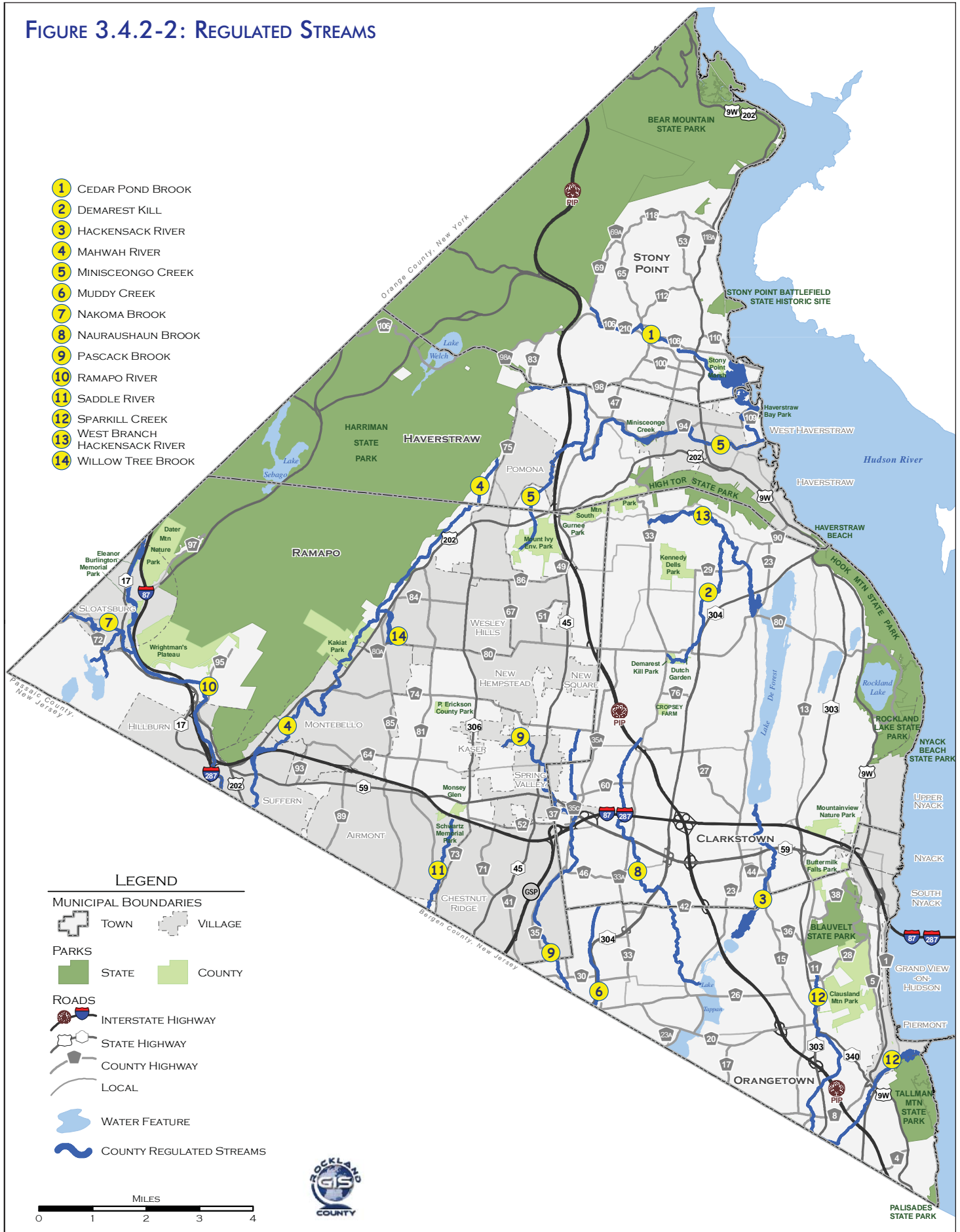
WATER FEATURE

TRIBUTARIES

GROUNDWATER PROTECTION ZONES



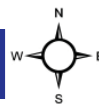
FIGURE 3.4.2-2: REGULATED STREAMS



- 1 CEDAR POND BROOK
- 2 DEMAREST KILL
- 3 HACKENSACK RIVER
- 4 MAHWAH RIVER
- 5 MINISCEONGO CREEK
- 6 MUDDY CREEK
- 7 NAKOMA BROOK
- 8 NAURAUSHAUN BROOK
- 9 PASCACK BROOK
- 10 RAMAPO RIVER
- 11 SADDLE RIVER
- 12 SPARKILL CREEK
- 13 WEST BRANCH HACKENSACK RIVER
- 14 WILLOW TREE BROOK

LEGEND

- MUNICIPAL BOUNDARIES**
 - TOWN
 - VILLAGE
- PARKS**
 - STATE
 - COUNTY
- ROADS**
 - INTERSTATE HIGHWAY
 - STATE HIGHWAY
 - COUNTY HIGHWAY
 - LOCAL
- WATER FEATURE**
- COUNTY REGULATED STREAMS**



Water Quality

Groundwater extracted by the County's public water suppliers is monitored by the Rockland County Health Department for the presence of potential contaminants. County water quality issues include potential contamination by nitrates from wastewater and fertilizers, volatile organic compounds (VOCs) from spills of industrial solvents and fuel components, and chlorides resulting primarily from de-icing of roads and parking areas.

Stormwater Management

As described in Section 3.4.1.A., stormwater discharges are generated by precipitation and runoff from land, pavement, building rooftops, and other impervious surfaces. Runoff accumulates pollutants such as oil and grease, chemicals, nitrates, metals, and bacteria as it travels across land. Heavy precipitation or snowmelt can also cause sewer overflows (drainage and sanitary) which in turn, may lead to flooding or contamination of water sources with untreated human and industrial waste, toxic materials, and other debris.

Route 59, which is a major commercial corridor in Rockland, is one such area that is prone to flooding. This issue can negatively affect commercial sales within the area by preventing people from driving on the road when it floods.

Stormwater Programs

Under the National Pollution Discharge Elimination System (NPDES) stormwater program, operators of large, medium, and regulated small municipal separate storm sewer systems (MS4s¹) require authorization to discharge pollutants under a NPDES permit.

Under delegation from the federal government, New York State uses two Stormwater Management General Permits as the framework for stormwater management under its State Pollution Discharge Elimination System (SPDES). Regulations require operators of construction sites and operators of MS4s to obtain coverage under a general permit. One of the requirements of the SPDES General Permit for Stormwater Discharges from MS4s is the preparation of a report that depicts pollutants of concern, their sources, steps being taken to diminish waste in stormwater runoff, and the effectiveness of pollution prevention practices. Developments over one acre also are required to prepare a Storm Water Pollution Prevention Plan (SWPPP) under regulations set forth by the DEC and the municipality where appropriate. SWPPPs specifically address stormwater management, post-development water quality, and soil erosion and sediment control measures during construction. However, they tend to address increased runoff on a site-by-site basis, rather than larger-scale or cumulative impacts.

¹ Polluted stormwater runoff is commonly transported through Municipal Separate Storm Sewer Systems (MS4s). MS4s are storm sewer systems that can be operated by municipalities, state departments of transportation, public universities, local sewer districts, public hospitals, and others. An MS4 may consist of underground pipes, roads with drainage systems, gutters, and ditches. To prevent harmful pollutants from being washed or dumped into an MS4, operators must obtain a NPDES permit and develop a stormwater management program.

Subdivisions

New York State Realty Subdivision Laws (Public Health Law & Environmental Conservation Law) requires that subdivisions of five lots or more obtain approval from the Rockland County Health Department. Rockland’s Water Pollution Control Bureau is working to educate the towns and villages on the issue of “creeping” realty subdivisions, in which multiple smaller subdivisions are done, and therefore fall beneath the five-lot threshold and avoid County Health Department approval.

Floodplains

The regulatory floodplain is typically viewed as all lands within reach of a 100-year flood, or a flood that has a one percent chance of occurring in any given year. According to the Federal Emergency Management Agency (FEMA), most floods fall into the following three categories: Riverine Flooding, along a channel (as on the Hudson River); Coastal Flooding, along the coasts of oceans and large lakes; and Shallow Flooding, in flat areas where a lack of channels means water cannot drain away easily. In Rockland, most flooding issues concern riverine flooding, shallow flooding resulting from urban drainage issues, and occasional ice jams.

The Rockland County Office of Fire and Emergency Services has prepared a draft Hazard Mitigation Plan, which states that about 12 percent of Rockland lies within high or moderate flood risk zones, based on current FEMA mapping. Ramapo has the greatest proportion of its land area within a high flood risk zone, followed by Clarkstown, which has large flood zones in West Nyack and in the vicinity of South Mountain Road, and Haverstraw and Stony Point, which each have large flood zones along the Hudson River.

Wetlands

Wetlands, which are present throughout Rockland, function as natural storage basins for floodwaters, aid in groundwater recharge, reduce the danger of flooding, maintain water quality, provide habitat for flora and fauna, and contribute to the County’s scenic beauty. Rockland County contains two unique tidal/freshwater wetlands: Iona Island and Piermont Marsh, which are two of only four such tidal/freshwater wetlands in New York.

There are three levels of wetland protection: national, state, and town/village. The U.S. Army Corps of Engineers is responsible for regulating national wetlands, and issues permits for regulated activities under Section 404 of the Clean Water Act, which regulates the disposal of dredged or fill material into waters of the United States. Wetlands over 12.4 acres in size are mapped and protected by the New York State DEC. Any construction activity that might have an impact on these wetlands (excavation, filling, building, obstructions, potential pollution sources, etc.) is regulated, whether or not the activity occurs in the wetland itself or on land adjacent to the wetland. The local regulation of wetlands in Rockland, which involves regulation of smaller, locally-designated wetlands, is not uniform. Some municipalities regulate only the wetland

itself, others include a buffer area, and others do not regulate wetlands at all. It is therefore possible that smaller wetlands in certain areas of the County may be unregulated and vulnerable to the pressures of development.

Waterfront Areas (Local Waterfront Revitalization Program Areas)

New York State's Coastal Management Program, administered by the Department of State's Division of Coastal Resources, addresses regulation and development of coastal resources. This is accomplished through the implementation of 44 State coastal policies intended to promote the beneficial use of waterfront resources, prevent their impairment, and provide for the management of activities that may affect these resources. As part of the Coastal Management Program, waterfront communities are encouraged to prepare a Local Waterfront Revitalization Program (LWRP) to incorporate local needs and objectives into the state's coastal policies. Four Rockland communities have completed and received New York State Department of State approval for LWRPs: Nyack, Piermont, Stony Point, and the Village of Haverstraw.

See the Comprehensive Plan for more information on existing water resources, inventory of conditions, and issues.

3.4.2.B Potential Impacts

As described above, Rockland's water resources are threatened by development, which in turn can affect water and habitat quality, and contribute to flooding. This can negatively affect the County's drinking water and recreational opportunities caused by pollution, as well as the local economy.

One of the goals of the Comprehensive Plan is to preserve water resources and to work with towns, villages, and regional groups to protect environmentally sensitive areas and resources. In addition, the Comprehensive Plan proposes the following water resource 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 to establish Haverstraw Bay as an important estuary learning center.
- Implement a water quality notification program for the Hudson River (and potentially other surface water resources).
- Continue and expand volunteer community and nonprofit programs such as the Volunteer Stream Monitoring Program.
- Promote water conservation through infrastructure repairs, careful landscaping, rain barrels, reuse of greywater and other means.
- Assist in the creation of uniform, shared-language municipal stormwater regulations that look at both water quality and quantity.

- Map the operators of large, medium, and regulated small municipal separate storm sewer systems who are required to obtain National Pollution Discharge Elimination System (NPDES) permits.
- Consider enhancing wellhead protection regulations and creating and enforcing 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.
- 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 considered to be included as regulated County streams. Encourage the municipalities to establish buffers along streams as appropriate.
- Promote the creation of new wetland areas in future development areas where existing wetlands do not meet regulatory thresholds.
- The County should capitalize on opportunities for the creation of trails along regulated streams.

Although general in nature, the above water resource recommendations are aimed at preserving Rockland's quality of life and protecting its significant environmental features, including its ground and surface waters and streams. The second recommendation that proposes to expand recreational opportunities adjacent to regulated streams also benefits those water resources as it protects streams from encroachment from other types of development (i.e. residential, commercial, etc.). For these areas, the Comprehensive Plan recommends promoting unconstructive uses and maintaining municipal buffers to wetlands.

None of the above recommendations are anticipated to result in any significant adverse environmental impacts. If implemented, the recommendations may have minor fiscal impacts that, in and of themselves, do not constitute an environmental impact for purposes of SEQRA. For example, municipal finances may be required to establish and adopt local groundwater protection regulations, as well as having Rockland County assist municipalities in creating uniform stormwater regulations. However, the long-term benefits of these actions outweigh the initial funding costs.

In addition, the creation of trails along regulated streams could negatively impact environmentally sensitive areas without appropriate buffers and design standards. Toward this end, the Comprehensive Plan recommends that trails should be comprised of pervious (permeable) surfaces and have 100-foot buffers on either side of the trails, as topography and other ground conditions permit.

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3.4.2.C Mitigation Measures

Impacts that are associated with the Comprehensive Plan's natural and water resource recommendations are beneficial. Some minor fiscal impacts may occur but these do not constitute significant environmental impacts for purposes of SEQR. Therefore, adoption of the Comprehensive Plan is not anticipated to result in any significant adverse impacts to natural or water resources and no mitigation measures are required. Future site specific actions stated above must comply with SEQR.

3.4.3 Air Quality and Noise

3.4.3.A Existing Conditions

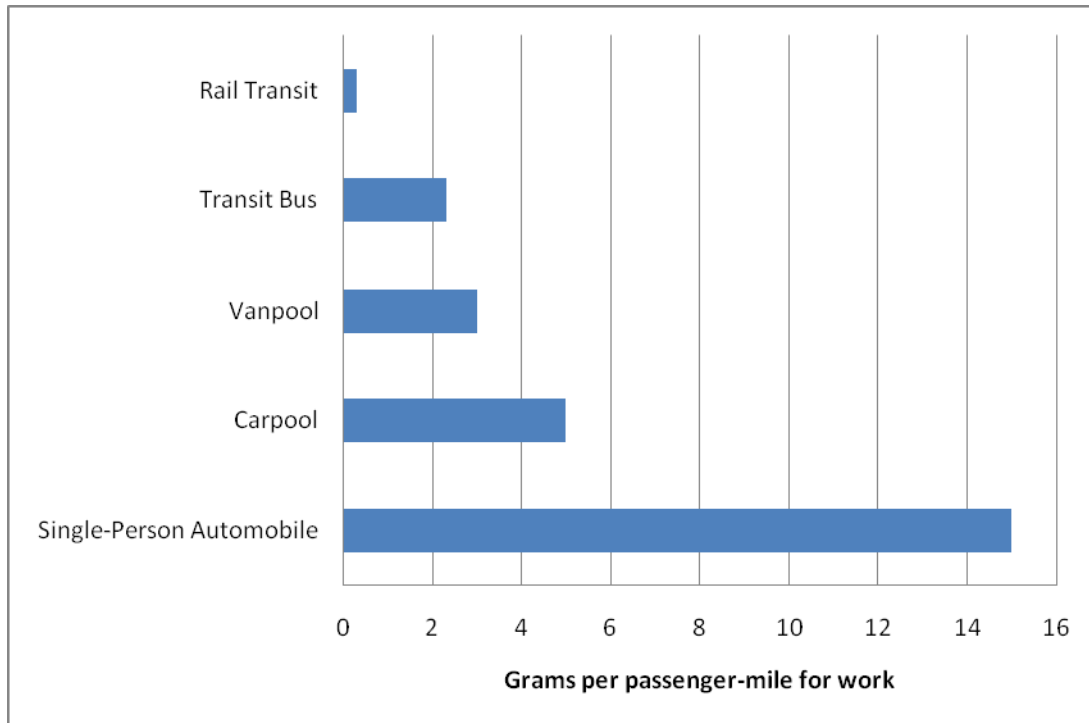
Air Pollution

Air contaminants or pollutants take the form of solid particles, liquefied particles, and vapor or gases, which are discharged into, or form in, the atmosphere. Air quality in any particular location is influenced by contaminants discharged into the atmosphere and by regional and local climatic and weather conditions. Atmospheric conditions such as sunlight, rainfall, humidity, air turbulence, temperature differences, and wind speed and direction can disperse, intensify or chemically alter the levels and effects of air contaminants.

Poor air quality can cause a variety of health problems, such as respiratory illness and asthma. Air pollution also causes haze and smog; reduces visibility; dirties and damages buildings; and harms water bodies, plants, and wildlife.

Air pollution can stem from point (stationary) sources (such as power plants), area sources (the cumulative impact of small individual sources such as body shops or dry cleaners), mobile sources (such as automobiles), and biogenic sources that naturally occur in vegetation. The most significant sources of carbon monoxide emissions are single-occupancy automobiles. Chart 3.4.3-1 below illustrates the varying levels of emissions of several different modes of transportation.

