Town of Rockland
Sullivan County, NY

COMPREHENSIVE PLAN

September 2010

Prepared by:

Town of Rockland Comprehensive Plan Committee
Town of Rockland Town Board

DRAFT FOR REVIEW & DISCUSSION

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Foreword

This plan was prepared by the Town of Rockland Comprehensive Plan Committee with support from the Town of Rockland Town Board and Planning Board.

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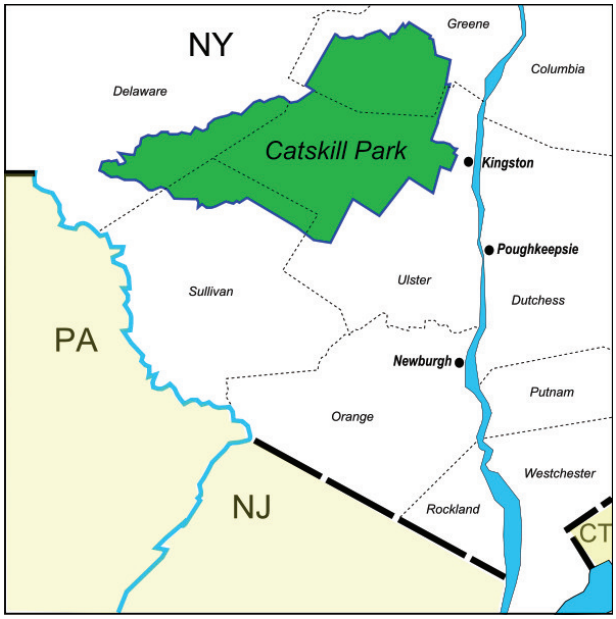
We also acknowledge the help of the following: Theodore Hartling, Highway Superintendent; Robert Wolcott, Water and Sewer Superintendent; Cynthia Theadore, Assessor; Charles Irace, Code Enforcement Officer; in addition to Tasse Niforatos, Bill Browne and Rebecca Ackerly.

Special recognition is given to Stanley Martin,
and the late Patrick Casey, former Town Supervisors,
for their support and dedication to the future needs of the Town of Rockland.

Table of Contents

1.0 Introduction

This *Comprehensive Plan* sets forth a combination of strategies to deal with the housing growth and future needs of the Town of Rockland. The Town is situated along the southern border of the Catskill Park and bisected by New York State Route 17 (soon to become I-86). It is long been a second-home area and includes two famous trout fishing streams, the Beaverkill and the Willowemoc.



The Town of Rockland, as a rural area, is also characterized by somewhat limited economic opportunities. Bluestone mining and forestry offer significant entrepreneurial opportunities. Tourism related to fishing, hiking, hunting and second home development constitute the heart of the local economy today and benefit from the open spaces used in forestry, for example.

Second home development has created a challenge common to communities experiencing new growth on the metropolitan fringe. Second home buyers do the spending that supports the economy. Nevertheless, because they want to preserve what they bought, they are also often wary of growth. Indeed, growth always tends to produce heavy skepticism regarding further growth. Looked at another way, growth can detract from the very features that make a community attractive to new residents, killing off the economic opportunities it offers.

Notwithstanding this inherent conflict, there can be continued growth while preserving what is best about the Town. Known as "smart growth" in many circles, this approach seeks to manage growth by addressing its impacts through design and other mitigation measures. Experience indicates communities can absorb large amounts of growth and still retain their essential character, if smart growth techniques are applied to land development. That is one of the underlying purposes of this *Comprehensive Plan*.

This *Comprehensive Plan* also addresses issues related to transportation, community facilities and services and economic development. It recognizes lumbering and quarrying are among the industries that have made the Town what it is today and continue to provide for the economic livelihood of numerous residents. These natural resource industries are just as critical to the Town's future as second home development. It is intended, through this *Comprehensive Plan* to establish this as a matter of Town policy and afford both recognition and protection to these industries.

An additional purpose of this *Comprehensive Plan* is to address two issues that pose special challenges to the Town of Rockland. These are flooding and protection of special natural areas, including lakes and rivers. The Town has experienced repeated major flood events over the last several years. Its principal hamlets are located in flood plains and are particularly susceptible to the impacts of upslope storm water drainage. Therefore, it is critical the town identify ways to not only control this problem but mitigate it through the encouragement of development and redevelopment that reduces existing storm water flows off upslope properties.

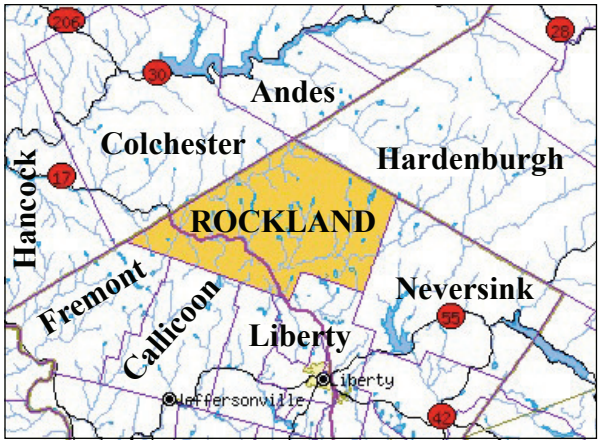
The Town also includes lakes, rivers and other natural resources of outstanding value. These must be properly managed as community economic and recreational assets. Therefore, this *Comprehensive Plan* is further intended to identify ways this can be accomplished without unduly restricting further second home development or otherwise harming the tourism industry.

2.0 Background Studies

2.1 Regional Location and History

2.1.1 Regional Setting

The Town of Rockland is located at a latitude of 41°56′43″ North and a longitude of 74°54′47″ West (coordinates for the hamlet of Roscoe) in the northcentral portion of Sullivan County, along the Upper Delaware River, north of Liberty, New York. Adjoining municipalities include the Town of Colchester in Delaware County; Hardenburgh in Ulster County; and Fremont, Callicoon, Liberty and Neversink in Sullivan County.



The Town drains into the East Branch of the Delaware River, most of it falling into either the Beaverkill or Willowemoc sub-basins, which are known worldwide as prime fishing waters. The northern portion of the Town is part of the Catskill Forest Preserve and Catskill State Park. Elevations range from about 1,250 feet above Roscoe on the Beaverkill Creek to almost 3,120 feet near Hodge Pond. The Town includes approximately 60,900 acres or 95.2 square miles of land.

2.1.2 History

The Sullivan County Historical Society website at **www.sullivancountyhistory.org** includes a *Town of Rockland History*, by Wilmer Sipple, Rockland Town Historian. Highlights of this history are excerpted below:

The history of the Town of Rockland is largely a history of the Beaverkill and Willowemoc river basins. This region was the borderland between the Iroquois nations to the North and the Algonquin of the South. The Lenni-Lenapes, a branch of the Delaware tribes, were in the majority. Although defeated by the Iroquois, they remained active under the leadership of chief Nanismos.

Rockland was a wild paradise, difficult to penetrate except by the Indian trails in the area. The most important ones were the Sun Trail, Cross Mountain Trail, Berry Brook Trail, Beaverkill Trail and the Mary Smith Trail. The Sun Trail ran from the Hudson River to the East Branch of the Delaware and was so called because an Indian or scout could start running at sun-up and reach the other end by sun-down.

The Hardenburgh Patent set the stage for the eventual development of the Catskills. Johannes Hardenburgh and associates petitioned for a royal grant. Queen Ann granted the "Hardenburgh Patent," in 1709. It was an immense tract of around two million acres, with the stipulation that the original patentees had to give satisfaction to the Indian landlords by buying their interest in the land. The entire tract of land comprised parts of Delaware, Greene, Orange, Sullivan and Ulster counties. Hardenburgh made his purchase from Nanismos. In a very short time, a new owner, Robert Livingston, appeared on the scene and in less than forty years he acquired title to almost half of the entire patent. Livingston Manor, Roscoe and Rockland are located in Great Lot #4 of the Patent.

Following the Revolutionary War, scouts and land viewers from Massachusetts and Connecticut visited the Big Beaverkill Flats and reported the existence of 10,000 acres of rich level land covered with pine, hemlock and laurel. The first settlers in the Town of Rockland were the Jehiel Stewart family and his brother Luther, who came from Middletown, Connecticut. They located and remained about a year in Wawarsing and in 1789 set out for Big Beaverkill Flats driving his livestock ahead of an ox-sled loaded with household goods. The Stewarts followed the Sun Trail which followed the Lackawack up the hills of Neversink,

then across the Town of Liberty, and down the Beaverkill Trail to the Big Beaverkill Flats.

The location was at the time a part of the town of Rochester in Ulster County. In 1798 it became a part of Neversink and in 1909 a bill was introduced in the legislature to cut off the western part of Neversink to form Rockland. The Town of Rockland was legally established on April 1, 1910 and Israel Dodge was its first Supervisor. In the early days the Roscoe-Rockland locality was known as Lower Westfield, as distinguished from Upper Westfield, now known as Livingston Manor. The Village was named after Dr. Edward Livingston who lived in his manor house on upper Main Street where the present firehouse is located.

About this time, John Hunter had the idea of making the Sun Trail into a road. When finished in 1815, it opened up settlements in Shin Creek, Beaverkill, Craig-E-Claire, Turnwood and Rockland. The first settlers were kept very busy clearing the forests, which provided an early source of income because of the ready market for logs and lumber. Logs were lashed together to form pony rafts to float down the Willowemoc and Beaverkill rivers to the Delaware at East Branch, where they were made into larger rafts for the trip down the Delaware River to Trenton and Philadelphia.

Many of the new settlers were unable to purchase land or enter into lease agreements with any hope of ever owning the land. They were obligated to pay an annual rent of wheat or other commodities such as "two fat hens." There were also many restrictions on the use of the land and rents were low at first and then increased. This was a form of the ancient Dutch Patroon System which soon resulted in the "Anti Rent Wars." The Constitution of New York State was finally amended making perpetual rent illegal and opened the way for tenants to gain title to their lands.

With the improvement of roads into the area, the life of pioneers grew easier; business began to boom and many new settlers came to share in the abundance of the area. The Delhi-Esopus Turnpike provided a transportation route to the North. Turnwood settlers were connected to this highway by taking the Cross Mountain road with easy access to Kingston, and settlers in the South used the Hunter Road. The stage was now set for the Railroads which opened the area and promoted the great boom of the resort area.

The Town includes numerous historical sites, including covered bridges on the National Register of Historic Places. Historic hamlets of the Town include:

- Anderson
- Beaverkill
- Craigie Claire
- DeBruce
- Deckertown
- Grooville (formerly Emmonsville)
- Hazel
- Joscelyn
- Lew Beach
- Livingston Manor
- Morsston
- Parkston
- Rockland
- Roscoe (formerly Westfield Flats)

Some of these hamlets are today little more than crossroads settlements with limited business activity. Livingston Manor and Roscoe, however, are vital commercial centers.

2.2 Natural Features

2.2.1 Geology

The Town of Rockland is located along the northeastern edge of the Allegheny Plateau formed from sedimentary deposits due to the erosion of the Acadian Mountains to the east. They washed into what was an ancient inland ocean, resulting in the formation of the "Catskill Delta."

Bedrock found in the Town of Rockland was created during the late Devonian period that extended from 410 to 360 million years ago. It consists of conglomerate and sandstone interspersed with shale. The coarse-grained layers of bedrock have proved to be very erosion resistant, leaving in place many of the ridges that define the character of the area. This bedrock has also been uplifted over the eons by tectonic forces and shaped

by glaciers and erosion to produce the current mountainous landscape. It tends to yield good supplies of water, but is often found near the surface, thereby limiting building development and agricultural potential.

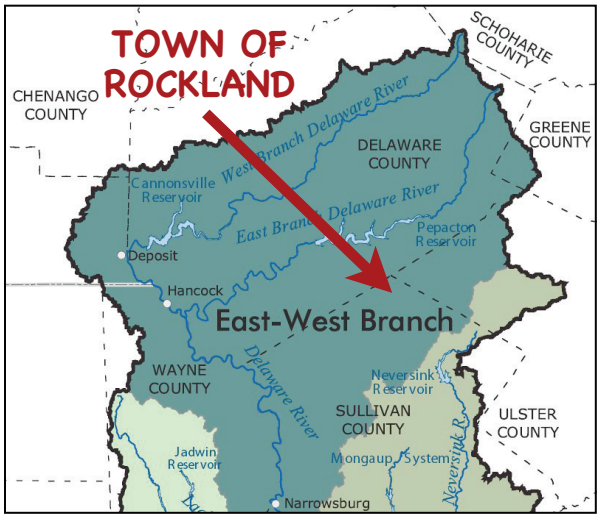
The Catskill Center for Conservation and Development describes area surface geology as follows:

"The majority of the surficial geology of the Catskills was determined during the last 1.6 million years. Four ice ages inundated this area, most recently the Wisconsin advance. The Wisconsin glaciers finished retreating from this area only approximately 14,000 years ago. The majority of the region is composed of glacial till. Till (material deposited by a glacier) is unstratified, unsorted, and is made up of a wide range of sizes. For this reason, glacial till generally acts as an aquifer, holding large amounts of groundwater. The high peak regions are entirely comprised of bedrock. These sandstone and conglomerate mountaintops were scoured and scraped by glaciers moving around and over their summits, leaving virtually no loose material."

2.2.2 Soil and Water Resources

The Town of Rockland is located entirely within the Delaware River Basin and, more specifically, within the East-West Branch sub-watershed. It includes significant floodplains and wetlands along both the Beaverkill and Willowemoc. There are also several large lakes and ponds including the following:

- Amber Lake
- Edgewood Lakes
- Frick Pond
- Hunter Lake
- Lake Uncas
- Maple Lake
- Mud Pond
- North Pond
- Quick Lake
- Waneta Lake
- Clear Lake
- Forest Lake
- Hodge Pond
- Knickerbocker Pond
- Lincoln Farm Lake
- Mongaup Pond
- Nimrod Lake
- Orchard Lake
- Trojan Lake
- White Roe Lake



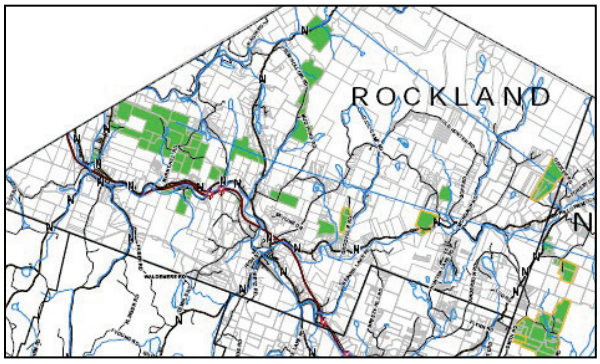
Soils maps indicate substantial areas where the soil depths to bedrock and the seasonal high water table are very shallow, making it quite difficult to install functioning on-lot sewage disposal systems. There are large land sections of the Town that consist of Hawks Nest, Mongaup and Willowemoc soils that are characterized by these limitations. There are also large areas of flood plain soils along the major streams.

