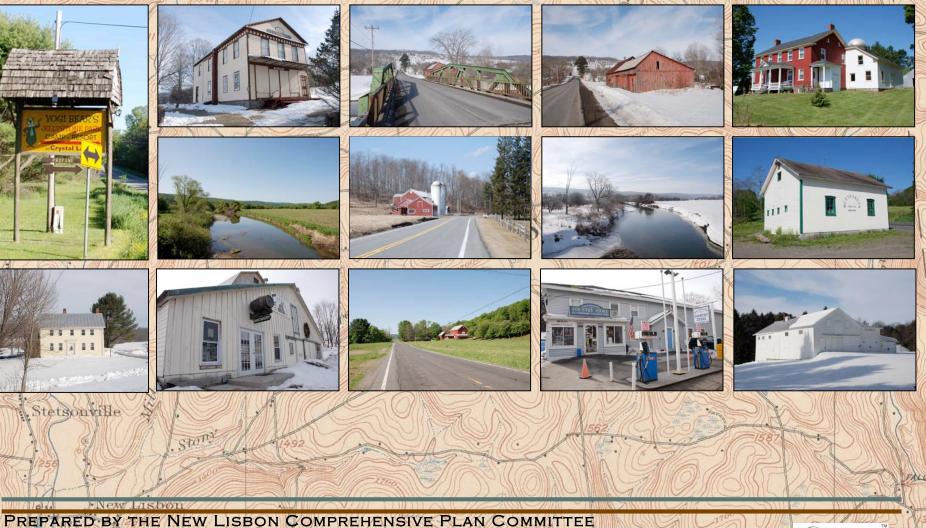
TOWN OF NEW LISBON COMPREHENSIVE PLAN

Garrattsville B M 132

Turtle Lake

NEW LISBON, NEW YORK

PLANIT



Gilbert

WITH PLANIT MAIN STREET, INC. DRAFT REVISED - MAY 3, 2008

ACKNOWLEDGEMENTS

NEW LISBON TOWN BOARD

Hon. Robert E. Taylor, SupervisorConnie ChaseGlen NotoDennis KelleherBob Eklund

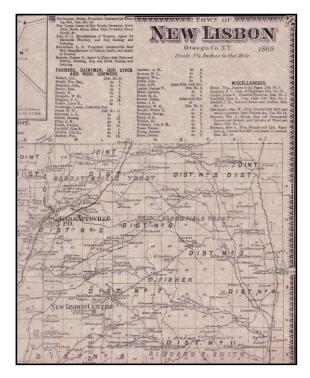
Charlene R. Wells, Town Clerk/Collector Virginia Schoradt, Town Historian

COMPREHENSIVE PLAN COMMITTEE

Gene Chilion & Julie Koster, Co-Chairman Maribeth Rubenstein, Secretary & Lori Harrington, Assistant Secretary Lisa Rozanki, Assistant Secretary

Bill Balcom Rich Eldridge Peter Gartung John Lernihan Virginia Schoradt Leo Bongiorno Charles Endress Ed George Bobbie Moskos Sue Smith Suzie Conklin Vicky Finch Cindy Kelleher Warren Ryther III Peg Theall

Jane Eldridge Gerry Fuchs Ed Lentz George Schoradt Don Turnbull



PLANNING BOARD

Daniel Morehouse, ChairmanArt MathewsonDavid GalleyJudith Koster, Clerk

Chris Perrine

Flo Loomis

CONSULTANTS

PLANIT MAIN STREET, INC. Alan J. Sorensen, AICP – Author



All photos and illustrations unless noted otherwise © Planit Main Street, Inc., all rights reserved. This publication is produced for the sole use of the New Lisbon and may not be made available to other parties without the written permission of Planit Main Street, Inc.

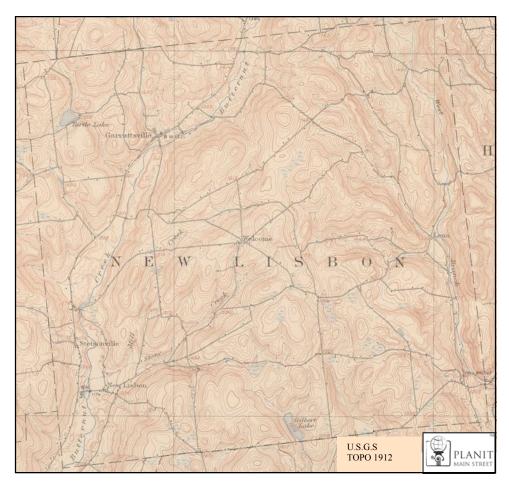
New Lisbon, New York

i

ACKNOWLEDGEMENTS CONTINUED

Geographic Information Systems Mapping

Geographic Information Systems (GIS) data for this Comprehensive Plan was provided by the Otsego County Planning Department and the GIS Maps for this assignment prepared by Planit Main Street, Inc.



VISION STATEMENT

In our Vision for the Town of New Lisbon in the future, our community character is preserved, civic pride sustained and quality of life enhanced. In the coming years, we carefully manage new growth and development while respecting private property rights in order to *protect* the integrity of our Town, its hamlet centers, small businesses, cultural & civic institutions, public parks, and our natural resources; *preserve* historic buildings, open space, a vibrant agricultural & farming community and scenic vistas to and from the Butternut Creek; *enhance* the provision of business services and access to telecommunications infrastructure; *provide* sustainable public infrastructure and services to meet growing community needs in a cost-effective manner; provide housing opportunities for a range of household incomes; and set quality design standards to ensure that new growth and redevelopment enriches our community aesthetics and is in harmony with the existing fabric of the Town of New Lisbon.

Comprehensive Plan Committee

TABLE OF CONTENTS NEW LISBON COMPREHENSIVE PLAN

	Executive Summary	E- 1
Chapter 1 -	Introduction	1
Chapter 2 -	Historical & Regional Context	3
Chapter 3 -	Public Participation	7
Chapter 4 -	Population & Housing	23
Chapter 5 -	Natural Resources	32
Chapter 6 -	Transportation	51
Chapter 7 -	Cultural, Recreational & Historic Resources	62
Chapter 8 -	Community Facilities	75
Chapter 9 -	Agricultural & Farmland Protection	83
Chapter 10-	Economic Development	94
Chapter 11 -	Land Use Laws.	100
Chapter 12 -	Plan Implementation	113
	Fun Facts	122

Maps:

Steep Slopes	33
Groundwater Resources & FEMA Floodplain Maps	36
Soils Suitability Map	44
Fransportation	53
Archeological Sensitivity Map	63
Fourism Map	66
Historic Resources Map	
Fire Districts	
Schools	79
Agricultural Resources	
Agricultural Districts	87
Existing Land Use	101

EXECUTIVE SUMMARY

The Town of New Lisbon's Comprehensive Plan was first written in 1990. More than fifteen (15) years have passed since the existing Plan was written and many issues discussed have either come to pass or are no longer relevant to the challenges facing the Town today. For these reasons, and others, the Town Board formed a Comprehensive Plan Committee in May 2007 to lead the effort to prepare a new Comprehensive Plan for New Lisbon, New York.

The new Comprehensive Plan forms the basis for future land use regulations and subsequent site plan or subdivision law revisions that may be necessary to implement the recommendations contained within this Plan. It is also intended to help guide other Town policies related to farmland protection, recreation, open space preservation, housing, historic preservation and business development. This Plan is intended to respond to challenges facing the Town today and during the next five to ten years.

Public participation in the development of the Plan was encouraged through a variety of public informational meetings, visioning sessions, public hearings and regular Committee meetings. Details of the public participation process and findings are included in Chapter 3.0 – Public Participation. Through public outreach and discussion, the Comprehensive Plan Committee developed a "Vision Statement" for the Town's Comprehensive Plan that follows.

VISION STATEMENT

In our Vision for the Town of New Lisbon in the future, our community character is preserved, civic pride sustained and quality of life enhanced. In the coming years, we carefully manage new growth and development while respecting private property rights in order to protect the integrity of our Town, its hamlet centers, small businesses, cultural & civic institutions, public parks, and our natural resources; preserve historic buildings, open space, a vibrant agricultural & farming community and scenic vistas to and from the Butternut Creek; enhance the provision of business services and access to telecommunications infrastructure: provide sustainable public infrastructure and services to meet growing community needs in a costeffective manner; provide housing opportunities for a range of household incomes; and set quality design standards to ensure that new growth and redevelopment enriches our community aesthetics and is in harmony with the existing fabric of the Town of New Lisbon.

Comprehensive Plan Committee

The Committee created specific future land use policies intended to achieve the broad goal of preserving the character of the Town including its hamlet centers, historic buildings, agricultural & natural resources and overall quality of life. These policies are discussed in the context of specific goals and recommendations that are described in greater detail below. The process of implementing these goals is discussed in Chapter 12 – Implementatio







Above (top to bottom): Morehouse Farm on NYS Route 51; Butternuts Beer & Ale Brewery on NYS Route 51; and turn-of-thecentury barn in the hamlet of New Lisbon off of County Route 12.

Goals and Recommendations

The goals outlined below establish the broad framework to guide the Town of New Lisbon's natural resource, community facility, agriculture & farmland protection, transportation, economic development, and land use policies into the future. The recommendations associated with each policy establish the specific policies, programs, or actions that can be taken by the Town to achieve each goal. The background analysis that resulted in each of these goals and policies is contained within Chapters 4.0 - 11.0 of this Plan.

Natural Resource Protection

<u>Goal 1</u>: Protect groundwater resources to ensure that the quantity and quality of water is available to serve future needs.

Recommendations:

- Strictly enforce NYSDEC requirements for a 100-foot buffer between development and watercourses;
- Restrict the development of buildings and other impervious surfaces within the 100-year floodplain;
- Require Storm Water Pollution Prevention Plans (SWPPP) in accordance with the NYSDEC State Pollution Discharge Elimination System (SPDES) general permit for commercial/industrial developments or major subdivision applications;
- Encourage the use of retention/detention basins that are an integral part of the overall site plan or subdivision plan; and
- Identify important aquifer and wellhead protection areas and educate landowners about the importance of providing buffers around these resources.

<u>Goal 2</u>: Protect the Town's scenic views, rural-community atmosphere, and natural quality for its intrinsic and economic value.

Recommendations:

- Develop land use policies aimed at retaining large blocks of farmland that are able to support a variety of farm businesses; and
- Encourage landowners to retain or restore riparian buffer zones along the Butternut Creek and West Branch of the Otego Creek;
- Form a Town of New Lisbon Agricultural Advisory Committee to address issues facing farmers and to develop programs to support agriculture;;
- Support efforts by property owners to participate in the Conservation Tax Credit (CTC) Program;
- Coordinate with a land trust such as the Otsego County Conservation Association to manage conservation easements on large tracts of land;
- Encourage the use of cluster subdivisions to retain large tracts of open space;
- Better regulate the placement of billboards (offpremises advertising) by revising the Town's Site Development Plan Review Regulations; and
- Encourage the placement of electric, cable and telephone wires underground.

Goal 3: Maintain the stability of hillsides to avoid erosion.

Recommendations:

- Avoid disturbance of slopes exceeding 15%;
- Require sediment & erosion control plans for proposed development near ridgelines;

- Limit the amount of cutting and filling that is allowed on hillsides;
- Encourage the use of conservation subdivisions to guide growth away from the ridgeline; and
- Encourage participation in the Forestry Management Programs to keep ridgelines forested for the long-term.

<u>Goal 4:</u> Enhance resource protection and public access to the Butternut Creek and West Branch of the Otego Creek.

Recommendations:

 Coordinate with NYSDEC to development additional DEC fishing access points along the Butternut Creek and West Branch of the Otego Creek.

<u>Goal 5:</u> Ensure the long-term sustainability of the Town's forestlands and sugar bush industry.

Recommendations:

- Encourage property owners with 50 or more acres of woodlands to participate in the New York State 480-A *Forestry Management Program*;
- Preserve large stands of sugar maples "sugar bush" and encourage the production of maple syrup products;
- Coordinate with State representatives to devise a Sugar Bush Tax Law to provide incentives to local landowners that grow sugar bush stands and produce maple syrup and maple products;
- Create a *Sugar Bush Trail Map* to promote New Lisbon Maple Products and extend the tourism season; and
- Encourage owners of abandoned farmland to put such lands to productive use through the planting of tree farms or nurseries.

Transportation

<u>Goal 1:</u> Maintain an acceptable level-of-service on all area roadways in a cost-effective manner

Recommendations:

- Ensure that sufficient off-street parking is provided to accommodate proposed land uses;
- Use the State Environmental Quality Review Act (SEQRA) process to assess and mitigate potential traffic impacts associated with large scale development;
- Require a traffic impact analysis for land uses with high trip generation rates;
- Limit the number of curb cuts on major arterials and encourage site access from local collectors and access roadways;
- Coordinate with County and State agencies to create new bikeways and trailways;
- Maintain very-low volume road segments that have no year-round residences on a seasonal basis;
- Enforce provisions of *Local Law #2 of 2007* that limits construction of year-round residences on seasonal roads;
- Explore the feasibility of using *aggregate surface roads* as an alternative to paving low-volume roads; and
- Reach out to neighboring municipalities to determine support for a *Butternut Valley Scenic Byway* along NYS Route 51.

<u>Goal 2:</u> Ensure transportation systems are sufficient to support agri-businesses and other industries.

 Work with Otsego County to ensure weight limits for County roads and bridges are sufficient to accommodate milk tankers and fertilizer trucks.

Town of New Lisbon, New York

New Lisbon

Recreational, Historic & Cultural Resources

<u>Goal 1:</u> Provide a variety of recreational resources to serve the needs of the community year-round.

Recommendations:

- Use the payment-in-lieu parkland fees for the acquisition of parkland and/or further development of the Town's existing park;
- Coordinate with the NYSDEC to identify opportunities to expand hiking and biking trails within the Gilbert Lake State Park and Texas Schoolhouse State Forest;
- Designate seasonal roads for cross-country ski trails during winter months and plow off-street parking areas;
- Support efforts by property owners to participate in the Conservation Tax Credit (CTC) Program;
- Coordinate with local landowners and NYSDEC to create additional public fishing and boating access areas within the Town; and
- Coordinate with NYSDOT to assess the feasibility of creating bike lanes along NYS Route 51.

Goal 2: Protect and preserve historic resources.

Recommendations:

- Raise awareness of the State's Real Property Tax Exemptions/Credits for Historic Properties;
- Support nominations for listing of properties on the State and National Historic Register;
- Support local efforts to preserve historic schoolhouses, barns and historic cemeteries by providing letters of support for grant applications to NYS OPRHP; and
- Create Town recognition program of historic properties.

Town of New Lisbon, New York

Community Facilities

<u>Goal 1:</u> Provide facilities to meet existing and anticipated community needs.

Recommendations:

Create a *Capital Improvement Plan* (CIP) for all the Town's capital facilities. A CIP would assess the useful life of all capital facilities (e.g. buildings, playground equipment, etc.) maintenance needs and replacement schedules. It should also include an *Asset Management Plan* that identifies how future capital improvements will be financed. A well-developed CIP could help to save money by increasing the useful life of long-term capital assets, reducing the likelihood of costly emergency replacement of equipment, and reducing operating & maintenance costs. This should be prepared in the next 1-2 years.

Agriculture & Farmland

<u>Goal 1:</u> Keep existing farmland in agricultural production and maintain the viability of area farms.

Recommendations:

Form a Town of New Lisbon Agricultural Advisory Committee (AAC) made up of elected officials and representatives from the farming community. An AAC could provide a forum for area farmers to analyze issues facing the agricultural community within the Town, articulate the benefits provided by local farms and the challenges they face. The ACC could help to identify strategies that the Town can employ to support the business and land use needs of local farmers;

- Identify areas where agricultural activity should be supported over the long-term;
- Develop land use policies aimed at retaining large blocks of farmland;
- Support applications to the State and federal government to purchase agricultural easements on local farms also referred to as Purchase of Development Rights (PDR);
- Create a *New Lisbon Farmer's Market;*
- Encourage cluster or conservation subdivisions to retain prime farm lands; and
- Form *Buying Cooperatives* to reduce farmer's operational cost and *Selling Cooperatives* to increase the amount farmers are paid for their products.

Economic Development

<u>Goal 1:</u> Support growth in small-scale industries that complement rural character of the community.

Recommendations:

- Supports efforts to upgrade infrastructure needed to enhance agriculture and support growth in small businesses including cottage industries;
- Support development of value-added agri-businesses and further diversification of agriculture;
- Support the establishment of bed & breakfasts in order to provide year-round accommodations for visitors;
- Coordinate with the County Department of Tourism to better promote New Lisbon attractions; and
- Support further development of small-scale ecofriendly businesses and cottage industries that complement New Lisbon's rural character in terms of the design and scale of new buildings.

Land Use Laws

<u>Goal 1</u>. Manage growth in relation to Vision Statement.

Recommendations:

- Protect environmentally sensitive areas such as steep slopes, floodplains, and wetlands;
- Amend Subdivision and Site Development Plan Review Regulations to enhance land use laws;
- Create and adopt a Junk Vehicle/Storage Local Law;
- Create and adopt a Mobile Home Law; and
- Develop a Capital Improvement Plan for the Town of New Lisbon that ensures that new infrastructure and new public services are planned in direct relationship to the managed growth policies stated above.

<u>Goal 2.</u> Preserve open space in order to retain the area's scenic vistas.

Recommendations:

- Work with the Agricultural Advisory Committee (AAC) to maintain the viability of farming in the Town of New Lisbon;
- Work with the Otsego County Economic Development Department to devise incentives that could be made available to support farming in the community;
- Encourage the placement of utilities underground to protect important vistas;
- Explore feasibility of creating a *Butternut Valley Scenic Byway* with neighboring towns; and
- Support private landowner participation in the NYSDEC forestry management program as well as efforts to develop tree farms or nurseries.

<u>Goal 3.</u> Protect homeowners from non-residential development.

- Require vegetative buffers and/or architectural screens between non-residential and residential developments;
- Require that commercial businesses be situated away from existing residences to provide a greater buffer between existing homes and commercial businesses:
- Control the hours of operation of certain businesses (such as autobody shops) that have the potential to generate noise that could affect residential neighbors;
- Ensure that lighting of commercial properties is regulated so that it does not adversely affect nearby residences; and
- Control vehicular access so that commercial traffic is directed away from nearby homes.
- <u>Goal 4</u>. Encourage Leadership in Energy and Environmental Design (LEED) techniques in the design, construction and operation of new buildings in the Town.
 - Provide education and outreach regarding LEED techniques in order to raise community awareness of its benefits; and
 - Encourage the utilization of LEED principles in new Town-owned capital facilities as a means of saving costs associated with the operation of new facilities.

1.0 INTRODUCTION

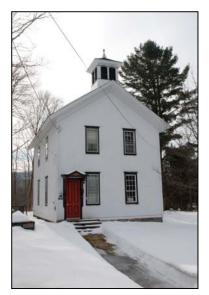
New Lisbon's Comprehensive Master Plan was written in 1990. The Plan outlines basic policies related to land use, hamlet centers, transportation and the protection of historic and natural resources. Since it was written, the desires and needs of the community have changed. Based upon concern that future growth could affect the community, the Town Board decided the time had come to update the Town Comprehensive Plan. In late May 2007, the Town Board retained the services of Planit Main Street, Inc. to work with a Town Board-appointed Comprehensive Plan Committee to lead the effort in creating a new Comprehensive Plan. The purpose of the new Comprehensive Plan is to develop the land use policies needed to guide future land use decisions so that our community character is preserved, civic pride sustained and quality of life enhanced.

This new Comprehensive Plan was prepared in accordance with New York State Town Law §272-a that states that the plan will "identify the goals and objectives, principals, guidelines, policies, standards, devices, and instruments for the immediate and long-range protection, enhancement, growth and development of the Town." While the creation of a Comprehensive Plan is not required under New York State Town Law, §272-a, once one is adopted, all subsequent land use regulations must be in accordance with the community's adopted Comprehensive Plan. The Comprehensive Plan will help to guide land use policies within New Lisbon. **New Lisbon, New York** Three distinct phases were involved in the development of New Lisbon's Comprehensive Plan: 1) preparation of baseline data including population, housing, natural resources, community facilities. open space. and infrastructure, etc., 2) identification of issues facing the Town based upon baseline data, a review of existing land use regulations, monthly Comprehensive Plan Committee meetings, along with public input, and 3) the creation of broad goals, objectives and policies. An analysis of baseline conditions along with public input was used to identify a list of challenges facing the Town. These include:

- Preserving the rural character of Town;
- Preservation of prime farmland;
- Increasing the profitability of farming;
- Keeping farming as major industry in the Town and protecting the right-to-farm;
- Protecting natural & historic resources;
- Enhancing recreational opportunities;
- Providing affordable housing opportunities;
- Protecting scenic views;
- Restricting large-scale retail and industrial uses;
- Ensuring good design of new commercial buildings;
- Allowing for small-scale retail uses;
- Identifying where new industrial uses should be permitted;
- Ensuring that new development does not impact nearby farms; and
- Protecting private property rights.

"We Shape Our Buildings and Afterwards Our Buildings Shape Us."