Chart 3.4.3-1: Comparison of Carbon Monoxide Emissions by Transportation Mode



Source: Rockland County Department of Planning

The Federal Clean Air Act was designed to ensure that the standards set forth in the National Ambient Air Quality Standards (“NAAQS”) were met. States are required by the United States Environmental Protection Agency (EPA) to conduct ambient air monitoring for a number of years to determine if ambient air quality in various geographical areas meets the standards. If compliance with the standards is demonstrated, then the air quality region is said to be in attainment.

In 2008, the DEC designated most of the New York Metropolitan Area (NYMA) Combined Statistical Area (CSA) a non-attainment area for the 2008 ozone NAAQS. Of the counties included in this CSA, Suffolk, Nassau, Bronx, Kings, New York, Putnam, Queens, Richmond, Rockland, and Westchester, only Putnam County achieved acceptable standards.

Programs

Rockland participates in the New York Metropolitan Transportation Council’s emissions reduction subcommittee. The County is also part of EPA’s New York Metropolitan Air Quality Initiative (NYMAQI), a cooperative agreement among Nassau, Suffolk, Putnam, Rockland, and Westchester Counties and New York City to implement and promote measures to reduce emissions from on-road and off-road mobile sources that operate in their jurisdictions. The

initiative outlines specific actions that each county can take to address emissions, especially diesel emissions.

Noise Pollution

Noise can be defined as undesirable or unwanted sound that interferes with normal activities such as sleeping, conversation, or recreation. It can also cause hearing loss and have an adverse effect on mental health. Environmental noise is considered with regard to several factors, including level – which relates to perceived loudness of a noise – but also its character, duration, time of day, and frequency of occurrence. For many parts of Rockland, roadway traffic is the major cause of noise pollution.

The regulation of noise is generally accomplished at the local level through controls such as restrictions on the hours of construction or operation activities and truck deliveries and the issuance of temporary permits for noise-generating events. However, some noise generators occur across several municipalities, and their regulation is appropriately handled at the county level. For example, in 2002, the Rockland County Planning Department completed a study of railroad crossings for the West Shore (River) Line, which resulted in proposed safety upgrades for the West Shore crossings so that a “Quiet Zone” can be created, where train horns would not routinely be blown at the railroad crossings along 23 miles of the West Shore Line.

See the Comprehensive Plan for more information on existing air quality and noise conditions and issues.

3.4.3.B Potential Impacts

Rockland County faces pollution from air and noise, in which the impacts of such forms of pollution do not necessarily conform to municipal boundaries. Therefore, developing methods to mitigate them is often best handled at the county or regional level.

The Comprehensive Plan proposes the following air quality and noise recommendations:

- 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.
- Encourage the Tappan Zee Bridge study team to include additional sound barrier walls along the Thruway corridor.
- Encourage municipalities to establish uniform codes to ensure consistency among noise mitigation guidelines.

- 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.

The above air quality and noise recommendations are aimed at preserving Rockland's quality of life by proposing guidelines that that will help reduce air pollution and mitigate noise pollution in the County. Monitoring air quality in Rockland is critical due to the potentially high levels of pollutants coming from automobile traffic and commercial and industrial facilities, and from other sources within the region.

None of the above recommendations or goals are anticipated to result in any significant adverse environmental impacts. If implemented, the recommendations may have minor fiscal impacts that, in and of themselves, do not constitute an environmental impact for purposes of SEQR. For example, municipal finances may be required to establish the Plan's proposed "Clean Air Toolbox" and uniform noise mitigation guidelines. However, the long-term benefits of these actions outweigh the initial funding costs. The implementation of these recommendations would further benefit the environment and public from reduced greenhouse gas emissions and the reduction in noise pollution from cars and trucks.

The Comprehensive Plan is an area-wide policy document, not a development application or development project. It includes the adoption of general policy initiatives to guide and facilitate future development in Rockland County, rather than directly resulting in physical changes to the environment. Since the Comprehensive Plan directs policy on a county-wide basis, it does not necessitate changes to any municipal zoning code (i.e. city, town or village). All future actions (i.e. policy or development) at the County level or municipal level will be required to undergo future environmental review under SEQR (6 NYCRR Part 617).

3.4.3.C Mitigation Measures

Impacts that are associated with the Comprehensive Plan's air quality and noise recommendations are beneficial. Some minor fiscal impacts may occur but these do not constitute significant environmental impacts for purposes of SEQR. Therefore, adoption of the Comprehensive Plan is not anticipated to result in any significant adverse impacts to air quality or noise and no mitigation measures are required. Future site specific actions stated above must comply with SEQR.

3.5 OPEN SPACE AND RECREATION

The following section sets forth an examination of existing open space and recreation resources and programs within Rockland County, as well as gaps in these resources and programs. The potential impacts that could occur as a result of the adoption of the Rockland County Comprehensive Plan (“Comprehensive Plan”) are explored, and any necessary mitigation measures needed to mitigate potential impacts are identified.

3.5.1 Existing Conditions

Parks and Open Space

As discussed in Chapter 3.2 Land Use and Zoning, park land, open spaces, private recreation areas and water areas total approximately 40 percent of Rockland’s total land area. Rockland’s image and character is defined largely by the high quality of these resources, as well as some 45 miles of scenic Hudson River waterfront; more than 600 lakes and ponds; brooks and rivers; trails and scenic byways; and abundant scenic vistas created by varied topography. The Comprehensive Plan categorizes open spaces into a hierarchical classification system consisting of State, County, and local parks, hiking and biking trails, farms and orchards, and private recreation areas. These open space resources may be public or private in ownership, and can include active and passive areas.

State Parkland

Rockland County is home to 11 State-owned parks totaling some 31,800 acres, all of which fall under the jurisdiction of the Palisades Interstate Parks Commission (PIPC) (see Figure 3.5-1). The Bear Mountain-Harriman State Park constitutes nearly 90 percent of Rockland’s State parkland.

County Parkland

The Rockland County park system is comprised of 25 properties totaling some 3,034 acres of land (see Figure 3.5-1). The County has an additional 134 acres of open space encompassed within two properties: the 40-acre Hillburn Properties and the 94.5-acre Orchards of Concklin.

The County parks supplement the State-owned parks, complementing many of their passive and active recreational amenities, and providing continuity among various parkland and open space holdings. These connections allow visitors to travel between multiple parks without reliance on motorized vehicles, and also serve as natural habitat corridors for the region’s wildlife. Like much of the State parkland, many County parks protect environmentally sensitive lands, as well as contain historically significant structures.

FIGURE 3.5-1: PARKS



Town and Village Parkland

There are approximately 3,790 acres of parks and open spaces at the local level: 759 acres in Clarkstown, 737 acres in Haverstraw, 830 acres in Orangetown, 1,039 acres in Ramapo, and 425 acres in Stony Point. Comprised within these totals are village-operated parks. Linear parks are found along some of the abandoned railroad rights-of-way in the Villages of Grand View-on-Hudson, South Nyack, and Piermont, and the Towns of Orangetown and Ramapo. The local system of parks and open space also includes public golf courses, recreation centers, athletic fields, boat launches, and historic monuments. At the neighborhood level, there are a number of playgrounds and pocket parks that are walkable to area residents (see Figure 3.5-1).

Hiking and Biking Trails

Rockland's park system is complemented by a network of regional and local trails (see Figure 3.5-2). Regional trails include the Appalachian Trail, the Hudson River Valley Greenway and Water Trails, Bike Route 9, and a 35-mile long stretch of the Long Path. There are many existing and proposed local trails in Rockland County, within parks, along roads, and on former railroad rights-of-way. In addition, there are 35 miles of Greenway Trails and six water trail sites on the Hudson River, designated under the Hudson River Valley Greenway.

In Rockland, there are numerous State-recognized bike routes, including the five-mile Nyack Beach-Hook Mountain Greenway trail running along the shore of the Hudson River from Nyack Beach State Park to the Village of Haverstraw; the 4.5-mile Joseph B. Clark Rail-Trail, running between Oak Tree Road and Western Highway in Orangetown; and the 1.3-mile Jones Point Greenway Trail, running along old Route 9W/Dunderberg Mountain in Bear Mountain State Park. The New York State Department of Transportation (NYS DOT) has designated the following highway corridors as part of the regional system of State bike routes: New York State Routes 59 and 304 and U.S. Routes 9W and 202. State Bicycle Route 9 – one of only three long distance, on-road bicycle routes maintained by NYS DOT – closely parallels the Hudson River as it follows the U.S. Route 9W corridor through Rockland. There also are local roads throughout the county with designated bike lanes, while additional roads are being restriped and signed to include space at the shoulders for bikes.

Farms and Orchards

Rockland County's farms and orchards continue to be one of the most vulnerable categories of open space. Development pressure and conversion of farmland to non-agricultural uses have resulted in a significant loss of this valuable open space resource as well as a change in community character. In the 1920s, the county was home to more than 900 active farms. As of 2010, only six farms and three orchards, totaling 213 acres, remain in the County.

FIGURE 3.5-2: HIKING & BIKING TRAILS



Private Recreation

Rockland County contains some 2,675 acres of land devoted to private recreation. This wide range of resources helps preserve natural land and provides for recreational needs. Examples of private recreation include private golf courses, equestrian centers and stables, campgrounds and day camps, marinas and boat launches, picnic grounds, fitness centers, and a variety of recreational centers and facilities. As with Rockland's farms and orchards, the county's private recreational facilities are vulnerable to outside development pressure.

Parks and Open Space Acquisition

There are several ways that parks and open space are currently acquired in Rockland County, including the County's Open Space Acquisition Program, as well as acquisition at the town and village levels. Local municipalities preserve open space through local planning, land use controls, and the purchase of local open space resources. A provision in New York Municipal Home Rule Law, Section 10, authorizes local governments to adopt and amend local laws for the protection and enhancement of the physical and natural environments. In addition, Section 247 of the General Municipal Law (GML) establishes the preservation of open space as a public purpose and authorizes local governments to expend public funds to acquire interests or rights in real property to preserve open space.

Local governments can conserve significant open space through their authority to control growth and development. For example, municipalities with adopted zoning codes can use zoning techniques such as overlay districts and incentive (bonus) zoning to conserve open space. Other planning strategies for preserving local open space may be administered through the site plan approval process or with techniques like conservation (cluster) subdivision developments or planned unit developments (PUD).

Municipalities can use the subdivision process to acquire dedicated open space. Conservation subdivisions are the most inexpensive methods of acquiring dedicated open space for a municipality. The method is designed to use the private development process to yield publicly available land. This technique has been known as "clustering," and is now called conservation (or open space) subdivision to make clear the public purpose underlying the organizing of new residential development into smaller lots. As per Section 277 of the GML, local planning boards can require the developer to include in the proposed subdivision plat sufficient parkland for playground or other recreational purposes. Other techniques include direct purchase, conservation easements, donations from private property owners, and special assessment taxes set aside for land purchase.

Hudson River

The Hudson River may be the most significant surface water resource for Rockland County. The river has a rich history in the County; offers scenic beauty; and is a major ecosystem, containing valuable fish, wildlife, and plant species. The Hudson River also provides valuable recreational

3.5 Open Space and Recreation

opportunities to residents and tourists, such as fishing, boating, swimming, hiking, education, river watching, and wildlife-related recreation. In many ways, the Hudson River is a focal point in Rockland County, and the Comprehensive Plan supports efforts to retain this position. The Comprehensive Plan supports the Hudson River Estuary Program's efforts to continue to maintain, develop, and improve connections to the river that allow residents and visitors to have rich and diverse Hudson River experiences.

Brownfield Cleanup and Re-use of Existing Land

Brownfields provide potential opportunities for additional parks and open space in the County. Brownfields are generally abandoned or underutilized industrial or commercial land that may be contaminated from past uses of the property. Reclaiming brownfields or other abandoned or underutilized properties can be very useful in establishing new parks in urban areas or in communities that currently do not have sufficient access to park or open space opportunities.

Programs and Plans

There are several programs and plans that contribute to preserving and expanding open spaces, including New York State's Hudson River Valley Greenway Act and Greenway Land Trail Program.

New York State's Hudson River Valley Greenway Act established the Hudson River Valley Greenway to facilitate the development of a regional strategy for preserving scenic, natural, historic, cultural, and recreational resources while encouraging compatible economic development and maintaining the tradition of home rule for land use decision-making. Two organizations oversee the implementation of the Greenway process: the Hudson River Valley Greenway Communities Council and the Greenway Conservancy for the Hudson River Valley, Inc.

The Greenway Land Trail Program assists communities and trail groups in establishing a system of trails that link cultural and historic sites, parks, open spaces, and community centers as well as providing public access to the Hudson River, which contains 45 miles of shoreline in Rockland County.

See the Comprehensive Plan for additional information on open space and recreation resources, plans, and programs.

3.5.2 Potential Impacts

Ongoing challenges to Rockland's open space include identifying new parcels for acquisition, additional costs of maintaining newly acquired open space, gauging the appropriate use of open space, and sustaining funding for future acquisition and maintenance.

3.5 Open Space and Recreation

The Comprehensive Plan seeks to address these issues with the following four open space and recreation policies:

- Improve parks and expand open space in high-density areas.
- Provide recreational resources serving diverse needs of population.
- Preserve and protect farmland and historic, cultural, and water resources.
- Ensure physical and visual access to the Hudson River.

The above policies are aimed at retaining and expanding open space holdings and improving access to open space and recreation for all Rockland residents. This includes expanding open space opportunities in high-density areas where open space is not readily available. These policies also ensure that recreational resources are made available to Rockland's growing youth and senior populations (see Chapter 3.1 Demographics) and to all ethnicities and income groups. Finally, these policies promote programs that preserve Rockland's existing farmland.

In support of the above policies – and to address current and future open space and recreation challenges in Rockland County – the Comprehensive Plan proposes the following recommendations:

- Work with the municipalities on accurate parkland and recreation inventories.
- Focus future open space acquisition efforts on land adjacent to 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.
- Explore opportunities to provide public access along streams, (as appropriate to ensure preservation of habitats and environmentally sensitive areas).
- Link open spaces together, whether through continuous trail systems, or acquiring additional 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, 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.
- Work 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 all potential users.

3.5 Open Space and Recreation

- 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.
- The County should work cooperatively with its towns and villages and private land owners to preserve open space using conservation easements.
- The County should continue to pursue funding for proper stewardship of its 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.
- Examine the feasibility of incorporating open space components in the I-287 Tappan Zee Corridor Project. Construction of a “lid park” would connect existing trails, create new open space, and help to mitigate negative impacts from the new bridge construction.

Although general in nature, the open space and recreation policies and recommendations address current and future gaps in open space resources and recreation initiatives. As discussed above in Section 3.5.1 and in section 3.2.1 Land Use and Zoning, Rockland County contains an abundant amount of open space, especially large New York State parks. However, smaller parks aren’t easily accessible in some urbanized areas. The Comprehensive Plan proposes to identify, preserve and expand these resources whenever possible via open space acquisition and partnerships between the County and local municipalities or public-private partnerships.

In addition, Rockland County has secured from the Greenway Communities Council the funds necessary to begin developing a countywide regional compact. To this end, the Comprehensive Plan – by incorporating the goals and objectives of the Hudson River Valley Greenway – will be used as Rockland’s greenway compact plan.

None of the above recommendations are anticipated to result in any significant adverse environmental impacts. If implemented, some of the above recommendations may have minor fiscal impacts that, in and of themselves, do not constitute environmental impacts for purposes of SEQR. For example, municipal finances may be required for open space acquisition and trail expansion. Exploring funding opportunities as suggested above in the Comprehensive Plan recommendations could mitigate this. Expanded open space and recreation resources could require additional maintenance costs. However, these recommendations are anticipated to expand valuable open space that will benefit not only the public but natural resources as well. Increased open space would provide expanded habitat and natural resources in some areas and could improve stormwater drainage if it replaces impervious surfaces or urban soils. As stated

3.5 Open Space and Recreation

by the National Recreation and Parks Association, open space and parks also contribute to social interaction, enhance property values, can be economic engines, and keep people healthy. The long-term benefits of these programs also outweigh the initial funding costs.

The Comprehensive Plan is an area-wide policy document, not a development application or development project. It includes the adoption of general policy initiatives to guide and facilitate future development in Rockland County, rather than directly resulting in physical changes to the environment. Since the Comprehensive Plan directs policy on a county-wide basis, it does not necessitate changes to any municipal zoning code (i.e. city, town or village). All future actions (i.e. policy or development) at the county level or municipal level will be required to undergo future environmental review under SEQR (6 NYCRR Part 617).

3.5.3 Mitigation Measures

Impacts that are associated with the Comprehensive Plan's open space and recreation recommendations are beneficial. Some minor fiscal impacts may occur but these do not constitute significant environmental impacts for purposes of SEQR. Therefore, adoption of the Comprehensive Plan is not anticipated to result in any significant adverse impacts to open space or recreation and no mitigation measures are required. Future site specific actions stated above must comply with SEQR.

3.5 Open Space and Recreation

3.6 HISTORIC AND CULTURAL RESOURCES

The following section sets forth an examination of existing historic and cultural resources and programs within Rockland County, as well as gaps in these resources and programs. The potential impacts that could occur as a result of the adoption of the Rockland County Comprehensive Plan (“Comprehensive Plan”) are explored, and any necessary mitigation measures needed to mitigate potential impacts are identified.

3.6.1 Existing Conditions

Historic Resources

Agencies and Organizations

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.