2.2.3 Agriculture and Natural Resources

The Town of Rockland includes several farm properties and niche agricultural enterprises as well as major stone and timber resources. The area's relatively high elevation and cooler climate make it well-suited to grass production. The Town's hardwood forests also support an active

regional timber industry. These hardwoods are among the best in the world and have supported several sawmill operations in the region.

The Town has enacted a Right-to-Farm Law to protect agricultural enterprises. Portions of the Town are included in New York State Agricultural Districts. Sullivan County's most recent recommended districting for the Town of Rockland is depicted below:



The Town's agriculture, as the map reveals, is largely found in the east-central portion, north of Route 17. The areas along the major streams provide for some niche agricultural opportunities, with a significant fruit and vegetable grower, selling to the New York City green markets, being one example. Sullivan County Farmers' Markets also operates a farm market in Roscoe at the Municipal Parking Lot on Stewart Avenue.

2.3 Existing Land Use

Existing land use patterns have been analyzed using data from real property tax records. The largest proportion of the Town by far consists of Residential (Class 200) land uses, with single-family residences making up a majority of parcels, although other uses exhibit more acreage. Vacant land and rural residential uses with large acreage attached account for major land areas, indicating much potential for further development if the demand for second homes is strong and New York metro area professionals continue to be attracted to the area. Commercial properties are found in Roscoe, Livingston Manor and other hamlets, the Town having 128 parcels dedicated to such use. See Table 2-1 for the data.

Table 2-1
Parcels by Land Use, 2006

Class	Land Use	Parcels	Market Value
100	Agricultural	7	$1,790,292
200	Residential	1,989	$345,712,363
210	1-Family Residential	1,243	$193,880,356
220	2-Family Residential	55	$7,738,339
230	3-Family Residential	10	$1,740,046
240	Rural Residential	243	$94,265,074
260	Seasonal Residential	169	$16,848,881
260	Mobile Homes	224	$18,998,483
280	Multiple Dwellings	31	$9,567,880
N/A	Other Residential	14	$2,673,303
300	Vacant Land	1,130	$40,470,800
400	Commercial	128	$46,899,317
500	Recreation	10	$11,646,378
600	Community Service	93	$48,473,075
700	Industrial	1	$328,214
800	Public Service	53	$17,267,679
900	Parks & Conservation	207	$53,071,198
Totals		**3,618**	**$565,659,317**

Source: NYS Office of Real Property Services

2.4 Population and Economic Base

2.4.1 Population Trends

The following table illustrates the growth of the Town of Rockland compared to Sullivan County and the State:

Table 2-2
Population Changes, 1990 - 2000

Year	New York State	Sullivan County	Town of Rockland
1990	17,990,778	69,277	4,096
2000	18,976,457	73,966	3,913
Change	985,679	4,689	-183
% Change	5.5%	6.8%	-4.5%
Persons Per Square Mile	402	74	41

Based on the Census Bureau data for 2000, the Town of Rockland lost 4.5% of its permanent population between 1990 and 2000. New York State as a whole grew by 5.5% during this same period with much of that growth occurring in the

Metropolitan New York City area. Moreover, Sullivan County as a whole experienced an increase in population of 6.8% between 1990 and 2000, so the Town is becoming a relatively smaller part of the County. Moreover, the County and State are well below the U.S. average of 13.2% for the decade.

The Bureau of Census estimates Rockland's population increased very slightly to 3,940 persons in 2006. Overall, population growth is not an issue but the lack of it could be if the population ages too fast and institutions such as schools lose enrollments and base populations that support overhead costs.

Notwithstanding the lack of population growth, there has been limited growth in housing. Some second homes have also converted to permanent residences, the number of occupied housing units having risen by 57 or 3.8% despite the population declines.

2.4.2 Age of Household Members

The Town population by age differs somewhat from that of the County, as Table 2-3 illustrates. Generally, the Town is much older.

Table 2-3
Population by Age, 2000

Year	Rockland	%	County	%
Under 5 years	238	6.1%	4,355	5.9%
5 to 9 years	276	7.1%	5,133	6.9%
10 to 14 years	298	7.6%	5,576	7.5%
15 to 19 years	263	6.7%	5,203	7.0%
20 to 24 years	182	4.7%	3,574	4.8%
25 to 34 years	384	9.8%	8,647	11.7%
35 to 44 years	571	14.6%	12,121	16.4%
45 to 54 years	565	14.4%	10,928	14.8%
55 to 59 years	246	6.3%	4,342	5.9%
60 to 64 years	211	5.4%	3,503	4.7%
65 to 74 years	387	9.9%	5,856	7.9%
75 to 84 years	226	5.8%	3,622	4.9%
85 years+	66	1.7%	1,106	1.5%
TOTAL	**3,913**	**100%**	**73,966**	**100%**
Total < 25 years	**1,257**	**32.1%**	**23,841**	**32.2%**
Total 25-54 years	**1,520**	**38.8%**	**31,696**	**42.9%**
Total 55-64 years	**457**	**11.7%**	**7,845**	**10.6%**
Total 65+ years	**679**	**17.4%**	**10,584**	**14.3%**

There were, in 2000, comparable shares of population under 25 years of age at the Town and County levels, but a much smaller proportion of working age residents aged 25-54 years in the Town (38.8% versus 42.9%, respectively). There were relatively larger numbers of active-adults aged 55-64 years (11.7% compared to 10.6% Countywide) and much higher shares of the population aged 65 years or more (a high 17.4% for the Town in 2000 while the County had a more typical 14.3%).

2.4.3 Years of Education

The 2000 Census indicated that 1,984 persons or 74.7% of the population age 25 years or more had a high school diploma. This was lower than the 76.2% of County and 79.1% of New York State populations with high school diplomas in 2000. Only 18.2% of Town residents possessed a college degree (Associate or higher), compared to 24.4% for the County and 34.6% for the State. These numbers may be influenced by large number of lower-skilled workers attracted to the area in earlier years to work in now closed facilities.

Table 2-4
Education Levels, 2000

Education Level	Town of Rockland	Town %	County %
< 12 Yrs Education	673	25.3%	23.8%
12+ Years	1,501	56.5%	51.8%
Associate Degree	178	6.7%	7.7%
Bachelor's Degree	209	7.9%	9.1%
Graduate Degree	96	3.6%	7.6%
TOTAL	**2,657**	**100%**	**100%**

Source: U.S. Census - 2000, Persons 25+ Years Old

2.4.4 Incomes

The 2000 Census, captured in Table 2-5 below, indicates per capita income for the Town of Rockland was, at $16,323, much lower than that of the County as a whole ($18,892). Per capita income Statewide, moreover, was $23,389, indicating the great need for economic development within the Town, County and this region of New

York State as a whole. The State's tax burden, based on higher incomes downstate, cannot be borne without such economic growth.

Table 2-5
Incomes, 1990 - 2000

Incomes	Town 1990*	Town 2000	County	NY State
Per Capita	$15,214	$16,323	$18,892	$23,389
Gain 90-00	-	$1,109	$2,061	$1,289
% Gain	-	7.3%	12.2%	5.8%
Median Household	$34,003	$32,879	$36,998	$43,393
Gain 90-00	-	-$1,124	$58	-$757
% Gain	-	-3.3%	0.2%	-1.7%
Median Family	$42,598	$38,629	$43,458	$51,691
Gain 90-00	-	-$3,969	-$1,923	-$1,534
% Gain	-	-9.3%	-4.2%	-2.9%

* Adjusted for inflation to 2000 dollars.

Median family income in the Town was, at $38,629, also well below the County figure of $43,458. Additionally, the Town median household income was, at $32,879, significantly lower than the County median of $36,998. The inflation adjusted per capita income in the Town did grow by 7.3% over the decade, which was better than the State but below the National average. Household and family incomes dropped because of declining household sizes and aging.

2.4.5 Employment by Industry

Table 2-6 breaks down the employed Town population aged 16 years or more in 2000 by industry. The largest single industry in which Town residents are employed is education, health and social services, comprising 26.6% share of the employment base. Many are undoubtedly public school employees.

Tourism (arts, entertainment, recreation, lodging and food service) represented a high 13.7% of the labor force, fishing being an economic mainstay of the Town of Rockland. Retail trade made up another 9.6%. Construction at 8.6%, transportation at 8.2% and professional, management and administration at 7.0% rounded out the basic 2000 employment base of the Town of Rockland. Together, these industries comprised 73.7% of jobs held by residents.

Table 2-6
Employment by Industry, 2000

Industry	Persons 16+ Years Employed	%
Educational, health, social services	426	26.6%
Arts, entertainment, recreation, lodging, food service	220	13.7%
Retail trade	153	9.6%
Construction	138	8.6%
Transportation, warehousing, utilities	131	8.2%
Professional, management, administration	112	7.0%
Public administration	102	6.4%
Finance, insurance, real estate	101	6.3%
Other services (except public administration)	84	5.2%
Wholesale Trade	73	4.6%
Manufacturing	24	1.5%
Information	21	1.3%
Agricultural, forestry, fishing, hunting, mining	17	1.1%
TOTAL	**1,602**	**100%**

Source: U.S. Census, 2000

The agricultural, forestry and mining sector employed only 17 individuals or 1.1% of the Town labor force. This does not, however, include all self-employed individuals, many of whom work at non-employer enterprises. Therefore, the impact of these industries is somewhat understated by the statistics. Significantly, there was very little manufacturing employment (only 24 workers or 1.5% of the labor force). This was down from 156 workers or 9.0% of the labor force employed in manufacturing in 1990 when a large poultry processing plant was in operation, accounting for many of the declines in other economic indicators.

Data on employment by occupation from the 2000 Census is summarized in Table 2-7. The data indicates that 442 or 27.6% of Town residents were employed in management, professional or related occupations. An additional 393 persons, or 24.5%, were employed in sales and office occupa-

tions, 363 or 22.7% were employed in service occupations and 14.0% had jobs in construction and related occupations, again confirming the importance of a high quality environment that attracts new homeowners and new home construction, where many of the jobs for existing residents are created.

Table 2-7
Employment by Occupation, 2000

Occupation	Persons 16+ Years Employed	%
Management, professional	442	27.6%
Sales, office	393	24.5%
Service	363	22.7%
Construction, mining, maintenance	224	14.0%
Production, transportation	174	10.9%
Farming, forestry	6	0.4%
TOTAL	**1,602**	**100%**

Source: U.S. Census, 2000

2.4.7 Travel to Work

Some 43 persons, or 2.8% of workers within the Town worked from home in 2000. This is low compared to the County, State and nation. The commute time was, however, significantly lower, reflecting the location of the Town on Route 17.

Table 2-9
Travel to Work, 2000

Geography	Mean Travel Time to Work	% Worked at Home	% Public Transit
Town of Rockland	27.9 Minutes	2.8%	0.8%
Sullivan County	29.3 Minutes	3.7%	2.5%
New York State	31.7 Minutes	3.0%	24.4%
United States	25.5 Minutes	3.3%	4.7%

Source: U.S. Census, 2000

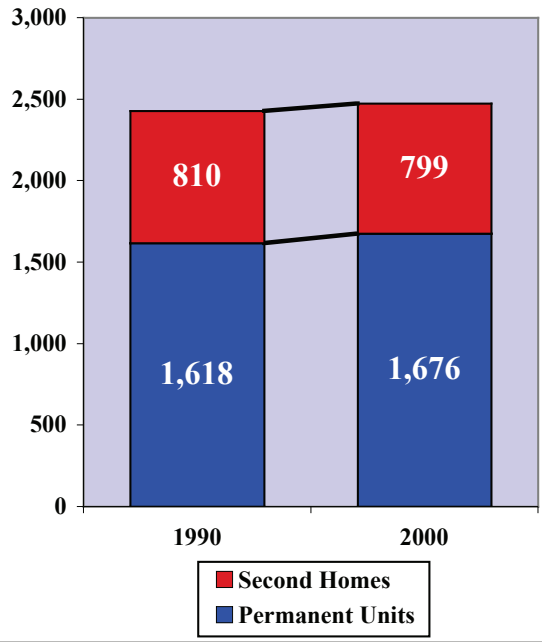
Town of Rockland residents used public transportation at a much lower rate than County residents in 2000, with only 0.8% having used that mode in the Town, compared to 2.5% County-wide. There is public transportation available but it appears not to be heavily used, Route 17 providing easy access by car to employment places and 3.5% of workers walking to work.

2.5 Housing

2.5.1 Housing Stock

The 2000 Census indicates the Town of Rockland had 2,475 housing units, of which 1,560 were occupied. Some 1,096 of these units were owner occupied and 464 were renter occupied. When vacant homes on the market are included in this total, there were ,676 permanent housing units.

Figure 2-1
Rockland Housing Growth



There was a total increase of 47 housing units between 1990 and 2000. This 1.9% gain is small and reflects the conversion of some existing second homes to primary homes. There were 799 second homes in the Town in 2000, representing 32.3% of the housing stock. This compared to 810 second homes in 1990, when they accounted for 33.4% of the stock. Second homes make up a

substantial proportion of housing units in the Town. Permanent homes are gaining, albeit very slowly compared to some other areas.

Second home activity is positive given that these taxpayers do not place as much demand on services, particularly in regards to public schools. Over time, however, as these homes become primary residences, there is the potential for major impacts on local services, as second home owners, who once paid taxes without demanding much in services, become part of the services consuming local population. These impacts are likely to be gradual but the cumulative impact could be quite large over a long period.

It is important the Town anticipate the future conversions to first homes in its budgeting and planning. Keeping the costs of government low now while second home revenue is still coming in will help tremendously in preserving the tax capacity required in the future to support needed services if conversions continue or accelerate in pace.

2.5.2 Number of Persons per Household

The number of people living in each household was 2.48 persons in 2000. This was slightly lower than the County average of 2.50 persons and less than the New York average of 2.61 persons per household.

These numbers are all quite low and probably close to bottoming out. When this happens, the impact on population growth can be large. Heretofore, declines in household sizes have reduced the impact of growth in households, but as the former stabilizes, population impacts increase.

If the household size had stayed at the 2.73 persons it was in 1990, the 58 new occupied units gained would have added 128 persons to Rockland's population. As it was, there was a loss of 183 individuals, so the impact on schools and services can be great if household sizes stop declining, as they almost surely will in the future.

Should the size continue to decline, this can be a problem in supporting services demanding a base population to cover overhead costs.

2.5.3 Housing Values

The 2000 Census revealed a median housing value of $82,900 for the Town of Rockland, which was much lower than the County at $93,300. This is, however, very low compared to the Statewide median of $148,700 in 2000. Nationally, the figure was $119,600.