Winston Churchill



Above: The historic New Lisbon School District #2 Schoolhouse, circa early 1900's on State Highway 51. The building is an excellent example of the vernacular architecture within the hamlet of Garrattsville.

1

1.1 Purpose of the Plan

This Comprehensive Plan is meant to build upon the 1990 Comprehensive Plan and is intended to guide the Town's growth for the next 5 to 10 years. The Comprehensive Plan serves as the Town's official policy document, providing a general set of planning principals relating to land use; natural, and historic resources; housing. development, agricultural economic and farmland protection and other related issues. The purpose of the Comprehensive Plan is to realize the community's vision for the future and to guide growth in a manner that fosters orderly, coordinated and beneficial development. It should also be periodically reviewed and updated to ensure that it continues to reflect the longrange goals of the community.

1.2 Implementation

In order for this Comprehensive Plan to be effective, the New Lisbon Town Board must actively apply the policies that are contained within this Plan. Furthermore, its Planning Board must use the Plan as a framework to guide their decisions with respect to the review of development proposals. Some recommendations contained herein will require the subsequent action of the Town Board in order to enact recommended revisions to existing land use regulations such as the Town's site plan or subdivision regulations and/or the creation of a Zoning Code and Zoning Map for the Town of New Lisbon. Other actions such as the preservation of historic resources, transportation improvements, or the development of recreational trails will require the collaboration between the Town, County, State and not-for-profit entities. These actions are outlined in Chapter 12 - Plan Implementation of this Plan along with the party responsible for taking a leadership role in the implementation of the policy or program.

Each member of the Town Board and Planning Board should have a copy of this Comprehensive Plan. The Town Board may want to appoint a Comprehensive Plan subcommittee to spend time each month reviewing progress on the implementation of this Comprehensive Plan and coordinating efforts with other entities where necessary.

The Town of New Lisbon has a long-established tradition of respecting its history and protecting its historic resources. Its rich sense of history is defined by its residents, farms, hamlet centers, institutions, parklands, business community, public campgrounds, historic cemeteries and other resources that define its unique sense of place today.

If we are to properly plan for our future, we must have an understanding and appreciation for our past. In Chapter 2 – Historic & Regional Context a brief summary of the Town's history and its relationship to the surrounding region is provided to help set the stage as we plan for the future of the Town of New Lisbon.

VISION STATEMENT

In our Vision for the Town of New Lisbon in the future, our community character is preserved, civic pride sustained and quality of life enhanced. In the coming years, we carefully manage new growth and development while respecting private property rights in order to protect the integrity of our Town, its hamlet centers, small businesses, cultural & civic institutions, public parks, and our natural resources: preserve historic buildings, open space, a vibrant agricultural & farming community and scenic vistas to and from the Butternut Creek; enhance the provision of business services and access to telecommunications infrastructure: provide sustainable public infrastructure and services to meet growing community needs in a cost-effective manner; provide housing opportunities for a range of household incomes; and set quality design standards to ensure new that growth and redevelopment enriches our community aesthetics and is in harmony with the existing fabric of the Town of New Lisbon.

Comprehensive Plan Committee

CHAPTER 2.0 - HISTORIC & REGIONAL CONTEXT

The first European settlers began to arrive in the vicinity of New Lisbon around 1773. They came mostly from New England. The first settlers were Increase Thurston and Benjamin Lull who had settled in the southwestern portion of Town near the present day Town of Morris. The first settler in the vicinity of the hamlet of Garrattsville was Robert Garratt; the first settler in the hamlet of New Lisbon (formerly known as Noblesville) was Elnathan Noble; and the first settler in the hamlet of Stetsonville was John S. Stetson. Garrattsville was named after the Garratt family including sons John & William.

"Upon the organization of Otsego County in 1791, the territory in the present Town of New Lisbon comprised a portion of the Town of Otsego. In 1792 it was embraced in the present Town of Burlington; in 1797 was set off from Burlington as Pittsfield; and on April 7, 1806 organized as Lisbon. It retained the name until April 6, 1808, when it was changed to its present name of New Lisbon (Source: History of Otsego County 1740-1878)."¹ The Town of New Lisbon lies within the interior of Otsego County. It is bounded by Edmeston and Burlington to the north; Morris and Pittsfield to the west; Morris and Laurens to the south; and Hartwick and Laurens to the east. The Butternut Creek and West Branch of the Otego Creek are the two primary streams that define its geography.

Agriculture has always been the predominant industry within the Town of New Lisbon. The early settlers described the hills of the Town as arable or good for grazing and the gullies as rich and fertile for cultivation. As these farmsteads grew in number, so too did the population and demand for services and organizations to support the growing settlement community.

The hamlet of New Lisbon Centre (later Welcome) grew in the geographic center of Town. The hamlets of Lena and Fall Bridge grew along the West Branch of the Otego Creek. Over time, the farming community came together to form churches, schools and service organizations. The hamlets of Garrattsville and Noblesville were the largest centers with churches, post offices and government offices.

Robert Garratt's son, William, opened the first store in Garrattsville and served as its first Post Master. Captain Joseph Peck, who married Polly Noble a niece of Elnathan, opened the Hard & Peck Store in Noblesville.ⁱⁱ The Butternut and Otego Creeks were important sources of water power. By 1810, there were five grain mills, seven saw mills and a carding machine in New Lisbon.ⁱⁱⁱ During this time, there was one Baptist meeting-house at New Lisbon Centre and seven school-houses located throughout the Town. By 1810, the population of the Town grew to 1,982 persons. It is an interesting fact that the population in 1810 was far greater than the population of the Town in 2006 - estimated to be 1,174 persons by the U.S. Census.







Above (top to bottom): Vacant *Bee Keepers Supply Store* in the hamlet of New Lisbon; view of Butternut Creek looking south from the *1934 Steel Deck Bridge* as you enter the hamlet of New Lisbon; and a turn-of-thecentury barn near South Welcome Road.

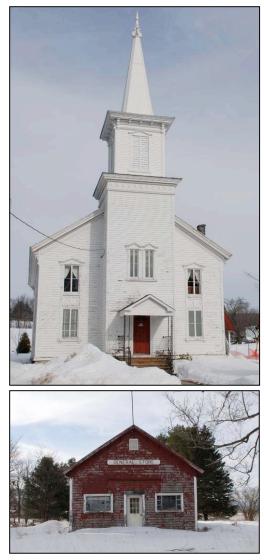
The first Church to be established in the Town of New Lisbon was the Baptist Church at New Lisbon Centre in 1804. It was followed by the First Congregational Church, located in Nobelsville that was organized in 1805. The Methodist Episcopal Church at Garrattsville was organized in 1839 followed in 1879 by the United Presbyterian Church that is also located in the hamlet of Garrattsville.

As described above, the Town of New Lisbon has always been a center for agriculture. An Agricultural Census of 1875 described the following crops being grown in the Town: hay, grass-seed, barley, buckwheat, Indian corn, oats, spring wheat, winter wheat, corn, beans, peas, hops, potatoes, apple-trees, fruit, cider, maple sugar and maple syrup. Poultry was also an important part of the local agricultural economy that included the sale of eggs. Dairy was a major part of the local economy with milk being exported along with the dairy products of butter and cheese. Sheep farms were a major source of wool and swine a major source of meat according to the 1875 Agricultural Census. In 1875, there were 14,793 horses, 3,341 cows, and 2,341 sheep in the Town of New Lisbon.

Around this time, hops became a major crop in Otsego County. In the 1880's ninety percent of the hops in the United States were grown in New York State and over one-third of the State's crop was grown in Otsego County. The quality of the hop crop in Otsego County was considered the best in the United States. Hops, an important ingredient in beer, were grown on New Lisbon farms. Otsego County's average hops yield was 1,000 pounds per acre. The cultivation of hops was an important cash crop until the early 1900's when competition from the west coast, coupled with the downey mildew *sphaeratheca humuli* (e.g. the hops blight), destroyed the hops crop in Otsego County. Thereafter, farmers in New Lisbon turned primarily to dairy, sheep and the growing of corn, grain and potatoes. These are still the predominant agriculture activities within the Town of New Lisbon today.

During this period, forestry was also a major industry within the Town. In 1905, a saw mill operated by Emmons Peck had the largest lumbering job in the central part of New York at Gilbert's Lake.^{iv} To haul the logs to market, Peck used a small gauge steam train that ran down the hill below the lake to Laurens and on to Oneonta. In 1908, the logging operation was completed. In 1926, Gilbert Lake was acquired by the State of New York and designated as a New York State Park.

In the 1920's, the farms within the Town of New Lisbon conspired with its natural environment to create one of the most picturesque and bucolic settings in Otsego County. During this time, New Lisbon was being discovered as a place for summer leisure. The attractions included the Butternut Creek, Turtle Lake (aka Crystal Lake) and the recently designated Gilbert Lake State Park.



Above (top to bottom): United Presbyterian Church in the hamlet of Garrattsville, NY; General Store in the hamlet of New Lisbon originally settled as Noblesville. The General Store building originally served as the New Lisbon School District #1 Schoolhouse.

The start of the Great Depression in 1929 had a detrimental impact on the entire nation. However, it also held a silver lining for the Town of New Lisbon. As a result of the Great Depression, the Civilian Conservation Corps (CCC) was created by the federal government to provide jobs for young men who were put to work on numerous public works projects throughout the country. One of those projects was building the infrastructure for the 1,550-acre Gilbert Lake State Park. Park improvements include the creation of a beach, construction of roads and trails, cabins, pavilion, etc. When completed, Gilbert Lake State Park became a premiere camping destination within New York State and remains so today.^v

Throughout the 1920's and 40's there were many changes in the communities surrounding the Town of New Lisbon. In the Village of Morris, the Linn Tractor Company manufactured tractors from 1920 to 1949 and the H.W. Naylor Company began manufacturing its veterinarian pharmaceutical supplies on Main Street. Manufacturing also became an important part of the economy in other nearby Town's including Cooperstown, New Berlin, Norwich, Oneonta and Sidney. New Lisbon residents could easily reach these communities via automobile and many residents commuted to them for work or higher education. With the exception of Morris, the other surrounding towns had one thing in common that helped to spur growth in the manufacturing industry in the first half of the 19th century – railroads.

While railroads were established within the Susquehanna, Unadilla and even East Branch of the Otego Creek valleys, passenger rail service never came to the Butternut Valley nor the West Branch of the Otego Creek. The communities with railroads grew in population as they developed large manufacturing bases. Those communities in rural areas, including New Lisbon, experienced a population decline as some people moved to the cities for employment.

During this period, New Lisbon's sixteen (16) one-room schoolhouses were replaced with a centralized school system that required its students to attend central schools in Edmeston, Cooperstown, Laurens and Morris. As a result, jobs in education shifted to those communities with central schools. These factors, among others, helped New Lisbon to retain its rural character and the predominance of agriculture and forestry as its major industries.

According to the 2000 Census, 9.7% of the Town's labor force was employed in the agriculture, forestry & mining industry. Dairy was the largest segment of the agricultural economy. Cattle, sheep and horses were raised on the hillside pastures that comprise a large percentage of agricultural lands in production. A new sand & gravel operation in the Town created additional jobs in that industry. The primary field crops that are cultivated are hay and corn. However, oats, potatoes and a variety of other vegetable crops are also grown. These products are sold locally and regionally.

"AGRICULTURE CONTINUES TO BE A MAJOR **INDUSTRY WITHIN** THE TOWN OF NEW LISBON. ACCORDING TO THE 2000 **CENSUS**, 9.7% OF THE TOWN'S LABOR FORCE IS STILL EMPLOYED IN THE AGRICULTURE, FORESTRY, & MINING INDUSTRY, IN **OTSEGO COUNTY** IT WAS 4.4%."

For example, the *Tara Farm* on County Highway 14 sells fresh Christmas wreaths, garland and centerpieces during the holidays. There is also a strong history of silviculture or "tree farms" within the Town. The other component of the Town's forestry industry is the timber industry that includes twenty-four (24) parcels of land that participate in the New York State Department of Environmental Conservation's Forestry Management Program.

In 2007, there was a small bedding mill still in operation on County Route 14. There is also a wholesale and retail distributor of feed on NYS Route 51 (north of Stetsonville) that serves the local farming community as well as farms in surrounding communities. Most industries in the Town are small-scale industries with a close connection to the production of natural resources locally. The long-term sustainability of these small-scale industries will require natural resource management [see Chapter 5.0].

The Town's agricultural & forestry industries have long complemented its natural environment – creating an attractive setting for residents to live and for tourists to visit. Its tourism industry was first defined by the creation of *Gilbert Lake State Park* in 1926. In that same year, *Crystal Lake Campground* (that later became Yogi Bear's Jellystone Park) was opened in the northwestern corner of the Town surrounding Crystal Lake (aka Turtle Lake). Since that time, the community has seen additional growth within its tourism industry. In 1972, *Meadow-Vale Campsites* was opened in close proximity to Gilbert Lake State Park on Gilbert Lake Road in the Town of New Lisbon. Meadow-Vale Campsites offers 110 sites and is open from late Spring to through early Fall. The campground estimates that it has between 750 to 1,250 visitors per year. *Yogi Bear's Jellystone Park* campground consists of 180 campsites set upon 235 acres surrounding Crystal Lake. This campground is very popular with booking for its campsites and recreation program often occurring months in advance. The owners estimate an annual visitation of 4,000 to 5,000 campers to Jellystone Park.

The Town of New Lisbon celebrated its 200th anniversary in 2006. Nearly 200 years after its creation, the Town has managed to retain its agricultural, historic, and natural resources that make it an inviting place in which to live and visit. Following historic patterns, many residents continue to be employed in agriculture and forestry while others commute to work in surrounding communities. The long-established summer camping industry attracts thousands of visitors from Mother's Day through Columbus Day. The new Butternuts Beer & Ale Brewerv is the type of small-scale industry that complements the Town's rural landscape and respects its agricultural heritage. The proposed golf course on Elliot Road will also complement the rural landscape. In the following Chapter -Public Participation we discuss resident preferences for future development along with some of their concerns.



Above (top to bottom): Entrance sign to Gilbert Lake State Park; directional sign to Yogi Bear's Jellystone Park; and directional sign to Meadow-Vale Campsites.

CHAPTER 3.0 PUBLIC PARTICIPATION

The Town Board appointed a twenty-three (23) member Comprehensive Plan Committee in late May of 2007 to guide the development of the Town's new Comprehensive Plan. In May 2007, a Comprehensive Plan webpage was established at <u>www.planitmainstreet.com/New</u> <u>Lisbon.html</u> to provide residents with an overview of this process of developing the new Comprehensive Plan. The Committee met monthly throughout the process and all the meetings were open to the public. A summary of meetings held by the Committee follows.

May 29, 2007 at 7:00 PM June 27, 2006 at 7:00 PM July 17, 2007 at 7:00 PM August 21, 2007 at 7:00 PM September 26, 2007 at 7:00 PM October 30, 2007 at 7:00 PM December 19, 2007 at 7:00 PM January 23, 2008 at 7:00 PM February 27, 2008 at 7:00 PM March 26, 2008 at 7:00 PM

The August 21, 2007 meeting served as a land use training session to give the Committee Members a better understanding of the relationship between the Comprehensive Plan and local land use regulations. That session involved a detailed discussion of land use regulations including site plan review laws, subdivision regulations and zoning laws.

New Lisbon, New York

Generally, the Committee meetings provided an opportunity for its members to discuss and reach consensus on a variety of topics ranging from agricultural & farmland protection to economic development.

On September 26, 2007, the Committee held its first public *Visioning Session* at Town Hall. During the Visioning Session, the reasons for preparing a new Comprehensive Plan, its purpose and its relationship to other land use regulations were explained to local residents. The session also included a Community Character SurveyTM and an Assets & Challenges exercise conducted by Planit Main Street, Inc.

A summary of the Visioning Session is provided in Sections 3.1 & 3.2 of this Chapter.

3.1 Assets & Challenges

At the September 26, 2007 Visioning Session at Town Hall, forty (40) Town residents participated in an Assets & Challenges exercise conducted by Planit Main Street, Inc. During the exercise, residents were asked to describe those aspects of their community that they felt were "Assets" and then what they felt were "Challenges" that the Town was facing. The individual responses were recorded that evening on easel note pads and later grouped into specific topic areas in order to prepare a more detailed analysis of the responses. A summary of the responses and analysis of Assets and Challenges is provided in the discussion that follows.

"IT IS WITHIN OUR POWER TO CREATE PLACES WORTHY OF OUR AFFECTION."

James Howard Kunstler Geography of Nowhere





Above (top to bottom): Summer scene of farmland in bucolic Butternut Valley looking from Gregory Road; winter scene of picturesque barn in the hamlet of New Lisbon.

3.1.1 Assets

Assets are those aspects of a community that residents feel are attractive or inviting. Understanding resident perceptions of their community's assets is an important step in defining a vision for its future. Generally speaking, things that residents feel are assets are the types of things its future land-use regulations or other public policies should encourage. While the specific assets for the Town varied, they could be generally grouped into several broad categories. The analysis of each is provided in the discussion below:

Agriculture & Farmland: Residents 1. spoke highly of the Town's farms. Farms were viewed as important assets to the community due to their contribution to the local economy, the role they play in retaining open space and protecting scenic vistas. The 2000 Census showed that 9.7% of the Town's labor force is employed in the Agricultural, Forestry and Mining Industry. The Town has a significant number of active farms. Residents spoke of the desire to improve the viability of farming to ensure that farming remained an important part of the community in years ahead.

2. <u>Sense of Community</u>. New Lisbon's sense of community was cited by residents as an important asset. The Town is a place with a high level of volunteerism, strong community involvement, friendly people and one where residents felt a sense of security.

New Lisbon, New York

3 Parks & Open Space. Another important asset in the Town is the availability of Parkland and other Open Space. The New Lisbon Community Park behind Town Hall that includes a baseball field, picnic pavilion and tot lot was cited as an important community asset and public gathering space. Residents also described the abundance of undeveloped land in the Town as an asset although it was pointed out that some of the undeveloped land was actually farmland in production. Other parks and open space assets included Gilbert Lake State Park, Texas Schoolhouse State Forest, Meadow Vale Campground and Yogi Bear's Jellystone Park at Crystal Lake.

4. <u>Historic Resources</u>. The Town of New Lisbon was formally established April 6, 1806. During its early settlement, a number of buildings were constructed and those that remain today are important historic resources. Residents spoke of the historic barns, institutional buildings, farmsteads and other buildings as important historic resources that they felt were assets to the Town. These historic buildings helped to define the scenery in the community.

5. <u>Local Businesses</u>. There are a number of small businesses in the Town of New Lisbon. Resident's felt that these small businesses were an important asset to the community in the sense that they provided local jobs. These businesses also provided services for local residents as well as the farming community.

"RESIDENTS SPOKE HIGHLY OF THE TOWN'S FARMS THAT WERE VIEWED AS **IMPORTANT** ASSETS TO THE COMMUNITY DUE TO THEIR CONTRIBUTION TO THE LOCAL ECONOMY. PRESERVATION OF OPEN SPACE AND PROTECTING SCENIC VISTAS."

Visioning Session

6. <u>Natural Resources</u>. The Town's natural resources including its night sky, lakes, streams and wildlife were viewed by residents as assets that defined the tranquility and beauty of the Town of New Lisbon. The Butternut Creek, Crystal Lake, Lake of the Twin Fawns and Gilbert Lake within the Gilbert Lake State Park were examples of the water resources within the Town. There is little light pollution in the Town that makes possible the night sky. Residents felt the ability to clearly see the stars at night to be an asset that enhanced the quality of life for local residents as well as visitors to the Town.

7. <u>Population</u>. Some residents felt that the stability of the Town's population base was an important asset. Other residents expressed concern about too much population growth. Still others were concerned with potential population decline as younger residents sought jobs elsewhere in the State and the country.

8. <u>Property Rights</u>. Some residents felt that the respect for private property rights was an important asset within the Town of New Lisbon. Related to this respect was a concern that local regulations balance private property rights with the need for the community to regulate land uses.

9. <u>Transportation</u>. Several residents spoke of the lack of traffic (e.g. traffic congestion) as an important asset in the community. The ease of travel to most places in the region without encountering traffic congestion was something that residents liked about living in New Lisbon. 10. <u>Local Government</u>. Residents spoke highly of their Town Government and the relatively low level of taxes in the Town. Services provided by the Town were seen as assets. Some residents stated that the "Small Government" with few regulations was an important asset of the Town of New Lisbon.

3.1.2 Challenges

Residents were also asked what they saw as challenges facing their Town, or expressed another way, things they would like to see change. A summary of the challenges identified by local residents is summarized below.

1. <u>Agriculture</u>. Residents expressed their concern over the potential loss of Agribusinesses & Prime Farmland and stated that it would be a challenge to retain these resources in the future. Of particular concern was how to increase the profitability of farming. Resident's spoke of the need to identify niche agri-businesses or valueadded agriculture in the Town to help increase profitability of farming.