At the county level, the Rockland County Historic Preservation Board has an advisory rather than regulatory role and is responsible for pursuing a county-wide historic preservation program. The Board also promotes the development of model ordinances for municipalities to protect local historic resources, supports historic district regulations, and works to establish a County Historic Roads Program. 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.

At the municipal level, 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 ordinances and/or scenic roads districts.

Nationally, 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. Direct benefits for properties listed on the National Register include consideration in planning for federally owned, federally licensed, and federally assisted projects; possible eligibility for certain tax credits; and qualification to be considered for federal grants administered by New York’s State Historic Preservation Office (SHPO) for historic preservation. In addition, communities which contain National Register-listed districts or sites may see tourism-related and economic development benefits (see Figure 3.6-1 for National Register Districts in Rockland County). Rockland has more than 60 individual sites listed on the National Register (see Figure 3.6-2).

FIGURE 3.6-1: NATIONAL REGISTER OF HISTORIC PLACES, DISTRICTS

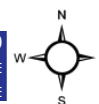
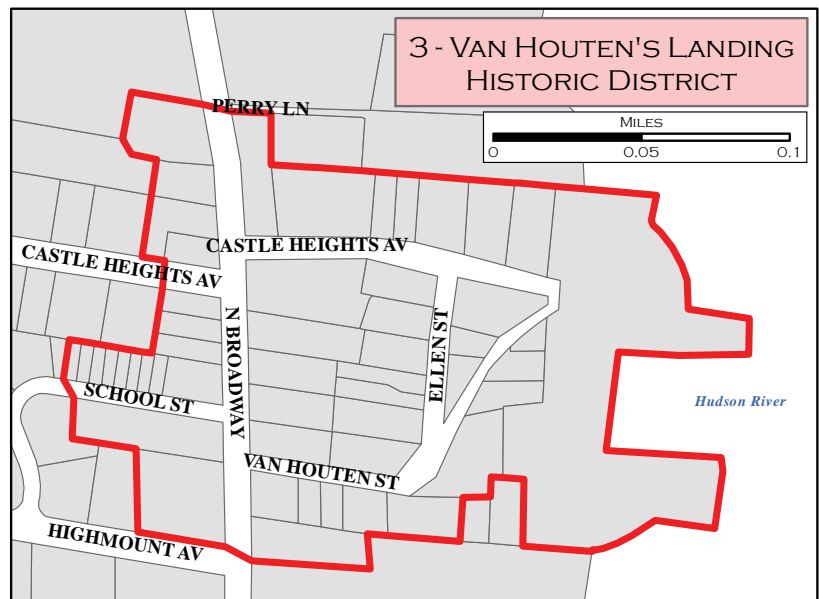
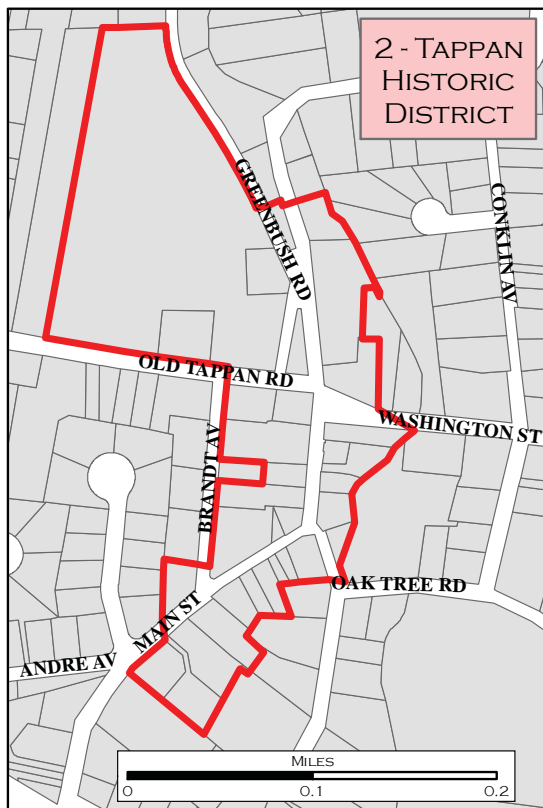
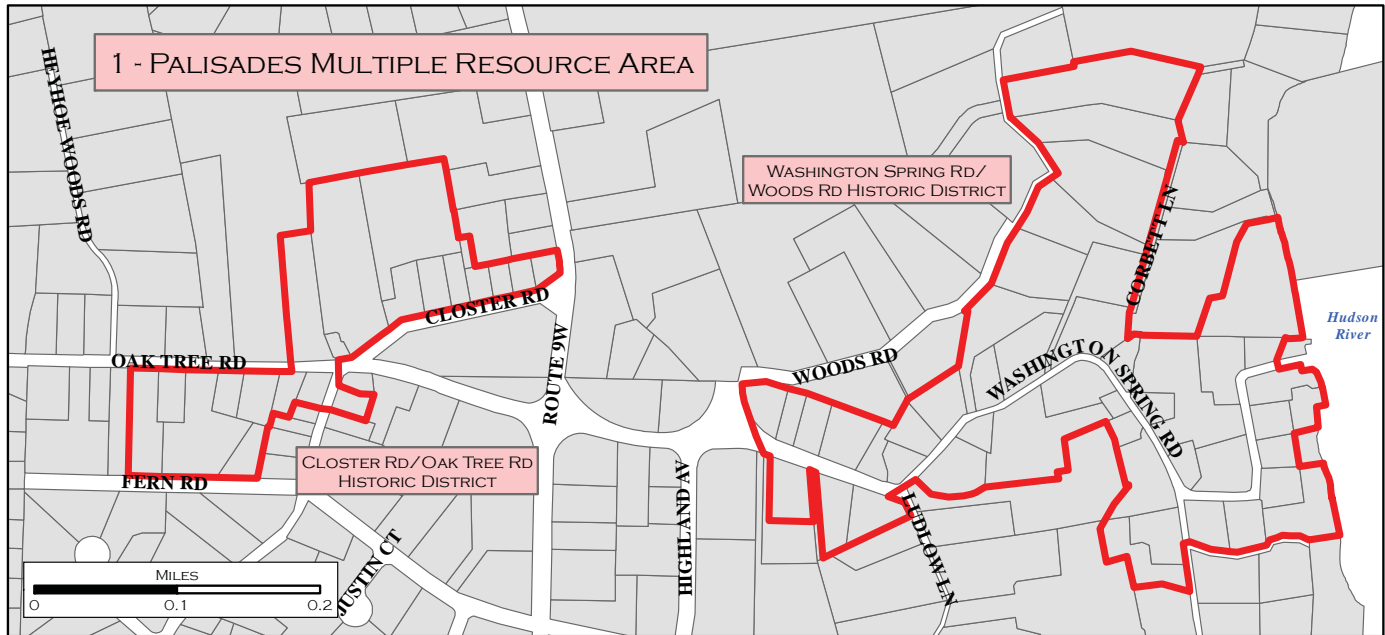
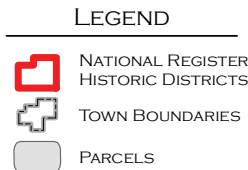
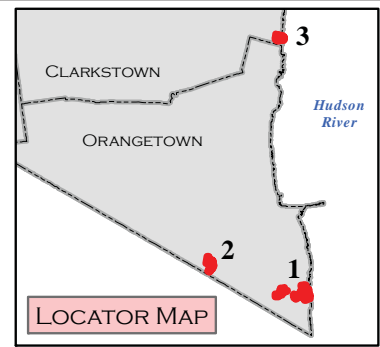
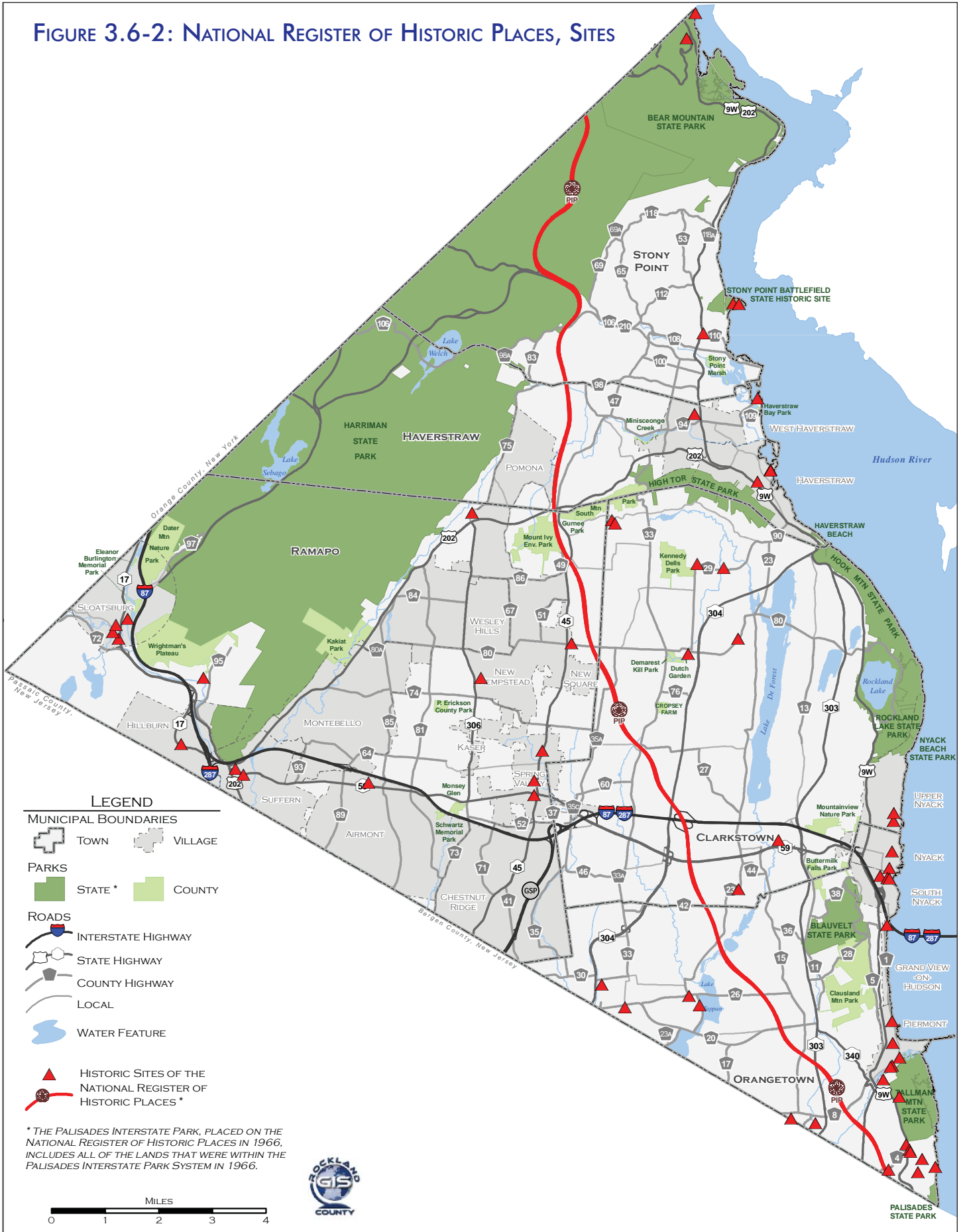


FIGURE 3.6-2: NATIONAL REGISTER OF HISTORIC PLACES, SITES



Other Historic Resources

In addition to the above programs, Rockland County contains other historic resources that provide an additional level of protection and recognition as valuable programs or places in the County. These resources include the Hudson River Valley National Heritage Area, which includes the Stony Point Battlefield; Bear Mountain and Harriman State Parks; the Jacob Blaauvelt House; the Edward Hopper House; and Museum Heritage Sites. Other resources include historical markers; historic trails, which informally serve various historic sites throughout the County; and architecturally significant structures.

Cultural Resources

Rockland County has a substantial history of artistic and cultural resources. By the middle of the 20th Century, it had become home to a number of artists, writers, and stage celebrities. 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.

Cultural Agencies and Organizations

In terms of cultural awareness and public outreach, the County is led by the Rockland County Office of Tourism. In addition, the following organizations promote or provide Rockland County’s arts and other cultural programs:

- Arts Council of Rockland
- Rockland Center for the Arts (RoCA)
- ArtsRock
- Keep Rockland Beautiful
- Arts Alliance of Haverstraw
- Garnerville Arts & Industrial Center
- Arts Students League of New York, Vytlacil Campus
- New York State Council on the Arts (NYSCA)

Rockland County is also home to a number of cultural heritage groups, dance ensembles, and music organizations that contribute to promoting its arts and cultural programs.

Cultural Programs and Plans

Major cultural programs in Rockland County include the *Art in Public Places Program of Rockland County*, which is a law allocating one percent of the bonded capital cost of County government construction projects for public art, the *Works Progress Administration (WPA) Murals*, which include art and landscape architecture projects that were commissioned during the Great Depression era, and the *Hudson River Sculpture Trail*, which 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 addition, farms and markets support Rockland’s agricultural heritage.

There are several important cultural policies and plans in Rockland County, such as the Rockland County Greenway Compact Plan. In exchange for participation in the Greenway program, communities can receive technical assistance and funding for community planning projects. There are currently 23 Greenway Communities in Rockland.

Scenic Byways

The New York State DOT's Scenic Byways program recognizes roadways with particular scenic, natural, recreational, cultural, historic, and/or archeological significance. Within Rockland County, 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. 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 (DOT), corridor management plans have not been prepared for the scenic roads in Rockland County, only for the Palisades Interstate Parkway. The DOT has indicated that it generally accepts designation of proposed scenic roads if a community is willing to complete a management plan.

Historic and Cultural Resource Issues

As discussed above, the Comprehensive Plan highlights the economic and quality of life benefits of historic and cultural resources. The Plan also identifies other key obstacles to these resources, including a lack of consistent local government funding for arts groups; maintenance of physical facilities; the limited public transportation service to Rockland County on weekends; the need for coordination among the County's various artistic and cultural activities and organizations; and the creation of a county-wide marketing and promotional effort to publicize Rockland's existing historic and cultural assets. See the Comprehensive Plan for additional information on existing historic and cultural resources, plans, and programs.

3.6.2 Potential Impacts

The Comprehensive Plan recommends preserving and promoting historic and cultural resources, which contribute to Rockland's quality of life. In support of this policy – and to address current and future historic and cultural resources challenges in Rockland County – the Comprehensive Plan proposes the following recommendations:

- 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.
- 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.
- Work with the Greenway Conservancy for the Hudson River Valley and the Hudson River Valley Greenway Communities Council to designate additional Heritage Sites as part of the Hudson River Valley National Heritage Area program. Include these sites 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.
- Pursue the nomination of additional roads to the State Scenic Byways program, and help to coordinate development of corridor management plans.
- Create a County Historic Roads program, and facilitate the creation and enhancement of trails to connect historic and cultural sites.
- Explore increasing public transportation access to weekend ferry service or direct bus lines to connect visitors from New York City to Rockland County.
- Provide assistance, including funding, for arts programming and maintenance of physical facilities, to organizations seeking to integrate and coordinate the artistic and cultural activities taking place in the county.
- Pursue a countywide marketing strategy to publicize Rockland's arts and cultural activities.
- Seek initial and ongoing funding to establish and operate visitor centers to provide stop-off facilities and information for visitors and residents.
- Conduct a countywide wayfinding and signage study.

Although general in nature, the above historic and cultural resource policies, recommendations, and programs address current and potential future gaps in historic resource identification and cultural programs and initiatives.

As discussed above in Section 3.6.1, Rockland County is home to a rich variety of historic and cultural resources. The Comprehensive Plan proposes to preserve and expand these resources

3.6 Historic and Cultural Resources

whenever possible. The Comprehensive Plan also recognizes the various agencies and organizations that preserve and promote historic and cultural resources, and suggests that the County take the lead by providing technical support and guidance, helping to fill key gaps in information, and potentially partnering with certain groups on grants and other initiatives.

As can be seen, many of the above recommendations involve County support and guidance for Rockland's municipalities. These efforts would be accomplished via the creation of educational and other types of programs, guidelines, funding assistance, and studies. None of the above recommendations are anticipated to result in any significant adverse environmental impacts. If implemented, some of the above recommendations may have minor fiscal impacts to cover a specific historic or cultural resource policy or program that, in and of themselves, do not constitute environmental impacts for purposes of SEQR. For example, a new Rockland County Historic Roads program would require support from County departments to establish and maintain the program. However, the long-term benefits of these programs outweigh the initial funding costs. The recommended programs and policies of the Comprehensive Plan would expand valuable historic and cultural resources, which could potentially result in positive economic benefits in areas that promote tourism, as well as act as critical drivers in location decision making for potential employers and workers who value the quality of life associated with these resources.

The Comprehensive Plan also recommends two historic/cultural resource policies that would require further planning studies to ensure that the uses are compatible with the surrounding area, and potentially with municipal zoning codes. These policies include: 1) the adaptive reuse of historic structures, possibly for inns or bed and breakfasts; and 2) promoting new visitor centers to provide stop-off facilities and information for visitors and residents. The adaptive reuse of historic structures would require compliance with state and local guidelines for historically designated buildings, as well as compliance with municipal zoning codes. The siting of visitor centers would require further consideration for appropriate locations and compatibility with the surrounding area. However, both of these recommendations are anticipated to result in long-term benefits that would improve historic and cultural resources in Rockland County.

