

TOWN OF MAMAKATING
VILLAGES OF BLOOMINGBURG AND WURTSBORO
SULLIVAN COUNTY, NEW YORK

**COMPREHENSIVE MASTER PLAN FOR
CONSERVATION AND DEVELOPMENT**



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INTRODUCTION

The Town of Mamakating, and its incorporated villages, Bloomingburg and Wurtsboro, commenced a comprehensive planning process. In a spirit of cooperation, these three communities seek to create a blueprint for the future that respects and revitalizes the existing village centers, preserves the town's natural historic and scenic assets, and stimulates economic development.

New York State Law regulates the preparation of comprehensive plans. Section 272-a of Town Law, and Section 7-722 of Village Law, state that a comprehensive plan is one that will “identify the goals and objectives, principles, guidelines, policies, standards, devices and instruments for the immediate and long-range protection, enhancement, growth and development” of a town and village. The preparation of a comprehensive plan is not mandatory; however, if one is prepared, it must be adopted by a Town or Village Board, and any subsequent land use regulations must be in accordance with a community's adopted plan.

The Mamakating Comprehensive Plan has been prepared in a three-phase process. The first phase involved the preparation of an Existing Conditions report, which provided baseline data on population and housing, natural resources, community facilities, land use, transportation, utilities and places of distinction. The findings of the existing conditions analyses, and public comment, have been used to establish a list of issues confronting the Town and its villages. These include the following:

- Need for Economic Development
- Potential Loss of “Rural” Environment
- Lack of Town Focus
- Concern over Changes to existing Quality of Life
- Continued Viability of Existing Hamlets
- Neighborhood Preservation
- Loss of Agricultural Uses
- Aesthetics of the gateways/entries to the Town
- Public Parks - Need and Distribution
- Potential Negative Effects of Strip Development
- Negative Effects of Development on Ridgelines
- Lack of Cluster Residential Development
- Poor Pedestrian Circulation outside the Villages
- Impact of Technological Changes on Town Economy
- Residential Growth and Inadequate Infrastructure Capacity, e.g., intersections, to accommodate additional demand.

Following the review of existing conditions and the issues confronting Mamakating, the Master Plan Committee prepared a Vision Statement. The Vision Statement is a description of the Town's philosophy on conservation and development, and the desired community pattern of growth over the next 10-20 years. The Vision Statement is supported by a specific set of goals and objectives for achieving Mamakating's vision.

Following the Goals and Objectives are the key elements of the Comprehensive Plan. These elements include the broad strategies for achieving the goals and objectives of the Plan. This Comprehensive Plan includes the following elements:

- CONCEPTUAL LAND USE PLAN
- ECONOMIC DEVELOPMENT
- ENVIRONMENTAL PROTECTION
- INFRASTRUCTURE
- COMMUNITY FACILITIES AND SERVICES
- PLACES OF DISTINCTION
- TRANSPORTATION
- COMMUNITY DESIGN

The Conceptual Land Use Plan establishes the framework within which development will occur. The Land Use Plan identifies open space areas, neighborhood, hamlet and village development areas, as well as key economic development areas. These land use patterns have been formed by avoiding sensitive environmental features, outlined in the Environmental Protection element, and by enhancing opportunities for utilizing and/or expanding existing infrastructure and community facilities and services. In addition, the Comprehensive Plan identifies the features unique to Mamakating's history worthy of preservation – these resources are identified in the Places of Distinction element. Lastly, the Comprehensive Plan includes a discussion of design features that will ensure that new development is accommodated in a manner that preserves the existing scenic quality of the Town and its villages.

This Comprehensive Plan document includes an implementation section that outlines the techniques for achieving the community vision, including adoption of an official map, zoning revisions, and other implementation measures.

I. VISION STATEMENT

The Town of Mamakating and its two incorporated villages, Bloomingburg and Wurtsboro, seek to create a balanced community that provides various economic development opportunities; expands residential neighborhoods and communities with a range of housing types and services based on their ability to accommodate additional growth; and preserves the Town's natural, scenic and historic qualities. This concept has emerged through a community survey, public participation, and master plan committee input. Ultimately, Mamakating's Vision Statement provides a portrait of the community as it approaches and enters the 21st century.

The Town of Mamakating is a unique and diverse community, nestled at the foothills of the Sullivan County Catskill region. Its diversity is reflected in its geology, topography, population and economy. The majority of the Town's population is found in the two valleys which lie on either side of the Shawangunk Ridge - the Homowack Kill/Basher Kill and Shawangunk Kill valleys. The presence of this ridgeline has created a Town with two distinct community centers - the Village of Bloomingburg located along the Shawangunk Kill, and the Village of Wurtsboro found along the Basher Kill. The communities on either side of the ridge grew from the introduction of canal, rail and highway connections to the New York City metropolitan region to the south.

Located along the Quickway between the Sullivan County seat of Monticello, and the rapidly expanding Middletown/Walkkill commercial center in Orange County (**Figure 1**), Mamakating is slowly being converted from a rural, seasonal refuge for residents of the metropolitan region to a year-round bedroom community for those seeking an alternative lifestyle to the growing suburbs immediately south. The conversion to a year-round population is part of a larger regional trend being experienced throughout Sullivan and neighboring Orange and Ulster counties; this expansion is having a significant impact on the character of the community and its economy. Of primary concern to many residents is the fiscal implication of the growing school-age population in the three-county region which impacts the six school districts covering portions of Mamakating: Ellenville, Port Jervis, Pine Bush, Monticello, Fallsburg, and Minisink Valley. It is important to address this concern within the context of the Town's Vision Statement because it has broad land use and community service implications.

This concern was expressed in a 1996 Townwide survey conducted as part of the Master Plan process. Approximately 29 percent of the respondents rated **economic development** as the most important objective to pursue, while approximately 20 percent identified the issue of **mitigating the impact of increasing taxes** as the most important objective. Balancing this fiscal concern is the 16 percent response from individuals who believe that **conservation** is the most important objective to pursue.

Perhaps more telling are the responses to why homeowners moved to Mamakating: 60 percent identified clean safe neighborhoods as the most important factor, while 55 percent identified natural resources, and 45 percent identified low property values and taxes as most important.

The fiscal stability of a community is every community's concern - high tax levies can reduce housing affordability, and can dampen economic development activity. Therefore, the need to create fiscal balance is an important consideration in the land use decisionmaking process. For example, a land use decision to cluster new homes along existing low volume roadways will minimize the cost of servicing new roads, a service provided exclusively by the Town. Alternatively, the introduction of a new office building within a school district will have a positive, but limited impact on Mamakating landowners within that district due to the regional character of the school districts. In fact, the land use decisions of other, larger "host communities", e.g., Pine Bush, will have more of an impact on the district than Mamakating. Therefore, the pursuit of economic development must be weighed not solely on fiscal merit, but also on any direct impact that will be experienced - on Town community services, neighboring land uses, etc.

Mamakating's vision of its future does not seek to solve the fiscal issues inherent in regional associations, but to create a balanced community and economy in the area over which it has ultimate decisionmaking powers - the Town and its villages. This balanced community will provide a range of housing opportunities based on the ability to provide infrastructure and in close proximity to existing service centers. Mamakating will provide economic development opportunities for small and large businesses in a variety of environments, ranging from industrial parks to Main Street. Economic development will be pursued not only to create fiscal balance within the Town of Mamakating, but to provide a range of employment opportunities in close proximity to its residents. When employment is provided in close proximity to employee residences, it provides a better quality of life by reducing the amount of travel time spent commuting. This may even enable more community involvement.

Development will be accommodated within the overall framework of balancing the need to accommodate additional growth with the desire to protect the natural and historic resource base which provides Mamakating and its villages with its scenic rural setting. The following articulates the vision of community conservation and development within which land use policies and decisions will be made.