2. <u>Sense of Community</u>. Some residents felt that it would be a challenge to maintain community involvement in the future. This was, in part, the result of few employment opportunities for area youth coupled with the rising cost of housing that prices a lot of young families out of the housing market. Providing job opportunities and affordable housing will be a continuing challenge according to residents. "The Town's NATURAL RESOURCES INCLUDING ITS NIGHT SKY, LAKES, STREAMS AND WILDLIFE WERE VIEWED BY RESIDENTS AS ASSETS THAT DEFINED THE TRANQUILITY AND BEAUTY OF THE TOWN OF NEW LISBON."

Visioning Session

3. <u>Parks & Open Space</u>. While residents were generally satisfied with the Town's recreational facilities there was a desire for additional recreational opportunities. Providing additional recreational opportunities was seen by local residents to be a challenge, in part, due to the cost of providing such facilities.

4. <u>Historic Resources</u>. The preservation of historic barns in the Town was another challenge that was cited by local residents. The Town's only National Register of Historic Places listed property – an octagon barn – was lost as a result of disrepair. Providing programs to help property owners to preserve such resources was seen as a challenge according to its residents.

5. <u>Local Businesses</u>. A number of residents spoke of a time when there was a General Store in the hamlet of New Lisbon and a local hardware store in Garrattsville. Residents now have to travel to other towns to buy food or other essentials that used to be available locally. Finding a way to attract small businesses to provide these services within the Town will be a challenge according to local residents.

6. <u>Natural Resources</u>. Some of the challenges affecting the goal of natural resource protection include invasive plants, the burning of garbage, solid waste disposal and the loss of night sky as more development occurs within the Town. Another challenge cited by residents was finding alternatives to fossil fuels to mitigate the effects of escalating fuel cost.

7. <u>Population</u>. While some residents saw the stability of the Town's population as an Asset – others saw the lack of population growth as a challenge to maintaining the long-term vitality of the community. The 2000 Census reveals that between 1990 and 2000 the Town's population actually increased from 996 persons to 1,116 persons – or 12%. Between 2000 and 2006 the population increased from 1,116 persons to 1,174 persons – a 5.2% increase.

8. <u>Property Rights</u>. A number of residents felt that protecting property owner rights was a challenge. Residents expressed their concerns that land use regulations not be so restrictive to infringe on property rights. Other residents felt that more land use regulations were needed in the Town to protect their property values in the face of activities on neighboring properties that could cause a nuisance such as junk vehicles.

9. <u>Transportation</u>. Finding a way to provide more public transportation was a transportation challenge cited by local residents. So too was controlling speeding on area roads.

10. <u>Local Government</u>. It will continue to be a challenge for the Town to maintain infrastructure without increasing taxes.

11. <u>Utilities</u>. Securing high-speed internet and reliable cell service. There is also the ongoing threat of power lines, such as Marcy South, scarring the landscape and the need to regulate wind towers in some manner. "According to resident comments, retaining *"Night Sky"* in the face of growing development pressure will be a challenge facing the Town in years ahead."

Visioning Session

12. <u>Property Maintenance</u>. Residents expressed their concern over tires and appliances being dumped on the side of area roads. They were also concerned about the storage of junk vehicles and cars on local properties. Such activities detract from the natural beauty of the Town. Residents felt that it would be a challenge to address such concerns in the future.

3.2 Community Character SurveyTM

During the September 26, 2007 Visioning Session, 40 residents participated in a Community Character Survey. The Community Character Survey (CCS) is a planning instrument that was developed by Planit Main Street, Inc. to ascertain residents' preferences for various aspects of the community.

We begin with the premise that there are common attributes of development that people find visually appealing or not. We can, in turn, ascertain community preferences by conducting a survey involving members of the community.

To determine resident preferences, participants were shown a variety of images that suggest different aspects of community character. The first set of images related to commercial and/or industrial development. The second set of images related to residential development and the third set of images focused on the landscape. Residents were asked to rate each of these images on a scale of -5 to +5 (negative vs. positive) on the survey forms. All of the images that are included in the Community Character SurveyTM are carefully chosen to reflect both the best and worst attributes of development and the landscape. In an ideal world, good design would simply happen. In reality, it is more often shaped by developer preferences within a framework of community land-use tools that help to ensure good design.

The photos of commercial and industrial development within the CCS included shopping centers, office buildings, stand-alone commercial buildings and downtown buildings. The images of residential development included single-family houses on small lots, large houses on large lots, townhouses, village streetscapes and suburban residential development. The landscape images focused on the natural environment. Included were photos of the Butternut Creek, local farms, as well as views from public rights-of-way that were either enhanced or diminished by man-made development.

Those images that most represented what participants would like to see in their community, or what they found to be visually appealing, were given a positive rating. Those images that reflected things they did not want to see in their community, or that they found visually unappealing, were given a negative rating. The greater the preference the higher the score and vice versa. A weighted average based upon resident responses was then tabulated.

"IN AN IDEAL WORLD, GOOD **DESIGN WOULD** SIMPLY HAPPEN. IN REALITY, IT IS MORE OFTEN SHAPED BY DEVELOPER PREFERENCES WITHIN A FRAMEWORK OF COMMUNITY LAND USE TOOLS THAT HELP TO ENSURE GOOD DESIGN."

An analysis of the survey responses is provided below along with a discussion of some of the land use decisions that likely affected the character of development that was represented in the photo. The Community Character Survey revealed strong and consistent preferences among participants. These results give us solid insights into the community's values regarding design and future land-use development. An interpretation of those values is provided below.

Highly rated attributes of commercial and industrial uses.

- Small businesses that are appropriate to the scale of development within the Town of New Lisbon;
- Businesses that would compliment the rural character of New Lisbon such as Bed & Breakfast establishments and campgrounds;
- Locally established businesses;
- Buildings with quality design;
- Signage that complemented the architectural design of buildings; and
- Property that was neat and wellmaintained.

Five Highest-Rated Commercial Images

Two images received a weighted average of +3.2 overall based upon participant responses to the Community Character SurveyTM. What are some of the factors that contributed to the appeal of these developments?

One factor is the well-maintained and neat appearance of the first two properties. The top photo shows the U.S. Post Office on Main Street in Morris, New York. Factors that contribute to its overall positive rating include neat appearance, articulation of the façade, large windows and signage that complements the architecture of the building.

The second building, circa 2006, is located in Marbletown, NY. Positive elements of this image include the signage, architecture of the building and rural setting. Notice how the offstreet parking is tucked away from the public right-of-way out of public view. The third highest rated image is home to a bed & breakfast establishment in the historic Village of Montgomery. The building has retained its historic character and is well-maintained. The picket fence and neat appearance of the property make it attractive. Signage is not overpowering.

The Yogi Bear's Jellystone Park sign received a score of 2.9. The signage for the campground is appropriate for the rural landscape, neat in appearance and not excessively large. This image likely also received a positive rating based upon resident's feeling that such uses were appropriate to the Town of New Lisbon.

Positive aspects of the last image include welldefined and placed signage that is appropriate in scale to the streetscape and building, large display windows, clean sidewalks and clean streets.



Above: Highest-rated images.

Attributes of lowest-rated commercial and industrial images.

- Corridors where signs are not uniform and/or excessive in size resulting in visual clutter along the streetscape;
- Poorly-maintained commercial properties;
- Commercial buildings with little architectural design;
- Off-premises advertising signs or billboards that detract from the natural environment due to their placement and/or poor maintenance;
- Commercial sites where parking lots are not screened from the public right-of-way with landscaping;
- Commercial properties without any landscaping;
- Large big-box buildings with large expanses of off-street parking;
- Commercial strip-retail corridors;
- Commercial buildings that were out of character with surrounding buildings in terms of building materials, placement, and/or design (e.g. house surrounded by strip commercial in second image from top); and
- Commercial corridors without street trees or landscape median between the public sidewalks and the vehicular right-of-way.

Five Lowest-Rated Commercial Images

The lowest-rated commercial image (with a weighted average score of -4.4) incorporates many of the undesirable attributes listed above. The image at the top is a strip retail corridor that is dominated by large pole signs that create visual clutter. The second image shows an older strip commercial corridor. The attributes that contributed to the negative rating include the presence of billboards, lack of landscaping and general unsightliness of the corridor.

The third image is a big-box warehouse distribution center that is surrounded by a sea of asphalt with little in the way of landscaping. The size of this structure and lack of landscaping would be inappropriate within the Town of New Lisbon. The latter factor also contributed to the negative rating. The fourth lowest rated image is the Home Depot in Middletown, NY. Visually unappealing aspects of this development include the sea of asphalt and lack of landscaping within the parking lot and cookie cutter big box building. The scale of this building would also be out of character with the Town of New Lisbon and that also likely contributed to the negative rating it was given by local residents.

The fifth lowest rated image shows a corridor with off-premises advertising signs, poorly maintained properties, and a noticeable lack of landscaping associated with the commercial properties. The combination of these factors results in an unappealing environment.



Above: Lowest-rated images.

Attributes of the highest-rated residential developments.

- Houses with trees and a modest lawn;
- Houses properly oriented to the street;
- Attractive design of residential buildings in terms of architecture, scale, building placement and type of materials used;
- Houses that define the traditional rural residential architecture of the Town of New Lisbon;
- Houses that are set on larger lots and that are set back from the road;
- Houses with lawns that are wellmaintained and void of outdoor storage of materials such as junk cars;
- Houses with garages that are located behind the house;
- Houses with front porches; and
- Good quality, well-maintained and welldesigned housing.

"THE DESIGN, PLACEMENT AND MAINTENANCE OF RESIDENTIAL PROPERTIES WERE TWO OF THE MOST IMPORTANT FACTORS AFFECTING WHETHER SURVEY PARTICIPANTS PERCEIVED THEM AS POSITIVE OR NEGATIVE."

Three Highest-Rated Residential Images

A factor that contributed to the positive rating of the top three residential developments include well-maintained houses with nicely landscaped lawns. In the highest-rated images, the architecture of the houses – in addition to trees and lawns – contributed to the positive rating of these images by local residents.

The highest rated image is a house on County Route 14 located on the edge of the New Lisbon hamlet. Visually appealing aspects of this property include the architecture of the historic house, its placement on the lot and the neat appearance of the property. The second-highest rated residential image is that of an historic house in North Franklin, NY. This image shares many of the positive attributes as the highest rated image shown above but also includes the stone wall that also enhances the property.

The third highest rated image is of the Morehouse Farm on NYS Route 51. The nicely landscaped and neat appearance of the property contributed the positive rating. So too does the historic architecture of the house including the front porch, duel chimneys and the painting of the house that compliments the historic property.

Overall, the design, placement and maintenance of residential properties were two of the most important factors affecting whether survey participants perceived them as positive or negative.







Above: Highest-rated residential images from the Community Character Survey. Each image reflects the rural housing styles that are in keeping with the character of the Town of New Lisbon.

Attributes of the lowest-rated residential developments.

- Cookie-cutter or poorly-designed houses;
- Streetscapes without street trees or sidewalks;
- Garages that dominate the house (e.g. the "garage with attached house" effect);
- Excessively wide street right-of-way where the proportion of the street to building height is greater than 2:1;
- Housing sites that are clear-cut of existing vegetation;
- Housing where parked vehicles dominate the streetscape, but not the housing; and
- Poor placement of houses so that the privacy of neighbors is violated.

Three Lowest-Rated Residential Images

Factors that contributed to the negative rating of the lowest-rated residential image include wide streets with no street trees. The townhouses are situated on small lots with a large number of units in each building that makes them appear to be stacked upon one another. The design of the townhouses, with the garage doors projecting out from the residential area of the house, results in the garage dominating the facade. The provision of street trees and additional landscaping on individual lots would help to improve the aesthetics of this streetscape.

The second lowest-rated residential image shows a new single-family housing development where the houses are poorly sited and sparsely landscaped. The neighborhood looks cluttered and the orientation of the houses is such that front yards face back yards in some instances. These features contributed to the negative rating of this photo.

The factors that likely contributed to the lower rating of the garden apartments (bottom image) include cookie-cutter units, no provision of sidewalks and the excessive length of the building wall that results in a massive or barracklooking structure.

The townhouses and multi-family apartments also likely received a negative rating since this style of housing is not found within the existing settlement pattern of the Town of New Lisbon.

Public Participation







Above: Lowest-rated residential images from the Community Character Survey.

New Lisbon, New York

Above: This welcome sign received a high

rating from local residents and might serve as

an example for the Town of New Lisbon.

New Lisbon

Attributes of the highest-rated landscapes.

- Natural resources such as rivers and streams; and
- Neat and well-maintained properties along rural highways;
- Development that respects the historic character of the Town;
- Farms and farmland; and
- Images from the Town of New Lisbon that represent the rural character of the Town.



The highest-rated image shows a winter scene of the Butternut Creek as viewed from the bridge in the hamlet of New Lisbon. The Butternut Creek helps to define the rural character of the Town of New Lisbon as it winds its way through the center of the Town. The riparian areas along the Butternut Creek, that include mature trees and wetland vegetation, also provide a valuable open space buffer through the center of the Town. The Butternut Creek also provides scenic vistas that help to define the historic character of the Town. It is important to protect the riparian areas along the river from encroachment to conserve important buffers and vistas.

The second highest-rated image shows NYS Route 51 looking south toward the Town of Morris boundary line. The rural landscape as defined by the farmland - coupled with the historic barns, silos and other buildings in the background - form a visually appealing and bucolic setting that epitomize the rural character of New Lisbon. Each one of these attributes contributed to the positive rating of the image.

The third highest-rated image shows pasture and cattle grazing showing that agriculture is highly valued by residents. In addition to these three images, the other highly rated photos were of scenic views and historic buildings. Farmland, historic properties and natural resources were aspects of the landscape that many residents rated highest and valued the most.







Above: Highest-rated landscapes from the Community Character Survey.

Public Participation

Attributes of lowest-rated landscapes.

- Industrial uses with outdoor storage that is not screened from the public right-ofway;
- Large scale developments with signage and/or flags that overpower the natural landscape;
- Poorly maintained properties;
- Off-premises advertising signs aka billboards;
- Seasonal campers that are not wellmaintained or properly sited; and
- Development that does not complement the natural landscape.

"HISTORIC BUILDINGS, WELL-MAINTAINED PROPERTIES, AND NATURAL RESOURCES SUCH AS BUTTERNUT CREEK WERE THE ASPECTS OF THE TOWN'S LANDSCAPE THAT MANY RESIDENTS RATED VERY HIGHLY."

Three Lowest-Rated Landscape Images

The lowest-rated image, shown in the photo to the right, shows a rural roadway blighted by the presence of an industrial business where materials are not screened from public view. The chain link fence adds to the unappealing appearance of this industrial property. Placing the materials behind the building and providing a berm or opaque fencing to screen the storage of materials from public view would improve the aesthetics of this industrial site.

The second lowest-rated image shows the baseball complex in the nearby Town of Hartwick off of Route 28. The shear size of the complex, coupled with the presence of a multitude of flags, results in a visually unappealing man-made environment that overpowers the natural environment. While there is green space in front of the baseball complex, the plantings are too sparse to provide a true visual buffer. The massive size of the complex dominates the landscape. The low rating conveys that residents do not feel this type of development is appropriate within the Town.

The third lowest-rated image is that of a road that is dominated by billboards that are not wellmaintained. The billboard detracts from the natural landscape. The low rating also shows that residents would not like to see billboards dominating their landscape. The seasonal camper received a low rating due to its poor maintenance and placement.





Above: Lowest-rated landscapes from the Community Character Survey.

3.3 Resident Survey

In June of 2007, the Committee created a Comprehensive Plan Survey to get additional public input into issues that should be addressed in the Town's new Comprehensive Plan. The surveys were mailed to a list of 704 residents in the Town of New Lisbon. A total of 202 surveys were returned by the mid-July deadline resulting in a 28.69% response rate. There was also a good geographic distribution of responses from throughout the Town.

Overview of Survey Responses

Respondents were asked what they considered their primary residence. Of those that responded, 66.83% indicated their primary residence was in the Town of New Lisbon and another 7.92% the hamlet of Garrattsville. A total of 5.45% indicated their primary residence was elsewhere in Otsego County, 5.94% the New York Metropolitan Area and 12.38% had a primary residence elsewhere. The majority of the respondents (50.5%) indicated that they have lived in the Town for more than 20 years. This was followed by 18.32% who indicated they lived in the Town for 11-20 years, 12.87% who lived in the Town for 6-10 years, 10.89% who lived in the Town for 1-5 years and 1.98% indicating they lived in the Town for less than one year. Based upon the response rate, geographic, and age distribution of respondents, the survey results represent a pretty good measure of community values and opinions.

New Lisbon, New York

What follows is a highlight of some survey responses. A complete summary of responses is in the appendices of this Plan.

Highlights from Comprehensive Plan Survey

Issues of Importance:

Residents were given a list of issues and asked to rate each by their level of importance to them. The highest-rated issue was that of protecting private property rights (75% very important). This was followed by community services (59%), preserving the rural character of the Town (56%), farming and agriculture as an industry (55.9%) and protecting scenic views (55.9%). The availability of shopping and restaurants was the issue with the highest "not important" rating (52.48%), followed by design of commercial development (34.65%) and employment opportunities (29.7%).

Rating of services and community attributes:

Residents were given a list of attributes and asked to rate them as "Excellent", "Good", or "Poor". The highest "Excellent" ratings went to community services and quality of life both at (30.69%), accessibility to the surrounding region (21.78%) and agriculture & farming along with the quality of the school district at (16.34%) respectively. Those items that received the highest "Poor" rating included employment opportunities (75.74%) and senior housing opportunities (66.34%).

"THE COMPREHENSIVE PLAN SURVEYS WERE MAILED TO A LIST OF 704 TOWN RESIDENTS WITH 202 RESIDENTS RESPONDING. THIS REPRESENTED A RESPONSE RATE OF 28.69%."

Resident Survey

Land use regulations:

Sixty six percent (66%) of respondents agreed that the Town should adopt design and landscaping standards for new commercial and industrial development when asked this question. Residents were given a list of land use regulations and asked whether the Town needed to strengthen its regulation of such activities. The overall response was to strengthen the regulations in all areas. Those uses with the highest response for stronger regulation included: protecting the right-to-farm (91%), protection of natural resources (88%), protecting the right to timber (87%), protecting historic resources (83%), regulation of junk vehicle storage (82%) and regulating the placement of mobile homes (75%).

Residents were also asked how important it was for the Planning Board to review various aspects of site plans for new commercial and industrial developments. The majority agreed that all aspects were "Very Important." The top three aspects that the respondents felt were "Very Important" to the Planning Board review were protection of nearby streams and hillsides (72%). potential impacts on nearby farming operations (66%), and assessing the potential impact on natural or scenic resources (63%). These responses suggest a desire by the community for greater protection of natural resources especially streams and hillsides - and greater protection of farming along with better regulation of junk vehicles.

<u>What types of commercial and/or industrial</u> <u>development should the Town encourage</u>?

From a list of specific land uses, residents were asked to select those uses that should be encouraged in the Town. Businesses that support the agricultural community were favored by 63% of respondents. This was followed by home office occupations (57%), tourism-related and outdoor recreation (54%) and retail stores & personal service establishments (42%).

Manufacturing and large-scale light industrial was only favored by 11.4% of the respondents. When asked where small-scale retail growth should be directed, most respondents favored the following areas: hamlets of Garrattsville or New Lisbon (48%) or within designated areas along County or State Roads (48%). Less than 20% favored small-scale retail anywhere in the Town. The ability to restrict such uses to designated areas, however, will require some form of Zoning within the Town of New Lisbon.

When asked where small-scale light industrial growth should be directed, the most frequent responses were those that favored allowing such uses only within designated areas along County or State Roads (45%). Nearly twenty (20%) percent of the respondents felt that small-scale light industrial uses should not be allowed anywhere within the Town. Fifteen percent (15%) of respondents felt that small-scale industrial uses should be allowed anywhere within the Town of New Lisbon.

"THE TOP THREE ASPECTS THAT THE **RESPONDENTS FELT** WERE "VERY IMPORTANT" TO THE PLANNING BOARD **REVIEW WERE PROTECTION OF** NEARBY STREAMS (72%), potential IMPACTS ON NEARBY FARMING OPERATIONS (66%), AND ASSESSING THE POTENTIAL IMPACT **ON NATURAL** RESOURCES (63%)."

Resident Survey

Residents were also asked what types of public recreation activities they would like to see in the Town. The most frequent response was off-road hiking and biking trails (53%), fishing and boating access areas (48%), cross country ski trails (34%) and bicycle lanes along State and County highways (33%). Snowmobile and equestrian trails were favored by 29% of the respondents respectively.

The above responses suggest that residents are looking for additional outdoor recreational The types of facilities that are activities. preferred can be developed within the Town, but will require the cooperation of local land owners and/or State agencies such as the New York State Department of Parks, Recreation and Historic Preservation or New York State Department of Environmental Conservation (NYSDEC). For example, NYSDEC could assist in developing public access points to the Butternut Creek. There are clearly opportunities to expand public recreational activities within the Texas Schoolhouse State Forest but that will also require Town/State cooperation.