The Comprehensive Plan is an area-wide policy document, not a development application or development project. It includes the adoption of general policy initiatives to guide and facilitate future development in Rockland County, rather than directly resulting in physical changes to the environment. Since the Comprehensive Plan directs policy on a county-wide basis, it does not necessitate changes to any municipal zoning code (i.e. city, town or village). All future actions (i.e. policy or development) at the County level or municipal level will be required to undergo future environmental review under SEQR (6 NYCRR Part 617).

3.6.3 Mitigation Measures

Impacts that are associated with the Comprehensive Plan's historic and cultural resource recommendations are beneficial. Some minor fiscal impacts may occur but these do not constitute significant environmental impacts for purposes of SEQR. Therefore, adoption of the Comprehensive Plan is not anticipated to result in any significant adverse impacts to historic and cultural resources and no mitigation measures are required.

3.7 HOUSING

The following section sets forth an examination of the existing housing conditions, projected future supply and demand within Rockland County, as well as current and projected housing deficiencies and other housing issues. The potential impacts that could occur as a result of the adoption of the Rockland County Comprehensive Plan (“Comprehensive Plan”) are explored, and any necessary mitigation measures needed to mitigate potential impacts are identified.

3.7.1 Existing Conditions

Existing Housing Stock

More than 40 percent of Rockland’s existing housing stock was constructed during the 1960s and 1970s; decades when homes were built at a rate of more than 1,800 per year (see Table 3.7-1). This growth in housing production 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 3-7.1: 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%
Total Housing Units	99,344	100.0%

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

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 percent increase from the total housing units in 1990 and about a five percent increase from that in 2000.

As shown in Table 3.7-2, 71 percent of Rockland’s housing stock is owner-occupied, accounting for 67,675 of the County’s 94,687 occupied units. Rental units comprise 29 percent of the county total.

Table 3.7-2: 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%
Total Occupied Housing Units	94,687	100%

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

Structure Types

According to the 2008 ACS, the housing supply in Rockland is predominantly comprised of single-family homes. The estimated number of single-family homes is just over 67,000, or about 68 percent of the total housing stock. Although some multifamily developments have been constructed over the last decade, they comprise only about 30 percent of all housing.

Multifamily homes 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) (see Figure 3.7-1). In addition to multifamily homes, Rockland County contains approximately 1,073 mobile homes. Each of these housing types serves different needs for a diverse range of residents, and each can have varying impacts on communities.

The County contains various housing types for its senior population, including nursing homes, adult homes and assisted-living facilities (in addition to single family homes). Rockland has an inventory of 32 senior housing complexes that are comprised of a total of 3,185 units (see Figure 3.7-2). 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, as well as nine nursing homes comprising a total of 1,711 units (see Figure 3.7-3).

Rockland maintains an inventory of 68 subsidized or affordable housing properties comprising a total of 4,089 units. Rockland's subsidized and affordable housing stock includes housing for the disabled and senior populations, as well as traditional public housing units. With 26 properties containing some 2,728 units, senior subsidized and affordable housing constitutes the majority – almost 67 percent - of the County's total subsidized and affordable housing inventory, while subsidized housing units for the disabled account for approximately three percent (21 properties, 135 units) of subsidized and affordable housing. There are 1,226 traditional public housing units throughout the County, constituting approximately 30 percent of Rockland's total subsidized and affordable housing stock.

FIGURE 3.7-1: MAJOR RESIDENTIAL DEVELOPMENTS

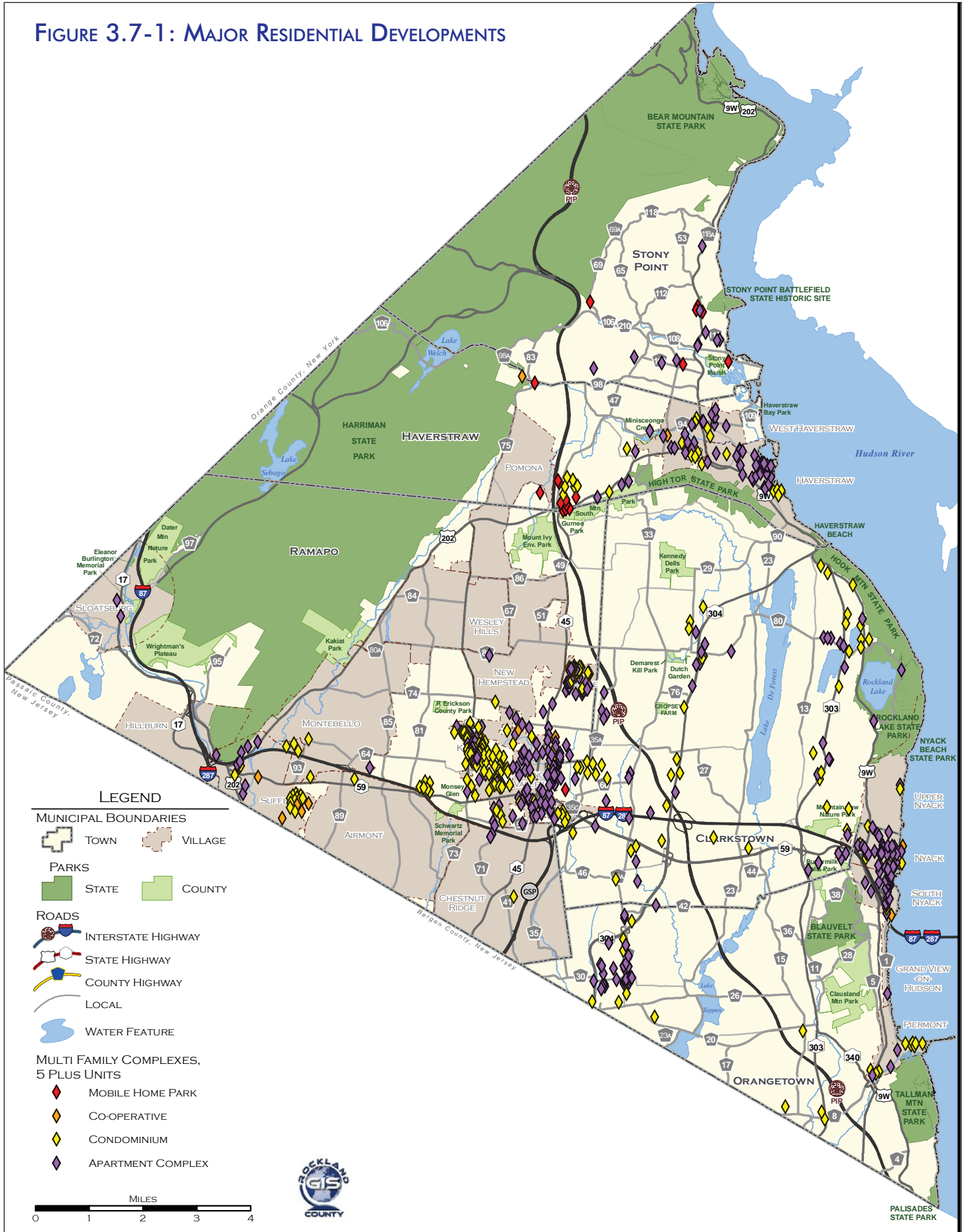


FIGURE 3.7-2: SENIOR HOUSING

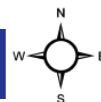
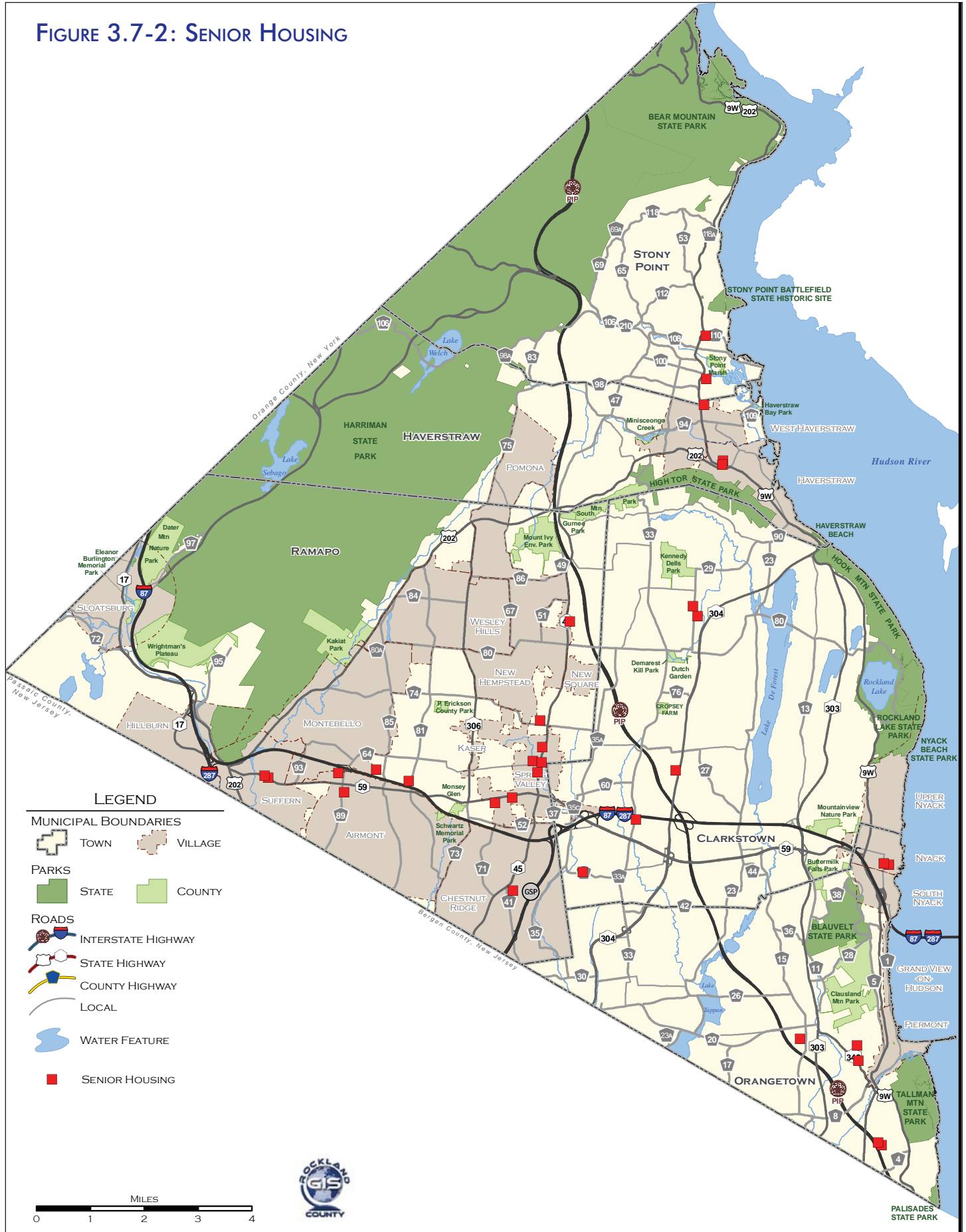
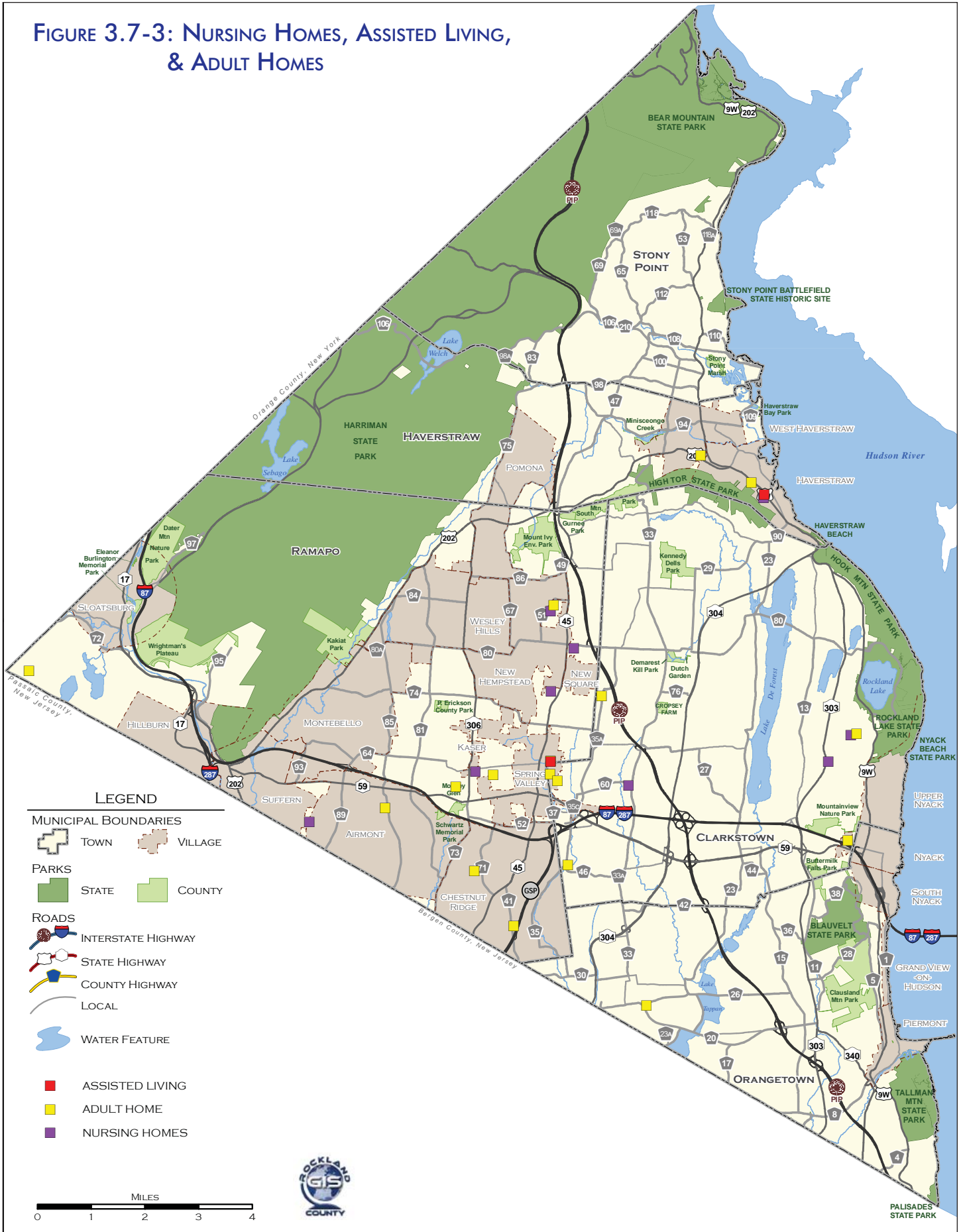


FIGURE 3.7-3: NURSING HOMES, ASSISTED LIVING, & ADULT HOMES



Housing Affordability and Demand

Housing affordability is one of several indicators of housing demand and also indicates the cost-burden of owning or renting a home. According to the U.S. Department of Housing and Urban Development (HUD), for housing to remain affordable, households should not have to allocate more than 30 percent of their annual incomes to housing costs. These standards apply to renters as well as homeowners. For low-income renter households, an extraordinary rent burden would exist if 50 percent or more of annual incomes were allocated to the costs of rental housing. According to the ACS, in 2008, more than 40 percent of Rockland County home owners were paying expenses equal to or more than 30 percent of their incomes, resulting in high cost burdens for home owners.

Rockland’s renter households have considerably lower household incomes than homeowners¹. The 2008 ACS shows that more than half of renters were paying rents equal to more than 30 percent of their income. Also, in 2008, nearly one-third of renters had high rent burdens, with at least half their incomes paid toward contract rent and utilities.

To quantify the need for affordable housing units, the Comprehensive Plan utilized the area median income (AMI) limits established by 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 was further refined from the perspective of annual costs of housing (see above). Among all those initially qualified, the cost-burdened low-income households of Rockland numbered 25,936 in 2008, or 27 percent of the total households. Among these, 12,207 were homeowners and 13,729 were renters.

Housing Forecasts

The following housing forecasts are based on Rockland County Department of Planning and Cornell University’s Program on Applied Demographics estimates. Table 3.7-3 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 percent 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 one to two percent increase across all categories. Two-person households are the most prevalent, comprising 29 percent in 2005 and 29 percent in 2020.

¹ According to 2008 ACS, in 2008, Rockland County median household income was \$106,379 for owners and \$42,864 for renters.

Table 3.7-3: Rockland County Projected Number of Households by Household Size, 2005-2020

	2005	2015	2020	2005-2020	
				Number	Percent Change
Total Households	95,289	101,020	103,401	8,112	8.5%
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%
Percent Distribution					
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
Average Household Size	3.01	2.98	2.99	N/A	N/A

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

The distribution of Rockland's households by the age of the head of household is anticipated to change between 2005 and 2020. In 2005, the 45- to 54-year age cohort had the largest share, at 23 percent of total households. Forecasts indicate that by 2020, the 55- to 64-year age cohort will equal the 45- to 54-year age cohort for the largest share, at 21 percent of total households. Similar to 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 led households are predicted to advance in share from 12 percent to 15 percent from 2005 to 2020. Households with heads 75 to 84 years and 85 years or older are expected to see a respective 19 percent and 69 percent 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.