Ridge and Valley Protection Areas

Several large, unique geologic and natural resource settings are prevalent in the Town, and lend Mamakating its unique sense of place. Destruction of these resources would diminish this unique character. The Shawangunk Ridge and the Bashakill Wildlife Management Areas are locations which should ultimately be retained for public use and benefit, and should remain in open space. Recreational uses consistent with their unique ecosystems will be encouraged. By encouraging the recreational use of these resources, through hiking, mountain biking, fishing, etc., Mamakating can expand its tourism base by providing services and overnight accommodations for visitors as part of a balanced economy.

Mountain Greenbelt

The purpose of the Mountain Greenbelt is to retain the open space and very low-density residential character of Mamakating west of the Basher Kill valley. Much of the topography and soil

characteristics within the Mountain Greenbelt are not conducive to higher density residential development.

Single-family detached homes should be clustered along existing Town and County roads to avoid the costly servicing of scattered, isolated residential subdivisions. Gross density in the Mountain Greenbelt will be approximately one dwelling/unit per 10 acres. However, net density would probably range between 0.5-1.0 dwelling units per acre, i.e., single family residences on one and two-acre lots; this size is necessary to adequately accommodate septic systems and individual wells.

To preserve the Mountain Greenbelt as a low-density, open space area, it is proposed that agricultural uses be permitted on lots of five acres and greater. Hobby farms, which help to retain the agricultural/rural flavor of the Town, are encouraged. In addition, uses such as conference centers with accessory overnight accommodations which preserve large tracts of land within their natural state and provide recreational opportunities are encouraged.

Burlingham Residential Area

The Burlingham Residential Area is that area located east of the Shawangunk Ridge and north of Route 17. Here, soils are conducive to building development. It is anticipated that the majority of residential expansion will occur in this location. Single family detached dwellings are recommended at a density of approximately 1 dwelling unit/acre, since it is anticipated that residences will be largely served by individual well and septic systems.

Mountain Residential/Agricultural Area

This designation encompasses the northwestern corner of the Town and represents an extension of the Mountindale Hamlet in the adjoining Town of Fallsburg. The gross residential density is recommended at one dwelling unit/3 acres. Hobby farms would be permitted.

Winterton Residential/Agricultural Area

A scenic area of the Town, the Winterton area is served by a rural rambling road which links the last remaining concentration of farms in the Town to the Village of Bloomingburg. To the greatest extent practicable, these uses should be encouraged to remain. Agricultural uses not only provide the community with its rural character, but demand very little in community services, and provide a tax benefit to the community. The gross residential density is recommended at one dwelling unit/3 acres; however, development is intended to be clustered on lots as small as 1/4 dwelling unit per acre to retain the large areas of viable agricultural land in open space, provided soil conditions can accommodate this density or alternative waste disposal systems are developed. Scenic Winterton Road should be retained in its existing configuration to the greatest extent possible. Hobby farms would be permitted.

Residential Neighborhoods

There are several medium density residential neighborhoods which will retain their single-family character. These include but are not limited to Wurtsboro Hills, Mountain Lake Camps, and the

lake communities. Densities will range between 1/4 to 1/2 units per acre. This provides the community with neighborhood clusters housing significant portions of the existing and future population. These more concentrated areas of development should be prioritized for central water and sewer systems, and in-fill residential development is encouraged.

Mixed Use Hamlet Centers

The Town has several historic hamlet centers that can accommodate limited retail and personal service uses, as well as neighborhood community facilities and serve as the focus of residential clusters with a variety of housing types. In addition, the expansion of these mixed use hamlet centers should be encouraged when the Town Center and Village Center have experienced the revitalization and stabilization of their own economies. This plan proposes the expansion of three hamlets in the Town, which are the following: Westbrookville, Phillippsport, and Summitville. Located along U.S. Route 209, these hamlets can more readily accommodate increase in traffic than those located on the Town or County Road system.

The hamlet centers are intended to be revitalized and support tourist-related activities, in addition to small convenience retail activities. Residential densities should be permitted up to 4 dwelling units per acre; however, without the availability of centralized sewer and water, the ability to accommodate this density is limited in the near term.

Village Center

Bloomingsburg is identified as a Village Center intended to meet the day-to-day needs of the population residing on the east side of the Shawangunk Ridge. It will serve the local needs of the Winterton, New Vernon, Burlingham, Roosa Gap and High View hamlets. The Village Center also serves the needs of the adjacent economic development area to be located immediately adjacent to the Village along Winterton and Burlingham Roads.

A mix of residential uses should be accommodated in the Village center, including single-family attached, two-family and senior citizen housing. The Village's central sewer system will enable the Village to accommodate a denser residential housing base. A maximum of 8 dwelling units per acre could be supported. This denser residential population will help to revitalize the village. Along Main Street, particularly east of North/South Streets, additional commercial in-fill is encouraged. New nonresidential uses should be built to a Village scale - large scale buildings, with their expansive parking requirements, are to be located in the economic development areas adjoining the village. Over time, as the economy expands, the Village Center should be revitalized with street trees, curbing, sidewalks, and benches, and the integration of small public gathering places, particularly at its primary intersection.

Town Center

Wurtsboro, with its concentration of Townwide services, is identified as the center of activities which serve the entire Town. In addition, it is also the village center for accommodating the day-to-day needs of residents located on the west side of Shawangunk Ridge, and provide specialty shops catering to the tourist trade. It will serve the broader retail and service commercial needs of

residents in Westbrookville, Summitville, Phillipsport, the Mountain Greenbelt and lake neighborhoods. The Town Center will also serve the employee base generated by the economic development areas proposed along U.S. Route 209 and Mountaindale Road.

Sullivan Street is the commercial heart of the community, and should be retained in its existing village scale environment. New in-fill development should be sensitive to the existing scale of buildings and pedestrian orientation of this environment. Over time, as the economy expands, the Town Center should be revitalized with street trees, curbing, sidewalks, and benches, and the integration of small public gathering places.

Residential development is to be accommodated on either side of Sullivan Street. Residential densities at a maximum of 8 dwelling units/acre are recommended. Wurtsboro can accommodate higher densities since it utilizes central water; however, individual sites must take into consideration the soil characteristics to accommodate a septic system, and to avoid impacting groundwater resources. All new residential development should be laid out in a grid pattern similar to the existing village, with appropriate street trees and sidewalk connections provided to Sullivan Street.

A primary objective is to retain the Kaufman Farm in agricultural use. However, should this no longer be possible, Kaufman Farm could accommodate a planned nonresidential or mixed use development laid out at a village scale.

Large-Scale Economic Development Areas

The Town envisions setting aside six areas for potential large-scale nonresidential development. These areas are intended to benefit the local economy by providing additional nonresidential ratables, providing local employment opportunities, and creating an employee base which could utilize the local retail and personal service establishments within the Village and Town Center. These economic development areas are the following:

- **Mountaindale Road Economic Development Area.** Due to the current nonresidential use of portions of this area, including a transfer station and extractive industry, it is recommended that large-scale nonresidential uses consistent with these operations be pursued in this location. Water quality protection measures will be pursued to protect the adjoining South Brook, which adjoins this economic development site. The surrounding area contains limited residential development; however, adequate buffers will be required to protect any existing residential uses from nonresidential uses. It is anticipated that this area could accommodate heavy industrial uses since it has reasonably good regional road access.
- **Yankee Lake Economic Development Area.** This EDA is located on the south side of the Quickway along the Mamakating's western border with the Town of Thompson. Access is gained via Exit 111 located in Thompson. The purpose of this EDA is to take advantage of vacant land located in close proximity to Route 17. The purpose of this EDA is to promote economic development on vacant land in close proximity to one of the Town's major highway interchanges by encouraging low impact non-residential uses as well as tourist-related activities and resort development.