These low values also reflect the discounted cost of Upstate New York's relatively high taxes. Nonetheless, within New York State, the area represents a good housing value, a fact that is likely to encourage more in-migration of New York metropolitan area residents seeking such value.

2.5.4 Housing Type

Single-family homes accounted for 1,780 units or 72.0% of the Town of Rockland's housing stock in 2000, according to the U.S. Census. Manufactured homes (a separate and distinct form of single-family dwellings more commonly known as mobile homes) accounted for 284 units or 11.5% of the housing units in the Town, somewhat above the County figure of 10.7%. Both have much higher proportions of manufactured homes than the State or U.S. because the latter include large urban areas where such housing is not typical.

Multi-family housing, by contrast, is much more typical in those areas, and even in Sullivan County where it accounts for 12.8% of the housing stock, but represents only 9.4% of Rockland's units. Multi-family housing is a majority of the stock Statewide and is about a third of the national stock.

2.5.5 Contract Rents

Town of Rockland rents were relatively low in 2000, the median being only $507. The median rent Countywide was slightly higher at $545.

2.5.6 Owner vs. Renter Occupancy

The percentage of owner occupied units in the Town was 70.3% in 2000. Countywide, some 68.1% of the housing units were owner occupied.

These numbers are both significantly higher than New York State where only 53% of all occupied housing units were owner occupied according to the U.S. Census for 2000.

2.5.7 Housing Needs

The Town must ensure its land use regulations do not unnecessarily raise the cost of moderate income housing by arbitrarily requiring large lot sizes over every part of the Town or adding too many regulatory costs. A practical approach to land use regulation that recognizes the varying needs of different segments of the population and different parts of the Town is warranted.

There is also a need to upgrade the quality of a portion of the existing housing stock. Some 13.5% of 2000 Census surveyed owner-occupied housing stock was valued at less than $50,000. Also, 38.4% of surveyed renters and 29.5% of homeowners paid out more than 30% of their income as gross rent or monthly owner housing costs, suggesting much of the housing stock is not truly affordable to residents.

3.0 Goals and Objectives

3.1 Base all land use regulations on a framework of protecting mutual private property rights.

3.1.1 Preserve and respect the rights to use of private property by limiting land use regulations to those essential to health, safety and welfare of the community and for addressing land use conflicts.

3.1.2 Ensure land use standards provide the flexibility to fit individual development circumstances and offer density bonuses for landowners who provide additional open spaces, protect important environmental features or otherwise contribute to quality forms of development.

3.1.3 Encourage home occupations and limit oversight to those features having a direct bearing upon adjacent land uses (e.g. noise, lighting).

3.1.4 Apply Town of Rockland land use regulations in a manner that balances the need for growth management with that of economic development and securing and maintaining a high overall quality of life.

3.2 Provide for orderly growth and development that maintains key aspects of the Town's character while also allowing for change.

3.2.1 Create incentives for use of conservation subdivision and other land development techniques that preserve the valuable open spaces and working landscapes of the Town of Rockland.

3.2.2 Establish land development performance standards applicable to difficult-to-develop soils, steep slopes, wetlands and other areas of the Town with natural resource limitations.

3.2.3 Establish zoning densities that match land development capabilities, steering density away from sensitive areas and towards those with the least limitations.

3.2.4 Create special zoning districts for areas of particular value, such as the Catskill Park and the larger lakes within the Town, by applying development standards specifically designed to protect those resources.

Willowemoc Wild Forest - Catskill Forest Preserve

3.2.5 Provide for transfers and purchases of development rights on lands of conservation value, using simple procedures to shift density toward developable areas while allowing for recovery of the land equity by current owners.

3.2.6 Address the need for affordable housing by maintaining reasonable minimum lot sizes throughout the Town and ensuring there are areas within the Town where large lots are not required.

3.2.7 Ensure a high quality housing stock at various price ranges by allowing for manufactured homes and multi-family housing subject to specific development standards for these uses.

3.2.8 Provide sufficient code enforcement resources to effectively implement growth management mechanisms recommended herein.

3.3 Secure the Town from dangers of flooding, fire and other hazards.

3.3.1 Ensure the capacities of fire companies to address emergencies and institute volunteer recruitment incentives.

3.3.2 Apply the Town's Floodplain Damage Prevention Law as a tool to steer development away

from dangerous flood locations, setting higher standards than those required by FEMA, recognizing the Town's vulnerability to flooding.

3.3.3 Maintain an up-to-date Emergency Management Plan for the Town.

3.3.4 Evaluate upstream water controls and secure funding for improvements to minimize downstream flooding.

3.3.5 Reduce existing floodplain development density by creating incentives for relocations and floodproofing investments.

3.3.6 Improve stream corridor management to reduce the practical effects of flooding by removing obstacles to free stream flow without dredging.

3.3.7 Work with forest industry to develop a permit program to ensure logging roads do not create storm water management or Town highway maintenance problems.

3.4 Preserve, where practical, the character of existing rural highways and promote efficient and safe circulation of traffic through the Town.

3.4.1 Require, wherever possible, the use of joint highway accesses onto Town, County and State roads and similar techniques to minimize the potential traffic conflicts.

Example of Joint Highway Access Serving Three Homes with Driveways Merging Into One Access Onto the Public Road

3.4.2 Reduce speeds on those roads possessing specific hazards and avoid new hazards by adopting speed restrictions and using traffic calming measures in conjunction with new development.

3.4.3 Require new roads be designed to preserve natural topography and tree cover, minimize cuts and fills and preserve important views and features.

3.4.4 Where practical, scale street widths and alignments to neighborhood size (typically 18 feet width) while meeting minimum standards for safety and maintenance.

3.4.6 Require land developers to mitigate existing traffic safety issues, wherever possible, with offsite improvements.

3.4.7 Limit road dedications to the Town by establishing separate high standards for private road construction and dedication.

3.4.8 Require use of marginal access streets and loop roads to create effective circulation systems.

3.4.9 Respect pedestrian traffic using a combination of regulations, signage, public education and physical improvements that protect pedestrian rights-of-way.

3.5 Protect surface and ground water quality and maintain a high-quality environment.

3.5.1 Incorporate comprehensive storm water management and erosion control planning requirements in both site plan and subdivision reviews, using such development design practices to actually reduce flooding potential below the current level through development.

3.5.2 Allow for and provide density bonuses as an incentive for conservation subdivision designs where lots are clustered to provide open space buffers, applying similar approaches to encourage storm water flow reduction below current levels.

3.5.3 Develop or update and enforce junkyard and property maintenance rules, including inspections and renewals to ensure continued compliance.

3.5.4 Develop septic system design and maintenance standards for areas of high risk for malfunction and require upgrades in conjunction with substantial improvements to properties.

3.5.5 Create storm water overlay zones to establish special criteria for development on the slopes surrounding the Beaverkill and Willowemoc streams and threatening the Town's hamlets with flooding.

3.6 Economically revitalize the Town and its hamlets.

3.6.1 Use historic designations as marketing tools to promote revitalization of hamlets.

3.6.2 Allow for the wide-ranging development of convenience shopping opportunities, restaurants, lodging and niche service enterprises within the hamlets under zoning regulations.

3.6.3 Ensure all land use regulations are accommodating to small business and home occupations.

3.6.4 Promote tourism and other Town businesses through: a) Town brochures; b) a town website linked to businesses offering services; c) links to Sullivan County Visitors Association, Chamber of Commerce, Partnership for Economic Development and other sites; and d) materials identifying potential sites for businesses.

3.6.5 Support the continuation of natural resource industries, including, but not limited to the bluestone and forestry sectors.

3.6.6 Identify and promote hiking, biking and other similar trails and scenic tours within the Town as a tourism resources and community recreational assets.

3.6.7 Protect and promote fishing, hunting and other outdoor recreation resources as the economic foundation of the Town.

3.6.8 Develop the cultural arts in Roscoe and Livingston Manor as a complementary theme for tourism and economic development.

3.6.9 Protect and promote agricultural enterprises using a combination of zoning techniques and the Town's Right-to-Farm Law.

3.7 Protect the Town's valuable scenery through incentives.

3.7.1 Provide and promote options for property cleanup, including the continued sponsoring of activities such as cleanup days and similar events.

3.7.2 Develop growth-neutral design standards and incentives that will allow economic use of property without excessive clearing, applying measures that reward preservation of ridgelines and other areas of valuable scenery.

3.7.3 Develop high standards for lakeside development that address the aesthetic impacts of building within these areas of special limitations and beauty.

3.7.4 Encourage Sullivan County to consider an open space bond issue to fund purchases of scenic easements and acquiring floodplains and other environmentally sensitive areas.

3.7.5 Provide options for designating selected areas of outstanding scenery or other special natural value for only lower density development so as to protect rural character.

4.0 Plans

4.1 Land Use

4.1.1 Existing Land Use Regulations

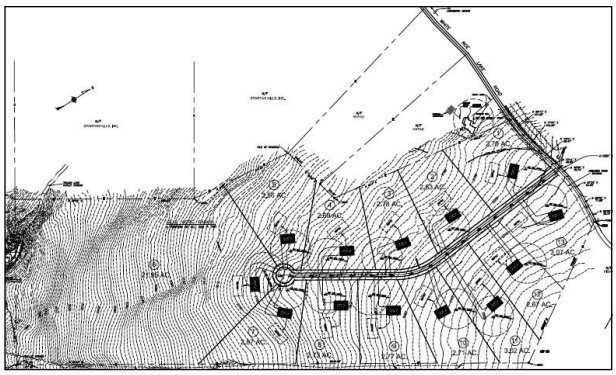
The Town of Rockland possesses a fairly comprehensive set of existing land use regulations that were the subject of a major update in 2001-2002. These include not only zoning regulations, but also subdivision and manufactured home laws. The procedures and standards are consistent with New York State Town Law, the State Environmental Quality Review Act and other requirements of State and Federal Law except with respect to recently enacted State regulations requiring the preparation of Storm Water Pollution Prevention Plans (SWPPP's). This is the one major area of Rockland's regulations that needs to addressed. A collection of high-priority amendments to ensure SWPPP's are prepared and reviewed with Rockland's unique needs as the focus have been prepared simultaneously with the preparation of this *Comprehensive Plan*.

The importance of further addressing these requirements is both legal and practical. Rockland has experienced severe instances of flooding in its hamlet areas over the last few years. The high-priority amendments to the Subdivision and Zoning Laws ensure the law is properly followed in this regard, but a more comprehensive approach to management of storm water is much needed within the Town and is one of the major reasons for this *Comprehensive Plan*. It will become the foundation for more sophisticated regulations designed on a watershed by watershed basis. The goal is to reduce the risk of future flood damage while simultaneously increasing potential for development in areas of the Town with the capacity to absorb it.

An additional purpose of the *Comprehensive Plan* is to identify and protect those special natural assets of the Town that undergird its tourism economy; more specifically, its rivers and lakes. Rockland's rivers and lakes define it and need protection as well as promotion. A combination of special regulations and physical improvements that increase visibility of these resources is needed.

4.1.2 Future Land Use

It is anticipated additional new development will continue to be attracted to the Town over the next decade. Several small projects are under development, such as the one depicted below on White Roe Lake Road, the senior housing apartments on Old Route 17 in Livingston Manor, and a new subdivision in Lew Beach. The Town is located on the fringe of the metropolitan area and is easily accessible by both Route 17 (future I-86). Its several lakes and rivers are strong attractions for second-home buyers.



This suggests the Town needs to focus its land use strategy on ensuring this new development is compatible with the capacities of the land on which it will take place, particularly in regard to storm water management and sewage treatment. It also needs to guide the forms of this development toward techniques that preserve the existing character serving to attract this very development. Finally, it needs to balance new higher-end growth with the provision of affordable housing for existing residents, especially seniors.

Therefore, the future land use plan of the Town of Rockland provides for recognizing existing lake communities by creating a special new zoning district in the north central part of the Town with lowered density in this area. It also addresses the need to protect rivers and other sensitive natural areas from overdevelopment or careless use that would detract from their current value to the Town. This will be accomplished by requiring buffers and establishing new storm water approaches that ensure development will have a positive, rather than negative, impact on storm water flows downstream.

This balanced approach is geared less toward controlling overall density than steering development to existing centers outside the floodplain and away from highly valuable natural areas and recreational assets such as Trojan Lake. It recognizes the limited capacities of Rockland's soil and water to absorb new intensive uses absent new infrastructure development that may take decades to realize. Therefore, much of the approach relates to timing of new development, with the mechanisms recommended herein being designed to pace this activity at a realistic level.

The future land use plan is very compatible with the existing zoning map of the Town of Rockland, excepting for the designation of the new low density district discussed above and rationalization of zoning district boundaries in hamlet areas. The future land use plan as a whole is reflected on a proposed revised Zoning Map found in the *Appendix* of this *Comprehensive Plan*.

4.1.3 Land Use Recommendations

Specific recommendations relating to land use in the Town of Rockland are provided below:

A. **Create a SC Special Conservation District around the larger lakes within the north central portion of the Town to establish development standards specific to these areas and their protection.** The minimum lot sizes within these SC District should be 5 acres and restrict lake access to match water use capacity. Other standards with respect to buffers, building heights, septic and design standards should also be included. The SC District should be defined by a combination of soils, watershed boundaries and existing lot layouts.

B. **Develop supplementary zoning regulations for wind generation facilities.** The Town's high elevations and wind speeds make it a logical candidate for installation of wind generation facilities. The Town should develop supplementary zoning regulations that allow for on-farm, individual and commercial wind generation facilities but subject them to standards for noise, shadow flicker, viewshed protection and other issues connected with such facilities. There is potential for State preemption of municipal exclusionary zoning standards related to such facilities. Nevertheless, reasonable regulation is warranted and likely to be legally sustainable. Town regulations should encourage on-farm and individual wind energy generation, as well as small individual hydro, solar and geothermal projects.

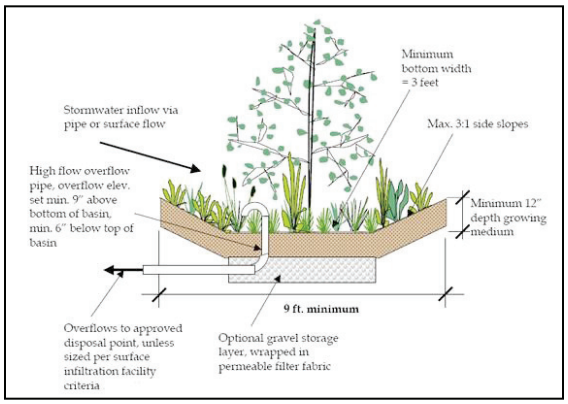
C. **Develop lake access provisions within the Town Subdivision Law.** The Town's current Subdivision Law should be updated to ensure a minimum of 200 feet of lake frontage is required to secure lake access within the proposed SC District (a smaller number may be appropriate where central sewage is available).