In Rockland County, between 2005 and 2020, forecasts indicate that some 8,320 housing units will be added to the residential stock, an 8.5 percent 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.

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. 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 (see above sections). High housing values can also inhibit new homeownership as higher household incomes are needed to acquire housing, and more households are excluded from homeownership by a growing affordability gap.

See the Comprehensive Plan for additional information on existing housing conditions, projected future supply and demand, and housing deficiencies within Rockland County.

3.7.2 Potential Impacts

Based on existing and projected demographic and housing trends (see above and Chapter 3.1 Demographics), there is a demand for affordable housing to meet the needs of Rockland’s young adult population, young families, seniors, and those on public assistance. In addition, the Comprehensive Plan identifies housing needs for the handicapped and disabled, who represent eight percent of the civilian non-institutional population², as well as the needs of the homeless.

In order to address these deficiencies the Comprehensive Plan recommends the following three housing policies:

- Expand housing opportunities and services for Rockland’s diverse population.
- Promote high-quality residential communities with a range of appropriate densities.
- Provide sufficient and affordable housing stock for the aging and young adult population, caregivers, and emergency service volunteers.

The above policies are aimed at providing housing opportunities for all Rockland residents, including housing for its growing senior population (see Chapter 3.1 Demographics), young adults, and Rockland’s caregiver and emergency service volunteer workforce populations. These policies promote diverse housing options, such as rental and owner occupied units, mixed-use housing, accessory apartments, in-law suites, condos, townhomes and starter homes, as well as market rate and affordable housing.

In support of the above policies – and to address current and future housing demand and challenges in Rockland County – the Comprehensive Plan proposes the following recommendations:

² 2008 American Community Survey.

- 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 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.
- Encourage a range of affordable housing options for the county’s young adult and senior populations. Diverse housing options can include mixed-use housing with first-floor commercial 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 starter 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.
- Discourage out-of-scale residential development patterns.

Although general in nature, the housing policies and recommendations address current and potential future gaps in housing demand and supply, and provide housing options that address the needs of Rockland County residents. The above recommendations are intended to help balance preservation of open space and natural environments with new residential developments, protect against the construction of out-of-scale housing, and link residential land use patterns with existing centers and mass transit.

None of the above recommendations are anticipated to result in any significant adverse environmental impacts. If implemented, some of the above recommendations may have minor fiscal impacts that, in and of themselves, do not constitute environmental impacts for purposes of SEQR. For example, municipal finances may be required for municipalities that draft zoning text or prepare comprehensive plans that encourage the provision of affordable housing. Exploring housing grants – as suggested in the Comprehensive Plan recommendations – could provide funding for such activities. The mechanism for funding affordable housing will vary by municipality.

Other potential minor impacts of these recommendations are the costs associated with creating new housing for seniors, including development and infrastructure costs. There is also a potential for some increases in local traffic conditions associated with collocating some senior housing near local shopping centers, community facilities, and recreational areas; these impacts would be addressed at the municipal level during the approvals of future projects. As stated in Chapter 3.2 Land Use and Zoning and 3.3 Transportation, reinforcing Rockland’s centers is fiscally smart in that infrastructure, utilities, and public transportation already exist.

The overall impact of the above housing policies and recommendations are beneficial to the environment. The Comprehensive Plan supports smart growth in that it recommends locating seniors within close proximity to neighborhood convenience shopping, needed services, and recreation opportunities, thereby limiting the negative transportation and environmental impacts associated with suburban sprawl.

The Comprehensive Plan is an area-wide policy document, not a development application or development project. It includes the adoption of general policy initiatives to guide and facilitate future development in Rockland County, rather than directly resulting in physical changes to the environment. Since the Comprehensive Plan directs policy on a county-wide basis, it does not necessitate changes to any municipal zoning code (i.e. city, town or village). All future actions (i.e. policy or development) at the County level or municipal level will be required to undergo future environmental review under SEQR (6 NYCRR Part 617).

3.7.3 Mitigation Measures

Impacts that are associated with the Comprehensive Plan’s housing recommendations are beneficial. Some minor fiscal or site specific impacts may occur but these do not constitute significant environmental impacts for purposes of SEQR. Therefore, adoption of the Comprehensive Plan is not anticipated to result in any significant adverse housing impacts and no mitigation measures are required. Future site specific actions stated above must comply with SEQR.

3.8 ECONOMIC DEVELOPMENT

The following section sets forth an examination of economic programs and recent economic trends within Rockland County, as well as issues that affect the County's economy. The potential impacts that could occur as a result of the adoption of the Rockland County Comprehensive Plan ("Comprehensive Plan") are explored, and any necessary mitigation measures needed to mitigate potential impacts are identified.

3.8.1 Existing Conditions

Trends in Employment and Earnings

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 (see Chapter 3.3 Transportation).

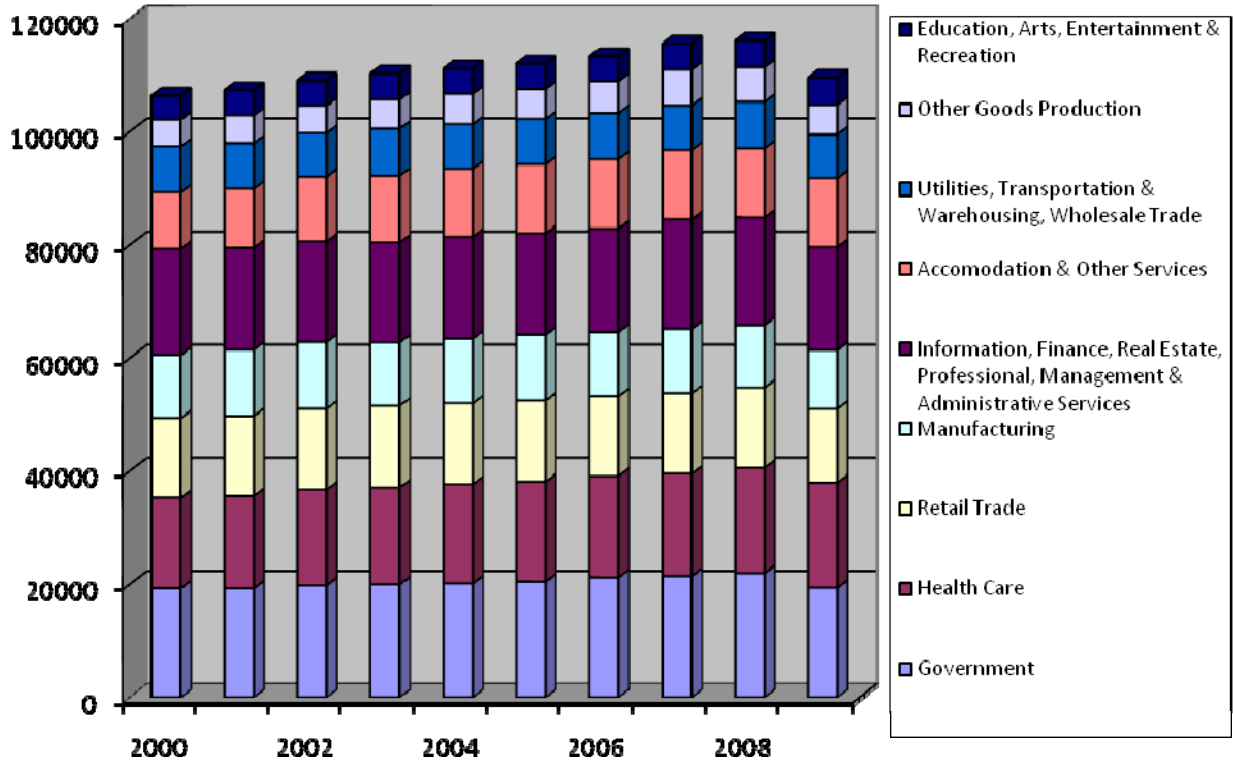
After nearly a decade of continuous employment growth, amounting to 9,514 new jobs created from 2000 to 2008, Rockland lost employment in 2009. Down nearly 6,300 jobs by October 2009, or a 5.4 percent loss, the decline was not distributed in proportion to the industrial structure of the County's economy.

Of 109,600 jobs currently existing in the county, Government comprises the largest sector, followed by Health Care, Retail Trade and Manufacturing. As Chart 3.8-1 shows, these four sectors collectively account for 56 percent of total employment in Rockland, a share they have virtually maintained since 2000 (57 percent). 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 percent of Rockland County's recent job losses while Health Care employment remained unchanged. 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 as part of the December 2007 to October 2009 recession.

According to the Rockland County Department of Planning and Rockland Economic Development Corporation (REDC), of the County's 31 largest employers in 2009, the Biomedical (Life Sciences) cluster remains a strong job sector, as well as local government as a job generator. 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. Figure 3.8-1 identifies the location of major employers by establishment size in 2008.

Chart 3.8-1: Rockland County Employment, 2000-2009 Third Quarter



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

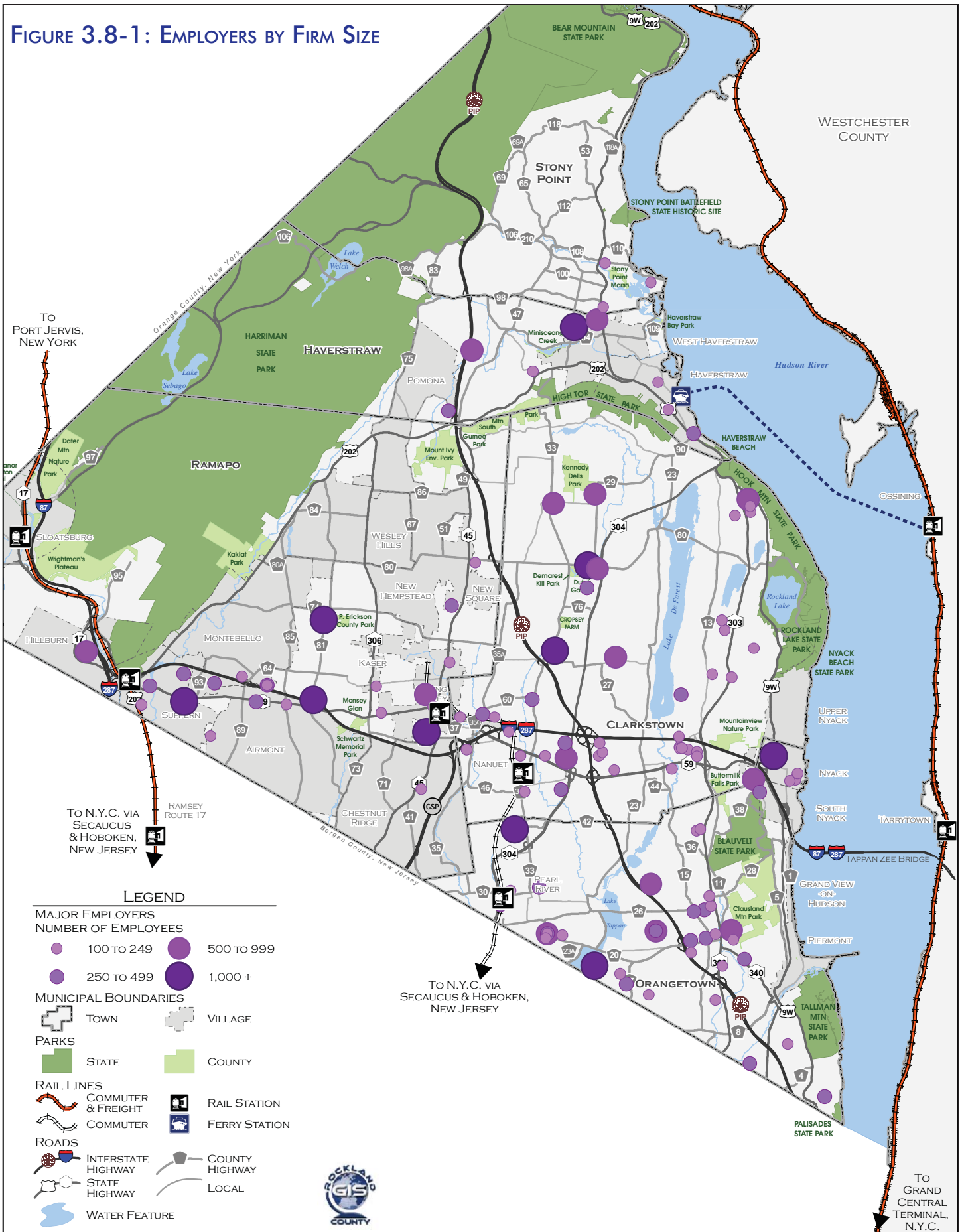
One major issue that was identified in the Comprehensive Plan (and cited in a June 2009 public workshop on the Comprehensive Plan) was the recent zoning trend of converting industrially zoned parcels to residentially zoned parcels at the local municipal level. This occurrence has reduced the potential for new industry in some areas.

Regional Forecasts of Growth

The New York State Department of Labor (NYS DOL) 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.¹ For the 2010-2016 period, employment is expected to increase by nine percent, or

¹ 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.

FIGURE 3.8-1: EMPLOYERS BY FIRM SIZE



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 & Business 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.

Commercial Occupancies

More than 600 acres of land in Rockland County are developed as office and another 1,870 acres are comprised of commercial uses of a neighborhood, general business, community, or regional character. The largest share of office land uses is located in Orangetown with one-third of the total, while Clarkstown dominates commercial development with 46 percent of the county-wide acreage.

Although Rockland's regional office market is small compared with that of Westchester County and the northern New Jersey counties, its Class A availability rate was a favorable 6.7 percent by year-end 2009 compared with a 17 percent vacancy rate in Westchester and 22.8 percent in Bergen County, NJ². 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%.

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 on Route 59. However, the bulk of Rockland's retail stock consists of small strips, neighborhood centers, freestanding buildings, and village storefronts that collectively account for 68 percent of total space. These older settlements account for 81 percent of retail vacancies in the County. Vacancies are twice as concentrated in the village locations and typically exceed 6 percent of space unoccupied, while the Palisades Center Mall has less than two percent of space vacant at present.

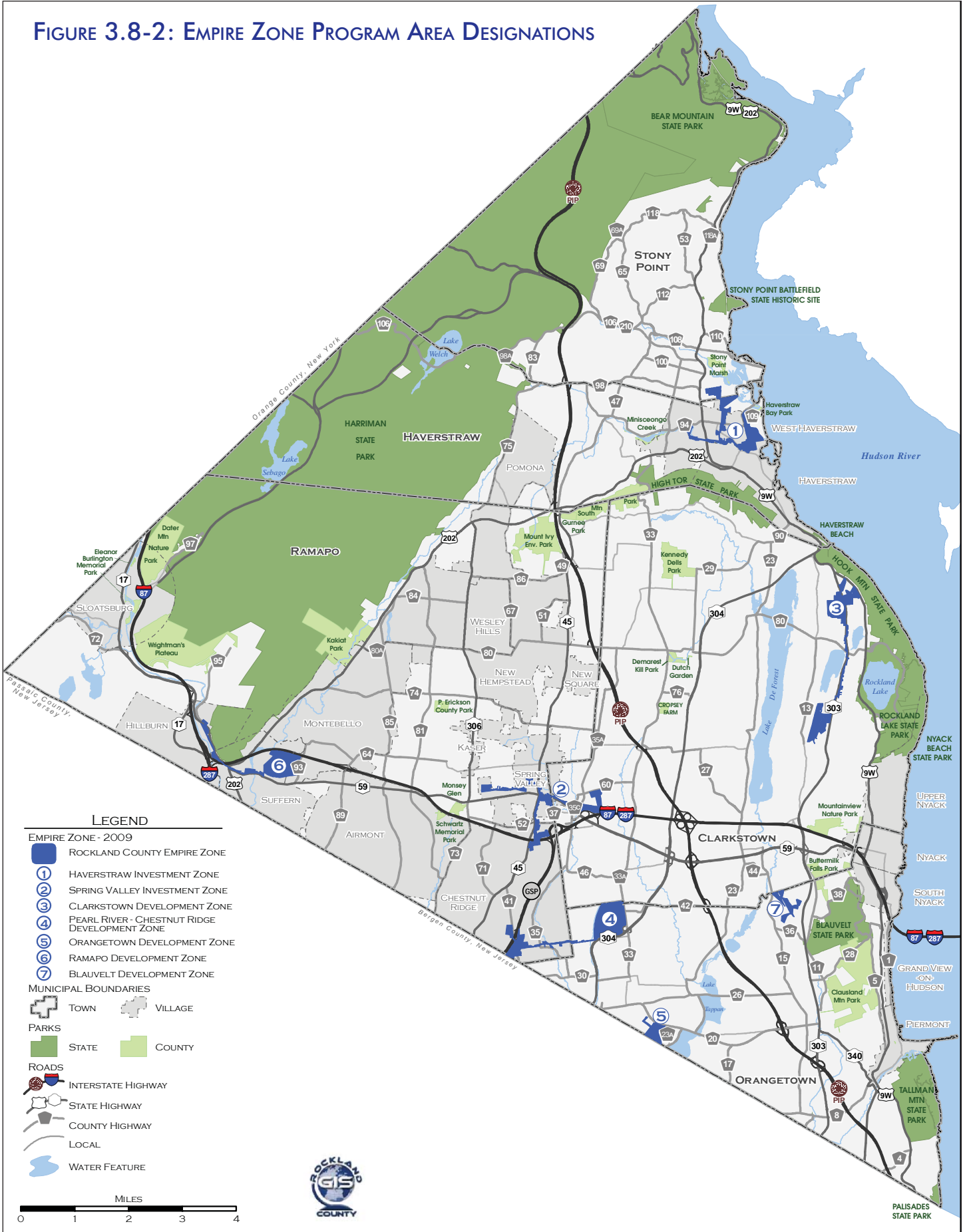
Economic Development Initiatives

There are several economic programs and initiatives in Rockland County that contribute to its competitiveness and growth, including the Empire Zone program, the Rockland Economic Development Corporation (REDC), and the Rockland Industrial Development Agency (IDA).