- The Exit 112 Economic Development Area North is located on the north side of the Quickway at Exit 112. Property in this EDA has frontage on County Road 172 in the vicinity of the interchange, as well as additional frontage on County Road 56. The purpose of this EDA is to promote economic development on vacant land in close proximity to one of the Town's major highway interchanges and encourage tourism-related activities and resort development. Since this area slopes up from the Quickway, it may be visible from the regional road system. Development needs to be accommodated in a manner that protects the Town's rural visual environment. Special precautions must be taken to ensure that any proposal does not have a negative effect on the neighborhood character of Mountain Lake Camps and Wurtsboro Hills. To the extent possible, utilities and services provided within the EDA should be extended to benefit these areas.
- Exit 112 Economic Development Area South is located on the south side of the Quickway at Exit 112, and adjoins County Road 166. The purpose of this EDA is to take advantage of the proximity of major parcels of vacant land in close proximity to the highway. Since this area is visible from the regional road system, development needs to be designed in a manner that protects the visual environment.
- Wurtsboro Airport Economic Development Area is located east of U.S. Route 209 and adjacent to and surrounding the Wurtsboro Airport. This corridor contains few residential uses that would be inconsistent to large-scale nonresidential uses, and has excellent frontage along a major state highway which in turn connects to a major link in the regional road system, the Route 17 Quickway. Development should be visually buffered from Route 209, with large front setbacks, to retain the open character of this thoroughfare. Uses should be planned as a unit, e.g., business park, with coordinated access points to minimize turning movements onto Route 209. The Town could establish an economic development group to cooperatively develop a business park and actively market the site.

Light industrial, research and office uses are recommended for this location. A mix of these uses is recommended to minimize heavy vehicle traffic traveling through Wurtsboro to access this economic development area.

- Winterton/Burlingham Road Economic Development Area is located on either side of the Village of Bloomingburg. On Burlingham Road, expanded access should be provided from Route 17 to avoid traffic impacting the North/South Street and Main Street intersection. For the Winterton Road area, a new circumferential road should be constructed to avoid this intersection. Office and light industrial uses are recommended for this economic development area. However, a buffer is recommended between this development and the village to protect village residents from the environmental impacts of large-scale nonresidential uses. The economic development area extends from Burlingham's intersection with Route 17 to the existing sand and gravel quarry on Winterton Road.

In summary, this Vision creates a balanced community providing various economic development opportunities; residential neighborhoods and communities with a range of housing types and services based on their ability to accommodate additional growth; and preserves the Town's natural, scenic and historic qualities without overburdening the Town's infrastructure system and the environment.

The Vision Statement provides a brief overview of the Town's future. The Master Plan will provide a detailed description of specific recommendations for these areas in terms of densities, infrastructure, design guidelines, and implementation methods.

II. GOALS AND OBJECTIVES

The Comprehensive Plan is based on a set of goals and objectives that will enable the Town to achieve its desired land use pattern and unique sense of community described in the Vision Statement. The goals are value statements that describe the aspirations of the community, and the objectives are the ends that will be reached if the plan is properly implemented.

LAND USE:

Encourage a land use pattern that reinforces the rural character of the unincorporated portion of Mamakating, and promotes a sense of community through the expansion and revitalization of Bloomingburg, Wurtsboro, existing hamlets and neighborhoods.

- Limit development and uses within areas unsuitable for intensive building development due to environmental unsuitability or distance from existing utilities, transportation, and community facilities.
- Discourage strip commercial development on the Town's major road corridors.
- Encourage a broader range of housing densities consistent with the hierarchy of neighborhoods, hamlets, and villages.
- Encourage nonresidential uses within the villages, hamlets, and economic development areas.
- Protect agricultural uses in the Town.
- Protect the open space character of Shawangunk Ridge and the Basher Kill.

Economic Development:

Promote economic development that will expand the Town's ratable base and will provide existing and future residents with a range of business and employment opportunities.

- Protect the significant environmental features in the Town as a means of promoting tourism activities, and accommodate land uses adjacent to these resources that would benefit economically.
- Revitalize the hamlets and recapture their historic charm to promote tourism and re-establish local commercial and retail trade.
- Encourage second home development, which aids in expanding the tax base, and demands fewer year-round community services.
- Set aside land for economic development areas to accommodate planned, larger-scale nonresidential development for the long-term future.
- Promote service commercial and retail uses in the villages that satisfy Town needs.
- Acknowledge and accommodate changing technology as it relates to expanded/dispersed employment opportunities in residences.

Environmental Protection:

Conserve the diverse and unique natural resources that establish the rural character of the Town.

- Protect environmentally sensitive ecosystems, including Shawangunk Ridge and the Basha Kill valley.
- Situate developments in a manner that protects meaningful expanses of ecological habitat.
- Restrict development on land with slopes 25 percent or greater.
- Avoid the disturbance of watercourses, and freshwater wetlands, and maintain adequate buffers between these systems and adjoining development.
- Protect aquifer recharge areas by limiting development within and adjoining these areas.

Infrastructure:

Provide essential infrastructure in areas planned for higher density residential and planned nonresidential development.

- Develop a municipal water supply system in the Village of Bloomingburg which can be expanded to serve the Burlingham neighborhood.
- Develop a municipal sewage treatment system in the Village of Wurtsboro.
- Tie economic development areas into the existing and proposed infrastructure within the villages.
- Encourage the development of communal water and sewage treatment systems within the Town's hamlets.
- Explore the feasibility of providing communal water and sewage treatment systems within existing small lot, residential neighborhoods, and to the extent practical, implement these systems.

Community Facilities and Services:

Ensure that community facilities and services continue to serve adequately the populations they are intended to serve, and to introduce or expand facilities in areas planned for future development.

- Promote the expansion of Townwide community services and facilities within the Village of Wurtsboro, which represents the economic and social center of the Town.
- Promote the expansion of districtwide community services, e.g., schools, fire village offices, etc., within the Village of Bloomingburg and the Village of Wurtsboro.
- Assure the timely delivery of emergency services.
- Develop community parks that are readily accessible to existing and planned population concentrations in the Town.
- Develop private-public partnerships for the efficient sharing and expansion of community facilities and services.

- Promote cooperation and sharing of services between the Town and its villages to promote cost efficiencies.

Historic Preservation:

Preserve the Town's cultural and historic resources and special places which reinforce the Town's unique identity and are a source of pride for all residents.

- Revitalize existing historic structures that provide the Town's communities with its sense of place.
- Provide incentives for the adaptive reuse of the Town's historic resources by permitting a wider range of uses to occur in historic structures.
- Develop a voluntary recognition program for the Town's historic resources.
- Develop a town logo that recognizes the Town's history.
- Develop a uniform sign program for identifying historic resources in the community.

Transportation:

Ensure the efficient movement of people and goods and promote economic development activities in areas near major transportation corridors.

- Define a hierarchy of roadways according to function and form, and implement a set of roadway specifications consistent with the anticipated level of use.
- Designate bicycle corridors along roads that link neighborhoods with the hamlets and villages.
- Reduce the volume of vehicles accessing main thoroughfares within the villages by promoting a grid system that diffuses traffic over the roadway network.
- Limit the creation of new roadways outside of the villages and hamlets by clustering new development along existing roads.
- Convert historic rail rights-of-way into multiple use pedestrian, horse and non-motorized bicycle corridors.
- Provide continuous pedestrian corridors within villages and hamlets.

Community Design:

Reinforce the rural character of Mamakating, and improve the aesthetic appearance of the Town's villages and hamlets.