Appropriate land uses for the Town:

Residents were given a list of land uses and asked to chose whether the uses were "Very Appropriate", "Appropriate", or "Inappropriate" to the community. Those land uses that received the highest "Very Appropriate" rating were agricultural businesses (60%), singlefamily homes (55%), wind farms (29%), Bed &

New Lisbon, New York

Breakfast Establishments (25%), small-scale retail (23%) and golf course and other outdoor recreation (22%). Those land uses that received the highest "Inappropriate" ratings were prisons (86%), big box retail stores (78%), junk yards (74%), franchise or chain hotels (71%), mining operations (66%), strip retail centers (65%), mobile home parks (64%) and townhouses (60%). The responses to the survey suggest that residents preferred to allow those land uses that would complement the rural character of the community and to discourage those land uses that they perceived would have an adverse impact on the community or detract from its rural character. While the Town can influence the character of development through its Site Plan Review Law, it cannot exclude certain land uses without a Zoning Law. With Zoning, a list of permitted uses can be created by the Town.

Subdivisions:

Residents were asked the degree to which they were concerned about the loss of open space due to subdivisions. Those that indicated that they were "Very Concerned" (49%) and "Somewhat Concerned" (28%). Only (14%) responded that they were "Not Concerned." The Town has seen an increase in the number of subdivisions in recent years often resulting in the loss of farmland. According to the Otsego County Real Property Tax Office there were 964 parcels of land in the Town of New Lisbon in 1995. By 2004, that number had increased to 1,028 or a 6.6% increase in the number of tax parcels.

"RESIDENTS WERE ALSO ASKED WHAT TYPE OF RECREATIONAL **ACTIVITIES THEY** WOULD LIKE TO SEE MORE OF IN THE TOWN. THE MOST FREQUENT **RESPONSES** CHECKED WERE OFF-**ROAD HIKING AND BIKING TRAILS.** FOLLOWED BY **FISHING AND BOATING ACCESS** AREAS."

Resident Survey

In another question, residents were asked how important it is that natural features (e.g. hedgerows, ridgelines and stone walls) be preserved when properties are subdivided. Most respondents (51%) felt it was very important and another (31%) felt it was important. Only (11%) felt that it was not important.

The protection of natural features is something the Planning Board can encourage through the subdivision review process. New York State Town Law also grants the Town Board the authority to enact provisions to require conservation subdivisions. This is a very effective means of retaining open space and preserving natural features on properties while allowing the developer to get a return on their investment. A much more detailed discussion regarding conservation subdivisions is provided in Chapter 11.0 - Land Use Regulations.

Ag and Farmland Protection:

When asked whether the Town should preserve and protect farmland from non-agricultural development, 53% of respondents "Strongly Agreed", 23% "Agreed", with only 15.84% disagreeing. The survey responses indicate strong community support for greater agriculture and farmland preservation efforts in the Town of New Lisbon. Given that 75% of respondents felt that private property rights was a very important issue, measures to retain farmland in production must respect private property rights. Where would you like to see the community in the next 10-20 years?

Residents were asked to indicate how important a variety of goals were to the community's future. While too numerous to describe in their entirety here, those goals that received the highest "Very Important" rating are listed below:

- Clean and green environment (74%);
- Preserving existing farms (71%);
- Preservation of historic resources (53%);
- New buildings that respect Town Character (50%);
- Sustainable energy (36%);
- Better recreational opportunities for area residents (25%); and
- More affordable housing opportunities (24%).

Other Comments:

Residents also provided comments in the margins on the surveys or in response to Question # 22. While too numerous to describe in their entirety here, some of the key suggestions are listed below:

- Strengthen hamlet centers in the Town;
- Carefully situate development away from environmentally sensitive areas;
- Site plan review must be used to ensure good design of new development;
- Preserve old school house in New Lisbon;

"THE PROTECTION OF NATURAL FEATURES OF SITES (E.G. HEDGEROWS, **RIDGELINES AND** STONE WALLS) IS SOMETHING THE PLANNING BOARD CAN **ENCOURAGE** THROUGH THE SUBDIVISION REVIEW PROCESS."

- Maintain dirt roads to reduce future maintenance costs and to preserve rural character of the Town;
- Better regulation of noises;
- Need to develop infrastructure for highspeed internet;
- Improve code enforcement related to junk vehicles;
- Vacation homes should be built to same standards as year-round housing;
- Encourage self-sufficiency in Town;
- Prefer less regulations;
- Better siting and regulation of mobile homes;
- Site buildings on larger lots and require preservation of tree buffers so new development blends into rural landscape and does not dominate the surrounding area;
- Encourage better property maintenance;
- Better promote history of the Town including better directional signage for historic sites;
- Promote eco-friendly tourism;
- Develop horse trail network within the Town;
- More affordable housing opportunities;
- Maintain rural farming character of the Town – it's a treasure;
- Encourage everyone to take pride in their property to reduce need for regulation; and
- Keep New Lisbon the ways it is.

3.3 Committee Meeting Notes

June 27, 2007 Meeting

- Strong consensus that there should not be strip retail development; and
- Need more employment opportunities.

July 27, 2007 Meeting

- Concept of scenic-byway for NYS Route 51 discussed and well-received;
- Concern with loss if historic resources;
- The lack of a minimum lot size for subdivisions was a concern along with the creation of finger lots;
- Better standards are needed to regulate driveway grades to avoid steep driveways;
- Need better regulation of junkyards;
- There is a need for manufactured home regulations; and
- A need for additional employment opportunities for local residents.

August 21, 2007 Meeting

- This was a training session for the Committee focusing on subdivisions and site plan review – coupled with a Q& A session.
- Discussed the point that if the desire of community is to have different densities in different parts of the Town it was better to have Zoning Laws.

New Lisbon

September 26, 2007 Meeting

 This was the public Visioning Session summarized in Section 3.1 & 3.2 of this Chapter.

October 30, 2007Meeting

- Discussed the need to regulate wind energyto allow on-farm and homebased wind turbines as-of-right but to provide regulations of commercial wind turbines to protect Town infrastructure;
- Need to better regulate new development so that no new "eyesores" are created in the Town;
- There is a need to regulate certain land uses so that they do not cause a nuisance to neighbors; and
- There is also a need to protect the rightto-farm and in particular to protect farmers from complaints from neighbors associated with the operation of their farms.

Summary

The community input received through the participation process helped the public Comprehensive Plan Committee to focus on those issues that were important to local residents. Public input through this process shows a clear desire to preserve the rural character of the Town; preserve agriculture and farmlands in the Town, allow for growth in small businesses that provide job opportunities for area residents; protect the Town's natural resources; and ensure good quality in the design of new residential. commercial and industrial development.

In Chapter 4 – Population & Housing we will explore recent population, housing and employment trends in the New Lisbon in the context of the Town of New Lisbon and Otsego County. Looking at these trends will help to understand the changing needs in the Community, those areas where additional resources may be required in the future, as well as providing an historical perspective in which to gauge current demographic and housing trends.

CHAPTER 4.0 - POPULATION & HOUSING

4.1 Population Characteristics

Between 1950 and 2006, the Town's population increased from 877 to 1,174 persons – a 33.8% increase. This was significantly higher than the 23.19% increase of Otsego County during this period of time. Between 1990 and 2000, the Town population increased 12%, more than six (6) times the Otsego County rate of increase of 1.9%. The 2006 Census population estimates show the Town's population growing by 5.2% between 2000 and 2006 – the County rate of growth for this time period is 1.4%.

Between 1990 and 2000, the Town was one of the fastest growing municipalities in the County with a growth rate of 12%. During this time, the Town of Hartwick's population grew by 7.7%, the Town of Millford by 3.2% and the Town of Morris 4.9% (see Table 4-3).

The Town's population by age group is comparable to that of Otsego County (see Table 4-2). A total of 24.8% of the Town's population is 55 years of age or older compared to 24.7% for the County. As this population ages, the need for services to serve the Town's senior population will grow such as in the area of public transportation. In 2000, the percent of persons 20-24 years old in the Town was 3.5%, significantly less than the County rate of 9.3%.

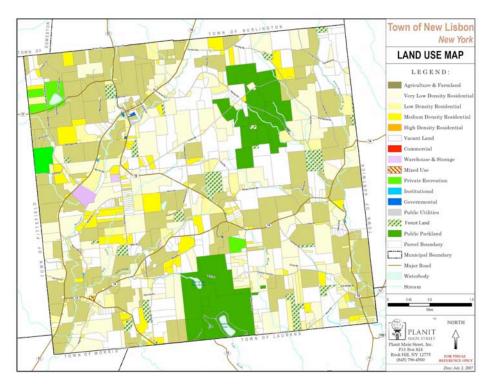


Table 4-1 Population Trends						
	New Li	sbon	Otse	ego County		
Year	Population	Change	Population	Change		
1050			7 0 000			
1950	877	NA	50,800	NA		
1960	812	-7.4%	51,942	2.24%		
1970	823	1.4%	56,181	19.3%		
1980	948	15.2%	59,075	5.1%		
1990	996	5.06%	60,517	2.4%		
2000	1,116	12.0%	61,676	1.9%		
2006	1,174	5.2%	62,583	1.4%		

Looking ahead, the Town of New Lisbon is likely to continue to experience double-digit population growth during the next decade. Over the last forty-five (45) years, the Town has done an effective job of managing new development in a manner that has respects the character of the Town. However, the need to focus on the design of new development will grow increasingly important as development pressure from Cooperstown spills over into New Lisbon. How future properties are developed will determine the future character of the Town.

Second home growth (see Table 4-12) will continue to fuel future population growth as second homeowners choose to retire in the Town. Future population growth will also spur new commercial growth. When this occurs, it will be important that the design of new buildings complement the character of the Town. Further discussion regarding design is provided in Chapter 11 - Land Use & Zoning.

	Table 4-2 Population by Age, 2000 New Lisbon vs. Otsego County											
Years	Town of New Lisbon	%	Otsego County	%								
+0-4	65	5.8%	2,945	4.8%								
5-9	66	5.9%	3,825	6.2%								
10-14	97	8.7%	4,359	7.1%								
15-19	88	7.9%	6,018	9.8%								
20-24	39	3.5%	5,728	9.3%								
25-34	116	10.4%	6,299	10.2%								
35-44	185	16.6%	8,677	14.1%								
45-54	183	16.4%	8,573	13.9%								
55-59	67	6.0%	3,393	5.5%								
60-64	54	4.8%	2,580	4.2%								
65-74	81	7.3%	4,654	7.5%								
75-84	58	5.2%	3,402	5.5%								
85+	17	1.5%	1,223	2.0%								
Total	1,116	100.0%	61,676	100.0%								

"LOOKING AHEAD, **NEW LISBON IS** LIKELY TO CONTINUE TO EXPERIENCE DOUBLE-DIGIT POPULATION **GROWTH DURING** THE NEXT DECADE AND IT MUST BE PREPARED TO MANAGE THIS **GROWTH IF IT IS TO RETAIN ITS** COMMUNITY CHARACTER."

%Chg. '60-70 1980 8.7% 17,558,165 19.3% 59.075		1990 17,990,778		2000	%Chg. '90-00	2006	%Chg.	Persons per
8.7% 17,558,165				2000	'90-00	2006	100.00	
	-3.7%	17,990,778				2000	'00-06	Sq. Mi.
19.3% 59.075		/ /	2.5%	18,976,457	5.5%	19,306,183	1.7%	402
	5.1%	60,517	2.4%	61,676	1.9%	62,583	1.4%	61.5
16.5% 1,796	10.1%	2,045	13.9%	2,203	7.7%	2,226	0.9%	27.3
1.4% 948	15.2%	996	5.1%	1,116	12.0%	1,174	5.2%	26.2
15.5% 2,101	21.4%	2,349	11.8%	2,402	2.2%	2,417	2.2%	26.9
20.1% 2,685	8.0%	2,845	6.0%	2,938	3.2%	2,929	0.0%	34.2
6.8% 1,780	9.2%	1,787	0.0%	1,876	4.9%	1,886	0.0%	22.0
	· · · ·					6.8% 1,780 9.2% 1,787 0.0% 1,876 4.9% Towns **Reflects Town of New Lisbon Population less the Town Population. ***/ ***/ ***/ ***/ ***/ ***/ ***/ ***/ ***/ ***/ ***/ ***/ ***/ ***/ ***/ ***/ *** <		

The Town of New Lisbon is a fairly homogeneous community with respect to Race & Hispanic Origin. According to the 2000 Census; 97.3% of the Town's population was white, 0.9% black, 0.2% American Indian, 0.4% Asian, and 0.4% some other race. This mirrored the Town of Morris's population. The County is slightly more heterogeneous (see Table 4-5). According to the 2000 Census, 1.3% of the Town's population is of Hispanic Origin. This again mirrors statistics for the adjacent Town of Morris were 1.7% were of Hispanic origin in 2000. In 2000, 1.9% of County residents were reported to be of Hispanic origin.

Table 4-4 New Lisbon, New York Population by Age 1990 & 2000											
Age	1990		2000								
Cohort	Population	%	Population	%							
0-4	73	7.3	58	5.8							
5-17 or											
5-14(2000)*	195	19.6	163	14.6							
18-24 or											
15-24(2000)	72	7.3	127	11.4							
25-44	294	29.5	301	27.0							
45-54	111	11.1	183	16.4							
55-64	109	10.9	121	10.8							
65+	142	14.3	156	14.0							
Total	996	100.00	1,116	100.00							
Median Age			40.2								
<i>Source:</i> U.S. Cen) & 2000								
*Age cohorts reco	orded varied be	tween 1990) & 2000								

Table 4-5 Race and Hispanic Origin Year 2000													
	Town of New I	Lisbon	Town of Mo	rris	Otsego County								
	Population	%	Population	%	Population	%							
Total	1,116	100.00	1,867	100.00	61,676	100.00							
White	1,086	97.3	1,808	96.8	59,083	95.8							
Black	10	0.9	12	0.6	1,079	1.7							
American Indian	2	0.2	2	0.1	141	0.2							
Asian	5	0.4	4	0.2	390	0.6							
Native Hawaiian or PI	0	0.0	2	0.2	31	0.1							
Some Other Race	5	0.4	16	0.9	306	0.5							
Hispanic**	15	1.3	31	1.7	1,171	1.9							
Average Household													
Size	2.59		2.53		2.43								
Source: U.S. Census Burea white/Hispanic, black/Hispan					t race. A person may consider egories will add up to 100%.	them self							

"THE TOWN OF NEW LISBON IS A FAIRLY HOMOGENEOUS COMMUNITY. ACCORDING TO THE 2000 **CENSUS: 97.3%** OF THE TOWN'S POPULATION WAS WHITE, 0.9% BLACK, 0.2% AMERICAN INDIAN, AND 0.4% SOME OTHER RACE. THIS WAS SIMILAR TO OTSEGO COUNTY'S POPULATION."

The Town has a well-educated population and recent trends show a growing level of educational attainment among local residents between 1990 and 2000. In 2000, the U.S. Bureau of the Census reported that 84.7% of Town residents had at least a high school diploma. The Otsego County rate was slightly lower at 82.9%.

The number of Town residents possessing an Associates Degree increased from 5.9% to 7.1% between 1990 and 2000. During this time, the percent of Town residents with a Bachelors Degree or higher increased from 6.7% to 11.9%, while the number grew from 46 to 91. The County rate during this time only increased from 11.2% to 12.2% - showing that the gap in the level of educational attainment between the Town and County had narrowed significantly.

Another significant trend in educational attainment related to the percentage of persons possessing a graduate or professional degree in the Town. Between 1990 and 2000, the number of persons in the Town with a graduate or professional degree increased from 25 to 47, an 88% increase. The percentage of residents with a graduate or professional degree nearly doubled between 1990 and 2000, increasing from 6.2% to 12.0%. This represents a 97.8% increase.

There are two factors influencing educational attainment within the Town. The first factor is residents who may have pursued higher education between 1990 and 2000. The second factor is the educational attainment of new residents who have moved into the Town between 1990 and 2000. Both factors have contributed to higher educational attainment.

"PERCENT OF RESIDENTS WITH A BACHELOR'S DEGREE — 11.9%.

PERCENT OF TOWN RESIDENT'S WITH A GRADUATE OR PROFESSIONAL DEGREE 6.2% - WITH A PERCENT INCREASE OF 88% BETWEEN 1990 AND 2000."

		Table 4-6	Trends i	n Educatio	onal Attaiı	nment				
Educational	New	v Lisbon, N	New Yor	k		Otsego	County		Percent	Percent
Attainment	Tre	nds from 1	990-200	0	Т	rends fron	n 1990-200)0	Change	Change
	1990		2000		1990		2000		TOWN	COUNTY
		%		%		%		%		
Total Persons 25 Years and over	683	100.0%	764	100.0%	36,679	100.0%	38,808	100.0%	11.8%	5.8%
Less Than 9th Grade	48	7.1%	26	3.4%	2,964	8.1%	2,006	5.2%	-45.9%	-32.3%
9th-12th, no diploma	119	17.4%	91	11.9%	5,221	14.2%	4,599	11.9%	-23.5%	-11.9%
High school graduate	277	40.6%	335	43.8%	13,044	35.6%	13,461	34.7%	20.9%	3.2%
Some college, no degree	128	18.7%	120	15.7%	5,308	14.5%	6,791	17.5%	-0.6%	27.9%
Associate's degree	40	5.9%	54	7.1%	2,844	7.8%	3,403	8.8%	25.9%	19.7%
Bachelor's degree	46	6.7%	91	11.9%	4,119	11.2%	4,736	12.2%	97.8%	15.0%
Graduate or professional	25	3.7%	47	6.2%	3,179	8.7%	3,812	9.8%	88.0%	19.9%
Percent high school graduate or higher		75.5%		84.7%		77.7%		82.9%		
Percent Bachelors Degree or higher		10.4 %		18.1%		19.9%		22.0%		
Source: U.S. Census Bureau STF3 Data								•		

New Lisbon, New York

4.1.1 Employment by Industry

In 2000, 31.7% of the Town's labor force was employed in the Educational & Health Services Industry. This was slightly lower than the County where 31.8% of all workers were employed in this industry. A total of 59 workers, or 12.2%, of the local labor force were employed in Manufacturing in 2000. The Retail Trade industry employed 10.3 percent of its labor force and Agriculture was the fourth largest source of jobs. In 2000, a total of 47 persons, or 9.7% of the local labor force, was employed in Agriculture & Forestry. The sectors with the largest percentage growth were Arts & Entertainment, Education & Health Services, FIRE, and Communications - increasing by 167%, 85.5%, 81.3%, and 71.4% respectively.

"Between 1990 and 2000, the Town saw a 167 percent increase in the Arts & Entertainment industry."

	Ta	ble 4-7 La	bor Force	e & Employ	ment by In	ndustry				
Employment Characteristics (Age 16 and over)		Lisbon, Nev ends from 1			ŗ	0	County m 1990-2000)	Percent Change	Percent Change
	1990	%	2000	%	1990	%	2000	%	TOWN	COUNTY
Total										
Persons 16 Years and Over	761	100%	875	100%	48,034	100%	49,668	100%	15.0%	3.4%
In Labor Force	450	59.1%	507	57.9%	28,712	59.8%	31,687	63.8%	12.7%	10.4%
Civilian Labor Force	448	58.9%	505	57.7%	28,683	59.7%	31,662	63.7%	12.7%	10.4%
Employed	391	51.4%	485	55.4%	27,007	56.2%	27,601	55.6%		
Not Employed	57	7.5%	20	2.3%	1,676	3.5%	4,061	8.2%		
Not In Labor Force	311	40.9%	368	42.1%	19,332	40.2%	17,981	36.2%		
Industry										
Educational & Health Services	83	21.2%	154	31.7%	7,531	27.9%	8,787	31.8%	85.5%	16.7%
Manufacturing	61	15.6%	59	12.2%	3,374	12.5%	2,888	10.5%	-3.3%	-14.4%
Retail Trade	38	9.7%	50	10.3%	4,678	17.3%	3,274	11.9%	31.6%	-30.0%
Agriculture, forestry and mining	35	9.0%	47	9.7%	1,626	6.0%	1,206	4.4%	34.3%	-25.8%
Construction	46	11.8%	41	8.4%	1,863	6.9%	1,824	6.6%	-10.9%	-2.1%
Finance, Insurance & Real Estate (FIRE)	16	4.1%	29	6.0%	1,343	5.0%	1,471	5.3%	81.3%	9.5%
Transportation, warehousing & utilities	21	5.4%	28	5.8%	855	3.2%	907	3.3%	33.3%	6.1%
Arts, Entertainment & Recreation	6	1.5%	16	3.3%	301	1.1%	2,485	9.0%	166.7%	725.6%
Professional services	11	2.8%	16	3.3%	1,467	5.4%	1,300	4.7%	45.5%	-11.4%
Other Services (except public admin).	32	8.2%	16	3.3%	1,764	6.5%	1,099	4.0%	-50.0%	-37.7%
Communications and Information	7	1.8%	12	2.5%	516	1.9%	637	2.3%	71.4%	23.4%
Wholesale Trade	13	3.3%	10	2.1%	720	2.7%	534	1.9%	-23.1%	-25.8%
Public Administration	22	5.6%	7	1.4%	969	3.6%	1,189	4.3%	-68.2%	22.7%
Source: U.S. Census Bureau STF3 Data										

New Lisbon, New York

Within the Town, sixteen (16) jobs were lost in the Other Services Industry during the 1990's. This shift mirrored the County decline in the Other Services Industry. Between 1990 and 2000, there was also a decline in the Public Administration Industry – showing a decrease of 68.2%. Retail trade experienced a gain of 12 jobs between 1990 and 2000 - a 31.6% increase. The increase in persons employed in retail trade was likely influenced by growth in the greater Cooperstown Area and the Town of Hartwick.