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 (see Figure 3.8-2). Its purpose was to attract industrial companies from out-of-state, and

² CB Richard Ellis.

FIGURE 3.8-2: EMPIRE ZONE PROGRAM AREA DESIGNATIONS



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 Corporation (ESDC), 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.

In addition to administering the Empire Zone Program, 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. REDC acts as a conduit for funding from other financial sources such as banks, insurance companies, and institutional investors.

Economic Development Trends

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 (NYS DOL) that identify growth sectors or industry clusters of the Hudson Valley, based on 2008 data (see the Comprehensive Plan for more information on the subsequent measures, *Location Quotient Analysis* and *Shift-Share Analysis*).

Based on 2006 to 2016 industry and occupational forecasts for the Hudson Valley Region (or *Cluster Analysis*), the region's leading clusters with disproportionate shares of statewide activity are Biomedical and Electronics & Imaging, characterized by concentrations of pharmaceutical and nanotechnology firms (both are of 16 industry clusters identified by NYS DOL as drivers of economic growth). 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.

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.

See the Comprehensive Plan for additional information on economic development programs, trends and issues.

3.8.2 Potential Impacts

The Comprehensive Plan recommends the following five economic development policies, which are aimed at addressing the economic development needs in Rockland County, while positioning Rockland's economy to share in regional growth and remain economically sustainable in the coming years:

- Foster opportunities for growth of businesses in the County.
- Ensure a broad range of employment opportunities for residents.
- Maintain a strong tax base for the County, communities, and taxing jurisdictions.
- Protect the County's diminishing stock of developable commercial land from rezoning in order to ensure a balanced and stable tax base and local employment opportunities.
- Preserve and promote Rockland's historical and cultural resources.

The Comprehensive Plan identifies the Arts, Entertainment & Recreation, and Accommodations & Food Services as job sectors that 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.

In support of the above policies – and to address current and future economic development challenges and trends in Rockland County – the Comprehensive Plan proposes the following recommendations:

- Support the Rockland Economic Development Corporation (REDC) and Rockland Industrial Development Agency (IDA).
- Prepare a comprehensive economic development strategy prioritizing sector and geographic development goals and coordinating development among municipalities; including a marketing strategy and guidelines for making sites shovel-ready, attaining incentive and public financing, and preparing cost-benefit and market analyses.
- Craft an economic development plan that focuses on strengthening three discrete sectors: biomedical, front offices and professional services, and tourism, as well as supporting 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.

3.8 Economic Development

- Encourage municipalities to create local economic development offices and develop 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.
- Develop a program that addresses the impact of housing and transportation costs on labor force availability.
- Attract venture capital resources to support research and development, particularly in the biomedical field.
- Work 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.

Although general in nature, the above economic development policies and recommendations address some of the economic development issues facing the County today, such as job retention and creation, closing gaps in job skills, providing employment opportunities for young adults, alleviating high vacancies in village centers, and providing shovel-ready sites for economic development. The above recommendations also support programs that will better prepare Rockland’s workforce for growth, remain competitive regionally, and encourage sustainable practices, such as the use of “green” technologies in the construction sector.

None of the above recommendations are anticipated to result in any significant adverse environmental impacts. If implemented, some of the above recommendations may have minor fiscal impacts that, in and of themselves, do not constitute environmental impacts for purposes of SEQR. For example, municipal finances may be required in order to expand job skill training programs, improve technology that supports identification of vacant lands, and research associated with fostering “green” job growth. However, the benefits of these programs are anticipated to help retain and attract a broadly based workforce, including its young adults, foster job creation, and position Rockland County to remain economically competitive regionally. The long-term benefits of these programs outweigh any initial funding costs.

The Comprehensive Plan is an area-wide policy document, not a development application or development project. It includes the adoption of general policy initiatives to guide and facilitate

future development in Rockland County, rather than directly resulting in physical changes to the environment. Since the Comprehensive Plan directs policy on a county-wide basis, it does not necessitate changes to any municipal zoning code (i.e. city, town or village). All future actions (i.e. policy or development) at the County level or municipal level will be required to undergo future environmental review under SEQR (6 NYCRR Part 617).

3.8.3 Mitigation Measures

Impacts that are associated with the Comprehensive Plan's economic development recommendations are beneficial. Some minor fiscal impacts may occur, but these do not constitute significant environmental impacts for purposes of SEQR. Therefore, adoption of the Comprehensive Plan is not anticipated to result in any significant adverse economic development impacts and no mitigation measures are required. Future site specific actions stated above must comply with SEQR.

3.9 INFRASTRUCTURE

3.9.1 Existing Conditions

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.

Water

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. 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 groundwater into surface water bodies via base flow.

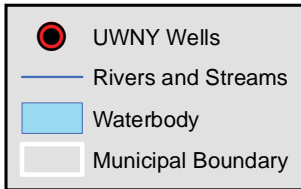
Public Water Supply

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

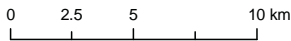
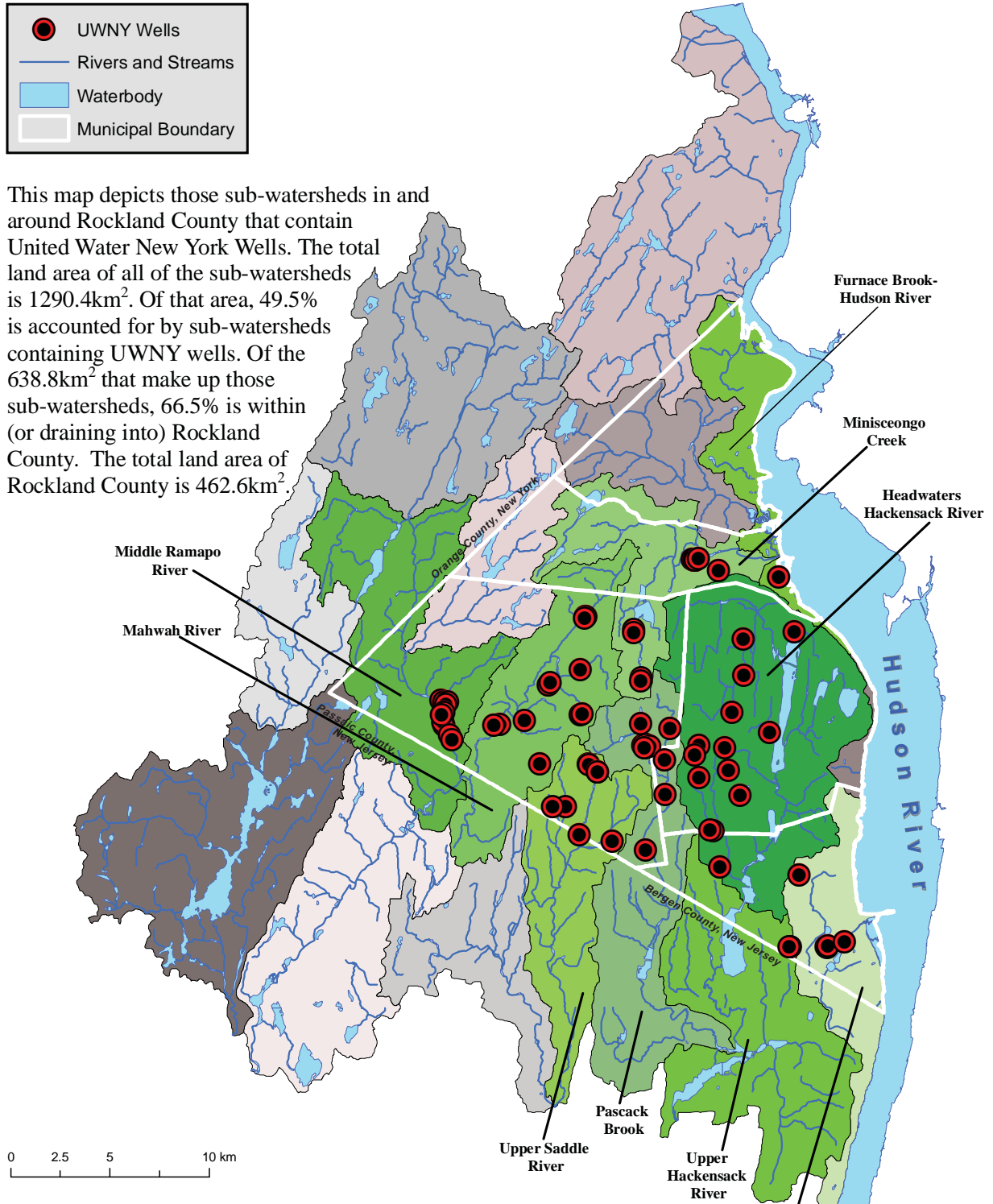
Approximately 46 percent of UWNY’s supply comes from groundwater derived from more than 40 bedrock wells in the central and eastern part of the county, and approximately 31 percent is derived from the Ramapo Valley Well Field (RVWF), which consists of 10 shallow wells in the alluvial aquifers of the Ramapo and Mahwah Rivers (see Figure 3.9-1). In addition, Rockland contains 139 wells serving smaller public water supplies which constitute approximately seven percent of total County water usage (see Figure 3.9-2). In addition privately-owned residential, commercial, and industrial wells constitute the bulk of the remaining three percent of total County water usage.

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.

FIGURE 3.9-1: 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 1290.4km². Of that area, 49.5% is accounted for by sub-watersheds containing UWNY wells. Of the 638.8km² that make up those sub-watersheds, 66.5% is within (or draining into) Rockland County. The total land area of Rockland County is 462.6km².



Sub-Watershed Name	Hydrologic Unit Code	State	Area km ²	Area km ² 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

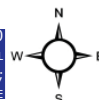
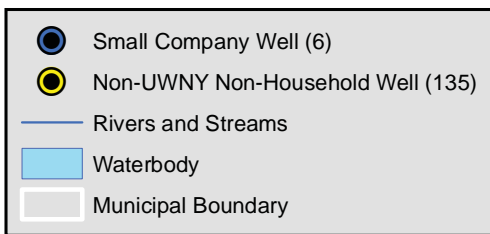
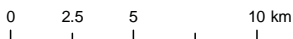
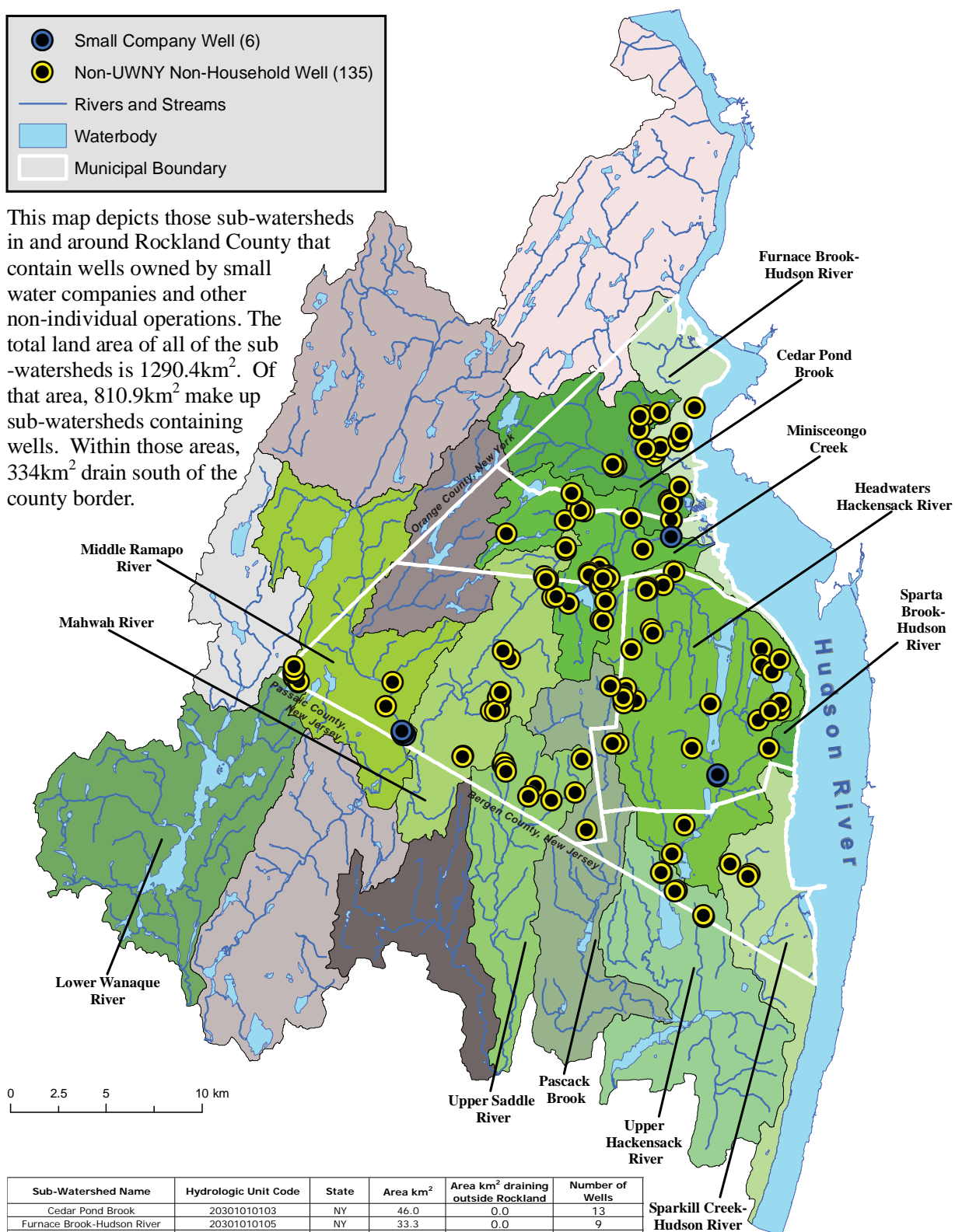


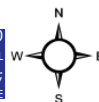
FIGURE 3.9-2: SUB-WATERSHEDS CONTAINING SMALL WATER COMPANY & OTHER NON-HOUSEHOLD WELLS



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 1290.4km². Of that area, 810.9km² make up sub-watersheds containing wells. Within those areas, 334km² drain south of the county border.



Sub-Watershed Name	Hydrologic Unit Code	State	Area km ²	Area km ² 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



Groundwater: 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 by the United States Environmental Protection Agency (EPA). The Ramapo River Valley alluvial aquifer in the western part of the county is a limited resource, despite the high yields from this source. UWNY's RVWF taps about 3.73 billion gallons per year of this alluvial aquifer supply, or 31 percent of UWNY's public water supply (1990–2006 average).

The Newark Basin aquifer, a fractured, sedimentary bedrock aquifer underlying southeastern Rockland, is another major source of public water supply. The Newark Basin stretches from Rockland County, through New Jersey and Pennsylvania. 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 suppliers also rely upon this aquifer for their sole source of water.

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 Conservation (DEC). The draft report, titled "Draft Water Resources of Rockland County, New York, 2005-07, with Emphasis on the Newark Basin Bedrock Aquifer," was prepared by P.M. Heisig, and has now been provided to the County. Additional data analysis and summary of the report's findings are available on the USGS website, <http://ny.water.usgs.gov/projects/rockland/>.

The USGS study also includes a companion report, titled "Hydrogeology and Simulation of Groundwater Flow in Fractured Rock in the Newark Basin, Rockland County, New York," that uses the hydrogeology of the Newark Basin aquifer in the County, as described by Heisig, to develop numerical groundwater flow models. These models will provide the County a "living" tool for the future evaluation of the bedrock aquifer.

Surface Water: Approximately 33 percent of UWNY's supply is derived from Lake DeForest Reservoir, located in the Hackensack River watershed in the Town of Clarkstown; the three Letchworth Reservoirs, located within the Highlands in Harriman State Park in the Minisceongo Creek watershed; and Lake Tappan, located in the Town of Orangetown, which consists of a series of surface water reservoirs that also supply water to Northern New Jersey.

Water Demand

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). According to United Water, over the past 20 years, annual average water demand in the County has been rising. In 1970 the annual average demand was 19.7 mgd, and by 2007 it was 31.4 mgd, an increase of approximately 59 percent.

Future Water Supply Demand and Planned Expansion

As described in the Draft Environmental Impact Statement for the Haverstraw Water Supply Project¹ (see Chapter 6.0 Subsequent SEQR Actions), 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, resulting in a total of approximately 15,540 new connections between 2008 and 2025.