- Protect the undeveloped, scenic quality of the Route 209 corridor, and limit commercial uses to avoid a strip commercial appearance.
- Protect the scenic and rural quality of Winterton Road.
- Identify and protect scenic vistas of the community by situating development outside significant viewsheds and restricting signage.
- Adhere to a set of design guidelines for the villages and hamlets that ensure new development is designed consistent with the historic qualities and existing pattern of the village and hamlet built environment.
- Protect the scenic quality of the Shawangunk Ridge by situating development off the ridgeline.
- Protect and enhance the visual appearance of the community at the key interchange gateways into the Town by regulating the aesthetic appearance of uses within these locations.

III. MASTER PLAN ELEMENTS

A. LAND USE PLAN ELEMENT

The Land Use Plan Element of the Mamakating Comprehensive Plan is the physical expression of the Vision Statement and the goals and objectives, directing growth into a series of community centers and their environs. The intended pattern of development and conservation is supported by a series of policies related to the protection of environmental, scenic and historic resources, and the cost effective provision of utilities, transportation, and community facilities and services.

The Plan for Mamakating and its villages, Bloomingburg and Wurtsboro, reflects a pattern of development that:

- allows development in a manner that is consistent with the land's capacity to support various levels of growth;
- protects and promotes the infill of existing higher density Neighborhoods;
- revitalizes and strengthens existing, compact Centers by encouraging the greatest diversity and density of residential and commercial uses within selected Hamlets, the Bloomingburg Village Center and the Wurtsboro Town Center;
- promotes a better jobs-to-housing balance by encouraging nonresidential uses within hamlets and Centers and Planned Economic Development Areas;
- promotes a circulation system that encourages pedestrianism within Neighborhoods, Hamlets and Centers, links the various areas of the Town with a comprehensive trail system, and provides efficient and safe flow of vehicular traffic;
- integrates and retains civic and public buildings within the Centers;
- establishes clear boundaries between the Neighborhoods, Hamlets and Centers and its environs;
- and protects cohesive, core areas of open space.

The current land use environment in the Town encourages a wide range of land use over a broad geographical area appropriate for a largely rural community, and allows residential uses in almost every portion of the Town. This has the following effects:

- densities may be promoted at a level that is inconsistent with the Town's ability to service the development, i.e., transportation and utilities;
- densities may be promoted at a level that is inconsistent with the land's capacity to support these densities;
- allowing residential uses throughout the Town later creates land use conflicts when the Town is desirous of promoting certain larger-scale, nonresidential uses.

The Land Use Plan Element differentiates the various areas according to environmental characteristics, proximity to transportation, and existing and future availability of utilities.

In describing areas which will support residential uses, references are made to recommended residential densities. For example, the Land Use Plan Element may identify the gross density of an area as approximately one dwelling unit per 50 acres.

This will not necessarily reflect ultimate lot sizes – generally, this is the probable level of development that will be supported within a geographic area, taking into account environmental and infrastructure characteristics. The recommended densities are a clear indication of the geographic areas which the Town desires to retain in relatively low residential densities, and therefore a greater priority is placed on retaining open space, versus geographic areas that are intended to support higher density residential development. In some descriptions, the Land Use Plan Element will translate these densities into recommended lot sizes, which ultimately should be incorporated into the Town and villages land use regulations.

The Comprehensive Plan, as will be described further in the implementation section, recommends the implementation of a land capability system which establishes a property's development potential, or its residential yield, based on the property's soil characteristics and topography. Once the yield is determined, a landowner could create lots that would be consistent with the land form, rather than bulk standards which often appear arbitrary when considering actual topographic and soil conditions. For example, a 100-acre parcel consisting primarily of steep slopes in excess of 45 percent, with a small 10-acre terrace of moderately developable soils, may yield approximately 10 building lots. The ten building lots can encompass any range of acreages totaling the 100 acres, with the buildings situated on the moderately developable soils. Alternatively, a landowner could create 10, 1-acre parcels encompassing the moderately developable soils, and the remaining 90 acres could remain undeveloped with a conservation easement protecting the property from further subdivision, since the yield was calculated based on the entire parent parcel. Regardless, the intent of the Comprehensive Plan is to guide development decisions based on land capability, particularly in the environmentally constrained portions of the Town, and to allow the greatest amount of flexibility in situating development appropriately within each land use area. The following provides a description of the community centers and their environs (**Figure 2**).

1. RIDGE AND VALLEY PROTECTION AREA

Several large, regionally significant and unique geologic and natural resource settings are prevalent in the Town, and lend Mamakating its unique sense of place. Destruction of these resources would diminish this unique character. The Shawangunk Ridge and the Bashakill Wildlife Management Areas are locations which should ultimately be retained for public use and benefit, and should remain in open space. Recreational uses consistent with their unique ecosystems will be encouraged. By encouraging the recreational use of these resources through hiking, mountain biking, fishing, etc., Mamakating can expand its tourism base by providing services and overnight accommodations for visitors as part of a balanced economy.

The Ridge and Valley Protection Area is not supportive of high density residential or nonresidential uses, due to the prevalence of:

- steep slopes in excess of 25 percent;
- soils with shallow depth to bedrock which is poorly suited to the development of septic systems;
- bedrock poorly suited for the establishment of adequate water supply - groundwater research indicates that wells tapping Silurian bedrock may yield undesirable quantities of lead, zinc and copper.

The New York State Department of Environmental Conservation owns a substantial amount of land in the Ridge and Valley Area to protect the ecologically sensitive Bashakill Wildlife Area and Shawangunk Ridge.

Most lot sizes on the ridge exceed 50 acres in size, reflecting the poor development suitability of this area. The Comprehensive Plan recommends that uses within the Ridge and Valley Protection Area be limited to:

- single detached residences at a gross density of 1 dwelling unit per 25 acres;
- wildlife, open space and hunting preserves;
- uses allowed by special permit such as: very low density resort overnight accommodations, conference centers, educational, research, and interpretative facilities associated with the study of the Shawangunk Ridge environment, and subject to architectural design considerations due to the visual prominence of the ridgeline; forest nurseries; and, dude ranches and stables.

The Comprehensive Plan acknowledges that the redevelopment of the Shawanga Lodge site is being pursued by Sullivan County economic development agencies. Shawanga Lodge is the site of a former hotel that burned in 1971. The property is situated on a plateau on Shawangunk Ridge immediately north of the Quickway and in the vicinity of Exit 114 where the Quickway cuts through the ridgeline. A portion of the Shawanga Lodge site has been retained by Sullivan County to construct a tourist gateway, interpretive center and trailhead. The Comprehensive Plan recognizes the former resort use of the Shawanga Lodge site and proposes that it is appropriate to develop it as-of-right. Prior disturbance of the site, and its location adjacent to the soon to be designated I-86 and attendant highway characteristics makes this site viable for resort reuse. Therefore, a modest increase in the intensity of use may be warranted for this location. During development review for any project that may be proposed on this site, the following factors should be taken into consideration:

- Shawanga Lodge property is located on Shawangunk Ridge which is visually prominent from the Bashakill Wildlife Area, the Quickway, and other major public viewing points. New development should be architecturally superior and draw inspiration from former and/or existing picturesque resorts on the ridge, e.g., Mohonk Mountain House. Special attention will be given to the location of principal and accessory structures, and building height, during site review to ensure that development minimizes visual impacts.

- Shawanga Lodge is upslope and adjacent to new single family residential enclaves. The residential neighborhoods should be buffered from any commercial activities associated with a resort operation including buffers from parking and utilities, traffic, noise, storm water runoff, and similar operational characteristics.
- The existing night-sky should be protected. Special consideration will be given to limiting night-time illumination at any development which might occur in this location.
- Development of the site should ensure hiking trail continuity along the ridge.
- Development should be generally restricted to the already disturbed portions of the site to the maximum extent practicable, and protection of unique or significant ecological habitat is encouraged.