The Town has still been able to retain a Agricultural Industry in the face of development pressures. In 1990, there were a total of thirty-five (35) persons employed in the Agricultural Industry. In 2000, the Census reported a total of 47 persons employed in this industry – a 34.3% increase. Within Otsego County, there were 1,030 farms in the Year 2000. The 2003, U.S. Census of Agriculture reported 1,020 farms in the County. Within the State, low profitability of farms threatens the future viability of farming.

Between 1990 and 2000, there were a number of industries that increased their employment numbers in the Town. Jobs in the FIRE Industry grew from 16 jobs in 1990 to 29 jobs in 2000 – a 13-job increase. *Preferred Mutual Insurance* created jobs in the FIRE industry in nearby Edmeston during this period. Employment in the Arts & Entertainment Industry grew from 6 jobs in 1990 to 16 in 2000 – a 10-job or 166.7% increase. The Town's historic character lends itself to continued growth in this Industry.

New Lisbon, New York

The new golf course on Elliot Road will further fuel such growth. Other industries that saw an increase in the number of jobs were in the Communications and Information; Professional Services; Retail Trade; and Transportation & Warehousing industries (see Table 4-7). In 1990, the top four industries in the Town comprised 58.30% of all employment. In 2000, the top four industries provided 63.9% of employment opportunities in the Town. These trends show less diversification of the local economy.

While a number of residents' work within the Town, a large percentage commute to work each day. The mean travel time to work for local residents is 31.3 minutes, much higher than the average for Otsego County which was 22.4 minutes according the 2000 Census.

4.1.2 Occupation

Table 4-9 provides a breakdown of the New Lisbon's workforce (persons 16 years of age and over) by occupation. Approximately thirty-six percent of Town resident's are employed in Management or Professional occupations. A total of 15.3% or residents were employed in Services and another 20.4% in Sales and Office jobs. A total of 11.8% of residents worked in Construction with another 14.6% were employed in Production and Transportation. A little over two percent of Town residents described their primary occupation within Farming, Fishing or Forestry industries.

Table 4-8 Mean Travel Time to Work 2000								
	Town	County						
Mean Travel Time -								
Minutes	31.3	22.4						

Table 4-9 New Lisbon Occupation 2000								
	#	%						
Management, professional	173	35.7						
Service	74	15.3						
Sales and office	99	20.4						
Farming, fishing & forestry	11	2.3						
Construction, extraction	57	11.8						
Production, transportation	71	14.6						
Total	485	100						

4.2 Housing Characteristics

In 2000, New Lisbon had a total of 586 housing units. The majority of these housing units, 76.1%, were single-family dwelling units (see Table 4-10). Of all dwelling units, 73.5% were occupied and 26.5% were vacant. In 2000, the vacancy rate for the Town was significantly higher than the County rate that was recorded at 18.2%. The higher rate for the Town is, in part, due to the higher percentage of second homes and seasonal dwelling units that are counted as vacant when the Census is taken in April. The Town has a relatively large second home population with 19.1% seasonal units.

The 2000 Census also showed a slight shift in owner versus renter occupied housing units within the Town. In 1990, 88.0% of all *occupied* housing units were *owner occupied*. By 2000, this number increased to 88.6%. The County owner occupancy rate in the Year 2000 was far lower at 73% (see Table 4-11 and Table 4-12).

	Table 4-10											
Housing Units In Structure 1990 - 2000	N	ew Lisbo	n, New York	Otsego County 2000								
Year Round	1990 Units	%	2000 Units	%	2000 Units	%						
1-unit detached	361	78.2	446	76.1	18,914	66.4						
1-unit attached	0	0.0	2	0.3	344	1.2						
2-4 units	3	0.6	6	1.0	3,471	12.0						
5-9 units	0	0.0	0	0.0	761	2.7						
10 or more units	0	0.0	0	0.0	432	1.5						
Mobile Home	98	21.2	130	22.2	4,521	15.9						
Boat, RV, Van, Etc.	0	0.0	2	0.3	99	0.3						
Total	462		586		28,481							
Source: U.S. Census Bu	reau											

Table 4-11												
			, New Yorl d Units 199(Otsego County, New York Tenure by Occupied Units 1990 - 2000							
Year	1990	1990 2000			1990		2000					
Round	Units	%	Units	%	Units	%	Units	%				
Owner Occupied	323	88.0%	382	88.6%	15,851	72.9%	17,010	73.0%				
Renter Occupied	44	12.0%	49	11.4%	5,874	27.1%	6,281	27.0%				
Total	367	100%	431	100%	21,725	100%	23,291	100%				
Source: U.S. Cens	us Bureau	SFT1 Data	ı									

	Table 4-12												
Housing	New Lisbon, New York				Otsego County, New York				Percent	Percent			
Characteristics	Tren	ds from 1	1990-2000		Tr	ends from	1990-2000		Change	Change			
	1990		2000		1990		2000		TOWN	COUNTY			
Housing Units	Units	%	Units	%	Units	%	Units	%					
Total	462	100%	586	100%	26,385	100%	28,481	100%	26.8%	7.0%			
Occupied	367	79.4%	431	73.5%	21,725	82.3%	23,291	81.8%					
Owner Occupied	323	69.9%	382	65.2%	15,851	60.0%	17,010	59.7%					
Renter Occupied	44	9.5%	49	8.4%	5,874	22.3%	6,281	22.0%					
Vacant	95	20.5%	155	26.5%	4,660	17.7%	5,190	18.2%					
Seasonal			112	19.1%			2,816	9.9%					
Source: U.S. Census Bureau * Season	al units are part o	of the vaca	ant unit count.										

Summary

As the Town's population continues to grow, so too will the demand for community services such as fire, police, ambulance, recreation and business services. New residential construction will likely increase the demand for public education that may necessitate capital improvements in the School Districts that serve the Town. Growth in the second home market will continue to put increasing pressure on farmers to sell to developers. Increasing the profitability of farming is perhaps the best way to preserve prime agricultural lands.

As the community's population grows so too will the demand for parks & recreational services. It is important that the increase in demand for such services are anticipated and carefully reviewed during the environmental review process for development projects. The Town can use the environmental review process to assess such impacts and to ensure that appropriate measures are put in place to mitigate potential adverse impacts to the community. *For example*. the Town's Subdivision Regulations Section 4.5 (b) already gives the Planning Board the authority to require a payment-in-lieu of parkland fee of \$500 per lot.

As is the case in most communities, the most suitable sites for development in New Lisbon were the first to be developed. The sites that are often the best suited for new development is located along the major transportation corridors. "Strip development along the major highways, in addition to creating traffic hazards and congestion, could seriously diminish the attractiveness of the Town. Therefore development along the highways may require restriction to clusters, interspersed with low density residential and agricultural uses. This would require the creation of some form of Zoning in the Town."(Source: 1990 Comprehensive Plan)

Care must also be taken to protect important vistas that help to define the small-town character of New Lisbon. Its desirability (as demonstrated by its strong population growth) will continue to put pressure on the housing market. As a result, young families may be priced out of the housing market. Looking ahead, policies to ensure that housing opportunities are provided to meet the needs of a variety of household incomes in the community (including volunteer fire/ambulance members, teachers and young families) may be necessary.

The Town has many assets and with careful planning it is well-positioned to grow in a manner that will strengthen the community's economic and social vitality for years to come. The following chapters provide a broader discussion of natural resources, transportation, community facilities, historic preservation and agriculture & farmland protection. Each of these chapters will frame the challenges facing the Town in the years ahead as well as policies that it can put in place to help it meet these challenges. We start with natural resources. **"GROWTH IN THE** SECOND HOME MARKET WILL CONTINUE TO PUT **INCREASING** PRESSURE ON FARMERS TO SELL TO DEVELOPERS. **INCREASING THE PROFITABILITY OF** FARMING IS PERHAPS THE BEST WAY TO PRESERVE PRIME AGRICULTURAL LANDS."

CHAPTER 5.0 NATURAL RESOURCES

The Town of New Lisbon has a total land area of approximately 44.67 square miles. Of this area, 44.53 square miles are comprised of land and 0.14 square miles are lands under water. The West Branch of the Otego Creek and the Butternut Creek are tributaries to the Susquehanna River. The Town lies entirely within the Susquehanna River Drainage Basin.

The physical characteristic of land is one of the major factors that influence land development. Physical characteristics such as topography, drainage, or soil conditions will control or limit both the rate and intensity of growth. It is for these reasons that natural resources need special consideration in helping to determine the manner in which development should be controlled or limited in various areas of the Town. One of the key goals of this Comprehensive Plan is to avoid disturbance of environmentally sensitive lands, to preserve important vistas and other natural resources, and to guide growth in areas that are best suited for development.

This chapter provides a brief overview of the Town's many natural resources and includes a discussion concerning environmental constraints that affect development. Finally, it ends with a variety of policies that the Town can put in place to conserve its natural resources while allowing for growth within the community.

5.1 Elevation and Terrain

Topography is defined as the relief of the land surface describing terrain, elevation and slope. An important measure of topography is range of elevation. In the Town of New Lisbon, the range of elevation is nearly 780 feet. The lowest point is 1,140 feet above mean sea level (msl) along the Butternut Creek. The highest point is 1,919 ft above *msl* abutting the Texas Schoolhouse State Forest. Change in elevation can affect local weather conditions at temperatures close to dew point or freezing. In the Town, this change in elevation can result in a shorter growing season for those lands above 1,750 feet msl according to the Otsego County Soil Survey.

5.2 Steep Slopes

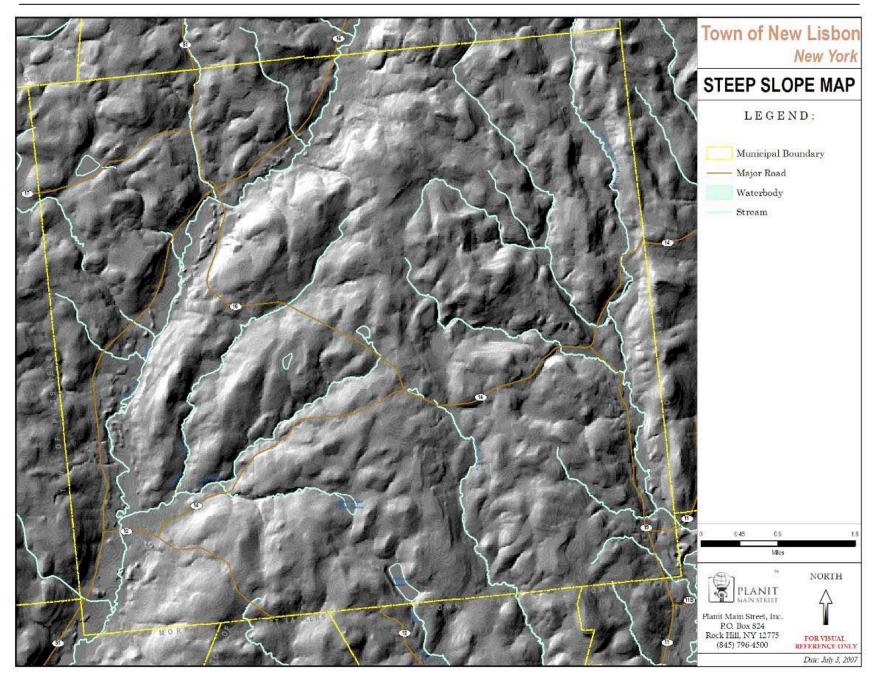
Comprehensive slope information is an essential element in the planning process. Relating land use to topography can help to minimize damage to the environment and avoid extensive site alterations that can cause destabilization of banks and erosion. Development on slight slopes usually presents the fewest limitations and can be developed with few engineering problems or harm to the environment. In contrast. development on steep slopes can mean higher construction costs, unstable soils and sewage disposal problems. Development on steep slopes should be avoided to mitigate the potential for erosion. It is particularly important to avoid the disturbance of steep stream banks and to preserve the vegetation on the edge of streams.







Above (top to bottom): View from Turnbull Road looking south down the Butternut Valley; plowed fields within the Butternut Valley; and view of eastern ridge of Butternut Valley looking across the valley from Gregory Road/CR16. Within the Town, elevation ranges from 1,140 feet above msl in the Butternut Valley to 1,919 ft msl within the Texas Schoolhouse State Forest.



New Lisbon, New York

The Steep Slope Map on page 33 was created using Geographic Information System (GIS) data from the Otsego County Planning Department. Slope indicates the percentage of incline of the land. Those areas with a slope of greater than 8.5° or 15% are generally considered to have slopes too steep for development purposes.

Steep slopes are found throughout the Town. Steep slopes are common along the hillsides abutting the Butternut Creek and West Branch of the Otego Creek along with their tributaries.

Three of the most common difficulties associated with steep slopes are:

- <u>Sewage disposal</u> soils on steep slopes are shallow, making it impractical to install subsurface disposal systems (e.g. septic systems);
- 2) <u>Drainage</u> the removal of trees, grading, and erection of buildings will destabilize the bank while increasing runoff. These factors contribute to erosion and sediment control problems; and
- 3) <u>Driveway and street layout</u> as a general rule, the slope of driveways and roadways should not exceed 6.8° or 12%. Development on steep slopes makes alignments and safe intersections very difficult. They also may result in rapid runoff onto adjoining roads causing erosion and icing problems in the winter.

As the Planning Board reviews site plan and subdivision applications it is important that they take into consideration the topography of each site in order to mitigate potential impacts. Section 3.03.5 of the Town's Site Development Plan Review Law requires applicants to provide a grading & drainage plan showing existing contours, rock outcrops, depth of bedrock, soil characteristics and watercourses. The Town's Subdivision Regulations, Section 3.9(c)(4), requires that applicants show topographic conditions at intervals of not more than five (5) feet along with an *approximate grading plan* if natural contours are to be changed.

It is recommended that the Town's Site Plan Review Law and Subdivision Regulations be revised to require applicants to provide topographic information at a contour interval of two (2) feet with steep slopes highlighted on the plan. Where grading of the site is proposed, it is further recommended that these laws be revised to require a grading plan along with a sediment & erosion control plan.

Developers should also be required to provide profiles of proposed driveways and roads showing the existing/proposed grade of the driveway or road. A maximum grade of 12% for roads and 15% for driveways is recommended. Finally, development should be directed away from those areas with steep slopes and applicants should be required to modify proposed plans to mitigate potential disturbance of steep slopes whenever possible.

"IT IS RECOMMENDED THAT THE TOWN'S SITE PLAN REVIEW LAW AND SUBDIVISION **REGULATIONS BE REVISED TO** REQUIRE APPLICANT'S TO PROVIDE TOPOGRAPHIC INFORMATION AT A CONTOUR INTERVAL OF TWO (2) FEET WITH STEEP SLOPES HIGHLIGHTED ON THE PLAN."

5.3 Water Resources

The Town's water resources include its' lakes, creeks, streams, wetlands, springs, groundwater and its' aquifers (see Water Resources Map on page 36). These are not only important sources of drinking water but they also provide scenic and recreational value. Proactive measures must be taken to protect these water resources so that the Town's potable water supply is protected and the scenic and recreational value of these resources is preserved for future generations.

5.3.1 Groundwater

In general, groundwater is drawn from three kinds of aquifers in the Town of New Lisbon: bedrock, glacial till and glacial outwash. There are also many springs on hillsides, at the base of hills, or along valley walls where glacial deposits come in contact with bedrock. Groundwater is the primary source of potable water for local residents. When contaminated, groundwater is very difficult to clean up. It is thus important to protect groundwater from contamination in order to protect the public's health, safety and welfare.

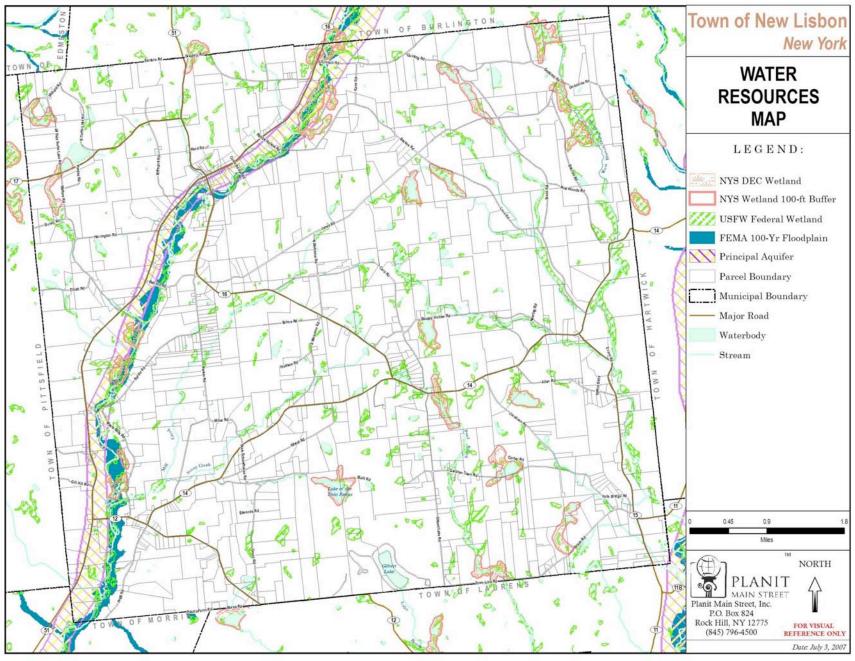
The Town's principal aquifer lies within the Butternut Valley (see Water Resources Map). Many residents derive their potable water from wells that are drilled into this aquifer. When wells are drilled into the aquifer they not only become a conduit for withdrawing groundwater but also a potential conduit for contaminants to enter the aquifer. There are also many springs in the Town. Springs occur where 1) the water surface intersects the land surface, 2) the overlying soil is porous thus allowing groundwater to flow freely to the surface and 3) where fractures in the bedrock reach the water table. Spring water can be easily contaminated if the water table is close to the surface and recharge areas are not protected from contamination.

It is thus important to protect groundwater from potential sources of contamination such as fertilizer/pesticide storage areas, gas stations, junkyards, fuel oil storage and road maintenance depots. One tool that can be used to protect the aquifer is the creation of an *aquifer protection zone* that would restrict such land uses within aquifer recharge areas. Another important tool to protect groundwater quality is the creation of *wellhead protection zones*.

One of the easiest ways for contaminants to enter groundwater is through wells. To prevent contaminants from entering the well, it is important that a *buffer* be established around the wellhead (e.g. wellhead protection zone). Within the buffer area certain land uses should be prohibited such as the storage of fuel oil, fertilizers, pesticides or household lawn chemicals; swimming pools and like uses that could contaminate groundwater. A check value should also be required to prevent flow into the well. Employing these measures will help to protect water resources from contamination and ensure a potable water supply for years to come.



Above (top to bottom): Butternut Creek near CR 12; Springhouse at Cold Spring Stock Farm (Lena Road); and waterfalls at Falls Bridge on CR 15.



New Lisbon, New York

5.3.2 Wetlands

Wetlands are perhaps the most critical of all water resource considerations due to their extreme sensitivity to development. These areas are subject to periodic or continual inundation by water and are commonly referred to as bogs or marshes. The Water Resources Map on page 36 shows New York State Department of Environmental Conservation regulated wetlands that are 12.4 acres or more in size as well as Federal wetlands that are regulated by the Army Corp of Engineers.

Wetlands serve an important function cleansing water and they retain large amounts of runoff during the spring thaw or major storm events. In this respect, wetlands help to reduce peak flood flows and decrease flood damage. All proposed development within the vicinity of NYSDEC and federal wetlands must comply with the regulation of the respective authority. The Planning Board must ensure that applicants adhere to these standards when reviewing site plans or subdivision proposals.

Applicants should be required to identify any wetlands on their plans along with the NYSDEC required 100-foot buffer around the edge of any wetland. No construction should be permitted within the required 100-foot buffer area and site disturbance kept to a minimum. The Planning Board should also require that stormwater be treated before it is discharged into a wetland. This is discussed further in Section 5.3.5.

5.3.3 Flood Hazard Areas

The Federal Emergency Management Agency (FEMA) has identified potential flood hazard areas in the Town of New Lisbon. Areas that are subject to flooding include lands adjoining the Butternut Creek where flooding results from snow melt, heavy rains or other weather conditions. Flood hazard areas in accordance with FEMA standards are shown on the Water Resources Map on page 36 in dark blue.

By identifying these areas, it is possible to restrict development to open space uses, including agriculture, which are tolerant of flooding and do not obstruct the flow of water. It is important to do this in order to mitigate both financial loss and the potential loss of life that might occur as the result of periodic flooding. FEMA defines the likelihood of flooding into two broad categories: 1) lands within the 100year floodplain; and 2) those within the 500-year floodplain. Lands within the 100-year floodplain have a 1% probability of a flood exceeding a certain depth in any given year.