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, as well as a long-term plan that identified six sources of increased water supply. Subsequent evaluation by UWNY determined that only a new reservoir at Ambrey Pond and a desalination plant on the Hudson River were found to meet the purpose and need for the long-term project² (See Chapter 6.0 Subsequent SEQR Actions for additional information on the proposed desalination plant).

Drought and Potential Shortfall in Water Supply

The Rockland County Department of Health implements emergency measures to reduce water demand pursuant to Article V of the County’s Sanitary Code 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.

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. If projected increases in demand exceed the available capacity in the future, 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. They are not allowed to approve new subdivisions or water main extensions unless there is a safe and adequate water supply for the proposed new

¹United 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>.

² Other potential water sources included additional groundwater supplies, reuse of wastewater, increased use of Lake DeForest, and use of the Suffern Quarry.

development without adversely impacting existing services. This scenario would have potential short and long term impacts on Rockland's economy and the lifestyle of County residents.

Sanitary Sewers

The County's wastewater is currently being collected and treated by seven municipal/public wastewater collection systems, small private systems, and approximately 6,000 individual residential septic systems.

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 is anticipated to 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 to the plants. According to population projections in the Comprehensive Plan (see Chapter 3.1 Demographics of this DGEIS), Rockland County's population is expected to grow approximately five percent by 2020. The Comprehensive Plan assumes that if the same rate of growth were to occur in sewage demand, the increase should be able to be handled by the current treatment plants.

Solid Waste

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 Rockland County Solid Waste Management Authority (Authority) facilities in accordance with the County Flow Control Law, and is then transferred to out-of-county disposal facilities.

The three-year totals for the three Authority transfer stations are shown in Table 3.9-1 below. With the exception of the Bowline transfer station, the increases from 2007 to 2009 reflect the changes of solid waste handling due to the County Flow Control Law. However, it should be noted that due to the recent economic downturn, the Authority's waste load declined in 2008, and the capacity of its facilities currently exceed waste supply. Authority facilities have the capacity to meet the existing solid waste demand from the County in the present and in the immediate future.

Table 3.9-1: 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
Total	216,261 Tons	216,375 Tons	236,224 Tons

Note: This table does not include volumes processed at IWS Hillburn transfer station.

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 Materials Recovery Facility and the value of the recycled materials sold. The three-year totals for total recycling tons and rebates are shown in Table 3.9-2.

Table 3.9-2: Authority Recycling and Rebates

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

Electricity/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 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.

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.

Cross-country transmission lines located in the County carry electricity to not only Rockland County, but also to the New York metropolitan area. These lines are located in rights-of-way that pass through many residential areas of the County. It is reported that there may be unused easements and/or rights-of-way within the County. Future potential use of these areas will depend upon ownership and other approvals.

According to O&R, the 2009 peak system demand 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 percent.

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

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 2009 system demand in Rockland County was 18,620,418 Dekatherm³. 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.

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

Telecommunications

Verizon provides land-line telephone service to Rockland County. Verizon's FiOS service, which is a bundled communications (Internet, telephone, and television) service 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. The County has 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. Also, when traffic back-ups occur on the Thruway or Parkway, diminished coverage is experienced due to high usage.

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 being implemented based on funding availability.

³ DTH is a unit of energy equal to 1,000,000 BTUs or approximately 1,000 cubic feet of gas.

See the Comprehensive Plan for additional information on existing infrastructure services, supply and demand, and projections.

3.9.2 Potential Impacts

Future demands in water, energy, and other utilities and infrastructure can place strains on existing systems and facilities. For example, water demand and extended droughts can place strain on the ability of the aquifers to meet demand from public and private wells. For electricity demands, coordination of planning among the County, municipalities, and utility providers 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 on-line to the electric system, including industrial development within the County's Empire Zones. The Comprehensive Plan suggests that proper planning is needed to accommodate the future projections of growth in the County, as well as to not deter future economic development in Rockland.

In order to address deficiencies in infrastructure, as well as other challenges, the Comprehensive Plan proposes the following recommendations:

- Promote water conservation through county regulations and public education, and adopt planning guidelines that require more water 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).
- Investigate potential additional water sources within the county, as recommended by the final USGS study, including the cost of developing the new supplies in contrast to the impact of potential shortfalls.
- 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 to development and the county's economic base.
- 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, develop an inventory of gas and electric transmission rights-of-way and utility easements.
- 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.
- Develop a countywide regional plan for potential wireless telecommunication facilities locations on public property.
- Encourage improvements and upgrades to existing infrastructure to facilitate economic development initiatives.

In order to promote energy efficiency and use of sustainable practices in site development, the Comprehensive Plan also proposes the following two policies:

- Encourage energy efficiency and purposeful conservation in all facets of development.
- Promote a whole-building approach to sustainability in the areas of site development, water savings, energy efficiency, materials selection, indoor environmental quality, and human and environmental health.

Although general in nature, the above recommendations and policies are aimed at improving the County’s infrastructure – its roads and bridges, water and sewer systems, electric and telecommunication lines, and other community systems – to preserve the quality of life and commerce within the County. They respond to the projected population growth and service demands as highlighted in Chapter 3.1 Demographics and in this chapter. The above recommendations also consider sustainable practices, such as encouraging use of renewable resources and energy efficiency, which will lessen the negative impacts of projected growth.

None of the above recommendations are anticipated to result in any significant adverse environmental impacts. If implemented, some of the above recommendations may have minor upfront fiscal impacts that, in and of themselves, do not constitute environmental impacts for purposes of SEQR. For example, municipal finances may be required to investigate potential additional water sources within the County or in using County or municipal GIS systems to develop an inventory of utility rights-of-way and easements. In addition, there will be continued costs associated with improvements to infrastructure, as well as energy-related improvements that make the system more efficient. However, these recommendations are anticipated to improve coordination between the County and its towns and villages, as well as improve public health, safety, and water quality. In addition, the use of sustainable site development practices, such as using renewable products in building construction, are environmentally responsible and

will help to reduce the amount of energy consumed during a building's life-cycle. The long-term environmental benefits of these programs outweigh any initial financing costs.

The Comprehensive Plan is an area-wide policy document, not a development application or development project. It includes the adoption of general policy initiatives to guide and facilitate future development in Rockland County, rather than directly resulting in physical changes to the environment. Since the Comprehensive Plan directs policy on a county-wide basis, it does not necessitate changes to any municipal zoning code (i.e. city, town or village). All future actions (i.e. policy or development) at the County level or municipal level will be required to undergo future environmental review under SEQR (6 NYCRR Part 617).

3.9.3 Mitigation Measures

Impacts that are associated with the Comprehensive Plan's infrastructure recommendations are beneficial. Some minor fiscal impacts may occur but these do not constitute significant environmental impacts for purposes of SEQR. Therefore, adoption of the Comprehensive Plan is not anticipated to result in any significant adverse impacts to infrastructure and no mitigation measures are required. Future site specific actions stated above must comply with SEQR.

3.10 PUBLIC SERVICES

The following section sets forth an examination of existing public services, community facilities, and resources within Rockland County, as well as gaps in these services and facilities. The potential impacts that could occur as a result of the adoption of the Rockland County Comprehensive Plan (“Comprehensive Plan”) are explored, and any necessary mitigation measures needed to mitigate potential impacts are identified.

3.10.1 Existing Conditions

In Rockland County, community facilities, services and resources include government and administrative services, health care and emergency medical services, fire and emergency management services, public safety, educational facilities and services, economic development, culture and recreation, and general community facilities, such as libraries. 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.

General County Government

The County Seat is located in New City, and primary government functions are conducted from the Allison-Parris County Office Building. Governmental administration also occurs in the Sain Building, a number of nearby satellite offices, and in the Dr. Robert L. Yeager Health Center in Pomona. The Dr. Robert L. Yeager Health Center is a 151-acre complex with 17 office buildings, which holds a significant concentration of the County’s governmental functions (e.g. Department of General Services, Department of Health, Department of Hospitals, Department of Planning, etc.) making it a major center of employment and source of services for many residents.

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 in Hillburn.

Schools

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 3.10-1 and Table 3.10-1 below). As Table 3.10-1 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 –

3.10 Public Services

enrollment in Nyack and East Ramapo has fallen. East Ramapo has recently shuttered some facilities and is planning more closures.

Even as overall school-age population has increased in Rockland, there has been a decline in public school enrollment in some areas. A key contributor to this is a shift in public preferences toward private, charter, or parochial schools. There has also been a rise of non-public education schools due to growth of Rockland's yeshivas, which enroll school-aged children primarily in the Town of Ramapo.

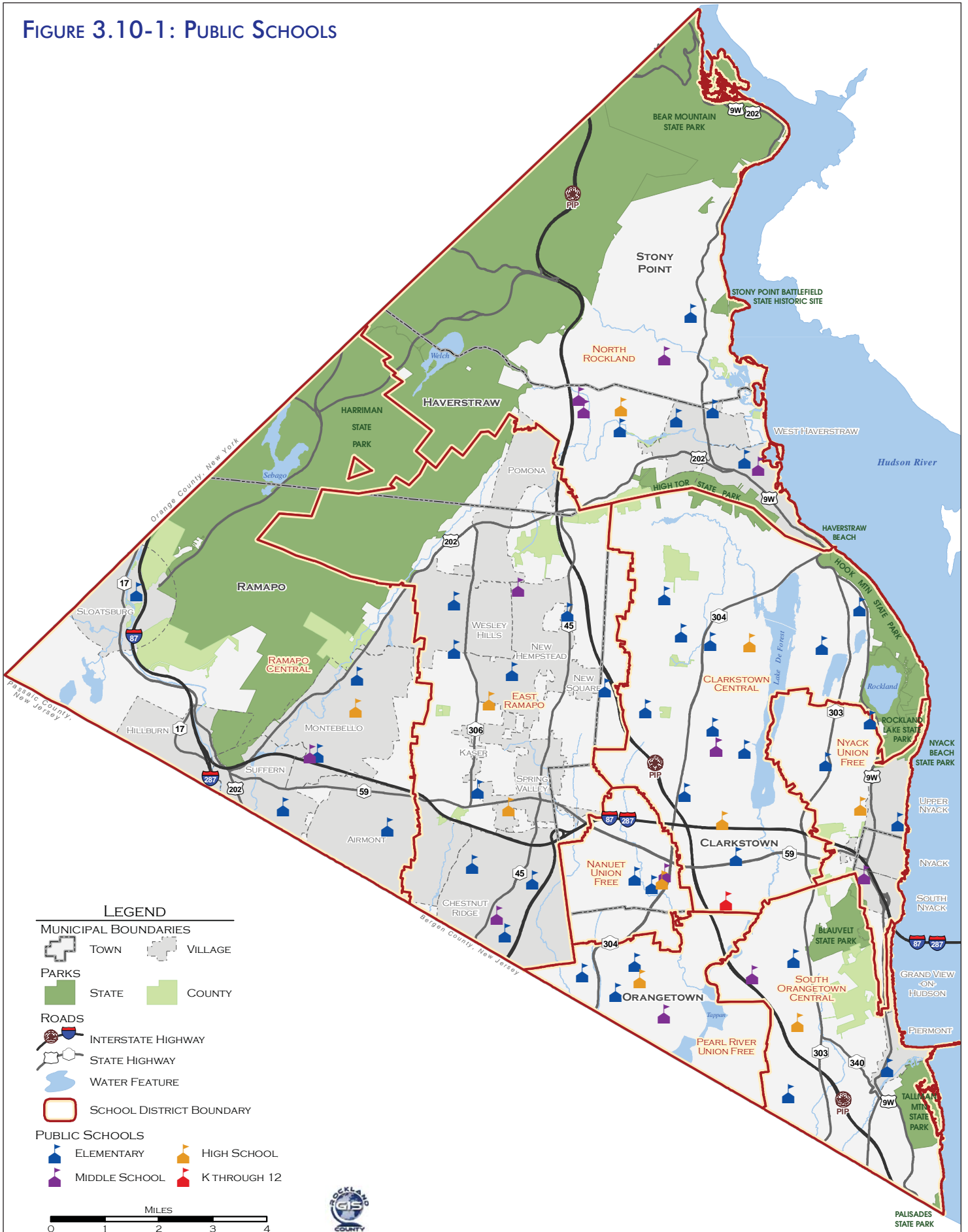
Table 3.10-1: Rockland County K-12 Public School Enrollment, 1998-1999 to 2008-2009

	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%
Total*	40,090	40,334	40,580	41,229	41,874	42,248	42,076	41,750	41,770	41,343	41,102	2.5%

*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 3.10-1: PUBLIC SCHOOLS



Higher Education Institutions

Rockland is home to a number of institutions of higher education. 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: 1) *Dominican College* in Orangetown; 2) *Nyack College* in Nyack; 3) *Rockland Community College (SUNY Rockland)* in Suffern, Haverstraw and Spring Valley; and 4) *St. Thomas Aquinas College* in Orangetown. Together, these institutions account for approximately 11,300 enrolled students in Rockland County.

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.

Public Libraries

Rockland County’s public library system is comprised of 19 branches within 17 districts. 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. In addition, the Library Association of Rockland County (LARC) is a nonprofit group seeking to promote library growth, cooperation, and development in Rockland.

Law Enforcement

Law enforcement in the County consists of the Rockland County Sheriff’s Department in New City with satellite offices throughout Rockland, the New York State Police (Troop F) in Pomona, the New York State Park Police, and local law enforcement. Whereas the Sheriff is the County’s chief law enforcement officer, with primary duties of crime prevention, law enforcement, and administration of criminal justice, local municipal police forces are the primary patrol forces in many of Rockland’s towns and villages.

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. In addition to fire protection and emergency training services, the Rockland County Office of Fire and Emergency Services 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 (e.g. hazardous materials)

and man-made (e.g. bioterrorism). The Rockland County Office of Fire and Emergency Services' 13-acre campus in Pomona 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.

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 helps to raise awareness of the County's reliance on volunteers for fire and ambulance services. Since 2000, it has focused on programs to boost volunteerism by recruitment or retention and promoting active involvement by businesses, government and other groups.

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.

Rockland is home to five hospitals (see Figure 3.10-2). 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 located in the southeastern 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 also enables many residents to travel outside of the County for their health-care needs.

The Summit Park Hospital and Summit Park Nursing Care, located at the Dr. Robert L. Yeager Health Center, is outdated and inefficient, forcing caregivers to travel among multiple floors. Its equipment is also obsolete, causing particular problems with telecommunications. As a result, the New York State Department of Health has approved plans for a new hospital and long-term nursing facility to replace the existing Summit Park complex.

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

3.10 Public Services

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. The Institute for Non-Profits and Information Rockland both maintain complete, up-to-date listings of these organizations. 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.

See the Comprehensive Plan for additional information on existing public services, community facilities, resources, programs, and trends.

FIGURE 3.10-2: HOSPITALS



3.10.2 Potential Impacts

Rockland County’s service providers face upcoming challenges from projected population increases in the young, seniors, recent immigrants, and non-native English speakers. The recent economic downturn and general housing affordability are other issues that have increased the need for assistance for financially struggling households. At the same time, budget constraints at every level of government have forced cutbacks in many programs and services.

The Comprehensive Plan proposes the following recommendations, which address current and future public service challenges:

- Promote greater cooperation between Rockland’s nonprofit agencies and governmental social service departments (Federal, State, and County).
- Expand housing opportunities for Rockland’s caregiver population and emergency service volunteers.
- Identify opportunities to co-locate Rockland’s health and social service centers.
- 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 funding for a new Summit Park Hospital and Nursing Care facility, and give careful consideration to what use will replace the facility at its current site.
- Provide supported housing for the mentally disabled and intellectually challenged.
- Seek institutional and corporate partners to reinforce and revitalize centers. Work with the municipalities, especially the 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.

Although general in nature, the above recommendations respond to the needs of Rockland’s growing population (see Chapter 3.1 Demographics), while making public and community services more accessible to Rockland County residents. By consolidating County health and

social service centers, public access to these services will be improved. Locating these services within close proximity to village/hamlet centers will also increase access within areas that contain greater concentrations of people. The Comprehensive Plan also proposes expanding housing opportunities for the County's caregiver and emergency service volunteers, and improving access to public services for persons with special needs. Improving pedestrian infrastructure at the County's Robert L. Yeager Health Center, another Plan recommendation, is also beneficial in reducing vehicular trips, as well as promoting better health for County employees. Enhancing e-governance will assist in better communication of available service information and increase efficiency among municipalities.

None of the above recommendations are anticipated to result in any significant adverse environmental impacts. If implemented, some of the above recommendations may have minor upfront fiscal impacts that, in and of themselves, do not constitute environmental impacts for purposes of SEQR. For example, municipal finances may be required for improving County and health facilities, consolidation of building space for Rockland's health and service centers, and e-governance technology and infrastructure. However, these recommendations are anticipated to improve coordination between the County/local municipalities and the public, as well as access to needed services. The long-term benefits of these programs outweigh the initial funding costs.

In addition to the municipal finances described above, finances will be required to ensure that education and community facilities are adequate to serve the projected population. This is viewed as a need for any municipality that is experiencing growth. Municipalities will need to continue to plan for needed facilities and services.