Here, as in all areas, the environmental impact of any propose development should be considered carefully.

2. MOUNTAIN GREENBELT

The purpose of the Mountain Greenbelt is to retain the open space, outdoor recreational and very low-density residential character of Mamakating west of the Basher Kill and Homowack Kill valleys. Development should be clustered along existing Town and County roads, to minimize the cost of maintaining roads. Environmental conditions limit development in the following manner:

- steep slopes in excess of 25 percent are present, although less prevalent than in the Ridge and Valley protection area;
- soils with perched water tables and shallow depth to bedrock are poorly suited to the development of septic systems;
- Upper Devonian bedrock is the most extensive consolidated aquifer in the County and a source of water supply, although in some areas, iron content is high.
- In the Mountain Greenbelt area north of Route 17, a greater prevalence of soil exists with moderate suitability for small-scale building development.

The overall gross density of the Mountain Greenbelt, due to environmental constraints, will likely be one dwelling unit per 15 acres. Minimum lot sizes will vary, based on soil conditions and topography. For example, in the Pine Kill area, recently subdivided single family detached lot sizes range between one acre on a small pocket of gravelly soils, to 10 acres with shallow soils and steep topography. A large number of existing lots are 50 acres and greater, particularly due to steep topography. Forest, open space and hunting preserves are recommended uses.

Commercial recreation areas, including cross country ski areas, snowmobile trails, country clubs, and golf courses, are recommended at a comparable minimum lot size. Agricultural uses are recommended on a minimum lot size based on a sliding scale which requires a larger parcel for larger animal stock, as well as nurseries and greenhouses.

Other uses that would be allowed by special permit would include: very low density resort overnight accommodations, conference centers, and planned campus-type office and research development facilities subject to architectural design considerations; forest nurseries; dude ranches and stables; summer and day camps; kennels; and, restaurants. Planned campus type office and research development are recommended but limited to those areas of the Mountain Greenbelt within 2,500 feet (approximately ½-mile) of the U.S. Route 209, and Route 17 corridors. Sand and gravel quarrying would be allowed by special permit, subject to Town input on a reclamation plan.

Certain tracts of land within the Mountain Greenbelt can accommodate a higher density of residential development due to the prevalence of moderately suitable soils. The Comprehensive Plan recommends that a mechanism be established whereby residential densities may be increased based on a relationship of soil suitability, topography, and the provision of central sewer and water through the use of clustering, and as bonus for protecting environmentally sensitive features, and encouraging land development in close proximity to existing infrastructure. Town Law permits this type of “incentive zoning” in accordance with Section §261-b. A flexible approach to land development should be utilized, to encourage single family detached or attached enclaves rather than large, scattered single family lots. As a result, less emphasis would be placed on maintaining minimum bulk standards, but encouraging appropriate densities through clustering techniques.

In addition, the Comprehensive Plan also recommends that a mechanism known as “transfer of development rights” (TDR) be devised whereby development potential may be transferred from the Mountain Greenbelt Area, as a sending area, to the Westbrookville, PhillipSPORT, Summitville hamlets, or the Bloomington Village Center or Wurtsboro Town Center as receiving areas. Section §261 of Town Law defines TDRs as “*the process by which development rights are transferred from one lot, parcel, or area of land in a sending district to another lot, parcel or area of land in one or more receiving districts.*”

The purpose of TDRs, as defined in Town Law, is to protect the natural, scenic or agricultural qualities of open lands, to enhance sites and areas of special character or special historical, cultural or aesthetic or economic interest or value and to enable and encourage flexibility of design and careful management of land in recognition of land as a basic and valuable resource.

TDR would enable the following:

- encourage an appropriate density to support central utilities in the hamlets;
- provide a landowner in the Mountain Greenbelt additional revenue for land which otherwise would be cost prohibitive to develop;
- create a conservation easement on the Mountain Greenbelt from which development has been transferred - depending upon the environmental sensitivity of the property, a management plan would be devised to limit uses ranging from open space to limited recreational uses.

An example is the following:

Landowner “MG” in the Mountain Greenbelt owns a 200-acre landlocked tract. To develop the property, he would have to purchase an easement and develop a road to access the property at a significant cost. The maximum number of lots that would be developed would be approximately 8 lots, which the Town would request be clustered to limit the amount of linear roadway constructed. Most of these building lots are extremely difficult to build, require extensive driveways for access, and are not marketable in comparison to property in other portions of the Town, e.g., Burlingham Road area. Landowner “MG” opts to transfer the rights to develop this property to a parcel owned by Landowner “S” who owns a 50-acre site in Summitville. The Town has established a minimum lot size of 40,000 square feet for lots within Summitville, enabling Mr. S to develop approximately 50 homes. However, as a result of the transfer, and the ability to support a central sewer and water supply, Mr. MG may transfer the rights to develop homes at a rate of 1 dwelling unit/10 acres, representing 20 homes (an incentive to transfer). The twenty homes may be added to the 50 acre parcel to develop 70 homes, at a density of 1.4 units per acre. In the hamlets, a maximum density of 4 units per acre (1/4-acre lots) will be permitted, provided the land in Summitville is capable of supporting this density. One-quarter acre lot sizes are consistent with lot sizes in Wurtsboro and Bloomingburg, and certainly adequate where water and sewer is provided.

The value of the rights to be transferred would be determined by the market place.

In summary, clustering, incentive zoning and TDRs are techniques that can be used to ensure that residential development occurs in a manner that is consistent with land capability, and in areas supported by appropriate infrastructure.

3. BURLINGHAM RESIDENTIAL AREA

The Burlingham Residential Area is that area located east of the Shawangunk Ridge and north of Route 17. Here, soils are moderately conducive to building development. It is anticipated that the majority of residential expansion will occur in this location. Single family detached dwellings are recommended at a density of approximately 1 dwelling unit/2 acres, since it is anticipated that residences will be largely served by individual well and septic systems. This density also corresponds to the likely lot size. However, lots may be smaller, up to 1 dwelling unit per acre, provided central water and/or sewer is available.

Hobby farms will be permitted on a minimum lot size based on the size of the animal stock. Nurseries and greenhouses would also be permitted.

4. MOUNTAIN RESIDENTIAL/AGRICULTURAL AREA

The Mountain Residential/Agricultural Area encompasses lands located in the northwestern corner of Mamakating, and represents an extension of the Mountindale hamlet area. It is located north of and gains its primary access from County Road 55. An existing residential

subdivision is located here. The gross residential density is recommended at one dwelling unit/3 acres.

5. WINTERTON RESIDENTIAL/AGRICULTURAL AREA

Perhaps one of the most scenic areas of the Town, the Winterton area is served by a rural rambling road which links the last remaining concentration of farms in the Town to the Village of Bloomingburg. To the greatest extent practicable, agricultural uses should be retained. Agricultural uses not only provide the community with its rural character, but demand very little in community services, and provide a tax benefit to the community. The gross residential density is recommended at one dwelling unit/3 acres; however, clustering will be permitted on lots as small as 1/4 dwelling unit per acre to retain existing viable agricultural land (e.g., actively farmed or land consisting of prime farmland soils) in open space, provided soil conditions can accommodate this density or central sewer and/or water are provided. Incentive zoning could be used to encourage the retention of agricultural properties, or development could be transferred to the New Vernon Neighborhood. Scenic Winterton Road should be retained in its existing configuration to the greatest extent possible. Hobby farms, and nurseries and greenhouses are also recommended as uses.