The Planning Board must factor in the presence of floodplains when they review site plans and subdivision applications. They should insist on appropriate mitigation measures for any development within floodplains and prevent the construction of houses and other buildings within floodplains. Floodplains are permeable and well suited for agriculture so keeping these lands in agricultural production is recommended. "A RIVER IS MORE THAN AN AMENITY. IT IS A TREASURE. IT IS A NECESSITY OF LIFE THAT MUST BE RATIONED AMONG THOSE WHO HAVE POWER OVER IT."

Oliver Wendell Holmes





Above (top to bottom): Butternut Creek as seen from bridge in hamlet of New Lisbon looking south toward Morris – Winter and Summer Scenes. The removal of the riparian buffer (right side of photo) has led to destabilization of the stream bank.

Natural Resources

New Lisbon

5.3.4 Riparian Zones

A riparian zone is the border between land and a flowing surface water body that is densely populated with plant species. There is a welldefined riparian zone along most of the Butternut Creek within the Town of New Lisbon.

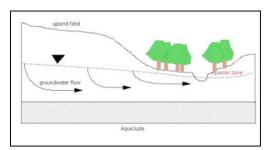
Perhaps one of the most important qualities of the riparian buffer zone is its ability to control erosion, and thus, to prevent sediment pollution. In a stream surrounded by a riparian zone, sediment pollution is controlled. Riparian zones are densely populated with plant species and thus have intricate root systems that prevent erosion and undercutting of banks. In addition, the woody stems and grasses help to physically trap sediment by slowing down the water runoff from the surrounding area, allowing the sediment to settle out.

The branches, stems and leaves of these plants absorb the impact of raindrops. Decaying leaves and low-growing vegetation form a ground cover that further lessens the erosive force of raindrop impact. This ground cover slows runoff, increasing the amount of water that is absorbed into the soil and then released slowly into the stream, reservoir, groundwater or atmosphere. The water that is absorbed may contain nutrients, pesticides, and other pollutants that will eventually be taken up by plants or broken down over time. By slowing runoff, trapping sediments, and increasing absorption, these plants act as a living filter to protect water quality. Waterfront vegetation enhances habitat for wildlife and increases opportunities for wildlife viewing. Plants along waterways provide food and shelter for a variety of insects, amphibians, reptiles, songbirds, mammals and fish.

Maintaining an attractive riparian zone can:

- Increase property values;
- Reduce property loss from excessive erosion;
- Protect water quality;
- Enhance wildlife habitat;
- Protect the natural beauty of the land;
- Provide privacy; and
- Enhance scenic views.

Riparian zones are instrumental in water quality improvement for both surface runoff and water flowing into streams through subsurface or groundwater flow - particularly the attenuation of nitrate or denitrification of the nitrates from fertilizer. Riparian zones play a role in lowering nitrate contamination in surface runoff from agricultural fields, which runoff would otherwise damage ecosystems and human health. Since agriculture is a predominant land use along the Butternut Creek it is important to maintain and in some areas re-establish the riparian zone to protect the water quality of the Butternut Creek and the underlying aquifer.







Above (top to bottom): Illustration of process through which rainfall is absorbed into groundwater; views of riparian zone along the Butternut Creek that plays an important role in protecting water quality by acting as a natural filter. The riparian zone on the left side of the photo is well maintained but nonexistent to the right side of the photo. A riparian buffer zone should be re-established

5.3.5 Stormwater Management

Stormwater is water that accumulates on land as a result of storms or melting snow. The porous and varied terrain of natural landscapes like forests, wetlands, and grasslands trap rainwater and snowmelt and allow it to slowly filter into the ground. Runoff tends to reach receiving waters gradually. In contrast, nonporous landscapes like roads, bridges, parking lots, and buildings don't let runoff slowly percolate into the ground. Water remains above the surface, accumulates and runs off in large amounts.

The Town's stormwater management system includes its storm pipes and ditches that are designed to quickly channel runoff from roads and other impervious surfaces. These devices are important to control high flows that may be a threat to public safety. Unfortunately, there are adverse environmental impacts associated with traditional stormwater management.

Runoff gathers speed once it enters the stormwater system and when it empties into local streams. During storm events, large volumes of high velocity runoff can erode streambanks, damage streamside vegetation and widen stream channels. In turn, this will result in lower water depths during non-storm periods, higher than normal water levels during wet weather periods, increased sediment loads and higher water temperatures. It is important to control stormwater runoff associated with development to protect water quality. In New York State, any construction operation that will disturb or expose one (1) or more acres of soil requires a State Pollutant Discharge Elimination System (SPDES) Permit for Stormwater Management Discharges from Construction Activity. Soil disturbance includes clearing vegetation, grubbing, filling, grading, excavation, demolition and any current or proposed construction activity. If the proposed action is anything other than a single-family home it will also require the development of a Stormwater Pollution Prevention Plan (SWPPP).

A SWPPP addresses both construction and postconstruction activities. During construction activities, erosion & sediment control devices such as silt fences are used to prevent silt from being carried off the site during storm events. Detention and retention basins are used to ensure that post-development runoff rates from a site do not exceed pre-development rates.

Detention basins are dry basins that fill with water during a storm event. They work by delaying the storm water so that it is released at a rate that mimics predevelopment flow. Retention basins hold water in a pool and release water through an overflow spillway during storm events. These basins provide for the release of runoff at controlled rates to protect the quality of surface waters and to prevent flooding during storm events.

"A STORMWATER POLLUTION PREVENTION PLAN. IN ACCORDANCE WITH NYSDEC **REGULATIONS, IS REQUIRED FOR ANY** CONSTRUCTION **OPERATION THAT** WILL DISTURB ONE **OR MORE ACRES IF** CONSTRUCTING SOMETHING OTHER THAN A SINGLE-FAMILY RESIDENCE."

Detention and retention basins are also important stormwater treatment systems. Stormwater treatment is the capture and reduction of pollution in stormwater runoff prior to discharge into receiving waters such as the Butternut Creek and groundwater aquifer. By capturing the runoff, the basins allow particulates to settle to the bottom that removes pollutants from the runoff before it is discharged.

Within off-street parking areas, catch basins are used to retain and filter contaminants before they leave the site. Other measures that can be employed include the use of infiltration trenches that capture runoff and treat it through a pea gravel of sand filter layer before it is discharged into receiving waters. An increasingly common means of retaining stormwater runoff on residential home sites is the use of an underground cistern that captures the runoff from the gutters. The water that is captured is stored underground and the water subsequently used to water gardens or lawns. This approach to stormwater management serves two purposes. First it reduces stormwater runoff. Secondly, it stores rainwater for irrigation, which reduces the demand on groundwater resources.

As the Planning Board reviews site plan and subdivision applications it must ensure that appropriate stormwater management measures are put in place. Such measures will help to protect water quality and mitigate potential damage during major storm events.

5.3.6 Upper Susquehanna River Basin

The Town of New Lisbon lies entirely within the Upper Susquehanna River Basin. Within the Town of New Lisbon, the Butternut Creek and the West Branch of the Otego Creek are the two major tributaries that drain into the Upper Susquehanna River Basin.

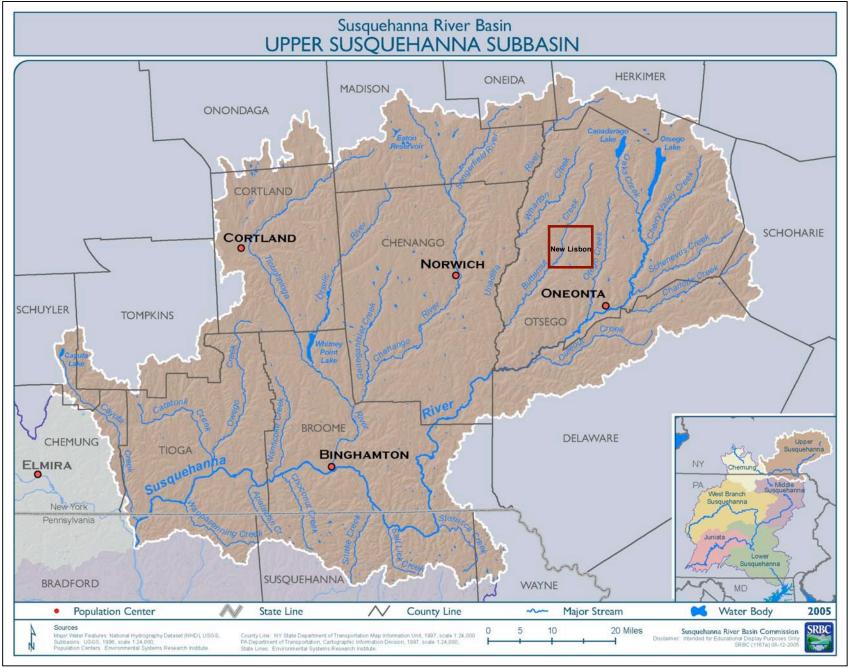
The Susquehanna River Basin Compact, signed into law on December 24, 1970, created the Susquehanna River Basin Commission (SRBC) as the agency to regulate water resource efforts in the Susquehanna Basin that lies within the states of New York, Pennsylvania, and Maryland. The mission of the SRBC is to enhance public welfare through comprehensive planning, water supply allocation and management of water resources of the Susquehanna River Basin.

To accomplish its mission, the SRBC works to: reduce damages caused by floods; provide for the reasonable and sustained development and use of surface and ground water for municipal, agricultural, recreational, commercial and industrial purposes; protect and restore fisheries, wetlands and aquatic habitat; protect water quality and in stream uses; and ensure future availability of flows to the Chesapeake Bay. An offshoot of the SRBC is the Chesapeake Bay Program. The Chesapeake Bay Program was created in 1983 and represents a unique regional partnership that directs and conducts the restoration of the Chesapeake Bay.

"AMERICA IS A GREAT STORY AND THERE IS A RIVER ON EVERY PAGE."

Charles Kuralt





New Lisbon, New York

In June 2000, the Bay Program partners adopted *Chesapeake 2000*, a Bay agreement intended to guide restoration activities throughout the Bay watershed through 2010. In addition to identifying key measures necessary to restore the Bay, *Chesapeake 2000* provided the opportunity for Delaware, New York and West Virginia to become more involved in the Bay Program partnership. These headwater states now work with the Bay Program to reduce nutrients and sediment flowing into rivers from their jurisdictions. The Town of New Lisbon lies entirely within the Upper Susquehanna River Basin that is affected by these policies.

In 2003, cap loads were established for phosphorous, nitrates and nutrients that could impact water quality within the watershed. Presently, local governments in Delaware, Pennsylvania, Virginia, as well as the District of Columbia must amend their zoning ordinances, subdivision regulations and comprehensive plans to incorporate water quality preservation programs that reflect unique local characteristics. It is likely that these requirements will ultimately apply to communities in the headwater states including New York State that would affect the Town of New Lisbon.

The Upper Susquehanna Coalition (USC), which includes representatives from 11 counties in New York and 3 in Pennsylvania, is working in collaboration with numerous local, state and federal partners to address water quality issues in the watershed.

The U.S. Environmental Protection Agency has developed a Targeted Watersheds Grant fund to help implement watershed-based wetland restoration programs to reduce flooding and restore important wetland functions. The USC is using these EPA Targeted Watershed Grant funds to conduct stream restoration projects, promote farm stewardship through a riparian buffer initiative and to create unpaved road and road ditch improvement plans (including training for highway personnel on new techniques to manage runoff). The Town of New Lisbon is eligible to participate in such programs and it is recommended that they coordinate with the USC to develop demonstration projects. For example, many of the Town's roads are unpaved. It is recommended that the Town seek EPA funds to develop an Unpaved Road and Road Ditch Plan for the Town of New Lisbon.

Another program that is available to assist communities with water quality efforts is the Environmental Quality Incentive Program (EQIP) that is administered by the USDA. The EQIP program offers a 75/25 matching grant to landowners that participate in a riparian buffer restoration program. In Otsego County, the Otsego County Conservation Association can provide the required 25% local match, thus resulting in no cost to the participating landowner. The Butternut Brewery participated in this program in 2006. As part of their riparian restoration effort over 600 trees where planted to re-establish a riparian zone along the Butternut Creek.

"IT IS RECOMMENDED THAT THE TOWN SEEK EPA TARGETED WATERSHED GRANTS FUNDS TO DEVELOP AN UNPAVED ROAD AND ROAD DITCH PLAN FOR THE TOWN OF NEW LISBON."

5.4 Soils

Proper siting of development must include an analysis of soil types within a community. Soils differ according to variations in composition, particle-size gradation, and compaction; factors which control permeability, porosity and strength. Each of these factors and depth to bedrock is important in determining how much and what kind of development the land is capable of supporting. It is important to consider the specific soil conditions in a community in directing growth to areas that can support development without high construction costs.

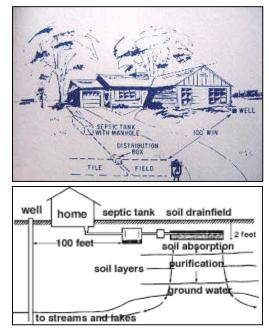
Soil porosity and permeability is a major consideration in determining development capability. Soils with seasonally high water tables are also not well suited to development since they are prone to wetness and frequent ponding that present severe problems that are difficult and costly to overcome.

The Soil Suitability Map on page 44 shows those areas with a depth to bedrock of 48 inches or less (shown in pink) and those areas with seasonally high water tables (show in yellow). Lower density and less intensive development should be directed to these areas since they have severe building constraints. The Planning Board should use the Soil Suitability Map as a guide as they review site plan and subdivision applications. When development is proposed on sites with poor soils conditions a careful review is required to avoid adverse environmental impacts.

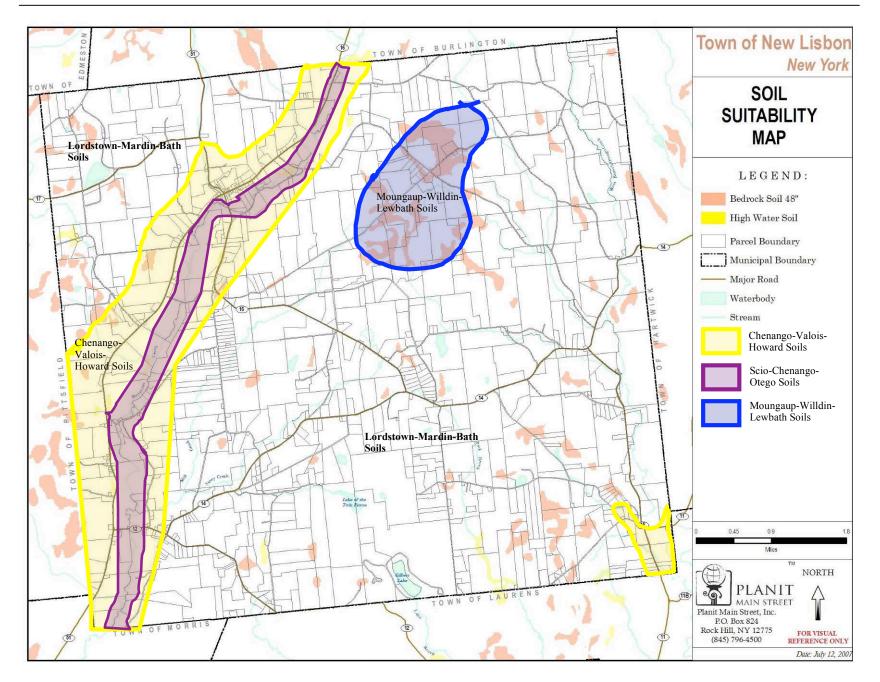
One of the most important things to consider in the review of a subdivision or site plan application is the ability of the soils to handle an on-site septic system and disposal field to serve the residential or commercial land use. The Town's Subdivision & Site Plan Review Regulations require developers to provide soil bearing and percolation tests to ensure that the soils are suitable for a septic system. The regulations also require tests to ensure that onsite water quality and quantity is sufficient to meet the demands of the proposed land use. When well designed and maintained, a septic system can be expected to last a number of years.

Assuming the site can accommodate a septic system and well, it then becomes important to carefully assess how the septic and well are situated to one another on the site. The New York State Department of Health requires a distance of 100 feet between a septic field and well for residences. However, a distance of 200 feet is recommended when the wastewater treatment absorption system is located in coarse gravel or in direct path of drainage to a well. When such conditions exist, the 200-foot separation should be required.

It is also recommended that developers be required to design a reserve field into their new septic systems designs. It is not uncommon for septic systems to fail over time and it is thus important to provide for a reserve field on each site in case of a septic field failure. Doing so will protect property values and water quality. "IT IS IMPORTANT TO CONSIDER THE SPECIFIC SOIL CONDITIONS IN A COMMUNITY IN DIRECTING GROWTH TO AREAS THAT CAN SUPPORT DEVELOPMENT WITHOUT HIGH CONSTRUCTION COSTS."



Above (top to bottom): Illustration showing minimum 100-foot separation between septic field and well; and illustration showing purification of effluent as it filters through soil layers. Soil suitability must be carefully assessed when situating a new septic field.



Soil Association	Slope Range	Drainage Class	Typical Location in Town	Limitations to Agriculture
LORDSTOWN-MARDIN-BATH:				
Dominantly nearly level to very steep, moderately deep and very deep, well-drained and moderately well-drained; in glaciated uplands which are often bedrock controlled.	>15%	Well-Drained and Moderately Well-Drained	Upland hillsides, hilltops, valley sides	Depth to bedrock, or fragipan, slopes greater than 15%, wetness, slow permeability and low ph.
MOUNGAUP-WILLDIN-LEWBATH				
Dominantly nearly level to very steep, moderately deep to very deep, medium textured soils; in glaciated uplands which are often bedrock controlled in elevations over 1,750 feet.	>15%	Well-Drained and Moderately Well-Drained	Upland hillsides, hilltops, valley sides at elevations > 1,750 feet (e.g. Texas Schoolhouse State Forest & vicinity)	Depth to bedrock, slopes greater than 15%, wetness, slow permeability, cooler soil temperatures, low ph.
CHENANGO-VALOIS-HOWARD				
Dominantly nearly level to very steep, very deep, well-drained, moderately coarse textured and medium textured soils that formed in glacial outwash, inwash deposits, alluvial fans, and ablation till; in outwash plains and along valley walls.	0-15%	Well-Drained to Somewhat Excessively Drained	Found within Butternut Valley beyond the floodplain.	Well-suited to agriculture, but droughtiness, slopes and very rapid permeability may pose some limitations.
SCIO-CHENANGO-OTEGO				
Dominantly nearly level and gently sloping, very deep, moderately coarse textured and medium textured soils that formed in alluvium, glacial outwash and water-deposited silts.	0-15%	Somewhat Excessively Drained	Lands abutting Butternut Creek and lying within the floodplain.	Well-suited to agriculture. Wetness and droughtiness and very rapid permeability are limitations.

New Lisbon

Natural Resources

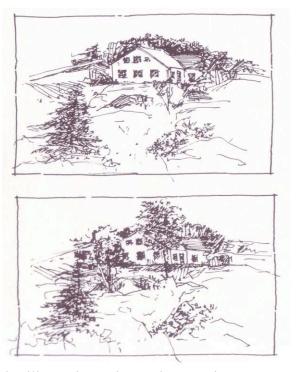
5.5 Ridgeline & Vista Protection

Ridgelines are important features of the Town of New Lisbon's natural resources. From the ridgelines, one can see a panoramic view of New Lisbon's bucolic landscape. From the valleys, the ridgeline defines the horizon.

Development along ridgelines provides unique challenges that should be considered whenever someone is proposing to build a home on or near the ridge. For example, ground disturbance on steep slopes can present erosion problems and thin soils might make it difficult to site a septic system. However, how the house is situated in relation to the ridgeline can go a long way to mitigating potential impacts associated with ground disturbance or visual impacts.

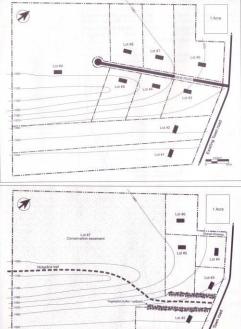
To mitigate potential impacts associated ground disturbance, it is recommended that home sites be directed so that they are situated on slopes of 15% or less and set back from the edge of the ridge. One of the best ways to ensure that new homes are properly situated is to enforce existing requirements that property owners obtain the necessary building permits from the Otsego County Building Department before they begin construction. This will help to ensure that that potential concerns related to septic and drainage issues are addressed up front. This Plan strongly supports the enforcement of existing building codes that are designed to protect the health, safety and welfare of residents and the protection of the Town's natural resources.

Visual impacts associated with development on the ridge can be mitigated by preserving existing vegetation, providing new plantings and limiting the thinning of trees to create views. Providing an unobstructed view from the ridgeline home means the public will have an obstructed view of the house – diminishing the public vista.



The illustrations above show various aspects of design that can reduce visual impacts. The upper illustration shows a structure on a ridge that has not been screened due to clearing of existing vegetation. The lower illustration shows the same structure and site with existing vegetation retained to help screen the structure while still allowing for some views from the home.





Above (top to bottom): Scenic view from Gregory Road; a conventional subdivision with a road stretched along the ridgeline; and a conservation subdivision with open space easement to avoid impact on the ridgeline but

Source: Shawangunk Ridge Conservation & Design Guidebook by Church – Meyers 1993.

still allowing homes with scenic views.