The Comprehensive Plan is an area-wide policy document, not a development application or development project. It includes the adoption of general policy initiatives to guide and facilitate future development in Rockland County, rather than directly resulting in physical changes to the environment. Since the Comprehensive Plan directs policy on a county-wide basis, it does not necessitate changes to any municipal zoning code (i.e. city, town or village). All future actions (i.e. policy or development) at the County level or municipal level will be required to undergo future environmental review under SEQR (6 NYCRR Part 617).

3.10.3 Mitigation Measures

Impacts that are associated with the Comprehensive Plan's public service recommendations are beneficial. Some minor fiscal impacts may occur but these do not constitute significant environmental impacts for purposes of SEQR. Therefore, adoption of the Comprehensive Plan is not anticipated to result in any significant adverse impacts to public services and no mitigation measures are required. Future site specific actions stated above must comply with SEQR.

4.0 OTHER ENVIRONMENTAL IMPACTS

4.1 Unavoidable Adverse Environmental Impacts

No unavoidable adverse environmental impacts are anticipated from adoption of the proposed Rockland County Comprehensive Plan (“Comprehensive Plan”), which has been prepared to guide future development within Rockland County in accordance with sound land use and environmental management practices. As discussed in Chapter 3.0 Environmental Setting, Impacts, and Mitigation, if implemented, some of the Comprehensive Plan’s recommendations may have minor fiscal impacts that, in and of themselves, do not constitute environmental impacts for purposes of SEQR. The long-term benefits of these proposed recommendations outweigh the initial funding costs.

Future specific proposed actions will be subsequently reviewed under SEQR to evaluate possible impacts and will be subject to local, state and federal environmental protection regulations (see Chapter 6.0 Subsequent SEQR Actions).

4.2 Irreversible and Irretrievable Commitment of Resources

No significant irreversible or irretrievable commitment of resources are anticipated as a result of the adoption of the Comprehensive Plan. The primary resources utilized during the preparation and adoption of the Plan’s documents includes hours for labor and paper for printing.

4.3 Growth-Inducing, Cumulative and Secondary Impacts

The policies of the Comprehensive Plan are not anticipated to induce growth beyond what has already been projected to occur within Rockland County (see Chapters 3.1 Demographics, 3.2 Land Use and Zoning, and 3.8 Economic Development). In fact, the Comprehensive Plan is sensitive to growth with respect to its effect on natural and manmade resources and the provision of public services and infrastructure needs. To this end, the Comprehensive Plan recommends reinforcing the County’s existing centers, corridors and commercial and industrial clusters, while protecting and enhancing the character, natural resources, open spaces, and scenic and historic resources in the remaining portions of the County.

A focus of the Comprehensive Plan is to reinforce Rockland’s existing centers. A center is defined here as an area’s commercial or mixed-use focal point. The market analysis done for the economic development chapter of the Comprehensive Plan indicates 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, bus and/or rail transit. The Comprehensive Plan proposes

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encouraging a mix of uses in these areas when supported by local municipalities. A mix of uses would include office, retail and residential uses. Multi-family residential is appropriate to a downtown and can bring spending power that supports businesses. Compact, multi-family housing normally produces very few school children and, as a result, is usually a tax plus to the community. This type of housing can also support the elderly and young adults — two segments of Rockland’s population in need of more housing options. Existing centers also create focal points to support mass transit and pedestrian and bike traffic. Concentrating limited growth and development within existing centers that want to grow will protect against out-of-scale development in other parts of Rockland, as well as increases in traffic from additional scattered or sprawled development. It will also help preserve Rockland’s environmental, scenic, and historic resources.

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. The Comprehensive Plan does not encourage expanding the existing commercial corridors and clusters, but does see the reinforcement and enhancement of these areas as essential to the economic well-being of Rockland.

In order to preserve Rockland’s current open space, the Comprehensive Plan recommends that towns and villages consider incorporating cluster (or conservation) subdivisions into their zoning/subdivision codes, as well as smart growth policies. The clustering of homes in new residential developments allows for the preservation of natural site features and can provide savings in infrastructure costs. Regarding smart growth policies, the Comprehensive Plan recommends that land uses be placed in areas where they can be compatible with and in support of each other. For example, the Comprehensive Plan recommends that new housing occur as infill or be placed in proximity to transit, services, and jobs.

The Comprehensive Plan is an area-wide policy document, not a development application or development project. It includes the adoption of general policy initiatives to guide and facilitate future development in Rockland County, rather than directly resulting in physical changes to the environment. Since the Comprehensive Plan directs policy on a county-wide basis, it does not necessitate changes to any municipal zoning code (i.e. city, town or village). All future actions (i.e. policy or development) at the County level or municipal level will be required to undergo future environmental review under SEQR (6 NYCRR Part 617). Land use decision-making occurs at the local level through zoning as promulgated by the New York Municipal Home Rule Law (Chapter 843 of New York State Consolidated Laws Chapter).

If the Comprehensive Plan recommendations for development/redevelopment within existing centers were implemented at the local level, the local population could increase with the development of vacant, underdeveloped and underutilized sites within the County. However, as illustrated by the population growth forecasts, prepared by the Rockland County Planning Department and Cornell University’s Applied Demographics Program, contained in Chapter 3.1

4.0 Other Environmental Impacts

Demographics, this growth is projected to occur irrespective of the adoption of the Comprehensive Plan. The Comprehensive Plan proposes land use and policy recommendations aimed at shaping and targeting growth in such a way as to minimize future environmental impacts to the extent practicable.

Adoption of the proposed Comprehensive Plan is not expected to result in significant adverse environmental impacts, rather it is anticipated that the impact of the Comprehensive Plan will be largely beneficial. The Plan includes recommendations and planning concepts that cover a mixture of land uses with supportive public infrastructure (i.e. transportation infrastructure, pedestrian friendly design concepts, green infrastructure, stormwater and wastewater management policies, etc.). Mixed use and commercial growth that may occur as a result of the Comprehensive Plan are anticipated to generate fewer adverse environmental impacts than if the current development trends in the County continue; some of these current trends have resulted in suburban sprawl. Finally, the cumulative and secondary impacts of inducing commercial growth are anticipated to be more jobs and increased tax revenue.

4.4 Effects on the Use and Conservation of Energy

The proposed Comprehensive Plan aims to reduce energy consumption county-wide, promote clean energy technologies, and support energy conservation strategies through a series of policy recommendations including, but not limited to: supporting on-going transition of bus fleets to clean, hybrid-electric technology; using “green” building techniques for all new County buildings, retrofitting existing buildings as practicable and encouraging local municipalities to do the same; promoting the incorporation of conservation subdivisions into local municipal codes; incorporating climate protection and sustainability into County economic development plans and encouraging work-force training and public education for energy efficiency and renewable energy; fostering “green job” growth in Rockland, particularly in the construction sector (i.e. retrofitting existing structures – solar panels, geothermal heating, and other energy saving devices); promoting water conservation through regulations and public education; and encouraging use of renewable resources, as well as continuing to promote recycling and waste reduction policies.

If implemented, these policy recommendations are likely to reduce energy use overall by municipal government, businesses, and homeowners, and are intended to encourage land and resource conservation. There will be no significant adverse impact on energy use and conservation as a result of adoption of the proposed Comprehensive Plan.

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5.0 ANALYSIS OF ALTERNATIVES

This section provides an analysis of the Proposed Action and the No-Action Alternative, which assumes that the Comprehensive Plan would not be adopted. A summary of the Proposed Action – followed by a summary of the No-Action Alternative - is provided below; a detailed description of the Proposed Action can be found in Chapter 2.0 Proposed Action: Comprehensive Plan Adoption, of this DGEIS.

As described in Chapter 2.0, the Rockland County Comprehensive Plan (“Comprehensive Plan”) is a blueprint for the County’s future that will provide guidance for future municipal planning and zoning actions and serve as a basis for County government planning and development issues for the next 10-20 years. The plan creates a framework for future capital expenditure decisions by County government, while also providing general recommendations on future County land use issues and policies to implement these strategies, address key matters under direct County jurisdiction, and identify specific land use and zoning conflicts among municipalities that should be resolved to allow for better functioning of zoning regulations. The Proposed Action includes the adoption of the Comprehensive Plan.

The alternative to the Proposed Action analyzed in this DGEIS is the No-Action Alternative. The No-Action Alternative assumes that the Comprehensive Plan would not be adopted. Under this scenario, current land use patterns would generally continue as they are today, while towns and villages in the County would be guided by local plans, if available. The No-Action Alternative would preclude any Comprehensive Plan policy changes from being voluntarily incorporated into town and village master or comprehensive plans, new open space programs, or development projects. However, Rockland County could potentially still use the Comprehensive Plan as a reference document.

Therefore, current land use patterns and trends, and population and housing projections - coupled with existing conditions and municipal policies - would define the No-Action Alternative. In this section, impacts of the continuation of these trends and projections will be examined and compared to policies proposed by the Comprehensive Plan.

5.1 No-Action Alternative versus the Proposed Action

The Rockland County Legislature is under no legal obligation to approve the proposed Comprehensive Plan, and the No-Action Alternative represents the option of not taking this action. Without the Comprehensive Plan, Rockland County would continue to face the numerous issues confronting it, including land use, traffic, housing, services, socioeconomics, and environmental and open space resource issues, but without the benefit of a comprehensive and up-to-date set of policies and actions to help guide these issues.

The No-Action Alternative could result in an incremental approach by the County to address some of its issues instead of the updated comprehensive decision-making framework provided by the Comprehensive Plan. Under the No-Action Alternative, existing land use, transportation, housing,

socioeconomic, and environmental policies at the County level would remain in place. Existing municipal policies are also assumed to remain in place but could be updated when local municipalities feel it is appropriate to do so.

The result of the No-Action Alternative is that future population and housing growth could be slightly more spread out than is anticipated under the proposed Comprehensive Plan. As discussed in Chapter 3.1 Demographics, the County's population is expected to increase by 49,000 persons or 16.6 percent between 2005 and 2035. As discussed in Chapter 3.7 Housing, the number of housing units is also expected to increase in Rockland County. Between 2005 and 2020, some 8,320 housing units are expected to be added to the residential stock—an 8.5 percent increase over 15 years. This represents a net gain of new construction over demolitions and conversions to other uses. Housing stock increases were forecasted by structure size and tenure, with the greatest gains in single-family and mid-size structures. 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, contributing to a sprawled pattern of growth. Under the No-Action Alternative, these trends are anticipated to continue due to current land use and zoning policies that contribute to this pattern of growth.

These population projections suggest that growth is occurring in Rockland County, which may impact or result in the need for more housing and services, infrastructure, and transportation. The dynamic of future land uses may also be affected, including open space and recreation, and residential, commercial, industrial, and institutional uses, which could negatively impact environmental and natural resources. Significant shifts will also occur in the age structure of Rockland's population, which will result in an increase in the share of the elderly population. This population will require affordable housing and services, parts of which aren't currently planned under policies of the No-Action Alternative.

Future growth under the No-Action Alternative could have a greater impact on resources in the County than would occur under the proposed Comprehensive Plan. As shown in the Build-Out Analysis in Chapter 3.2 Land Use and Zoning, some current zoning codes at the local municipal levels would potentially allow a sprawled development pattern. The extension of current planning and zoning policies could result in a more dispersed development pattern that would have a greater impact on natural and manmade resources, greater annual vehicle miles travelled, and higher CO₂ emissions than the proposed Comprehensive Plan, which proposes reinforced village and hamlet centers, the protection of business and industrial clusters and corridors, the promotion of conservation (cluster) subdivisions, and smart growth policies that would help preserve valuable and sensitive open space and other resources, as well as maintain Rockland's existing quality of life.

As discussed in this DGEIS, centers are defined as an area's commercial or mixed-use focal point. These are places largely served by existing water and sewer lines and, in some, bus and/or rail transit. The Comprehensive Plan proposes encouraging a mix of uses in these areas when supported by local municipalities. A mix of uses would include office, retail and residential uses. Multi-family residential is appropriate to a downtown and can bring spending power that supports businesses. Compact, multi-family housing normally produces very few school children and, as a result, is usually a tax plus to the

5.0 Analysis of Alternatives

community. This type of housing can also support the elderly and young adults — two segments of Rockland’s population in need of more housing options. Existing centers also create focal points to support mass transit and pedestrian and bike traffic. Concentrating limited growth and development within existing centers that want to grow will protect against out-of-scale development in other parts of Rockland, as well as increases in traffic from additional scattered development. It will also help preserve Rockland’s environmental, scenic, and historic resources.

It is the intent of the proposed Comprehensive Plan to appropriately balance the needs of the County with effective, yet flexible planning policies. The Comprehensive Plan’s goals to reinforce centers, maintain commercial and industrial corridors and clusters, and promote conservation and smart growth policies, are intended to benefit the public interest more than the No-Action Alternative.

6.0 SUBSEQUENT SEQR ACTIONS

None of the recommendations proposed in the Rockland County Comprehensive Plan (“Comprehensive Plan”) will directly lead to beneficial or adverse impacts until private development or public action occurs. All future actions (i.e. zoning, land use policies, development, etc.) within the County are subject to future review under SEQR, administered by the appropriate approving agency (County, town, or village).

This Draft Generic Environmental Impact Statement (DGEIS) is the generic assessment of environmental impacts likely to result from the adoption and implementation of the proposed Comprehensive Plan. In accordance with 6 NYCRR Part 617.10, this DGEIS sets forth specific conditions under which future actions will be undertaken or approved, including an assessment of site-specific impacts that have not been adequately addressed or analyzed in the DGEIS.

6.1 Recommendations Proposed by the Comprehensive Plan Potentially Requiring Future Site-Specific SEQR Review

The potential impacts of adopting the Comprehensive Plan are covered by this DGEIS. Following the adoption of the Comprehensive Plan, all actions coming before the County, any local town or village board, or local planning or zoning Board, will be required to follow the SEQR process at an appropriate level to be determined by those jurisdictions.

The following projects are proposed by other agencies and have been identified in the Comprehensive Plan (and in this DGEIS) as projects that will result in major impacts to Rockland County. These projects are in the process of preparing their own respective Environmental Impact Statements and are, therefore, not addressed in detail in this DGEIS as they are not part of the Proposed Action examined herein.

6.1.1 Tappan Zee Bridge Corridor Study

A significant increase in congestion is projected for 2030 along the Tappan Zee Bridge and I-87/287 corridor (see Chapter 3.3 Transportation). As a result, the capacity and functioning of the Tappan Zee Bridge and I-87/287 corridor will be critical transportation issues for Rockland in the coming decades. If these regional roadways do not function properly there can be several adverse impacts to the County.

In response to these concerns, a joint effort among the New York State Department of Transportation, the Metropolitan Transportation Authority/Metro-North Railroad and the New York State Thruway Authority was undertaken in 2001. The project team is proposing to reduce

traffic congestion on the Tappan Zee Bridge and I-87/287 primarily by studying transit alternatives that include bus and rail transit.

As summarized in the Transit Mode Selection Report (2009), a program of alternatives addresses the transportation needs of the Tappan Zee Bridge/I-287 Corridor for the next century. The strategies explored in this report – including bus rapid transit (BRT), commuter rail transit (CRT), lane expansion and roadway improvements – have the potential to ameliorate future traffic congestion levels along the Tappan Zee Bridge and I-87/287 corridor.

An Environmental Impact Statement is currently being prepared for this project by the New York State Department of Transportation and is not anticipated to be released until 2011.

6.1.2 Desalination Plant Proposal

Pursuant to New York State Public Service Law (PSL) § 89-b, United Water New York, a public utility company, must provide safe and adequate service to its New York State customers, as well as New York Public Service Commission (PSC) ordered mandates with regard to water supply. United Water is regulated principally by the PSC. To meet water supply commitments required by a the 2006 Rate Order issued by the New York State Public Service Commission, United Water has developed a Long and Short Term Water Supply program.

Following the 2006 PSC Order, United Water filed a Project Description in January of 2007 identifying six potential Long-Term sources of increased water supply, including desalination of brackish Hudson River water. In September of 2007, United Water filed a preliminary conceptual design for the Hudson Desalination Plant (also known as the Haverstraw Water Supply Project) as the recommended long term water supply project.

On September 26, 2008, United Water released a Draft Environmental Impact Statement for the proposed Haverstraw Water Supply Project. To meet demand commitments, United Water New York initiated the Haverstraw Water Supply 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 the Hudson River.

A revised Draft Environmental Impact Statement is currently being prepared for this project at the direction of the New York State Department of Environmental Conservation and there is no anticipated timeframe for its completion. The revised Draft Environmental Impact Statement for the proposed Haverstraw Water Supply Project will address potential environmental impacts identified by United Water and raised by the public and involved agencies during scoping sessions held in May of 2009.

6.1.3 Subsequent Actions Requiring Normal Application of SEQR Regulations

The New York State General Municipal Law (Section 239-d) allows a county comprehensive plan to be accompanied by a generic environmental impact statement (i.e. this DGEIS document). The regulations (Section 239-d(3)) then state that no further compliance with SEQR is required for subsequent site specific county actions that are in conformance with the thresholds established for such county actions in the generic environmental impact statement and its findings. Consistent with a request made at the scoping session for this report, this DGEIS does not establish such thresholds to allow any future actions to avoid specific SEQR analysis. All future projects stemming from the Comprehensive Plan recommendations will be subject to a separate review under SEQR.

6.0 Subsequent SEQR Actions