The Winterton hamlet is located within the Winterton Residential/Agricultural Area and was a stop on a former railway; the Comprehensive Plan recommends that the right-of-way be developed into a bridle and/or hiking trail. The Comprehensive Plan recommends tourist-related uses, including dude ranches, bed and breakfasts, art galleries, and antique and artisan shops, and restaurants (as a special permit use) adjacent to the trail. Buildings would be limited to a maximum size to retain the residential character of the area.

The New Vernon hamlet is identified under Neighborhoods below.

6. RESIDENTIAL NEIGHBORHOODS

Several medium density residential neighborhoods exist within the Town of Mamakating, and include: the former seasonal mountainside communities of Mountain Lake Camps, Wurtsboro Hills, and High View; the lake communities adjoining Yankee Lake, Wolf Lake, Wanaksink Lake and Masten Lake; and, the Burlingham and New Vernon historic hamlets.

The Comprehensive Plan recommends that these Neighborhoods retain their single-family character. The recommended density is one dwelling unit per 1 acre without central water or sewer, and one dwelling unit per ¼-acre, depending upon soil conditions and the availability of central sewer and water supply. This provides the community with neighborhood clusters to house significant portions of the existing and future population. These more concentrated areas of development should be given priority for central water and sewer systems.

Lake Neighborhoods

The lake communities provide a significant recreational and tourist amenity and a location for second home development. The Comprehensive Plan recommends that where land is available, development of water-dependent and water-enhanced uses along the lake shores, including boat docks, boat sales and rentals, overnight accommodations, restaurants, golf courses and country clubs, and conference centers be encouraged. In addition, the Comprehensive Plan recommends that planned residential and commercial development be allowed by special use permit adjoining Wanaksink, Yankee, and Masten Lake, which would permit a mix of single family detached, single family attached, and professional office uses with accessory retail uses, depending upon the size of the development, and the market demand to support a small commercial center.

Included in the residential and commercial planned development would be the provision of appropriate accessory recreational and open space uses, including boat launch, tennis courts, hiking and cycling trails, nature preserves, and other recreation features – the type of recreational facility permitted would depend upon the environmental sensitivity of the land. Development applications within the “border” lake communities, particularly Wanaksink and Wolf Lakes, should be coordinated with adjoining communities.

Mountain Neighborhoods

Within the mountain communities, uses would be limited to single family residential uses. A dedicated bike/walk path should be provided along the shoulder of County Road 172, extending ultimately from Mountain Lake Camps to the Village of Wurtsboro. Due to the higher volumes of traffic and the road speed, the path would be better situated adjacent to the County Road.

Development or infill will have to provide adequate emergency access and drainage facilities, in addition to water and sewer requirements.

Burlingham Neighborhood

The historic Burlingham hamlet exists at the intersection of County Highway No. 61 (Burlingham Road) and Hamilton Road. The Comprehensive Plan supports the retention of this hamlet area, and recommends that public parks and playgrounds, places of worship, schools, restaurants, art galleries, museums, and antique shops be permitted within a 1,500-foot radius of the intersection.

A dedicated bike/walk pathway should be provided along Burlingham Road - connecting this area with the Village Center of Bloomingburg. In all likelihood, the path would be a striped shoulder along Burlingham Road.

7. HAMLET CENTERS

The Town has three historic Hamlet Centers which are proposed for expansion in order to accommodate a wider mix of housing types, neighborhood retail and service commercial uses, and community facilities which will serve the residential uses. The Comprehensive Plan proposes the expansion of the Westbrookville, Phillipsport, and Summitville hamlets.

The rationale for their selection as mixed use centers are the following:

- the Hamlet Centers maintain an existing sense of place;
- they are well-served by U.S. Route 209, a major arterial which can accommodate additional amounts of traffic generated by residential growth;
- sand and gravel soils along the valley floor are conducive to building development;
- the valley has been documented as containing a very productive sand and gravel aquifer which can be developed as a municipal level water supply;
- the hamlets are historic D&H canal and rail communities and existing population centers serving the adjoining Mountain Greenbelt areas, with their places of worship, firehouses, post offices, and miscellaneous community facilities.

The following housing types are recommended:

- single family detached dwelling unit/one acre
- two-family dwelling unit/1.5 acres;
- upper floor apartments as part of mixed use development.

Where central water and/or sewer is provided, and where transfer of development occurs, residential densities could be increased to one dwelling unit per 1/4-acre.

The following types of nonresidential uses are recommended:

- neighborhood convenience store
- delis, restaurants and taverns
- art galleries, museums, antique and artisan shops
- bed and breakfasts, hotels
- retail, service commercial and office uses in detached buildings not exceeding 2,000 square feet.

Community facilities would be permitted including parks and playgrounds, places of worship, firehouses, post offices, and community centers. Development within the hamlets will be in accordance with design guidelines that preserve the existing mixed use character of the communities. The hamlets are not intended to accommodate strip-type commercial development. Rather, mixed uses and nonresidential uses are encouraged to be developed at a scale consistent with the existing historic structures in the community, and retain a “residential” or “rural” quality to the design. Nonresidential and mixed use development in the hamlets should be subject to architectural review - the intent of architectural review

would not be to dictate a specific architectural style, but to review the proposed development in terms of its scale, location of parking, provision of street trees and other hamlet-recommended amenities, sidewalks, and attractive lighting and signage.

Within the hamlets, access to the Town's canal and rail trail system is encouraged as a means of linking the hamlets with the Town Center of Wurtsboro.

Within the hamlets, Planning Board review should be required for the demolition of structures identified as Places of Distinction in the Comprehensive Plan. In addition, the conversion of historic community facilities, e.g., community centers of former churches, should be encouraged to be adaptively reused for nonresidential uses.

The Community Design guidelines will provide general design standards for the development of the hamlets.

Westbrookville

Mixed and non-residential uses within Westbrookville are to be encouraged on the frontage of Pine Kill Road and U.S. Route 209, within 1,500 feet of its intersection. To the rear of this frontage, village streets will be developed to provide access to residential uses. A community park should be established cooperatively on NYSDEC property; alternatively, a community park could be developed as part of the hamlet center along Pine Kill Road. Public access should be provided to the D&H Canal right-of-way.

Summitville

The mixed use center for Summitville should be established at the intersection of Mount Vernon Road and old U.S. Route 209. Nonresidential retail and office related uses are encouraged to front along these two roads, and within 1,500 feet of the intersection. A community park/hamlet commons should be developed at the junction of the former D&H Canal and former rail rights-of-way.

Phillipsport

The mixed use center for Summitville should be established at the intersection of Allen Road and old U.S. Route 209. Nonresidential retail and office related uses are encouraged to front along these two roads, and within 1,500 feet of the intersection. A hamlet commons should be encouraged along the D&H Canal or former rail rights-of-way.

8. BLOOMINGBURG VILLAGE CENTER

Bloomingsburg is identified as a Village Center intended to meet the day-to-day needs of the population residing on the east side of the Shawangunk Ridge. It encompasses the incorporated village and limited, adjoining unincorporated portions of the Town. It will

serve the local needs of the Winterton, New Vernon, Burlingham, Roosa Gap and High View hamlets.

The Village Center would also serve the needs of the adjacent economic development area to be located immediately adjacent to the Village along Winterton and Burlingham Roads.

A mix of residential uses should be accommodated in the Village center, including:

- single-family detached structures on a minimum 1/5-acre lot (with central water and sewer);
- single-family attached structures (townhomes). Townhomes will front on village streets, with adequate street tree and landscape buffers provided. The Comprehensive Plan discourages multi-family developments which isolate units on a site, surrounded by parking areas and informal open space; townhomes should be made an inherent part of the Village fabric, with private, landscaped alleys providing access to carports or attached garages.
- Two-family units on 15,000 square foot lots. Side-by side two-family units are encouraged, and should be consistent with a single family detached character. Two family units will be designed as a “single unit” - facades will not be differentiated.
- Alternative housing for seniors, both independent and assisted living, is encouraged.