Language is also needed to ensure easements and rights-of-way are not substituted for fee simple ownership, as the former could generate far more lake use than the capacity to accommodate it, provided that homeowner associations are not restricted from accessing their community boat launches. Marinas and other multiple boat slip uses within the SC District should be limited by the same formula such

that each new lake access is limited to one boat slip per lot or 200 feet of frontage per boat slip, whichever is less so as to ensure SC District lakes are not subjected to recreational use beyond their carrying capacity. Accessory use permits should also be required for all new boat docks, with standards adopted to limit the use of cantilevered docks.

D. **Update the non-conforming use provisions of the Zoning Law to grandfather lots made newly non-conforming by the increases in lot sizes in the SC District.** The new Special Conservation District standards will have the effect of making many existing lots newly non-conforming, which demands grandfathering of rights to develop such lots. It is recommended this be accomplished by allowing residential use of such lots provided they meet certain minimum standards roughly equivalent to current zoning. Certificates of Non-conformance should be provided to owners of non-conforming lots and structures to allow them to document and protect their rights as legally established non-conforming uses.

E. **Storm water planning and design criteria for new uses should be adopted to ensure that new development does not create new storm water or flooding problems but, rather, will serve to mitigate existing problems, thereby making a positive contribution through such new development.** If proper



storm water management standards are adopted to require a reduction in runoff below existing conditions, then new development will serve to reduce storm water and flooding problems, changing the dynamic with respect to environmental impacts of new development. It is recommended the Town enact such standards. These standards should provide for use of low impact mechanisms such as infiltration basins.

It is further recommended the Town adopt a graduated sliding scale standard for lot coverage (impervious surfaces) based on lot area (10,000 square feet for a typical 5-acre building lot) along with driveway construction standards to control runoff from this very common source of storm water problems. Exceptions should be made, however, where a storm water management plan is adopted that reduces storm water runoff below existing conditions. Finally, it is recommended that a special SW Storm Water Overlay District(s) be created to incorporate design and storm water attenuation criteria tailored to the needs of specific watersheds.

F. **Create design guidelines for new downtown development or redevelopment that preserves existing character.** The Town should enact some basic design guidelines for new downtown development, of other than a single-family nature, that address matters such as landscaping, lighting and parking lot layouts. This should accomplished by creating a new DP Downtown Preservation Overlay District that incorporates such standards. Lighting, for example, should be fully shielded and sodium fixtures generally prohibited. Facade treatment and landscaping should be oriented toward maintaining existing character as improvements take place.

G. **Adopt higher septic system planning and design standards.** It is recommended the Town enact its own septic system planning and design criteria to establish standards that exceed those of the New York State Department of Health (DOH) in certain critical areas. It is specifically recommended all new lots and new construction on existing lots be required to include a tested 100% replacement area for the absorption field (with two percolation tests per leachfield site) and that all lots, regardless of size, be deep test pit and percolation tested.

H. **Develop a Rivers Enhancement Program that protects, highlights and encourages appreciation and use of the Town's rivers while mitigating flooding problems.** This should include a combination of regulation to ensure adequate stream buffers (75-100 feet minimum within which no forest clearcutting or development of non-accessory uses would be permitted) and initiatives to improve access to these rivers and establish linkages with other recreation areas and historic sites, including development of passive recreation facilities. Such riparian buffers also serve the purpose of protecting stream banks from erosion and reducing the dangers from flooding.

I. **Adjust permitted densities to account for carrying capacity and undevelopable land by deducting acreage that is steep slope (25% or more), subject to flooding, wetland and other similar limitations.** This can be accomplished in two ways. One is to incorporate an adjusted tract acreage (ATA) formula in land use regulations. Such a formula might require the deduction of 75% of steep slopes, 90% of floodplain acreage, 75% of wetlands, etc., recognizing that portions of such lands are usable for buffers, yards and other non-building purposes in connection with new development.

The second approach is to rely upon a "yield plan" whereby a reasonably detailed sketch plan is used to ascertain the likely lot yield from conventional subdivision of a parcel according to zoning district bulk standards. The Planning Board evaluates the plan based on the capacity of the land to accommodate each lot without building encroachment on the slopes, floodplains and wetlands.

The number of lots determined to be feasible is determined from this review and it becomes the basis for setting the maximum density with respect to conservation subdivision design for example. The yield plan is far more practical and fair to all parties, but the ATA has the advantage of being easy to calculate. Either approach is acceptable and, indeed, both could be made available as options, although the yield plan is preferable. Some two-acre density zones may also be appropriate based on carrying capacity.

J. **More senior housing is needed and the Town should encourage its development by allowing it at higher densities.** Locations within existing centers but outside the floodplain are logical locations for such senior housing. It should be permitted at significantly higher densities and building heights that will accommodate elevators. Other incentives (i.e., lowered parking and yard requirements) may also be appropriate. The Town should encourage both subsidized and market rate senior housing, including tax credit projects. Supplementary regulations along this line should be developed.

K. **Incentives to maintain existing farmland in productive agricultural use should be created.** Right-to-farm protections should be included in zoning regulations. They have also been adopted as a separate local law that should be kept in place.

Purchase of development rights on existing farms should also be considered. Potential revenue source for such efforts (in addition to New York State Department of Agriculture and Markets) include regional land trusts. The Town should also explore unconventional revenue sources such as a real estate transfer tax under local law or a county/local bond issue such as nearby counties have pursued.

L. **Historic preservation should be encouraged by adopting preservation and adaptive reuse objectives as general site plan review criteria in the Town's zoning law.** The Town includes numerous buildings and sites of historical significance. The Town's small nature and lack of development pressure suggest it would not be practical to establish detailed historic preservation standards or create a New York State recognized historical district.

Nonetheless, it would be appropriate to establish a local historical overlay district (in the Downtown Preservation Overlay District but also extending to other areas of the Town) where historic preservation is a specific Special Use and site plan review criteria for new development projects. This is a practical approach for the Town of Rockland.

Such criteria should include requirements for new structures to blend in with existing architecture in a manner compatible with the current streetscape, the above depicted pharmacy located along Main Street in Lewisburg, Pennsylvania, being an example.

Such a review criteria might also reference the *Keeping Up Appearances* design guide put out by the National Trust for Historic Preservation or other similar guidelines developed by Sullivan County and others.

Finally, a New York State Historic and Cultural Resource survey should be done to identify areas for preservation; this could lead to State/Federal Register designation and the opportunity for Historic Preservation Tax Credits to owners wishing to restore historic buildings. Demolition of historic structures should be avoided – where buildings must be demolished, building recycling should be encouraged to avoid adding to Town's and County's solid waste handling burden (perhaps credits against tipping fees can be used for this); a program for handling construction waste should also be explored.

M. **Development around new I-86 interchanges needs special attention in site plan review and approval of Special Use applications.** Livingston Manor and Roscoe are special character communities that depend upon that character to attract visitors and otherwise support regional tourism. Maintaining it is critical and new applications should be reviewed to ensure national chains and others are required to do so in the design of new buildings and adaptive reuse of older structures.

Special attention should be given to development of interchange area site plan review criteria for these purposes. Such criteria should address building design, traffic, noise, landscaping and other factors to soften the impact of building and ensure it blends with adjoining development and the character of the two hamlets.

4.2 Community Facilities

The Town of Rockland has a stable to declining population recently, indicating community facility needs are limited. Planning and budgeting now for the upkeep and replacement of existing community facilities and public services will be the major challenge for the Town in the near term. The following is a discussion of the major needs.

4.2.1 Parks and Recreation

The Town has no particular parks and recreational facilities of its own. However, the State of New York maintains many parks, day use facilities, trails and similar attractions. These include many fishing accesses in the two major hamlets.

The County maintains a park at the VanTran Covered Bridge in Livingston Manor. There are State facilities at Beaverkill Covered Bridge and Mongaup Pond. The Rotary Club in Livingston Manor has a park, ballfield and skating rink. These facilities more than adequately address most Town recreation needs at the current time, although some additional youth recreation at the school is needed. This should be done cooperatively.

4.2.2 Town Hall

The Town has several municipally owned buildings from which it conducts its business. The Town administration is conducted from Livingston Manor and justice functions are conducted from Roscoe, which includes a State Police office.

The Town Hall in Livingston Manor includes a County Sheriff's Office sub-station. The buildings are somewhat old but in good conditions and meet the needs of the community at the current time. Meeting space is secured for large events at the school or fire house.

The Town Highway Department complex is located on Beaverkill Road. The building needs to be upgraded. There are two acres of land and an additional four acres of land that can be used to add improvements has been secured. A new shed is required as well as better office space for the Department. Some of this land is used for the County Transfer Station operation on a leased basis.

4.2.3 Fire and Ambulance

The Livingston Manor Fire District is funded through tax revenue and donations. They expanded and updated their facilities in 2009. The Livingston Manor Volunteer Ambulance Corps is located on Main Street and has an older but upgraded facility that meets its needs.

The Roscoe-Rockland Fire District facility is located in the floodplain and has been damaged as a result. It no longer addresses the needs of the community and the District in the process of replacing the facility with another at a different site. The Roscoe-Rockland ambulance facilities are in similar condition and a new joint facility is proposed on property out of the floodplain and acquired with the help of the Town. Funding has been obtained and community approval is being sought for a facility. The Fire District also has a community hall in Rockland that will be sold if the new facility is approved.

The Beaverkill Valley Fire District has an upgraded facility in Lew Beach, but may need still larger space to accommodate new equipment in the not too distant future.

Town providers of emergency services need volunteers and, occasionally, private professional services have to be secured to fill in when volunteers are unavailable. Incentives to encourage volunteers are appropriate and have been enacted. Additional measures and recognition are also needed.

4.2.4 Sewage Facilities

There are two public sewage systems in the Town. The larger one serves Livingston Manor and was constructed in 1969. It has 800,000 gpd of capacity and only utilizes a fraction of this. It needs to be upgraded or moved out of the floodplain. These options are being considered at this time.
The extra capacity is an economic asset and a marketable competitive advantage, however. Therefore, alternative approaches that would preserve the capacity while moving all or a portion of the plant out of the floodplain are needed. This is a critical need for the Town given the high risk of flooding in the community.

The Roscoe system utilizes an overland discharge system that protects the streams so important to the sport fishing industry. That system has additional capacity as well. It was significantly expanded in 2003-2004 through extension of the sewer line along Rockland Road.

4.2.5 Water Supplies

There are excellent public water supply systems in both Livingston Manor and Roscoe. They are new systems served by groundwater wells with reservoirs as emergency backup.

Both systems are more than adequate for current needs, with capacity for future growth. The Livingston Manor tank is scheduled for eventual replacement. These systems are essentially debt free due to successful efforts in securing grants.

4.2.6 Storm Water Management

Both major hamlets have storm drain systems owned by the Town and County. The Town systems are being upgraded with grant assistance. Continual upgrades are required.

4.3 Transportation

Highways support economic development by allowing efficient movement of people and goods and, thereby, influence the direction of Town growth and the location of specific commercial, industrial and residential activities. This plan addresses the needs of this highway system, as well as other modes of transportation that now exist.

4.3.1 Functional Road Classifications

Every road plays a particular role in moving people and goods within and through the Town. The following table identifies roads by those functions based on future traffic expectations.

Table 4-1
Town of Rockland
Highway Functional System

ARTERIAL ROADS
FUNCTION: Carries medium-to-heavy volumes of traffic at moderately high speeds and provides access to major traffic generators.
ROADS: • NYS Route 17
COLLECTOR ROADS
FUNCTION: Provides connections between Arterials and Local Roads at comparatively slower speeds and carries moderate traffic volumes.
ROADS: • County Route 81 (Debruce Road) • County Route 82 (Willowemoc) • County Route 84 Parksville Road) • County Route 91 (Rockland Road) • County Route 92 (Tennanah Lake Road) • County Route 123 (Gulf Road) • County Route 149 (Shandelee Road) • County Routes 151/152 (Beaverkill Road) • County Route 178 (Dahlia Road) • County Route 179 (Old Route 17) • White Roe Lake Road
LOCAL ROADS
FUNCTION: Provides direct access to abutting properties and channels Local Road traffic to Collector
ROADS: • All other roads

Many of these highways are already functioning adequately in the functional capacities identified. Nonetheless, increased subdivision activity and economic development needs both suggest some improvements are warranted to bring about a more functional system.

4.3.2 Recommendations

A. Highway Maintenance Program

Highway maintenance should, employing a 10-year highway capital improvement program, be directed towards reducing traffic hazards, cutting back the long-term cost of highway improvements and increasing capacity.
The upgrading of roads expected to serve in higher functional capacities in the future (e.g., White Roe Lake Road) should be a priority in this regard.

B. Accident Analysis

Accident-prone areas should be continually documented for justification of improvement projects, working cooperatively with the New York State Department of Transportation and the Sullivan County Department of Public Works. Particular attention needs to be paid to interconnecting roads in the area of the Route 17 (I-86) interchanges as well as highways with severe curvature problems (e.g. Tennanah Lake Road).

C. Public Transportation

Sullivan County Transportation provides service to the Town of Rockland on a regular basis. Shortline Bus Company also serves the area.

It is unrealistic to provide much additional public transportation at the current density of population.

D. Rail and Air Service

Railroad freight service is available in nearby Hancock and other locations of similar distance away and the reasonable accessibility of the Stewart Airport at Newburgh suggests the Town has no further needs in these categories. Sullivan County Airport provides private air service.

4.4 Economic Development

4.4.1 Economic Strengths, Weaknesses, Opportunities and Threats

The following are the basic strengths, weaknesses, opportunities and threats with respect to the Town of Rockland economy:

STRENGTHS

- Reasonable proximity of the Town of Rockland to urban centers of various sizes (e.g., Binghamton, Liberty and New York City) combined with relative isolation, which serves to make the area appealing as a residential and second-home environment.

- Large expanses of forestland and working farm landscapes, with an abundance of attractive views, architecture and scenery that draw visitors to the area for camping, second homes, hunting, fishing, riding and various other outdoor recreational pursuits.

- The Catskill Park and Forest Preserve (which also pays taxes to the Town) as well as the Beaverkill and Willowemoc Rivers, all of which have made the Town well-known for outdoor recreation, particularly as a trout fishing capital.

- A reservoir of varied talents associated with the economic pursuits of existing residents, combined with access to a number of executives, professionals and managers who have retired

or moved to the area as second home seasonal residents.

- A plentiful supply of natural resources ranging from superior hardwood timber resources to mountain peaks and plateaus capable of generating wind power, generous water supplies and bedrock geology that offers the prospect of natural gas drilling.