New Lisbon, New York

Natural Resources

5.6 Night Sky

During the public participation process, a number of residents spoke of the *night sky* as a natural resource that must be protected. Residents were concerned with *light pollution* and the need to keep lighting from trespassing onto adjoining properties and into the night sky.

The Planning Board can do its part to preserve night sky by ensuring that lighting is sufficient for the proposed land use but not excessive. To this end, it is recommended that lighting be limited to 2.0 foot-candles within off-street parking areas and that lighting be designed in a manner that keeps the light entirely on the subject site, away from adjoining properties, and out of the night sky.

To accomplish this goal, the Planning Board should require developers to install lighting fixtures with a horizontal cutoff lens so that light is directed to the ground and not into the night sky. The Town should also encourage its residents and businesses to employ night skyfriendly lighting techniques such as adding hoods to area floodlights, replacing existing yard lights with those fixtures that include an opaque reflector and using downlit lighting for signage.

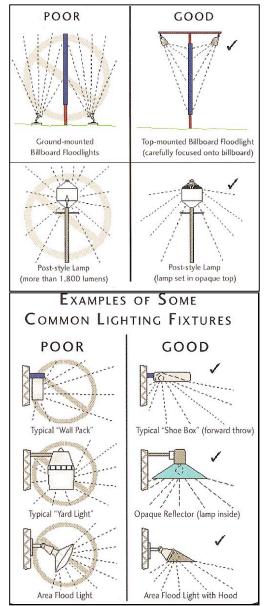
The Otsego County Conservation Association has developed a wonderful pamphlet that addresses light pollution called "Starry Nights in Otsego County." The Planning Board is encouraged to use this pamphlet as a guide.

5.7 Invasive Plants & Animals

It is a policy of this Plan to support invasive plant and animal eradication efforts. Invasive species are non-native species that can cause harm to natural ecosystems resulting in a wide range of environmental, recreational and economic impacts. The NYSDEC has identified invasive species as a significant threat to the State's biodiversity - second only to habitat loss.

The Town's economy is dependent on the health of its lakes and streams that provide boating, fishing and swimming opportunities. Once introduced into water bodies, aquatic invasive plants spread rapidly, congest waterways and disrupt native fish populations. Invasive animals such as the *Rusty Crawfish* could decimate local fish populations. Once infested, lakes and rivers can become unusable and this could adversely affect the local economy as the quality of these natural resources is diminished.

It is recommended that the Town Board work with Otsego County Conservation Association (OCCA) to identify threats related to invasive species. Examples of potential threats include water chestnuts, purple loosestrife and other invasive plants. When identified, the Town Board should reach out to partner with the OCCA to secure funding through the NYSDEC's *Invasive Species Eradication* grants to help eradicate invasive species. State funds can be used to pay for up to one half of the total costs of a selected eradication project.



Above: Examples of "Poor" and "Good" lighting fixtures.

Source: Otsego County Conservation Association "Starry Nights in Otsego County"

5.8 Timber Resources & Tree Farms

Forestland is an important natural resource that provides important wildlife habitat, valuable open space, recreational opportunities, scenic vistas, and economic opportunities. When properly managed, forestlands provide an important component of the local economy through timber harvesting.

When properly managed, the harvesting of timber from forestlands can be a sustainable natural resource that benefits the local economy for years to come. The New York State Department of Environmental Conservation (DEC) has developed Timber Harvesting Guidelines and best management practices to help ensure a sustainable timber harvest. It is also designed to avoid potential adverse environmental impacts associated with timber harvesting.

One of the environmental concerns associated with timber harvesting relates to the potential for soil erosion. When soil washes into streams and lakes, it reduces water quality and may harm spawning beds. With proper logging practices, erosion never starts and streams are protected from careless disturbance and water quality is maintained. Best management practices recommended by the DEC include keeping stream crossing to a minimum, protecting streambanks and logging steep slopes only during dry weather. The Town Board should encourage these practices within the Town. Another means of encouraging property owners to participate in forestry management efforts is through the New York State Real Property Tax Law Section 480-A program. This program provides a property tax reduction to owners of woodlands over fifty (50) acres who keep their properties in a *forestry management program*. Encouraging participation in this program is one way the Town can help to protect forestlands in the Town and ensure a sustainable timber harvest for future generations.

Within the Town, there is a history of tree farms or nurseries that have also played an important role in the local economy. Tree farms can help to keep fallow land from converting to second growth forest while providing an important income stream to the farmer or other landowner. Tree farms are also a good fit with most farming activities in that the needs for maintaining the nursery can be scheduled around other farming activities.

The New York State Department of Environmental Conservation Forestry Management Division is a good source for area landowners to contact if they are interested in pursuing the development of a tree farm operation. They offer a variety of technical assistance to landowners as well as grant programs. This Plan strongly supports private landowner participation in the NYSDEC forestry management program as well as efforts to develop tree farms or nurseries. Doing so will help to protect these natural resources.







Above (top to bottom): Texas Schoolhouse State Forest that provides recreational opportunities for local residents and visitors; Douglas Brother's Tree Farm on Quinlog Road; and view of hardwood forest in the vicinity of Texas Schoolhouse State Forest. These lands provide valuable wildlife habitat, open space and economic opportunities.

New Lisbon, New York

5.9 Maple Trees – "Sugar Bush"

Maple trees are a valuable resource within the Town. Woodlands that have a high percentage of sugar maples are referred to as sugar bush. Maple trees are the primary source of maple syrup, are an important hardwood for timber harvesting and produce spectacular colors during the fall foliage season.

A number of local residents are actively involved in production of maple syrup, maple sugar, maple cream, and other maple products. For many producers, sales of maple products provide an important supplement to their annual income while maintaining an important way of life.

This Plan supports local landowners effort to manage sugar bush and produce maple products. *Cornell Cooperative Extension's Sugar Maple Research & Extension Program and the New York State Maple Producers Association, Inc.* both provide technical resources to producers. Cornell's Maple Team includes a representative in the CCE Chenango County office in nearby Norwich, New York.

NYS provides incentives to sustain timber harvest through its Forest Tax Law 480-a that reduces taxes on forestlands [at least 50 acres] that are placed in a forestry management program. It is recommended that the Town Board reach out to State representatives about developing a similar program for sustaining sugar bush stands within the Town.

5.10 Recommendations

The following is a summary of the natural resource protection recommendations:

5.10.1 Steep Slopes

Revise the Town's Subdivision and Site Plan Review Laws to require applicants to submit a sediment & erosion control plan at two-foot contours when grading of the site is proposed.

Direct development away from those areas on development sites with slopes greater than 15%.

Limit maximum grade of new driveways to 15% and the maximum grade of new roads to 12%.

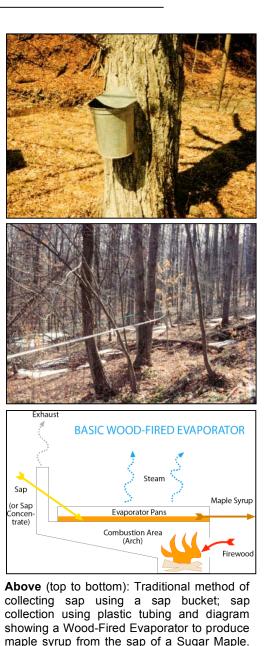
5.10.2 Water Resources

Require a pump test for land uses that are likely to use large volumes of water. These tests determine stable yield and drawdown based upon the estimated average daily demand. They are needed to ensure that adjacent wells are not adversely impacted by new development.

Educate the public about the importance of maintaining wellhead protection zones around their wells. The Town Board could send an informational brochure to its residents describing certain activities that should be avoided in close proximity to wells including the storage of fertilizers, pesticides, fuel oil, household lawn chemicals and other potential contaminants.

The water in the sap is released as steam

leaving the syrup. Source: Cornell University



Natural Resources

Enforce NYSDEC requirements to maintain a 100-foot setback between development and adjacent watercourses. During the site plan and subdivision review process, applicants should be required to show existing watercourses and required setbacks on their site plans or subdivision plans. Early identification of natural resources will help the Planning Board in its review and ensure protection of these resources.

Limit the development of buildings within the 100-year floodplain. The Town must carefully review applications for development on lands within the 100-year floodplain. This will help to prevent future loss of property and life due to flooding.

Require Storm Water Pollution Prevention Plans (SWPPP) in accordance with the NYSDEC State Pollution Discharge Elimination System (SPDES) general permit for commercial developments or major subdivision applications. SWPPP's helps to ensure that post-development runoff rates from a site do not exceed the rates that existed pre-development. Such plans also provide for the treatment of runoff and the release runoff at controlled rates to protect the quality of surface waters and prevent flooding from storm events. The NYSDEC regulations require basic SWPPP for single-family developments that disturb between 1 and 5 acres of topsoil. A full SWPPP is required for commercial developments that disturb one (1) or more acres of soil. The Planning Board should ensure that applicants meet these requirements.

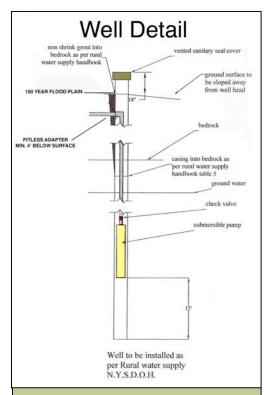
New Lisbon, New York

Create a public information brochure regarding the importance of retaining the riparian zone along the Butternut Creek or West Branch of the Otego Creek. The Town can take proactive measures to educate the public about the importance of retaining mature trees within the riparian zone along its creeks and streams through the development of an information brochure or newsletter.

Seek EPA Targeted Watershed Grant funds to conduct stream restoration projects. The Town should coordinate with the Otsego County Conservation Association (OCCA) and/or Otsego County Planning to secure funding through these programs for local projects.

Seek EPA Targeted Watershed Grants funds to develop an Unpaved Road and Road Ditch Plan for the Town of New Lisbon. The Town should explore this opportunity for funding to help it to prepare for future water quality regulations that will likely grow out of the Susquehanna River Basin Commission's efforts to protect the watershed.

Encourage Landowners to Participate in the Environmental Quality Incentive Program (EQIP) that is administered by the USDA. The Butternuts Brewery as part of their riparian zone restoration project has already used the program in New Lisbon. When local landowners are interested in submitting grant applications to participate in the program the Town Board should provide a letter of support.



Above: Graphic illustration showing how to properly situate a well. It is important that all wells have check values that prevent surface water or other contaminants from entering the well through the piping. It is also important that the ground surface be graded away from the wellhead in order to direct surface runoff away from wellhead. This will help to prevent standing water around the wellhead thereby reducing the likelihood of contaminants entering the well.

Generally speaking, it is not recommended that wells be situated within the *floodplain*. However, if there are no alternatives, fill material should be used around the base of the wellhead to raise it above the 100year floodplain elevation. *Encourage landowners to participate in the Conservation Reserve Enhanced Program (CREP).* CREP provides incentives for landowners to plant forest buffers, filter strips, or field borders within the riparian zones along creeks and streams. Under CREP, land is removed from crop production for a period of 10-15 years. The landowner receives annual rental payments and a maintenance fee per acre of land accepted into the program. Once planted, the vegetation should continue to provide environmental benefits for many years to come. More information about the program is available from the OCCA.

5.10.3 Soils

Require developers to design a reserve field into their new septic systems designs. It is not uncommon for septic systems to fail over time and it is important to provide for a reserve field on each site in case of septic field failure. Doing so will protect property values and water quality.

5.10.4 Ridgeline & Vista Protection

Situate homes away from slopes that are 15% or more and enforce building permit requirements for new homes.

5.10.5 Night Sky

Require developers to install lighting fixtures with horizontal cutoff lenses. This will protect night sky by directing light to the ground.

New Lisbon, New York

5.10.6 Invasive Plants & Animals

Support local efforts to eradicate invasive plants and animals. Invasive species can adversely affect the natural ecosystem is left unchecked. When identified it is recommended that these species be eradicated before they spread and cause greater harm to the local ecosystem. There are a variety of grant opportunities through the New York State Department of Environmental Conservation to assist communities with the eradication of invasive species.

5.10.7 Timber Resources & Tree Farms

Support private landowner participation in the NYSDEC forestry management program as well as efforts to develop tree farms or nurseries. The forestry management program encourages responsible stewardship of forestlands while ensuring a sustainable timber harvest. Greater landowner participation in the program is recommended.

5.10.8 Sugar Bush

Preserve large stands of sugar maples "sugar bush" and encourage the production of maple syrup products within the Town.

Coordinate with State representative to devise a Sugar Bush Tax Law to provide incentives to local landowners that grow sugar bush stands and produce maple syrup and maple products. "COORDINATE WITH STATE REPRESENTATIVES TO DEVISE A SUGAR BUSH TAX LAW TO PROVIDE INCENTIVES TO LOCAL LANDOWNERS THAT GROW SUGAR BUSH STANDS AND PRODUCE MAPLE SYRUP AND OTHER MAPLE PRODUCTS."

Natural Gas Well Drilling

It is recommended that proposed "Test Wells" for natural gas exploration be the subject of a Site Plan review by the Planning Board. The drilling of test wells can produce mineral runoff, noise, dust and other impacts that could affect neighbors. By requiring site plan review for such activities, the Town Board can better ensure that such impacts are carefully considered in situating a test well so that potential impacts are mitigated through the use of "Best Management Practices."

These include the provision of sediment & erosion controls measures and ensuring that unproductive wells are properly sealed so as to prevent future contamination of the community's aquifers. Due to the large volume of water required to produce such wells – pump test to assess potential impacts on neighboring wells should also be provided.

CHAPTER 6.0 – TRANSPORTATION

The Town of New Lisbon's transportation system is comprised of its highways, rural roads and recreational trails. The existing transportation system is highly effective in moving goods, vehicles and people within and through the community. Together, these transportation systems have helped to shape the rural character of the Town and will continue to influence its development into the future.

The components of the Town's transportation system often share the public realm across the entire public right-of-way resulting in the frequent interaction between vehicular traffic with pedestrians, farm tractors & equipment and occasionally farm animals. It is thus important that all components of the transportation system be considered in relation to one another to ensure a safe and efficient transportation system.

We begin our transportation discussion with a focus on highways and roads. Each and every highway and road plays an important role in moving goods and people within and through the Town. The State and County highways that traverse the Town (e.g. NYS Route 51 and CR 12, 14, 15, 16 & 17) are designed to carry traffic through the entire region. Local roads are intended to channel traffic from local farms and residences to these highways. The function of highways and roads are discussed below.

6.1 Highway and Road Classifications

Highways are generally described by their functional classifications. The Institute of Transportation Engineers (ITE) has created a functional classification system for roadways that is described below.

Interstate and Limited-Access Highways: This type of highway moves large volumes of traffic at relatively high speeds to and from locations outside the region. Such highways have limited access via designated exits with no at-grade intersections. Examples include Interstate 88 and the New York State Thruway.

Arterial: The function of an arterial is to carry medium-to-heavy volumes of traffic at moderate to high speeds and provide access to major traffic generators. Examples include NYS Route 51 and that portion of CR 16 from Rt. 51 north.

Major Collector: Provide connections between arterials and local roads at relatively higher speeds (e.g. County Routes 11, 12 &14).

Minor Collector: These roads provide connections between arterials and local roads at comparatively slower speeds and carry moderate volumes of traffic (e.g. County Route 15, CR16 [from NYS Rt. 51 to CR14] & CR 17).

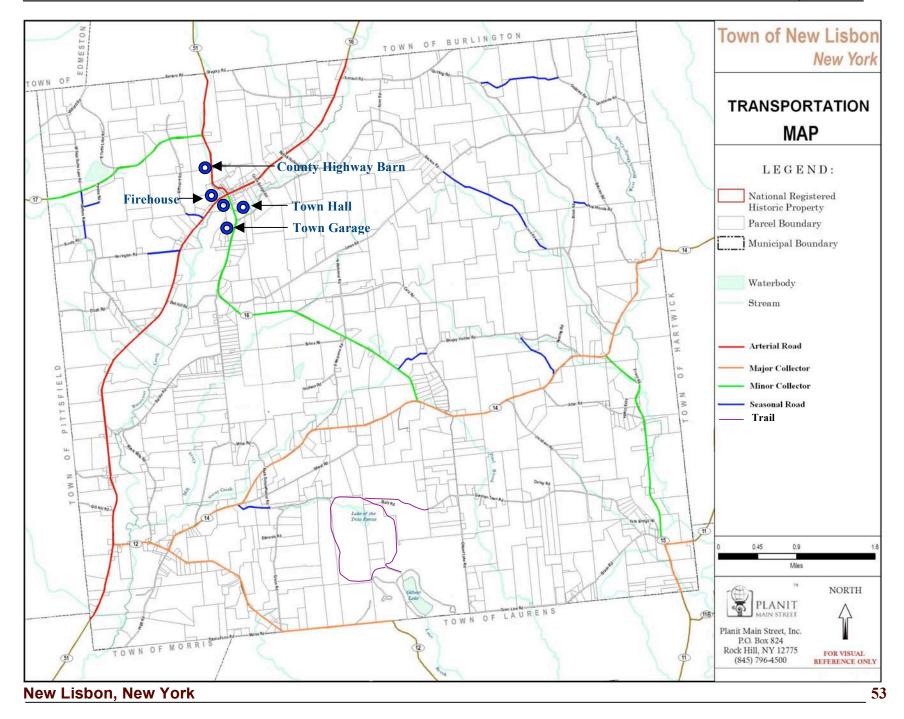
Local: This type of road provides direct access to abutting properties and channels local traffic to collector roads (e.g. rural roads in the Town).







Above (top to bottom): An example of an arterial highway (NYS Route 51); example of minor collector road (Gregory Road) and two local roads (Quinlog and Texas Road) joining Turnbull Road at the Wye.



Transportation

Understanding the Town's roadways in the context of the ITE system is helpful when analyzing transportation needs. For the purpose of this Comprehensive Plan, we have analyzed the major roadways from the perspective of the Town's existing land use regulations in order to ascertain whether revisions to its site plan regulations or subdivision regulations are warranted. The goal is to ensure that the Town's transportation system continues to move goods, vehicles and people in a safe manner.

6.2 Level of Service

The ITE Highway Capacity Manual provides a description of how well traffic flows along highways and roadways that is referred to as Level-of-Service (LOS). The LOS on roadways is described in accordance with a six-step scale from A-F. The LOS A represents the free flow of traffic and a LOS F represents traffic congestion on an area roadway.

LOS A: Free traffic flow, with low traffic volumes and speeds at the posted speed limit.

LOS B: Is in the zone a stable traffic flow, with operating speeds beginning to be restricted somewhat by traffic conditions, however, drivers still have reasonable freedom to select their speed and lane of operation.

LOS C: Is in the zone a stable traffic flow, but higher traffic volumes more closely control speeds and maneuverability.

New Lisbon, New York

LOS D: Approaches unstable flow, with tolerable operating speeds being maintained though considerably affected by changes in operating conditions due to traffic volumes.

LOS E: Level of Service E cannot be described by speed alone, but represents operations at even lower speeds than Level D, with volumes at or near the capacity of the highway. Flow of traffic is frequently interrupted with stop & go motion.

LOS F: Describes forced flow operation at low speeds, frequent stop and go motion, with high traffic volumes at capacity of the roadway. The number of travel lanes alone does not dictate traffic flow.

6.3 Traffic Impact Assessment

It is recommended that the Planning Board use the State Environmental Quality Review Act (SEQRA) process to effectively evaluate potential traffic impacts associated with new development. When impacts are identified, developers should be required to pay for roadway improvements that are needed to mitigate potential impacts.

It is recommended that the Planning Board require a *traffic impact study*, developed by an independent engineer, for any application involving an activity likely to generate more than five-hundred (500) trip-ends per day. Uses that generate this amount of traffic are more likely to affect area roadways.

"The Planning Board Should use the SEQRA Process to EFFECTIVELY EVALUATE TRAFFIC IMPACTS. WHEN IMPACTS ARE IDENTIFIED, DEVELOPERS SHOULD BE REQUIRED TO PAY FOR ROADWAY IMPROVEMENTS THAT ARE NEEDED TO MITIGATE POTENTIAL IMPACTS."

Table 6-1 Trip Generation	
Land Use	Trip Ends
Convenience market	605.6 trip-ends per 1,000 sf
Industrial uses	3.3 trip-ends per employee
Institutional uses	4.0 trip-ends per employee
Fast-food restaurant	23.9 trip-ends per seat
Offices	6.0 trip-ends per employee
Other commercial	50.0 trip-ends per 1,000 sf
Residential uses	9.6 trip-ends per dwelling unit
Restaurants	7.9 trip-ends per seat
Other uses	See ITE Trip Generation
	Manual.

It is also recommended that traffic impact studies examine existing and projected traffic flows before and after development and generally follow the guidelines set forth for such studies by the Institute of Transportation Engineers (ITE). The study should identify solutions to potential problems and any improvements needed. The Planning Board should approve the scope of the study in advance with the final product incorporated into the State Environmental Quality Review Act (SEQRA) submission.