A maximum of 8 dwelling units per acre is recommended, particularly along Main Street, and North and South Roads. This denser residential population will help to revitalize the village.

Along Main Street, particularly east of North/South Streets, the following types of nonresidential uses are recommended:

- grocery and convenience store
- delis, restaurants and taverns
- art galleries, museums, antique and artisan shops
- bed and breakfasts, hotels
- banks
- retail and office uses in detached buildings not exceeding 4,000 square feet to maintain the Village scale.
- indoor recreational uses, including a bowling alley or skating rinks
- entertainment uses, including movie theater and music halls
- community facilities
- daycare centers and nursery schools
- places of worship
- auto-related repair and gasoline filling stations (by special permit)

New nonresidential uses should be built to a Village scale - large scale buildings, with their expansive parking requirements, are to be located in the economic development areas

adjoining the village. Parking should be provided to the rear of structures to the maximum extent feasible; shared parking is also encouraged. Two story buildings are encouraged.

Over time, as the economy expands, the Village Center should be revitalized with street trees, curbing, sidewalks, and benches, and the integration of small public gathering places, particularly at its primary intersection. The Community Design guidelines provide general standards for these amenities.

9. WURTSBORO TOWN CENTER

Wurtsboro, due to its size and concentration of Townwide services is identified as the center of activities which serve the entire Town. It includes the incorporated Village, as well as adjoining areas within the unincorporated Town such as the U.S. Route 209 corridor south of the Village to Route 17. In addition, it also handles the day-to-day needs of residents located on the west side of the Shawangunk Ridge, and provides specialty shops catering to the tourist trade. It will serve the broader retail and service commercial needs of residents in Westbrookville, Summitville, Phillipsport, the Mountain Greenbelt and lake and mountainside neighborhoods. The Town Center will also serve the employee base to be generated by the two economic development areas proposed along U.S. Route 209 and Mountindale Road.

Sullivan Street is the commercial heart of the community, and should be retained in its existing village scale environment through a limitation on building size and maintaining the existing two-story character. New infill development should be sensitive to the existing scale of buildings and pedestrian orientation of this environment. Over time, as the economy expands, the Town Center should be revitalized with street trees, curbing, sidewalks, arcades, and benches, and the integration of small public gathering places.

Residential development is to be accommodated on either side of Sullivan Street. The following residential uses are recommended:

- single-family detached structures on a minimum 1/5-acre lot;
- single-family attached structures (townhomes). Townhomes will front on village streets, maintaining the formal character and building-street relationship, with adequate street tree and landscape buffers provided. The Comprehensive Plan discourages multi-family developments which isolate units in the middle of a site surrounded by parking areas; townhomes should be made an inherent part of the Village fabric, with private, landscaped alleys providing access to carports or attached garages.
- two-family units on 15,000 square foot lots. Side-by side two-family units are encouraged, and should be consistent with a single family detached character. Two family units will be designed as a “single unit” - facades will not be differentiated.
- alternative housing for seniors, both independent and assisted living, is encouraged.

Residential densities at a maximum of 8 dwelling units/acre are recommended. Wurtsboro can accommodate higher densities since it utilizes central water; however, individual sites

must take into consideration the soil characteristics to accommodate a septic system until a sewer system is developed. New residential development should be laid out in a grid pattern similar to the existing village, with appropriate street trees and sidewalk connections provided to Sullivan Street or other major roads.

Along Sullivan Street, the following types of nonresidential uses are recommended:

- grocery and convenience store
- delis, restaurants, taverns and “fast-food” without drive-through eating establishments
- art galleries, museums, antique and artisan shops
- bed and breakfasts, hotels
- retail and office uses in detached buildings not exceeding 8,000 square feet
- miscellaneous repair establishments
- banks
- amusement and indoor recreational uses, including dance studios, schools of instruction and halls; bowling centers; physical fitness clubs
- entertainment uses, including movie theater and music halls
- health services, including doctor’s offices, and medical and dental laboratories
- schools
- community facilities
- daycare centers and nursery schools
- places of worship

The Comprehensive Plan also recommends permitting gasoline stations along U.S. Route 209 by special use permit. In addition, the Route 209 corridor would also permit limited governmental, office uses and tourist-related uses, including overnight accommodations.

However, retail and service commercial uses are encouraged along Sullivan Street to retain this as the commercial core of the community. Auto-related services, particularly gasoline filling stations, or the expansion of existing filling stations, should be reviewed to determine whether these stations are located within aquifer recharge areas, and best management practices should be required to protect the underlying aquifer, if necessary. Because Wurtsboro is the “gateway” to the Town, all uses along U.S. Route 209 should be required to install attractive landscaping and signage along this corridor, and a 50-100 foot landscaped buffer should be provided. This buffer could be reduced, where adequate screening is provided, and where topography or parcel size does not permit.

The Comprehensive Plan encourages the development of a grocery store along Sullivan Street, or an adjacent underutilized parcel. Any grocery store, and ancillary retail uses, should be designed to protect the Village environment. Any shopping center should be of limited scale and should include:

- Significant street tree plantings and sidewalks to maintain Village scale environment;
- significant landscaping of interior parking lots;
- parking “pockets” – rather than a single large contiguous parking lot – is encouraged to reduce the visual impact of impervious surfaces;
- architecture should be consistent with the Village-scale of existing buildings.

The Kaufman property is a large, existing farm on the outskirts of the Village Center – the Comprehensive Plan encourages the retention of this property in agricultural use. However, in the event the farm is converted to an alternative use, the Comprehensive Plan recommends the following:

- Development of a loop road connecting Pennsylvania Road with U.S. Route 209; the loop road could parallel the D&H Canal creating a linear park corridor in this location. The road would be required to bridge the canal to provide a continuous trail system;
- Development of planned mixed-use community, with commercial and residential uses. Residential uses could include townhomes and single family detached units developed in accordance with a Village-scale; commercial uses would include retail and office uses, and could serve as an alternate location for a grocery store/shopping center. Office uses will be allowed at a greater ratio than retail uses to ensure that new retail development does not siphon off business from Sullivan Street.

10. PLANNED ECONOMIC DEVELOPMENT AREAS

The Town envisions setting aside six areas for potential large-scale nonresidential development. These areas are intended to benefit the local economy by providing additional nonresidential ratable, providing local employment opportunities, and creating an employee base which could utilize the local retail and personal service establishments within the Village and Town Center. These large-scale economic development areas should be attractively landscaped, and a 50 to 100-foot buffer provided between structures and adjacent roadways.

Mountindale Road Economic Development Area

Due to the current nonresidential use of portions of this area, including a transfer station and extractive industry, it is recommended that large-scale nonresidential uses consistent with these operations be pursued in this location. Water quality protection measures should be pursued to protect South Brook which adjoins this economic development area. Adjacent land uses include limited residential development; however, buffers are recommended to protect existing residential uses from nonresidential uses. This area could accommodate

heavy industrial uses since it has reasonably good regional road access. Residential uses should not be permitted within the Mountaindale Road EDA.

Access to this area would be via Mountaindale Road or Munn Road. Uses recommended for the Mountaindale Road Economic Development Area include:

- light industrial uses, including manufacturing, assembly, converting, packaging, altering, finishing, cleaning, or other processing of materials involving only the use of oil, gas, electricity, or equivalent fuel
- composting;
- recycling and recovery facilities;
- distribution facilities;
- trucking terminals;
- satellite receiving stations;
- research, experimental, and testing laboratories;
- wholesaling, storing and warehousing, including lumberyards, building contractor and building supply yards;
- office buildings;
- motor vehicle repair and franchise automotive sales;
- restaurants, except drive-through;
- sand and gravel quarrying subject to a reclamation plan

Portions of the economic development area may be visible from the New York State Quickway. Development of this portion of the Town should encourage retention of mature trees to minimize impacts to the viewshed.