- Vital small towns with special interest shops related to fishing and other recreational pursuits.

- Easy access to Route 17 (I-86) that puts the Town within reach of metro populations and businesses.

WEAKNESSES

- Serious flooding issues that create hazards to human life in selected portions of the Town and somewhat limit development within downtown areas.

- A relatively cold climate that makes year-round occupancy less appealing than some other areas.

- A declining population of younger people that will make it difficult to pursue economic development and sustain valuable traditional institutions such as the two School Districts.

- A high New York State tax burden combined with relatively low incomes locally that make it difficult to hold onto properties or stay in the area with jobs elsewhere.

- A rapidly changing culture with groups of competing interests (e.g., earning a living versus enjoying a vacation) that will engender some community conflicts.

- A shrinking labor force that makes it difficult to employ workers for certain enterprises.

- Natural gas industry concerns may be affecting property values.

OPPORTUNITIES

- Further tourism development focused on the scenery, outdoor recreation and natural resources of the Town, particularly its national reputation as a fishing attraction.

- Niche agricultural development that takes advantage of market proximity and an intrigued visitor population.

- Further natural resources development, including timber industries, wind power generation and natural gas resource development.

- Home occupations that rely upon proximity to the various centers for business but allow owners to still reside in a vacation area.

- Further second-home development building on the Town's natural resources and appeal as a recreation area.

- Additional outdoor recreational facility development (e.g., campgrounds, hunting preserves and similar attractions).

THREATS

- Careless development that depreciates the value of the working landscapes that attract people to the Town of Rockland.

- Continued growth of the Upstate New York tax burden, making it impossible to hold land or use it productively for uses that preserve the open space.

- Conflicting objectives and NIMBY opposition that make it difficult to pursue new economic development initiatives within the Town.

- A demographic collapse of younger age cohorts that deprives the Town of needed earners, workers, customers and vibrancy.

- Increased energy costs combined with the lack of transportation options may limit access to the region.

- A lack of growth that would deprive the local market of the ability to absorb new business.

- Natural gas development may impact transportation systems and create environmental issues of concern.

The actions of individual entrepreneurs and the marketplace will do far more to determine the Town's future than any government action. Nevertheless, there are several ways the Town can marginally assist in realizing the maximum benefits from economic development. The Town should also avoid unnecessarily interference with the marketplace in the interest of allowing for economic development.

4.4.2 Recommendations

Given the above analysis, the following recommendations are offered for the economic development of the Town of Rockland:

A. Town Website

Promotion of the Town for tourism and other economic development purposes can be encouraged by enhancing the Town website at **www.townofrocklandny.com**.

Such a website should include extensive information on tourism offerings, agricultural buying opportunities and special attractions related to fishing opportunities, for example. It could also offer self-guided tours of the area and even promote business real estate offerings in the manner of many downtown business improvement districts.

B. Agricultural Promotion Initiative

A loose organization of agricultural producers might be assembled to craft a common signage program that will complement the website recommended above. Such signs should be of the "wayfinder" types typically used to mark wine trails, scenic byways and similar tourism attractions. A bus or van tour of agricultural tourism sites should also be considered along with promotion of agricultural tourism events involving multiple farms or attractions. Packaging of visits with restaurants, lodging places and other attraction should be considered.

There are also numerous options for working with other towns and agencies as part of a broader, county-wide marketing initiative.

C. Natural Resource Development

WATER: The Town's water supplies are its major natural asset. This asset provides the foundation for the fishing industry as well as downtown businesses and undergirds the scenic character of the Town on which the second home industry depends. The Town needs to treat this resource as an asset and protect it, which is a major focus of this plan. Zoning standards addressing this matter are also needed.

WIND ENERGY: The Town should adopt reasonable regulations for wind energy development, if the Town wants to both protect residents and develop this resource. The Town cannot hope to accommodate such uses and allow landowners to secure the economic benefits of the leases involved if there are not sound regulations to protect the public interest.

Such regulations need to address issues such as noise, electronic interference, shadow flicker, access road construction and aesthetic impacts. Wind turbines can be as high 400 feet or more and have dramatic effects on ridgeline appearances, although opinions vary as to whether such facilities diminish the quality of the landscape or add visual interest.

The turbines do create a certain amount of curiosity and tourism, as evidenced by their frequent promotion as attractions in those areas where wind farms have been established.

FORESTRY: Timber resources present similar issues and opportunities. The area offers high-quality hardwoods that provide a potential source of income for owners of open space. The income opportunities also extended to wood processing ventures.

The Town should consider enacting a Right-to-Practice Forestry Law to protect the rights of forest industries to grow and expand, similar to the Right-to-Farm protections already enacted by the Town. A permitting system to limit clear-cutting along streams may be appropriate, however, to include in such protections.

NATURAL GAS: The Town's bedrock geology includes Marcellus Shale that may be capable of producing natural gas in commercial quantities. The newly enlarged Millennium pipeline, in adjoining townships, places the Town of Rockland in a position to either be a host to gas drilling, or because of the Route 17/ I86 corridor, become the conduit through which trucks, heavy equipment, and other supplies travel to build and service wells – or both.

Like cell towers and wind turbines, the gas drilling issue is controversial because it involves private property rights and may offer economic benefits for some land owners and business owners. Unlike cell towers and wind turbines, however, the impacts go farther than aesthetics and viewsheds. Improper drilling procedures could threaten to harm the natural resources of the community. The matter becomes even more controversial due to the denial of regulatory oversight for local governments.

Although towns cannot review site plans or issue permits for gas production, they can enact certain measures to protect roads. Road use permits should be required in association with natural gas development and any other heavy-vehicle-traffic related industry. It is recommended the Town: (a) implement a system of financially guaranteeing the repair of any damage caused by industry vehicles, along with limitations on seismic road testing; and (b) classify new and repurposed driveways or site entries, and establish a road use permit fee system for industrial, commercial and residential uses.

Of primary concern for the Town of Rockland are its aquatic resources, whether in the form of potable water, damage from flood waters, or the economic value of lakes and rivers for tourism and recreation.

The hamlets of Livingston Manor and Roscoe each receive drinking water from municipal wells that tap into the aquifers connected to the Beaverkill and the Willowemoc Rivers. Both communities and their water supplies are also adjacent to or wholly included in floodplains. Both hamlets have sustained significant damage from flooding and the risk of contamination from the surface storage of chemicals that are often used in the process of "hydro-fracing" or the stored products of such processes would be catastrophic to the hamlets and to the wells of individual homeowners, not to mention the communities downstream of ours who are also part of the Delaware River watershed.

There are also potential noise and lighting impacts associated with natural gas compression and related aspects of the industry that may require attention in zoning performance standards.

It is important to recognize that, in a survey of residents conducted for the Comprehensive Master Plan study, a wide majority of respondents valued protecting the natural resources of the community and increasing flood mitigation measures as primary goals for the future. Everything we do in our community should be measured as to the potential impacts to our natural resources as well as our flooding problems.

Finally, although the Town of Rockland is not considered part of the geographical designation for the New York City Watershed, an integral part of that system runs deep underground through the Town – two tunnels which transport water to the city could be at risk with deep well and horizontal drilling.

It is further recommended the Town contact the permitting agency to voice its special needs for (a) flood avoidance, making site selection and stormwater management high priorities; and for (b) environmental integrity with respect to retention of in-ground aquatic resources and safe disposal of drilling by-products to protect the Town's ecology-based economy.

It is also recommended the Town act independently or collectively with other towns and agencies to: (a) upgrade the emergency management plan with hazmat training and equipment for first responders, as well as development of evacuation plans; (b) update property assessments to the extent allowable; (c) inventory Town-owned property to determine the feasibility and desirability of gas exploration on such parcels; (d) monitor impacts on communities with established gas production and towns on the cusp of development; (e) encourage landowners to negotiate good leases which maximize their financial benefits and minimize the negative effects on their property and the community, and (f) work with legislators to amend state laws that would provide for enhanced authority to and input from towns in the gas permitting process.

D. Business-Friendly Zoning

The Town's zoning regulations need to remain friendly to business and ensure multiple locations within the Town for light manufacturing, home occupations and various retail and service businesses, especially tourism-related businesses. Some consideration should be given to moving several Special Uses to the Principal Permitted Use category with site plan review. This would maintain review over site design while also ensuring applicants of approvals, providing incentives to locate within the Town.

5.0 Appendices

A - Community Survey Results

B - Sample Wind Energy Regulations

C - Recommended High Priority Zoning Amendments

D - Recommended Revised Zoning Map

Appendix A Community Survey Results

TOWN OF ROCKLAND PLANNING SURVEY
(For more information see www.shepstone.net/Rockland)

Please help us plan for the Town of Rockland's future by checking the appropriate box or by writing in the answer. Some questions ask for one response while others ask for multiple answers. If more than one person in your household would like to respond to opinion questions, feel free to pick up an additional survey at the Town Hall.

1) How many years in total have you lived or owned a home in the Town of Rockland?

23	Less than 5 years
30	5 to 9 years
18	10 to 14 years
20	15 to 19 years
127	More than 20 years or lifetime

Is this home a primary residence or a second home?

163	Primary residence
67	Second home

2) What has most influenced your decision to live or stay here? (Please check no more than 3)

56	Born or raised here	22	Low crime rate	18	Low taxes
33	Close to work	2	Quality of local services	11	Had 2nd home here
54	Close to friends/relatives	19	Quality of schools	5	New job opportunity
27	Affordable housing costs	63	Rural nature and farmland	8	Inexpensive land
58	Overall quality of life	64	Privacy and seclusion	87	Forests, streams & landscapes
56	Air and water quality	1	Historic buildings	57	Wildlife, fishing and hunting

3) What do you like BEST about the Town of Rockland? (Please check no more than 3)

13	Cost of services/taxes	14	Main Streets	15	Housing costs
8	Quality of services	3	Job offerings	47	Outdoor recreation opportunities
3	Transportation	4	Business opportunities	128	Small town atmosphere
8	Arts and culture	105	Landscape/scenery	16	Convenience to metro area
50	Quality of schools	80	Forestry & natural resources	100	Clean environment

4) What do you like LEAST about the Town of Rockland? (Please check no more than 3)

98	Cost of services/taxes	13	Main Streets	23	Housing costs
44	Quality of services	97	Job offerings	11	Outdoor recreation opportunities
58	Transportation	57	Business opportunities	3	Small town atmosphere
16	Arts and culture	2	Landscape/scenery	27	Convenience to metro area
10	Quality of schools	3	Forestry & natural resources	5	Clean environment

5) How important, if at all, is it for the Town of Rockland to regulate each of the following aspects of developments?

	Not Important	Somewhat Important	Very Important
Business signs	40	108	55
Commercial landscaping	26	122	66
Floodplain development	9	22	181
Historic character	12	90	101
Junkyards & property maintenance	9	45	155
Logging and forest management	18	78	108
Scenic impact	7	62	129
Special uses such as cell towers & windmills	20	86	108
Stormwater management	5	29	163
Streamside buffer protection	6	44	152
Subdivision design	12	83	103

6) Do you now have one or more home-based businesses? 40 Yes 163 No

Is high-speed internet service available to you?
119 Yes 67 No 27 If not, would you like to have it available?

Is cellular phone service available from your home here?
131 Yes 69 No 42 If not, would you like to have it available?

Is cable television available to your property?
149 Yes 49 No 18 If not, would you like to have it available?

Is AM/FM radio available to your property?
162 Yes 38 No 19 If not, would you like to have it available?

7) To what extent would you favor increasing taxes to add, expand or improve any of the following services and facilities?

	Add or Increase Support	Continue As Is	Decrease Support
Ambulance services	62	138	13
Fire protection	48	147	11
Flood mitigation projects	120	71	12
Recreational facilities or programs	60	112	26
Special property cleanup days (e.g., tire day)	67	128	12
Town constables or police services	78	110	14
Town roads	62	137	7

8) If you reside in the Town and work, please indicate where you work.

Principal Householder:

47	The Town of Rockland	3	Orange County	3	Lower Hudson Valley	8	Elsewhere in NY
45	Elsewhere in Sullivan County	0	Ulster County	18	New York City	4	Another state
5	Delaware County	0	Broome County	0	Pennsylvania		

Second Householder:

26	The Town of Rockland	1	Orange County	3	Lower Hudson Valley	6	Elsewhere in NY
22	Elsewhere in Sullivan County	1	Ulster County	21	New York City	7	Another state
1	Delaware County	0	Broome County	1	Pennsylvania		

9) Please indicate your age bracket (principal householder only).

2 <25 years 57 25-49 years 94 50-64 years 61 > 65 years

10) How would you describe your present occupation(s)? Check for each household member working.

26	Executive/administrative/managerial	26	Machine operator/assembler/inspector	3	Professional occupation
11	Educational/social services	11	Correctional facility position	3	Health services
3	Precision production, craft or repair	4	Transportation or material moving	3	Sales occupation
4	Technician or support occupation	3	Handler, cleaner, helper or laborer	2	Other services
4	Administration support occupation	4	Retired	39	Homemaker
	Farming, forestry or mining	0	Retired but pursuing second career		Other (specify below)
			(specify) 8		

11) How would you rate the quality of the following public and semi-public services?

	High Quality	Good Quality	Fair Quality	Poor Quality	Not Sure
State Police protection	20	65	28	6	12
County police (Sheriff) protection	14	56	37	11	14
Fire protection	39	62	20	0	9
Ambulance services	30	63	18	7	14
Health care services	9	34	48	29	9
Utilities (e.g. electric)	18	70	31	6	3
State highway maintenance:	23	74	26	9	3
County road maintenance:	16	70	34	10	3
Town road maintenance:	15	57	36	14	3
Town code enforcement	10	57	31	22	22
Local schools	18	53	22	6	23
Youth services	4	18	23	47	37
Senior services	4	19	22	37	44
Trash collection	3	17	26	34	40
Cellular/cable/radio/internet service	6	44	36	34	8

12) The Town has downtown areas of special character. Would you favor creating a Special Downtown District that establishes historic protection and design standards for these areas, including the use of an architectural review committee or something comparable?

71	Yes
58	No

13) The Town of Rockland has severe flooding problems. Would you favor establishing higher standards and stricter regulations with respect to stormwater management in upland areas that could have the effect of making development much more costly?

94	Yes
31	No

Would you favor establishing higher standards and stricter regulations with respect to floodplain development that might prohibit or severely limit development and redevelopment in downtown and other low-lying areas?

106	Yes
20	No

14) Based on your current knowledge of wind power, do you feel that commercial windmills would be an asset or liability to the Town?