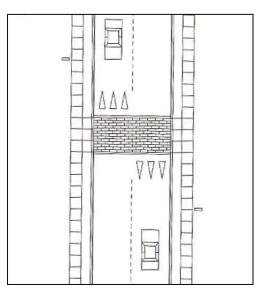
6.4 Traffic Calming

The Institute of Transportation Engineers (ITE) defines traffic calming as the combination of mainly physical measures that reduce the negative effects of motor vehicle use and improve the conditions for non-motorized street users. Traffic calming includes the "three Es" – education, enforcement and engineering.

Education involves public outreach programs that are intended to raise public awareness of traffic calming measures being employed within a community and why such measures are needed. Traffic calming policies – such as yielding to pedestrians - are enforced by the County Sheriff's or State Police. Engineering measures include a variety of traffic calming devices that can be built into development proposals or public improvements. Such measures are used to reduce traffic speed and volume. The engineering aspects of traffic calming are also intended to control driver habits. For example, the number of driveways along a roadway directly affects traffic volume. If you provide an opportunity for drivers to travel between adjacent sites you can effectively reduce traffic volume on area roadways. One of the most effective means of encouraging access between adjacent sites is through the provision of *joint access driveways*. Joint access driveways link adjacent commercial sites to one another allowing traffic to flow between sites without having to re-enter the public right-of-way.

Through the site plan review process, the Planning Board should look for opportunities where joint access driveways can be provided between sites. In some cases, the joint access driveway would be constructed concurrently with the development. In other instances, a *joint access easement* might be required to provide for the future opportunity to create a joint access driveway when adjacent sites are developed.

Other traffic calming measures include textured or painted crosswalks that are used to alert drivers when they are approaching a pedestrian crossing – causing drivers to slow down. Appropriate signage should also be installed to clearly mark the pedestrian crossing so that drivers are alerted to the pedestrian crossing. The creation of pedestrian crossings is recommended where pedestrian traffic is likely to cross a public r-o-w such as in the hamlet centers. Pedestrian crossings between campgrounds/golf courses and off-street parking areas are also recommended. "Through the Site Plan Review process, the Planning Board should look for opportunities where joint access driveways can be provided between adjacent sites."



Above (top to bottom): Illustration showing cross access driveway and easement; illustration showing raised crosswalk that is used to slow traffic as it approached pedestrian crossings.

Transportation

6.5 Road Connectivity

The development pattern in the Town of New Lisbon is still very rural with most homes and farms having their access from existing public rights-of-way (rural roads). It is likely, however, that future subdivisions might involve the construction of new roads if larger tracts of lands are subdivided. When new roads are proposed, it is recommended that the Planning Board carefully look for opportunities for future connections between these roads and adjacent properties in order to mitigate potential traffic impacts in the future. When all the traffic from a subdivision is directed to a single collector road the impact on that road is greater than if the traffic could be diverted to two or more roads.

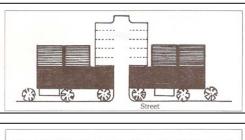
Good road connections help to spread the traffic that is associated with new growth. An interconnected road system allows multiple routes to local destinations so that traffic does adversely affect a single not road. Interconnectivity of roads is also important during emergency events in that it provides alternative routes to emergency responders. It is recommended that the Town's Subdivision Regulations be amended to require road connections between adjacent properties when new roads are proposed and/or the reservation of an easement that would allow for road connections in the future. As the Planning Board reviews subdivisions, it is recommended that they look for opportunities for street connections between adjacent properties.

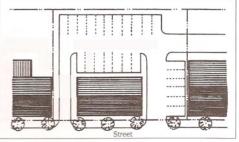
6.6 Off-street Parking and Loading

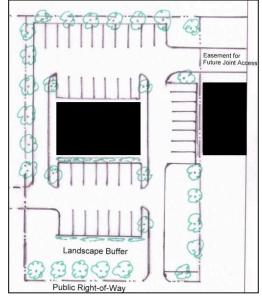
The Town's existing Site Plan Review Law states that applicants shall provide a plan that shows the "adequacy and arrangement of vehicular traffic access and circulation, including intersections, road widths, pavement surfaces, dividers and traffic controls." It also asks that the applicant show the location, arrangement, appearance and sufficiency of off-street parking and loading. However, the Site Plan Review Law does not establish any standards to guide the Planning Board's decisions.

Parking lots should offer direct and easy access for people walking between their vehicles and the building entrances. Pedestrians usually walk in aisles behind parked vehicles or aisles perpendicular to the building face to allow pedestrians to walk to and from the building without squeezing between parked cars. Parking lots should also be appropriately graded to prevent standing water and to provide sufficient circulation to accommodate emergency vehicles through the parking area.

Within the hamlet centers (Garrattsville and New Lisbon) off-street parking lots should be located to the rear of buildings or, if that is not possible, to the side of the building so that the parking area is screened from the public right-of-way. It is recommended that the Site Plan Review Law be revised to include specific standards for off-street parking and loading areas. Recommended standards are provided in the right-hand column.







Above (top to bottom): Recommended parking in hamlet centers to rear of building; recommended rear and side yard parking in hamlet; and recommended parking layout for rural areas (see landscape buffer).

The following parking lot layout and construction standards are recommended:

- No designated parking space shall be designed such that a vehicle might directly back out onto a public right-ofway;
- Each off-street parking space shall be a minimum of nine (9) feet in width by twenty (20) feet in length (perpendicular parking);
- The minimum width of parking aisles between rows of parking shall be twentyfour (24) feet;
- Each entrance and exit shall be clearly defined with curbing, fencing, or vegetative screening so as to prevent access to the parking area from other than the defined entrance and exit;
- Curb width shall be not greater than twenty-four feet in width;
- All access driveways must obtain a driveway permit from the Highway Superintendent; County DPW (County Roads); or New York State Department of Transportation for access from NYS Route 51;
- Off-street parking and loading areas shall be surfaced with a minimum of an 8" base of crushed aggregate and shall be properly graded and drained to dispose of all surface water; and
- All spaces shall be clearly marked for the orderly and safe movement, loading, parking, and storage of vehicles.

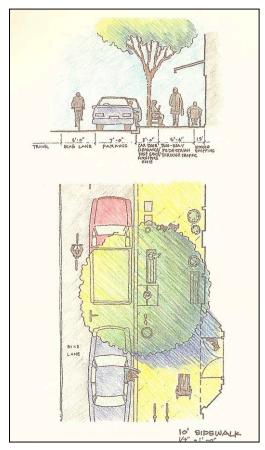
6.7 Pedestrian Policy

It is important that pedestrians are able to move safely and conveniently within the hamlet centers of the Town. One of the best ways to ensure pedestrian safety is through the provision of sidewalks. Within the hamlet centers of Garrattsville and New Lisbon sidewalks should be encouraged to promote pedestrian safety. In Garrattsville, sidewalks could be provided along the public right-of-way in the center of the hamlet with an appropriate green space between the sidewalk and right-of-way to further separate vehicular and pedestrian movements [see illustration to the right]. A sidewalk network in the hamlet would allow people to walk from their home to church, the Post Office, Town Hall or general store without walking in the street.

There are State funds that could be made available to assist in the funding of sidewalks in the hamlet centers. These include funding through the New York State Department of Transportation. When NYSDOT conducts roadresurfacing programs along Route 51, it typically includes funding for off-road improvements such as curbing and sidewalks that it refers to as "Betterments." Another potential source of funding is the New York Main Street program that could provide up to \$25,000 for streetscape enhancements that are part of a Main Street revitalization program. Other sources of funds include "Member Items" through State representatives. This plan supports efforts to create a sidewalk system in the hamlet centers.

"STREETS AND THEIR SIDEWALKS, THE MAIN PLACES OF A CITY, ARE ITS MOST VITAL ORGANS."

Jane Jacobs



Source: Creating Livable Streets – Metro 2002, Portland Oregon

6.8 Trails and Bicycle Policy

Through the Comprehensive Plan Survey, residents were asked which type of recreational activities should be in the Town. Of those that responded, the highest percent (53.47%) chose off-road hiking and biking trails and (33.17%) chose bicycle lanes along State/County highways. Creating bicycle lanes or hiking and biking trails is something that requires regional cooperation. This is because the best bike lanes and trails extend for many miles transcending municipal boundaries.

There are regional agencies such as the New York State Department of Transportation and Otsego County that play an active role in the development of bike lanes and trails. The Otsego County Conservation Association and Otsego County Tourism office have promoted Otsego County's hiking trails in a brochure entitled "Walks & Paddles." It is recommended that the Town Board coordinate with these entities to develop more off-road hiking and biking trails within the Town.

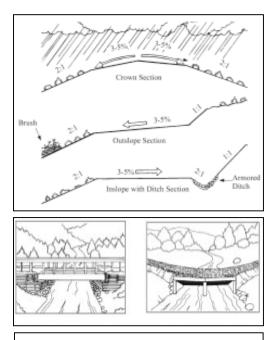
Another State agency that can play an important role in helping to provide additional off-road hiking and biking opportunities within the Town is the New York State Department of Environmental Conservation that manages Gilbert Lake State Park and the Texas Schoolhouse State Forest. It is recommended that the Town reach out to these agencies to create more off-road trails in the Town. The New York State Department of Transportation is the agency most likely to be able to assist the Town in the development of bicycle lanes. *The Town should coordinate with and support efforts by regional entities to create new bikeways and trailways within the Town.*

6.9 Unpaved Roads

Many of the low-volume rural roads in the Town of New Lisbon are unpaved roads. When properly designed and maintained, unpaved roads are a viable component of the transportation network with a lower construction and maintenance cost than paved roads.

Some complaints associated with unpaved roads include dust during the summer months and rutting during the Winter & Spring. Unpaved roads can also generate sediment from the driving surface, ditches and road banks. The sediment from unpaved roads can have adverse impacts on local creeks and streams. Numerous studies show that unpaved roads are the dominant source of surface erosion and stream pollution.

However, the potential adverse impacts can be significantly reduced when unpaved roads are properly designed and maintained. It is important to maintain the base and crown of the unpaved road to direct the flow of runoff and prevent erosion. Drainage ditches should have a flat surface with vegetation to trap sediments and absorb nutrients (see right-hand column).



Above (top to bottom): Crown is the practice of elevating the center of the road higher than the shoulders in order to force water to drain laterally off the roadway. When re-grading crowns need to be rebuilt to original specifications. The runoff should be directed to ditches. lt is recommended that ditches be armored with riprap to reduce erosion along with the planting of vegetation since deeprooted plants are most effective means of reducing erosion from runoff. Check Dams [made of 4-6" rocks placed periodically in roadside ditches] can be used to slow water flow but need to be periodically cleaned of sediment and debris with a backhoe and dump truck.

The bottom image shows two bridges. The one to the left conforms to the natural stream width allowing for uninterrupted flow. The image to the right restricts stream flow and is not recommended.

New Lisbon

Transportation

Recent studies through *Pennsylvania's Dirt and Gravel Road Maintenance Program* demonstrate that aggregate surface roads provide significant increases in stability over earthen surfaced roads, while avoiding the high placement and maintenance costs associated with pavements. Their studies showed that the use of higher quality, more stable aggregates [known as *Driving Surface Aggregates* (DSA)] result in significant reductions to both the cost of maintaining gravel roads and the environmental concerns related to unpaved road runoff.

Studies showed that the DSA was less susceptible to rutting and there was no significant change in road elevation over a threeyear period of testing. The DSA specification developed by the Center does not allow for the addition of clay or silt fines that are more readily available for erosion as dust or sediment. The binder used in the DSA is made entirely of crushed rock. The use of the DSA also helped to reduce the amount of dust that is generated from natural surface roads.

It is recommended that the Town Board and Highway Superintendent look into the use of *aggregate surface roads* as an alternative to paving low-volume roads. It is also recommended that they coordinate with the Upper Susquehanna Coalition to secure funding through the EPA Targeted Watershed Grant program to create an unpaved road/ditch improvement plan. EAP funding can be used to train highway personnel on new techniques to manage runoff.

6.10 Butternut Valley Scenic Byway

The New York State Route 51 corridor from Mount Upton to West Winfield offers one of the most picturesque drives in New York State. The road travels through the Village's of Gilbertsville and Morris as it continues north through the hamlets of Garrattsville, West Burlington, Burlington Flats, West Exeter, and Woods Corners before ending at the Village of West Winfield. The southern portion of NYS Route 51 – from Mount Upton to Garrattsville – traverses the bucolic *Butternut Valley* that contains significant scenic and historic resources.

Each year the NYSDOT invites applications from communities for designation of scenic roadways as New York State Scenic Byways. In addition to scenic resources, Scenic Byways should also have significant cultural, natural, and historic resources that help to tell the story of the proposed Byway. The Route 51 corridor has all of these attributes. A Corridor Management Plan must be prepared before a road can be designated as a NYS Scenic Byway. Each plan must outline how the Scenic Byway will be marketed to promote economic development, how the communities along the byway plan to protect the resources along the byway and how they will accommodate visitors.







Above (top to bottom): Antique shop on Main Street (NYS Route 51) in Morris, NY; barn at the Old Morehouse Farm on Route 52; and historic barn in the hamlet of New Lisbon just off of the Route 51 Corridor on the way to Gilbert Lake State Park. The Butternuts Beer & Ale Brewery is another amenity along the NYS Route 51 Corridor.

Once designated a NYS Scenic Byway, a byway becomes eligible for funding from NYSDOT for marketing efforts, scenic overlooks, informational signage, visitor centers and a variety of other activities. Designated NYS Scenic Byways also are prominently displayed on I LOVE NY maps.

This helps to draw attention to the communities along the Byway increasing the likelihood of attracting visitors. Scenic Byway designation of the NYS Route 51 corridor could help the Town further grow the Arts & Entertainment industry. Designation would also help to support existing businesses such as the Butternuts Beer & Ale Brewery and the proposed golf course off of Elliot Road.

The process of securing scenic byway designation could take several years and will require the cooperation of all the municipalities along the NYS Route 51 corridor. It is recommended that the Town Board first reach out to its neighboring municipalities to see if there is sufficient interest in pursuing a New York State Scenic Byway designation for NYS Route 51. If so, it should then reach out to the Otsego County Tourism office, Otsego County Planning Department, Otsego County Conservation Association and the New York State Department of Transportation Region 9 Office in Binghamton to begin the process of designating NYS Route 51 as a New York State Scenic Byway.

6.11 Seasonal Roads

There are a number of road segments within the Town of New Lisbon that are closed during the winter months since there are no residences on these road segments. The Town Board and Highway Department has a long-standing policy that very low-volume road segments that have no year-round residential dwelling units will not be maintained during the winter months. This Plan recommends that the Town Board and Highway Superintendent should continue to monitor the exiting transportation system to determine which roads should be maintained on a seasonal basis. maintenance of well-maintained Seasonal unpaved roads can help to reduce nutrient loads from road salts while saving taxpayer dollars. The policy is supported by this Plan.

6.12 Recommendations

The following is a summary of recommendations that are described in greater detail above:

The Planning Board should require a traffic impact study, developed by an independent engineer, for any application involving an activity likely to generate more than five hundred (500) trip-ends per day. Any land use that generates this amount of traffic is more likely to affect area roadways. A traffic impact study will help to identify potential impacts along with appropriate mitigation measures.

Local Law # 2 of 2007

This Comprehensive Plan supports the provisions of Local Law #2 of 2007 of the Town of New Lisbon to limit the construction of permanent or yearround residences on seasonal Town roads. The purpose of this Local Law is to control and limit the issuance of building permits for the construction of permanent residences on New Lisbon Town Roads which are designated as seasonal roads, so as to enable the Town to better control the Town's cost and obligation to open a significant portion of an existing seasonal road for only one or a few residences. Seasonal maintenance of very low volume road segments can also help to reduce the nutrient load from roads salts during the winter months.

Under the provisions of Local Law #2 of 2007, no permit shall be issued to construct, modify or otherwise create any structure intended to be, or suitable as, a permanent year-round residence on any seasonal Town Road unless the driveway or other means of access to the parcel upon which said structure is to be situated, is no more than 200 feet distance from that section or portion of the road that is a year-round road.

The Local Law provides an exception to those landowners who are willing to accept the responsibility and liability for providing and maintaining their own ingress and egress to their property and structure. It is a recommendation of this plan that such access is built to Town Road standards.

New Lisbon

Use the State Environmental Impact Statement Process to Mitigate Potential Traffic Impacts. The Town can require environmental impact statements for large-scale residential and commercial developments that may have an adverse impact on the transportation system. Through the environmental review process impacts can be properly assessed and mitigation measures provided.

Incorporate congestion management practices into the site plan review process. Where feasible, the Town should require joint access agreements between adjacent commercial properties to reduce the number of curb cuts onto area roadways.

Encourage joint access driveways between adjacent commercial sites. The Planning Board – through the site plan review process – should look for opportunities where joint access driveways can be provided so that traffic can flow between sites without having to re-enter the public right-of-way.

Require interconnection of roadways between subdivisions and/or provide for future connectivity. When reviewing subdivision applications, the Town should carefully review proposed roadways in the context of its existing transportation system. New roads should provide connections to existing roads where they are feasible. To this end, the use of cul-de-sacs should be discouraged unless an applicant can make a compelling reason otherwise. Off-street parking should be located to the rear or to the side of buildings so that the parking area is screened from the public right-of-way. Situating the parking to the side or rear of commercial buildings will help to maintain the integrity of the streetscape in the hamlet centers.

Revise the Site Plan Review Law to include specific standards for off-street parking and loading areas. The creation of specific offstreet loading and parking standards will help guide the Planning Board's decisions while ensuring that sufficient off-street parking is provided for all land uses.

Support efforts to create a sidewalk system within the hamlet centers. The creation of a limited system of sidewalks within the hamlet centers would help to reduce potential vehicularpedestrian conflicts. State and federal funding may be available to install sidewalks in the hamlet centers.

Support efforts by regional entities to create new bikeways and trailways. Coordinate with the County and NYSDOT to advance these plans.

Further explore the feasibility of using aggregate surface roads (ASR). ASR could be a costeffective alternative to paving low-volume roads.

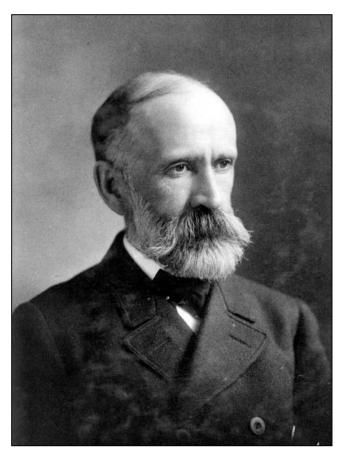
Explore feasibility of creating a Butternut Valley Scenic Byway with neighboring towns. Scenic Byway designation could help promote tourism while protecting community character. "ENSURE THAT THE SIGHT DISTANCE FOR PROPOSED DRIVEWAYS IS SUFFICIENT TO PROVIDE A SAFE MEANS OF INGRESS AND EGRESS TO HOME AND COMMERCIAL BUSINESSES." **Israel Cook Russell, LL.D.** (1852-1906) was an American geologist who explored Alaska in the early 20th century. He was born at Garrattsville, New York on the 10th of December 1852. He received B.S. and C.E. degrees in 1872 from the University of the City of New York (now New York University), and later studied at the School of Mines, Columbia College, where he was assistant professor of geology from 1875-77.

In 1874 he accompanied one of the parties sent out by the United States government to observe the transit of Venus, and was stationed at Queenstown, New Zealand. On his return in 1875 he was appointed assistant in geology at the School of mines, and in 1878 he became assistant geologist on the United States geological and geographical survey west of the 100th meridian.

In 1880, he became a member of the United States Geological Survey. He represented the USGS in 1889 in an expedition sent to Alaska by the USG&GS to establish a portion of Alaska's eastern boundary. During the next two years, he explored, under the joint auspices of the USGS and the National Geographic Society the slopes of Mount Saint Elias and the Yakutat Bay area.

In 1892 he became professor of geology at the University of Michigan. At the time of his death, he was *President of the Geological Society of America*.

In 1906, Marcus Baker of the USGS named Russell Fiord in Russell's honor. Besides large contributions on geological subjects to various scientific periodicals, he published scientific memoirs, which have been issued by the government in the annual reports of the survey, or as separate monographs (*Source:* Wikipedia, the free encyclopedia).



New Lisbon

ⁱ Source: History of Otsego County 1740-1878; Press of W.E. Morrison & Co., Ovid, New York 1978.

ⁱⁱ The Hard & Peck Store played an important role in the development of the hamlet of Noblesville that would be later renamed to New Lisbon. iii Carding is the processing of brushing raw or washed fibers to prepare them as textiles. Cotton and wool are the most common fibers to be carded. Within the Town of New Lisbon, the primary use of the carding machine was for the processing of wool. Carding ensures that the fiber is thinned out and evenly distributed along a roll to facilitate spinning. The two main ways to card fibers are by hand, and by machine. Machine carding greatly increased efficiency and allowed for a higher volume of wool to be processed for export.

^{iv} Gilbert Lake got its name from Benjamin Gilbert, a Revolutionary soldier from Connecticut, who settled in the vicinity of the lake after the war. *Source: The New York State Civilian Conservation Corps Museum.*

^v Today, Gilbert Lake State Park includes 33 cabins and two hundred and twenty one camp sites with bathing facilities.