89	Asset
39	Liability

TOWN OF ROCKLAND PLANNING SURVEY
(For more information see www.shepstone.net/Rockland)

15) Please compare the importance of each of these development issues:

Circle your rating for each, using the following guide, and comparing the choices:

1 = Not that important
2 = Slightly important
3 = Moderately important
4 = Very important
5 = Extremely important

Land Development Issue No.1					
Rating	**1**	**2**	**3**	**4**	**5**
Protecting private property rights	**6**	**5**	**49**	**50**	**112**
COMPARED TO:					
Managing the impact of development	**7**	**16**	**54**	**39**	**76**
Land Development Issue No.2					
Rating	**1**	**2**	**3**	**4**	**5**
Economic development and job creation	**11**	**16**	**76**	**39**	**53**
COMPARED TO:					
Staying primarily rural/residential	**11**	**20**	**47**	**39**	**73**
Land Development Issue No.3					
Rating	**1**	**2**	**3**	**4**	**5**
Harvesting resources (e.g., timber, wind)	**14**	**21**	**68**	**44**	**46**
COMPARED TO:					
Preserving existing scenic character	**4**	**14**	**37**	**53**	**77**

Please note the above choices are not meant to suggest some of both is not possible in each case, but rather to simply compare the importance of each when choices must be made.

17) Where would you like to see the community in the next 10-20 years? Please indicate how important each possible goal is to you.

Circle your rating for each, using the following guide:

1 = Not that important
2 = Slightly important
3 = Moderately important
4 = Very important
5 = Extremely important

Clean and green environment	3	2	21	46	126
Higher quality forms of development	11	17	66	65	48
More affordable housing	26	21	60	40	50
More agricultural niche businesses	14	23	57	53	53
More entertainment and recreation	22	25	68	51	35
More historic preservation	16	27	74	59	33
More job opportunities in Rockland	13	15	50	57	74
More local shopping opportunities	15	25	45	59	59
More senior housing	21	34	66	54	44
More Town parks	34	47	62	33	27
More vibrant downtowns	18	34	66	46	54
Preservation of remaining farms	6	20	41	53	77
Strong natural resources industry	11	17	58	52	55
Vibrant tourism industry	17	24	54	57	56

19) Is there anything else you would like to tell us for use in our Comprehensive Plan?

Appendix B
Sample Wind Energy Regulations

Proposed Amendments – Town of Rockland Zoning Law

Draft – June 10, 2007

Be it enacted the Town of Rockland Zoning Law is amended as follows:

1) Add new Wind Generation Facilities section reading as follows:

A. Purpose

The purpose of this section is to provide for the construction and operation of wind energy facilities in Town of Rockland, subject to reasonable conditions that will protect the public health, safety and welfare.

B. Applicability

The requirements of this section shall apply to all wind energy facilities proposed, operated, modified, or constructed after the effective date of this law, including modification of existing wind energy facilities and wind measurement towers erected for the purposing of testing the feasibility of wind energy generation.

C. Permits

No wind energy facility shall be constructed, reconstructed, modified, or operated in the Town of Rockland except by first obtaining a Wind Energy Facility Permit as provided under this law. No permit or other approval shall be required under this law for mechanical, non-electrical wind turbine utilized solely for agricultural operations. Replacement in-kind or modification of a wind energy facility may occur without Planning Board approval when (1) there shall be no increase in total height; (2) no change in the location of the wind turbine; (3) no additional lighting or change in facility color; and (4) no increase in noise produced by the wind turbine. No transfer of any wind energy facility or Wind Energy Facility Permit, nor sale of the entity owning such facility shall eliminate the liability of an applicant nor of any other party under this law.

D. Definitions

As used in this section, the following terms shall have the meanings indicated:

NEW YORK INDEPENDENT SYSTEM OPERATOR (NYISO) - NYISO is a not-for-profit organization formed in 1998 as part of the restructuring of New York State's electric power industry. Its mission is to ensure the reliable, safe and efficient operation of the State's major transmission system and to administer an open, competitive and nondiscriminatory wholesale market for electricity in New York State.

RESIDENCE - Any dwelling suitable for habitation existing in the Town of Rockland on the date an application is received. A residence may be part of a multi-family dwelling or multipurpose building, but shall not include buildings such as hotels or motels, hospitals, day care centers, dormitories, sanitariums, nursing homes, municipal buildings, schools or other buildings used for educational purposes, or correctional institutions.

SITE - The parcel(s) of land where a wind energy facility is to be placed. The site can be publicly or privately owned by an individual or a group of individuals controlling single or adjacent properties. Where multiple lots are in joint ownership, the combined lots shall be considered as one for purposes of applying setback requirements. Any property which has a wind energy facility or has entered an agreement for said facility or a setback agreement shall not be considered off-site.

WIND TURBINE - A wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of more than 100 kW and which is intended to produce power for distribution on the utility grid.

WIND TURBINE (SMALL) - A wind energy conversion system consisting of a wind turbine, a tower, and associated control or conversion electronics, which has a rated capacity of not more than 100 kW and which is intended primarily to reduce consumption of utility power at that location.

SOUND PRESSURE LEVEL - According to the NYSDEC Program Policy on Assessing and Mitigating Noise Impacts, a measure of sound pressure in the atmosphere which can be determined according to the International Standard for Acoustic Noise Measurement Techniques for Wind Generators (IEC 61400-11), or other accepted procedure. Also, the perceived loudness of a sound as expressed in decibels (db) or A-weighted decibel scale dB(A). For example, an L10 - 30 dBA indicates that in any hour of the day 30 dBA can be equaled or exceeded only 10% of the time, or for 6 minutes.

TOTAL HEIGHT - The height of the tower and the furthest vertical extension of the wind turbine.

TRANSMISSION OWNER - The owner of the electric distribution networks. Examples include New York State Electric & Gas, Niagara-Mohawk, and Con Edison.

WIND ENERGY FACILITY - Any wind turbine, small wind turbine or wind measurement tower or combinations of these, including all related infrastructure, electrical lines and substations, access roads and accessory structures.

WIND ENERGY FACILITY PERMIT- A permit pursuant to this law granting the holder the right to construct, maintain and operate a wind energy facility.

WIND MEASUREMENT TOWER - A tower used for the measurement of meteorological data such as temperature, wind speed and wind direction.

E. Application Requirements

A complete application for a Wind Energy Facility Permit shall include:

1. A copy of an executed interconnection agreement with NYISO and the applicable transmission owner.

2. A completed application for a Wind Energy Facility Permit.

3. A site plan prepared by a licensed professional engineer, including:

a) Property lines and physical dimensions of the site;

b) Location, approximate dimensions and types of major existing structures and uses on the site, public roads, and adjoining properties within 500 feet of the boundaries of any proposed wind turbines, or 1½ times the total height of such wind turbines, whichever shall be greater.

c) Location and elevation of each proposed wind turbine.

d) Location of all above and below ground utility lines on the site as well as transformers, the interconnection point with transmission lines, and other ancillary facilities or structures.

e) Locations of buffers as required by this law.

f) Location of the nearest residential structure(s) on the site and located off the site, and the distance from the nearest proposed wind turbine.

g) All proposed facilities, including access roads, electrical substations, storage or maintenance units, and fencing.

4. A vertical drawing of the wind turbine showing total height, turbine dimensions, tower and turbine colors, ladders, distance between ground and lowest point of any blade, location of climbing pegs, and access doors. One drawing may be submitted for each wind turbine of the same type and total height. The make, model, picture and manufacturer's specifications, including noise decibels data, and Material Safety Data Sheet documentation for all materials used in the operation of the equipment shall be provided for each proposed wind turbine.

5. A lighting plan showing any FAA-required lighting and other proposed lighting.

6. Erosion and sediment control and storm water management plans prepared to New York State Department of Environmental Conservation standards, if applicable, and to such standards as may be established by the Town of Rockland Planning Board on the recommendation of its Town Engineer or consultants.

7. A construction schedule describing commencement and completion dates, including a traffic analysis with a description of the routes to be used by construction and delivery vehicles, the gross weights and heights of those loaded vehicles.

8. An operations and maintenance plan providing for regular periodic maintenance schedules, any special maintenance requirements and procedures and notification requirements for restarts during icing events.

9. A decommissioning plan that addresses the anticipated life of the wind turbine, the estimated decommissioning costs, the method of ensuring funds shall be available for decommissioning and restoration, the method by which decommissioning cost shall be kept current, and the

manner in which the wind turbine shall be decommissioned and the site restored, less any fencing or residual minor improvements requested by the landowner.

10. List of property owners, with their mailing address, within 500 feet of the outer boundaries of the proposed site.

11. A complaint resolution process to address complaints from nearby residents. The process may use an independent mediator or arbitrator and shall include a time limit for acting on a complaint. The applicant shall make every reasonable effort to resolve any complaint.

12. A Full Environmental Assessment Form, as provided by the New York State Environmental Quality Review Act (SEQRA) shall be prepared for the wind energy facility. This Full Environmental Assessment shall, at a minimum, include:

    a) A study of potential shadow flicker, including a graphic to identify locations where shadow flicker may be caused by the wind turbines and expected durations of the flicker at these locations. The study shall identify areas where shadow flicker may interfere with residences and describe measures to be taken to eliminate or mitigate problems.

    b) A visual impact study of the proposed wind turbines as installed, which may include a computerized photographic simulation and digital elevation models demonstrating visual impacts from strategic vantage points. Color photographs of the site accurately depicting existing conditions shall be included. The visual analysis shall also indicate color treatment of system components and any visual screening to be incorporated into the project to lessen the system's visual prominence.

    c) A fire protection and emergency response plan, created in consultation with the fire department(s) having jurisdiction over the proposed site, as well as Ulster County Emergency Services.

    d) A noise analysis by a competent acoustical consultant documenting the noise levels associated with the proposed wind turbine, existing noise levels at site property lines and at the nearest residence not on the site. The noise analysis shall include low frequency noise. The applicant shall also submit plans for post-development noise monitoring.

    e) Evidence of potential impacts on neighboring property values compiled by a licensed appraiser based on experience at other locations, extrapolating that evidence to analyze potential impacts on property values near the site.

    f) An assessment of potential electromagnetic interference with microwave, radio, television, personal communication systems and other wireless communication.

    g) An assessment of the impact of the proposed development on the local flora and fauna, including migratory and resident avian species.

F. Wind Energy Facility Development Standards

The following standards shall apply to wind energy facilities in the Town of Rockland, unless specifically waived by the Planning Board.

1. All power transmission lines from the tower to any building or other structure shall be located underground to the maximum extent practicable.

2. No television, radio or other communication antennas may be affixed or otherwise made part of any wind turbine, except with approval by the Town of Rockland Planning Board. Applications may be jointly submitted for wind turbine and telecommunications facilities.

3. No advertising signs are allowed on any part of the wind energy facility, including fencing and support structures.
4. No tower shall be lit except to comply with Federal Aviation Administration (FAA) requirements. Minimum security lighting for ground level facilities shall be allowed as approved on the wind energy facility development plan.

5. All applicants shall use measures to reduce the visual impact of wind turbines to the extent possible. Wind turbines shall use tubular towers. All structures in a project shall be finished in a single, non-reflective matte finished color or a camouflage scheme. Wind turbines within a multiple wind turbine project shall be generally uniform in size geometry, and rotational speeds. No lettering, company insignia, advertising, or graphics shall be on any part of the tower, hub, or blades.

6. Guy wires shall not be permitted except to address unique safety issues and then only with specific permission by the Planning Board in the form of a waiver.

7. No wind turbine shall be installed in any location where its proximity with existing fixed broadcast, retransmission, or reception antenna for radio, television, or wireless phone or other communication systems would produce electromagnetic interference with signal transmission or reception. If it is determined a wind turbine is causing electromagnetic interference, the operator shall take necessary corrective action to eliminate this interference including relocation or removal of the facilities, or resolution of issues with the affected parties. Failure to remedy electromagnetic interference is grounds for revocation of the Wind Energy Facility Permit for the specific wind turbine or wind turbines causing the interference.

8. All construction debris shall be removed from the site or otherwise disposed of in a manner acceptable to the Planning Board.

9. Wind turbines shall be designed to minimize the impacts of land clearing and the loss of important open spaces. Development on agricultural lands shall follow the Guidelines for Agricultural Mitigation for Windpower Projects published by the State Department of Agriculture and Markets, to the maximum extent practicable.

10. Wind turbines shall be located in a manner that minimizes significant negative impacts on rare animal species in the vicinity.

11. No shadow flicker shall be permitted on any off-site residences.

G. Required Site Safety Measures

1. All wind turbines shall have an automatic braking, governing or feathering system to prevent uncontrolled rotation, overspeeding and excessive pressure on the tower structure, rotor blades and turbine components.

2. Wind energy facilities shall be gated or fenced to prevent unrestricted public access to the facilities and reduce any attractive nuisance aspects of the use.

3. Warning signs shall be posted at the entrances to the wind energy facility and at base of each tower warning of electrical shock or high voltage and containing emergency contact information.

4. No climbing pegs or tower ladders shall be located closer than 15 feet to the ground level at the base of the structure for freestanding single pole or guyed towers.

5. The minimum distance between the ground and any part of the rotor or blade system shall be 30 feet.

6. Wind turbines shall be designed to prevent unauthorized external access to electrical and mechanical components and shall have access doors that are kept securely locked at all times.

H. Traffic Routes and Road Maintenance

1. Construction and delivery vehicles for wind turbines and/or associated facilities shall propose, and the Planning Board shall approve or modify, designated traffic routes to minimize traffic impacts from construction and delivery vehicles, wear and tear on local roads and impacts on local business operations.

2. The applicant is responsible for remediation of damaged roads upon completion of the installation or maintenance of a wind turbine. A public improvement bond may be required prior to the issuance of any building permit in an amount, determined by the Planning Board, sufficient to compensate the Town for any damage to Town or County roads if any of these roads will be among the designated traffic routes. The applicant shall consult with the Town Highway Superintendent and/or the Delaware County Department of Public Works to obtain a written recommendation for bonding form and amount, which form and amount shall be approved by the Planning Board.

3. The applicant shall provide pre-development and post-development photographic evidence of the condition of any Town or County roads along the proposed route.

I. Setbacks

1. Each wind turbine shall be set back a distance of 500 feet or 1½ times the total height of the largest wind turbine, whichever shall be greater, from any public road, off-site residence, lodging facility, public building, church and other institution. No wind turbine shall be located within its own total height of a site boundary line.

2. The statistical sound pressure level generated by a wind turbine shall not exceed L10 - 30 dBA measured at the nearest residence located off the Site. Sites can include more than one piece of property and the requirement shall apply to the combined properties. Independent verification by an acoustical engineer certified with the Institute of Noise Control Engineering shall be provided before and after construction demonstrating compliance with this requirement.

3. In the event audible noise due to wind energy facility operations contains a steady pure tone, such as a whine, screech, or hum, the standards for audible noise set forth in subparagraph (B) of this subsection shall be reduced by five (5) dBA. A pure tone is defined to exist if the one-third (1/3) octave band sound pressure level in the band, including the tone, exceeds the arithmetic average of the sound pressure levels of the two (2) contiguous one third (1/3) octave bands by five (5) dBA for center frequencies of five hundred (500) Hz and above, by eight (8) dBA for center frequencies between one hundred and sixty (160) Hz and four hundred (400) Hz, or by fifteen (15) dBA for center frequencies less than or equal to one hundred and twenty-five (125) Hz.

4. Should the ambient noise level (exclusive of the development in question) exceeds the applicable standard given above, the applicable standard shall ambient dBA plus 5 dBA. The ambient noise level shall be expressed in terms of the highest whole number sound pressure level in dBA, which is exceeded for more than six (6) minutes per hour. Ambient noise levels shall be measured at the exterior of potentially affected existing residences, schools, hospitals, churches and public buildings. Ambient noise level measurements shall be performed when wind velocities at the proposed project site are sufficient to allow wind turbine operation.

J. Noise and Setback Easements

1. An applicant may, with approval from the Planning Board, meet noise and setback standards by obtaining written consents from affected property owners stating they are aware of the wind energy facility and the noise and/or setback limitations imposed by this law, and that consent is granted to allow noise levels to exceed the maximum limits provided herein or reduce setbacks to less than required.

2. Such consents shall be in the form required for easements and be recorded in the County Clerk's Office describing the benefited and burdened properties. Such easements shall be permanent and shall state that they may not be revoked without the consent of the Planning Board, which consent shall be granted upon either the decommissioning of the benefited wind turbine in accordance with this law, or the acquisition of the burdened parcel by the owner of the benefited parcel or the wind turbine. No such easement shall permit noise levels at any other location within or outside the areas prescribed to exceed the limitations of this law.

K. Issuance of Wind Energy Facility Permits

1. The Planning Board shall, within 120 days of determining the application is complete, and upon consideration of the standards in this law and the record of the SEQRA review, issue a written decision with the reasons for approval, conditions of approval or disapproval fully stated. This time period may be extended with consent of the applicant. Should the applicant not consent to such an extension and the time period elapse without a decision, the application shall be considered approved without conditions.

2. If approved, the Planning Board shall direct the Town Code Enforcement Officer to issue a Wind Energy Facility Permit upon satisfaction of all conditions for said Permit, and upon compliance with the New York State Building Code.

3. The decision of the Planning Board shall be filed within 15 days in the office of the Town Clerk and a copy mailed to the applicant by first class mail.

4. If any approved wind energy facility is not substantially commenced within two years of issuance of the Wind Energy Facility Permit, the Wind Energy Facility Permit shall expire, unless the Planning Board shall have granted an extension.

L. Abatement

1. If any wind turbine remains non-functional or inoperative for a continuous period of 24 months, the applicant shall remove said system at its own expense following the requirements of the decommissioning plan. Removal of the system shall include at least the entire above ground structure, including transmission equipment and fencing, from the property. This provision shall not apply if the demonstrates to the Town that it has been making good faith efforts to restore the wind turbine to an operable condition, but nothing in this provision shall limit the Town's ability to order a remedial action plan after public hearing.

2. Non-function or lack of operation may be proven by reports to the Public Service Commission, NYSERDA, New York Independent System Operator, or by lack of income generation. The applicant shall make available (subject to a non-disclosure agreement) to the Planning Board all reports to and from the purchaser of energy from individual wind turbines, if requested and necessary to prove the wind turbine is functioning, which reports may be redacted as necessary to protect proprietary information.

3. The applicant, or successors, shall continuously maintain a fund or bond payable to the Town, in a form approved by the Town for the removal of non-functional towers and appurtenant facilities, in an amount to be determined by the Town, for the period of the life of the facility. This fund may consist of a letter of credit from a State of New York licensed-financial institution. All costs of the financial security shall be borne by the applicant. All decommissioning bond requirements shall be fully described in the decommissioning plan.

M. Limitations on Approvals

Nothing in this law shall be deemed to give any applicant the right to cut down surrounding trees and vegetation on any property to reduce turbulence and increase wind flow to the wind energy facility. Nothing in this law shall be deemed a guarantee against any future construction or Town approvals of future construction that may in any way impact the wind flow to any wind energy facility. It shall be the sole responsibility of the facility operator or owner to acquire any necessary wind flow or turbulence easements, or rights to remove vegetation.

N. Permit Revocation

1. The applicant shall fund periodic noise testing by a qualified independent third-party acoustical measurement consultant, which may be required as often as biannually, or more frequently upon request of the Planning Board in response to complaints by neighbors. The scope of the noise testing shall be to demonstrate compliance with the terms and conditions of the Wind Energy Facility Permit and this law and shall also include an evaluation of any complaints received by the Town. The applicant shall have 90 days after written notice from the Planning Board, to cure any deficiency. An extension of the 90 day period may be considered by the Planning Board, but the total period may not exceed 180 days.

2. A wind turbine shall be maintained in operational condition at all times, subject to reasonable maintenance and repair outages. Operational condition includes meeting all noise requirements and other permit conditions. Should a wind turbine become inoperable, or should any part of the wind turbine be damaged, or should a wind turbine violate a permit condition, the owner or operator shall remedy the situation within 90 days after written notice from the Planning Board. The applicant shall have 90 days after written notice from the Planning Board, to cure any deficiency. An extension of the 90 day period may be considered by the Planning Board, but the total period may not exceed 180 days.

3. Should a wind turbine not be repaired or made operational or brought into permit compliance after said notice, the Town may, after a public meeting at which the operator or owner shall be given opportunity to be heard and present evidence, including a plan to come into compliance, order either remedial action within a particular timeframe, or order revocation of the Wind Energy Facility Permit for the wind turbine and require its removal within 90 days. If the wind turbine is not removed, the Planning Board shall have the right to use the security posted as part of the decommission plan to remove the wind turbine.

O. Wind Measurement Towers

Installation of wind measurement towers, also known as anemometer towers, shall be permitted, upon the issuance of a Wind Energy Facility Permit, to determine the wind speeds and the feasibility of using particular sites. The distance between a wind measurement tower and the property line shall be at least 1½ times the total height of the tower. Wind Energy Facility Permits for wind measurement towers shall be issued for a period of two years and shall be renewable upon application to the Planning Board. An application for a wind measurement tower shall include:

1. Name, address, telephone number and signatures of the applicant and agent for the applicant, if any.

2. Name, address, telephone number and signature of the property owner along with written authorization by the property owner to submit the application.

3. Proposed development plan.

4. Decommissioning plan, including a security bond for removal, should the tower not be converted to permanent use for wind energy generation.

Other development standards as set forth above for wind energy facilities shall be applied to the maximum extent practicable, as determined by the Planning Board, recognizing the temporary nature of wind measurement towers.

P. Small Wind Turbines

The Planning Board is hereby authorized to approve, approve with conditions, or disapprove small wind turbine applications designed for residential, farm, institutional and business use on the same parcel. Such facilities shall be permitted as accessory uses in the RR, MC-1 and MC-2 zoning districts. Such applications shall be processed in the same manner as those prescribed above for all wind energy facilities, but may be appropriately modified by the Planning Board to reflect the scale of the proposed facility. All small wind turbine shall comply with the following standards and, to the maximum extent practicable, with all other requirements of this law not in conflict herewith:

1. A system shall be located on a lot a minimum of one acre in size; however, this requirement can be met by multiple owners submitting a joint application.

2. Only one small wind turbine per legal lot shall be allowed, unless there are multiple applicants, in which their joint lots shall be treated as one site for purposes of this law.

3. Small wind turbine shall be used primarily to reduce the on-site consumption of electricity.

4. Total heights shall be a maximum of 100 feet on parcels between one and five acres and 150 feet feet or less on parcels of five or more acres.

5. The maximum turbine power output is limited to 100 kW.

6. Tower-climbing apparatus shall be located no closer than 12 feet from the ground, a locked anti-climb device shall be installed on the tower or a locked, protective fence of at least six feet in height that encloses the tower shall be installed to restrict tower access.

7. Anchor points for any guy wires for a system tower shall be located within the property that the system is located on and not on or across any above-ground electric transmission or distribution lines. The point of attachment for the guy wires shall be enclosed by a fence six feet high or sheathed in bright orange or yellow covering from three to eight feet above the ground.

Appendix C Recommended High Priority Zoning Amendments

Be it enacted by the Town Board of the Town of Rockland that Chapter 185 of the Town of Rockland Code, the Town of Rockland Zoning Law, be amended as follows:

1) *Add the following definitions to § 185-7 to read as follows:*

BUILDING ENVELOPE — A specifically defined area of land within a lot that is designated for clearing and building purposes; including driveways, lawns and sewage disposal areas; outside of which no grading or forest removal shall be permitted to occur except for selective tree cuts limited to less than 50% of cover in total compared to existing forest cover.

DISTURBANCE — Land preparation, such as clearing, grading and filling, or the building of structures, including driveways.

IMPERVIOUS SURFACE — Any surface that cannot be effectively (easily) penetrated by water, thereby resulting in runoff. Examples are pavement (asphalt, concrete, etc), buildings/structures, driveways/roadways, parking lots and sidewalks.

LOT COVERAGE — That portion of the lot area that is covered by impervious surfaces.

NOI — Notice of Intent for coverage under an SPDES General Permit for Storm Water Discharges, as required by the New York State Department of Environmental Conservation (DEC).

SWPPP — Stormwater Pollution Prevention Plan, as required by the New York State Department of Environmental Conservation (DEC) in conformance with DEC technical standards and SPDES Stormwater Permit requirements. A Basic SWPPP consists of a plan for erosion and sediment control. A Full SWPPP consists of a plan for erosion and sediment control plus a post-construction stormwater control plan. All terms defined in the Department's *Stormwater Management Design Manual* are hereby incorporated herein by reference.

2) *Revise the § 185-11 Schedule of District Regulations to read as follows with respect to Maximum Lot Coverage by zoning district:*

RC Rural Conservation District	25%
R1 Low-Density Residential District	50%
R2 Moderate to High-Density Residential District	60%
GB General Business District	90%
NB Neighborhood Business District	50%

3) *Revise § 185-16.D to read as follows:*

D. Waterfront yards. Any yard which borders on a lake, stream or body of water shall be not less than one-hundred (100) feet in depth from the high

water mark, excluding boathouses and docks. The Town of Rockland Planning Board may, with site plan review, modify this requirement to allow encroachment on this setback in the case of non-residential construction outside the 100 year floodplain. Only selective clearing for purposes of stream access and flood control shall be permitted within fifty (50) feet of the high water mark. Every site plan for a use to be located along a major stream shall include delineation of the floodplain area. Definition of this area shall be based upon one of the three following criteria, provided that no floodplain area so designated shall be less than that depicted on Flood Hazard Boundary Maps for the Town of Rockland, as issued by the Federal Emergency Management Agency or its successor:

(a) Actual flood data from a recent flood event.

(b) A hydrology study with supporting topography using 2-foot contours.

(c) The elevation difference between the water's surface and the underside of the nearest bridge, determined after 5 days with no rain. This differential may be used to establish the flood plain elevation relative to the surface of the stream within the subdivision for the lands adjacent to the stream.

4) Revise § 185-17.A to read as follows:

A. Conceptual site plan. An applicant for a Special Use permit shall submit a conceptual site plan for review and advice by the Planning Board. Such a conceptual site plan shall provide locations and dimensions of the proposed use in relation to the property boundaries and adjacent uses. It shall also indicate all accesses, rights-of-way and improvements both existing and proposed and any site features which could have a bearing on the project including the general topography and existing ground cover.

This conceptual plan shall be used by the Planning Board as a basis for advising the applicant regarding information it shall require on the site plan before it conducts a public hearing or takes any action with respect to the plan. It shall also be used for arranging and conducting a site inspection of the property if warranted and determining if a Basic or Full SWPPP will be required. The Planning Board shall give no formal final approval or disapproval regarding any conceptual site plan but may use it to schedule a public hearing, determine if any provisions of this article should be waived or begin its review of the application under the New York State Environmental Quality Review Act ("SEQR"). This shall not preclude the Planning Board from holding an additional hearing on a site plan if major changes are involved. No advisory opinions given regarding a conceptual site plan shall be considered valid beyond one-year from the time given or used to claim any vested rights hereunder at any time.

5) Add § 185-17.B(14), as follows, to Special Use and Site Plan Review application requirements:

(14) A description and calculation of the proposed disturbance area for determination of SWPPP requirements. Proposed areas of disturbance shall be drawn to scale and quantified in support of applicable SWPPP requirements. If a SWPPP is required, the applicant shall submit the following to the Planning Board for review:

a. A Full or Basic SWPPP as required by New York State DEC.

b. A certified copy of a completed NOI, signed by the applicant and certified by the applicant's professional representative.

c. A copy of the New York State DEC reply to the NOI (the notice to proceed) when issued.

6) Revise § 185-21 to read as follows:

§ 185-21 Floodplain development standards.

There is hereby created a special zoning district, the boundaries of which shall be congruent with those areas identified as Special Flood Hazard Areas on the Flood Hazard Boundary Maps for the Town of Rockland, as issued by the Federal Emergency Management Agency or its successor. Such district shall also include any areas subsequently identified as floodplain through the process prescribed in § 185-16.D hereof. This district shall be an overlay zone, within which the normal provisions of the zoning districts as mapped on the Official Zoning Map shall apply, except that no development shall be permitted which does not comply with the provisions of Chapter 93 of the Town of Rockland Code, the Flood Damage Prevention Law, as amended. Additionally. all existing and new fuel storage tanks located within this overlay zone shall be anchored in place to prevent flotation or spillage. New principal residential structures shall not be permitted within such districts, except for replacement and improvement of existing structures.

7) Add § 185-30.1 as follows:

§ 185-30.1 Storm water management.

Every application for a new or substantially modified Special Use shall include provisions for storm water management as required by DEC and the standards of this section. Additionally, should any person intend to make land changes by grading, filling, excavating or the removal or destruction of the natural topsoil or vegetative covering thereon in accordance with a site plan submitted to the Town, the same shall only be approved and accomplished after the developer has

submitted to the Town a Stormwater Pollution Prevention Plan in compliance with the DEC regulations. Applicants shall, when required by the Town Planning Board, submit the following for review and approval by the Town:

A. An Erosion and Sedimentation Control Plan (Basic SWPPP) prepared in accordance with DEC requirements. The plans shall illustrate those measures to be employed during construction and as may be necessary to prevent loss of soil from erosion and to prevent resulting property damage, siltation and contamination of water courses or impoundments.

B. A Storm Water Pollution Prevention Plan (SWPPP) prepared in accordance with the "New York State Stormwater Management Design Manual" published by DEC. Such plan shall be subject to review by both the Town of Rockland and New York State DEC and meet both sets of standards. Where such standards conflict the higher standard shall apply. The SWPPP shall identify those practices employed after construction and as may be necessary to prevent property damage by and pollution of associated water courses or impoundments.

(1) Proposed areas of disturbance shall be drawn to scale and quantified in support of applicable SWPPP requirements (including a Basic SWPPP).

(2) Post construction stormwater practices shall reduce peak stormwater runoff to 65% of the preconstruction peak runoff for the 10 year event. The Planning Board shall be authorized to modify these criteria if immediate discharge is appropriate.

(3) Post construction stormwater practices shall reduce stormwater peak runoff to 75% of the preconstruction peak runoff for the 100 year event. The Planning Board shall be authorized to modify these criteria if immediate discharge is appropriate.

(4) A certified copy of a completed NOI, signed by the applicant and certified by the applicant's professional representative. A copy of the New York State DEC reply to the NOI (the notice to proceed) shall also be supplied when issued.

(5) Storm drainage facilities shall designed to handle the anticipated peak discharge from the applicable catchment for a 10 year event with one foot of freeboard remaining at peak flow.

(6) All drainage structures required to accommodate stream flows with a cross sectional area less than 25 square feet during a 10 year rainfall event, shall be designed and constructed to provide one foot of freeboard during the 10 year rainfall event.

(7) All drainage structures required to accommodate stream flows with a cross sectional area greater than 25 square feet during a 10 year rainfall event, shall be designed to provide two feet of freeboard during a 50 year rainfall event, and safely pass a 100 year rainfall event. Drainage structures in this category shall have a design life of at least 50 years, be designed by a Licensed Engineer and be approved by the Highway Superintendent

(8) Applicants shall use infiltration practices whenever acceptable under DEC guidelines. Applicants shall provide deep test pits and percolation tests in support of this or demonstrate infiltration is not a viable practice for the site in question. Dry grass swales and other similar measures shall also be encouraged wherever practical.

(9) All storm water management improvements shall be properly maintained so as to continue to perform in their intended manner. Sediment shall, at a minimum, be removed from sediment traps or sediment ponds whenever their design capacity has been reduced by fifty (50) percent. The Town Building Department, upon observing that such improvements are not being so maintained, may direct a property owner to undertake such maintenance. Failure to comply after a minimum of 30 days notice shall constitute a violation of this law.

(10) No person shall allow, or cause to allow, stormwater discharges into the Town's separate storm sewer system that are not composed entirely of stormwater, discharges from fire fighting, water from foundation drains, flows from natural sources and flows from other similar uncontaminated sources. No drain or conveyance, whether on the surface or subsurface, that allows any non-stormwater discharge or wastewater (including floor drains and the like) to enter the separate storm sewer system shall be permitted.

8) Revise § 185-36.A to read as follows:

A. No person shall construct, erect, alter, convert or use any building or structure, or part thereof, nor change the use of any land or clear any land for building or other non-agricultural or non-forestry purposes, subsequent to the adoption of this Law, until a building permit and/or Certificate of Occupancy has been issued by the Code Enforcement Officer. Moreover, no site shall be cleared for agricultural or forestry purposes except in conjunction with an active on-going farming or forestry operation that continues post-clearing. Applications for such permits shall be made to the Code Enforcement Officer prior to any construction activity and/or change in the use of land. The Officer shall review such applications and act upon them according to the requirements of this Law, taking no action, however, until the Planning Board and/or Zoning Board of Appeals has

first taken action, should the approval of either Board be required. A building permit shall authorize the applicant to proceed with construction proposed.

9) Revise § 185-41.A to read as follows:

A. There is hereby established a Zoning Board of Appeals having the powers authorized under the New York State Town Law. Said Board shall consist of five (5) members, including a chairperson, appointed by the Town Board. Appointments shall be in accordance with the New York State Town Law and an appointment to a vacancy occurring prior to the expiration of a term shall be for the remainder of the unexpired term. In the absence of a Town Board appointment of a chairperson the Board of Appeals may designate a member to serve as acting chairperson. The Town Board may also provide for compensation to be paid to experts, clerks and a secretary and provide for such other expenses as may be necessary and proper. In making such appointments, the Town Board may further require Board of Appeals members to complete training and continuing education courses pursuant to applicable State laws.

10) Revise § 185-42.A to read as follows:

A. The Zoning Board of Appeals may reverse or affirm, wholly or partly, or may modify the order, requirement, decision, interpretation or determination as in its opinion ought to have been made in the matter by the administrative official(s) charged with he enforcement of this chapter and Chapter 93 (Flood Damage Prevention) and to that end shall have all powers of the administrative official(s) from whose order, requirement, decision, interpretation or determination the appeal is taken.

11) Add § 185-43.K(4) reading as follows:

(4) The adjacent town, if the proposed action is within 500 feet of the municipal border, as provided by § 239-nn of the General Municipal Law.

Be it enacted by the Town Board of the Town of Rockland that Chapter 154 of the Town of Rockland Code, the Town of Rockland Subdivision Law, be amended as follows:

1) Add the following definitions to § 154.10 to read as follows:

BUILDING ENVELOPE — A specifically defined area of land within a lot that is designated for clearing and building purposes; including driveways, lawns and sewage disposal areas; outside of which no grading or forest removal shall be permitted to occur except for selective tree cuts limited to less than 50% of cover in total compared to existing forest cover.

DISTURBANCE — Land preparation, such as clearing, grading and filling, or the building of structures, including driveways.

NOI — Notice of Intent for coverage under an SPDES General Permit for Storm Water Discharges, as required by the New York State Department of Environmental Conservation (DEC).

SWPPP — Stormwater Pollution Prevention Plan, as required by the New York State Department of Environmental Conservation (DEC) in conformance with DEC technical standards and SPDES Stormwater Permit requirements. A Basic SWPPP consists of a plan for erosion and sediment control. A Full SWPPP consists of a plan for erosion and sediment control plus a post-construction stormwater control plan. All terms defined in the Department's *Stormwater Management Design Manual* are hereby incorporated herein by reference.

2) Revise § 154.11.A to read as follows:

A. Sketch Plan required. Submission of a sketch plan showing existing site features and a tentative layout of the subdivision shall be required as part of the plat approval process for all minor subdivisions. The Planning Board shall use the sketch plan for determining the number of lots permitted, arranging and conducting a site inspection of the property, determining if a Basic or Full SWPPP will be required**,** and establishing whether the subdivision is located in an Agricultural District. Nothing herein, however, shall prevent an applicant from simultaneously submitting information required for Preliminary and/or Final Approval. The Planning Board may also grant such approvals if all other requirements are met.

3) Add § 154.11.B(8) (Minor Subdivision Application) as follows:

(8) A description and calculation of the proposed disturbance area for determination of SWPPP requirements

4) Add § 154.11.C(7) and § 154.11.C(8) (Minor Subdivision Final Plat) as follows:

(7) Proposed areas of disturbance shall be drawn to scale and quantified in support of applicable SWPPP requirements.

(8) If a SWPPP is required, submit the following to the Planning Board for review:

a. A Full or Basic SWPPP as required by New York State DEC.

b. A certified copy of a completed NOI, signed by the applicant and certified by the applicant's professional representative.

c. A copy of the New York State DEC reply to the NOI (the notice to proceed) when issued.

5) Add § 154.14.B(25) through § 154.14.B(29) (Major Subdivision Preliminary Plat) as follows:

(24) An Erosion and Sedimentation Control Plan (Basic SWPPP) prepared in accordance with DEC requirements. The plans shall illustrate those measures to be employed during construction and as may be necessary to prevent loss of soil from erosion and to prevent resulting property damage, siltation and contamination of water courses or impoundments.

(25) A Storm Water Pollution Prevention Plan (SWPPP) prepared in accordance with the "New York State Stormwater Management Design Manual" published by DEC. The SWPPP shall identify those practices employed after construction and as may be necessary to prevent property damage by and pollution of associated water courses or impoundments.

(26) Proposed areas of disturbance shall be drawn to scale and quantified in support of applicable SWPPP requirements.

(27) Post construction stormwater practices shall reduce peak stormwater runoff to 65% of the preconstruction peak runoff for the 10 year event. The Planning Board shall be authorized to modify these criteria if immediate discharge is appropriate.

(28) Post construction stormwater practices shall reduce stormwater peak runoff to 75% of the preconstruction peak runoff for the 100 year event. The Planning Board shall be authorized to modify these criteria if immediate discharge is appropriate.

(29) A certified copy of a completed NOI, signed by the applicant and certified by the applicant's professional representative. A copy of the New York

State DEC reply to the NOI (the notice to proceed) shall also be supplied when issued.

6) Revise § 154.19.G (Erosion and Sedimentation) to read as follows:

G. Erosion and Sedimentation. Should any subdivider intend to make land changes by grading, filling, excavating or the removal or destruction of the natural topsoil or vegetative covering thereon in accordance with a subdivision plan submitted to the Town, the same shall only be approved and accomplished after the developer has submitted to the Town a Stormwater Pollution Prevention Plan in compliance with the DEC regulations.

7) Revise § 154.19.H(1) and § 154.19.H(2) (Storm Drainage) to read as follows:

(1) A storm water drainage plan shall be required for major subdivisions. Such a plan shall be prepared in accordance with the New York State Stormwater Management Design Manual and comply with the standards contained herein. Such plans shall be subject to review by both the Town of Rockland and New York State DEC and meet both sets of standards. Where such standards conflict the higher standard shall apply.

*(*2) Stormwater drainage and treatment facilities shall be designed to ensure the amount of uncontrolled stormwater leaving the site along any given property line after development, not exceed those prior to development. In instances where stormwater facilities are impractical for engineering reasons the Town may modify this standard as it applies to a particular project but shall provide for the maximum practical reduction in flow which can be achieved under the circumstances. The subdivider shall provide full information, prepared by a professional engineer, regarding the pre-development stormwater flows and estimates at the time of application.

8) Revise § 154.19.H(3)(e) (Storm Drainage) to read as follows:

(e) Storm drainage facilities shall designed to handle the anticipated peak discharge from the applicable catchment for a 10 year event with one foot of freeboard remaining at peak flow.

9) Add § 154.19.H(3)(o) through § 154.19.H(3)(q) (Storm Drainage) to read as follows:

(o) All drainage structures required to accommodate stream flows with a cross sectional area less than 25 square feet during a 10 year rainfall event, shall be designed and constructed to provide one foot of freeboard during the 10 year rainfall event.

(p) All drainage structures required to accommodate stream flows with a cross sectional area greater than 25 square feet during a 10 year

rainfall event, shall be designed to provide two feet of freeboard during a 50 year rainfall event, and safely pass a 100 year rainfall event. Drainage structures in this category shall have a design life of at least 50 years, be designed by a Licensed Engineer and be approved by the Highway Superintendent

(q) Subdividers shall use infiltration practices whenever acceptable under DEC guidelines. Applicants shall provide deep test pits and percolation tests in support of this or demonstrate infiltration is not a viable practice for the site in question. Dry grass swales and other similar measures shall also be encouraged wherever practical.

10) Add § 154.19.H(4) (Storm Drainage) to read as follows:

(4) Stormwater management system maintenance.

(a) The stormwater management plan for any major subdivision shall contain an operation and maintenance plan prepared by the applicant and approved by the Town Engineer. The operation and maintenance plan shall establish responsibilities for the continued operation and maintenance of all common stormwater management improvements, which shall include all stormwater management improvements designed to serve more than a single lot or dwelling. All such facilities associated with the approved subdivision plan shall be owned and maintained by a home owner's association (HOA) or such other entity as may be approved by the Town Board. The HOA or other approved entity shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used to achieve compliance with the requirements of this law. Sediment shall, at a minimum, be removed from sediment traps or sediment ponds whenever their design capacity has been reduced by fifty (50) percent.

(b) Prior to approval of any subdivision plan where common stormwater management improvements are required, the property owner, HOA or other approved entity shall sign and record a maintenance agreement covering all common stormwater management facilities. Such maintenance agreement shall be subject to the review and approval of the Planning Board and Town Attorney.

(c) Stormwater detention and retention basins or facilities shall be inspected by a registered professional engineer licensed in the State of New York on behalf of the applicant or responsible entity annually for the first five (5) years, once every three (3) years thereafter and during or immediately following the cessation of a

100-year or greater storm event. The professional engineer conducting the inspection shall be required to submit a written report to the HOA or other approved entity, with a copy to the Town of Rockland Building Department, within one (1) month following completion of the inspection. The report will present documentation and include pictures regarding the condition of the facility and recommend necessary repairs, if needed. Any needed repairs shall be implemented by the HOA or other approved entity within three (3) months of the report issuance date.

(d) No person shall allow, or cause to allow, stormwater discharges into the Town's separate storm sewer system that are not composed entirely of stormwater, discharges from fire fighting, water from foundation drains, flows from natural sources and flows from other similar uncontaminated sources. No drain or conveyance, whether on the surface of subsurface, that allows any non-stormwater discharge or wastewater (including floor drains and the like) to enter the separate storm sewer system shall be permitted.

(e) The Planning Board may require that a major subdivision plan include a set of best management practices (BMP's) from which the owner of any individual lot must choose in implementing stormwater management measures in conjunction with property development. Such BMP's shall be fully specified in the subdivision plans and imposed by restrictive deed covenant making reference to such plans. No person shall modify, remove, fill, landscape or alter any such on-lot stormwater management improvements or drainage easement, unless it is part of an approved maintenance program, without the written approval of the HOA or other approved entity.

(f) The Planning Board may also require that any major subdivision include designation of building envelopes or limits of clearing with respect to any or all lots as a method of limiting stormwater impacts and implementing other BMP's. Such envelopes or limitations shall be incorporated on Final Plats for recording purposes and shall be cross-referenced in covenants and restrictions to ensure maintenance of undisturbed areas.

11) Add § 154.19.H(5) (Storm Drainage) to read as follows:

(5) Every subdivision along a major stream shall include delineation of the floodplain area and include a building setback of one-hundred (100) feet in depth from the high water mark, excluding boathouses and docks. Only selective clearing for purposes of stream access and flood control shall be permitted within fifty (50) feet of the high water mark. Definition of this area shall be based upon one of the three following criteria, provided that no floodplain area so designated shall be less than that depicted on Flood

Hazard Boundary Maps for the Town of Rockland, as issued by the Federal Emergency Management Agency or its successor:

(a) Actual flood data from a recent flood event.

(b) A hydrology study with supporting topography using 2-foot contours.

(c) The elevation difference between the water's surface and the underside of the nearest bridge, determined after 5 days with no rain. This differential may be used to establish the flood plain elevation relative to the surface of the stream within the subdivision for the lands adjacent to the stream.

Appendix D
Recommended Revised Zoning Map