Yankee Lake Economic Development Area

The Yankee Lake EDA is located on the south side of the Quickway, and access to the site is via Exit 111 in the Town of Thompson. Uses envisioned for this location would include a combination of low impact resort-related activities as well as limited non-residential uses as follows:

- Single family attached residences
- Country club and gold course
- Conference center, resort development, hotel
- Planned resort community
- Restaurants
- Office and research business park
- Medical offices
- Planned residential development
- Commercial outdoor recreation (noise levels would be regulated to limit potential impacts)
- Agriculture

The purpose of this EDA is to take advantage of the proximity of major parcels of vacant land in close proximity to the interchange. Portions of this area may be visible from Route 17; development should be designed in a manner which protects the visual environment. In addition, care needs to be applied in the site layout of any uses in this location, since the EDA encompasses a wetland area at the west end of Yankee Lake. A visual buffer should be provided between the lake and any proposed uses.

Exit 112 Economic Development Area North

The Exit 112 EDA North is located on the north side of Exit 112, adjoining County Road 172. Land within this EDA is located between two higher density neighborhoods: Wurtsboro Hills and Mountain Lake Camps. Many of the former seasonal residences have been converted to year round use, and therefore any land uses within this EDA should be sensitive to, and protect the neighborhood character of these small communities. Unlike other planned EDA's in the Town, uses within this EDA are proposed to be limited to those types of uses that would have an economic benefit for the Town, but would not have a significant impact on the residential character of adjoining neighborhoods and the Town's rural environment. It is envisioned that the Exit 112 EDA North area would accommodate low impact tourist-related uses and activities. The types of uses proposed for this EDA are actually consistent with the uses allowed in adjoining Mountain Greenbelt and Neighborhood Land Use areas, except at a higher density. Uses in this EDA would include but would not be limited to:

- Single family attached residences
- Country club and golf course
- Conference center, resort development, hotel
- Planned resort community
- Restaurants
- Office and research business park
- Medical offices
- Planned residential development
- Commercial outdoor recreation (noise levels would be regulated to limit potential impacts)
- Agriculture

Exit 112 Economic Development Area South

The Exit 112 EDA South is located on the south side of Exit 112, adjoining County Road 166 (old Route 17). Uses envisioned for this location are as follows:

- country club and golf course
- conference center, resort, hotel
- restaurants
- fully enclosed warehouse and distribution facilities
- office and research business park

- medical offices
- congregate care or adult community housing
- planned residential/commercial development
- day-care center accessory to office park or planned development

The purpose of this EDA is to take advantage of the proximity of major parcels of vacant land in close proximity to the interchange. Like the Yankee Lake EDA, portions of this area are highly visible from Route 17; development should be designed in a manner which protects the visual environment.

Wurtsboro Airport Economic Development Area

This area is located east of U.S. Route 209 and adjacent to and surrounding the Wurtsboro Airport. This corridor contains few residential uses that would be inconsistent to large-scale nonresidential uses, and has excellent frontage along a major state highway which in turn connects to a major link in the regional road system, the Route 17 Quickway. Development should be visually buffered from Route 209, with large front setbacks, to retain the open character of this thoroughfare. Uses should be planned as a unit, e.g., business park, with coordinated access points to minimize turning movements onto Route 209. The Town could establish an economic development group to cooperatively develop a business park and actively market the site. A mix of these uses is recommended to minimize heavy vehicle traffic traveling through Wurtsboro to access this economic development area.

Types of uses recommended for this area include:

- airports;
- aviation sales and repair;
- commercial agricultural uses;
- trucking terminals;
- light industrial uses, including manufacturing, assembly, converting, packaging, altering, finishing, cleaning, or other processing of materials involving only the use of oil, gas, electricity, or equivalent fuel, except for chemical manufacturing;
- research, experimental, and testing laboratories;
- wholesaling, storing and warehousing, including lumberyards, building contractor and building supply and farm supply yards;
- office and research business park;
- vehicle repair and franchise automotive sales;
- restaurants, except drive-through;
- distribution facilities, including limited retail sale accessory thereto;
- sand and gravel quarrying subject to a reclamation plan;

Any development within this district requires the use of best management practices to ensure that the aquifer recharge areas are protected from pollutants.

A landscape buffer between the Economic Development Area and the linear trail system will be provided. To create an attractive environment, a minimum landscape buffer of 50 to 100 feet is recommended along U.S. Route 209.

Winterton/Burlingham Road Economic Development Area

This economic development area is located on either side of the Bloomingburg Village Center. The economic development area would extend from Burlingham's intersection with Route 17 to the existing quarry on Winterton Road.

On Burlingham Road, expanded access should be provided from Route 17 to avoid traffic impacting the North/South Street and Main Street intersection.. Winterton Road cannot accommodate a significant amount of traffic due to the small setbacks of existing homes along this road.

For the Winterton Road area, a new circumferential road is recommended, commencing in the vicinity of the existing bridge over the Shawangunk Kill. The circumferential road will parallel the Shawangunk Kill, avoiding to the maximum extent possible the 100-year floodplain and the existing freshwater wetlands system. This ecosystem will be used as a buffer to protect the water quality of the Shawangunk Kill, and to create a linear passive recreation area which will serve as an amenity for a business or research park.

Agricultural uses will be permitted as-of-right with a minimum 5 acre parcel. Single family residential will be permitted by special permit at a density of 1 single-family dwelling per 25 acres. However, clustering will be required and residences will be situated on 1-2 acre lots. This is to allow existing agricultural uses to develop a limited number of residential uses as part of their large landholdings; however, the primary purpose of this area is to accommodate planned development. Piecemeal residential subdivision is discouraged through the large-lot zoning. Residential uses will be clustered in a location that will not impact the future location of the circumferential road, and will not constrain access to Winterton Road.

Types of uses that are recommended for this economic development area include:

- country club and golf course
- conference center, resort, hotel
- fully enclosed warehouse and distribution facilities
- office and research business park
- medical offices
- congregate care housing or adult community housing
- quarrying operation with a reclamation plan
- planned residential/commercial development
- day-care center accessory to office park or planned development

The Burlingham/Winterton Road area will permit planned residential development, provided it is part of a larger mixed use community which includes a significant portion of nonresidential development. Accessory to the planned development would be appropriate recreational facilities, including the development of a linear Shawangunk Kill Park.

Nonresidential uses will require a 50 to 100-foot setback from Winterton Road.

B. ENVIRONMENTAL RESOURCES

1. INTRODUCTION

Mamakating residents, when surveyed on why they chose to live in the Town or its villages, indicated that the Town's natural resources drew them to the community – this represented the 2nd highest response selected. In fact, the Town's natural resources was the most important determinant for higher income respondents. Resource conservation was rated the third most important objective to pursue in devising a Comprehensive Plan for the community. Mamakating's residents do not desire to live in the suburban environment that typifies many places south of the Town. The Town desires to accommodate growth and economic development in a manner that conserves large contiguous and environmentally sensitive areas in their natural state.

The Land Use Element outlined the broad land use policies for guiding the type and density of development throughout Mamakating. These policies are embodied in the broad land use areas governing various portions of the Town, e.g., the Town Center and the Ridge and Valley Protection Area.

Throughout each of these land use areas, numerous sensitive environmental features will influence the pattern of development within each land use area to a larger or lesser extent. For example, the flat lands and well-drained soils do not impose a significant environmental constraint to building development in the Town Center – the Village of Wurtsboro. However, the steep Shawangunk Ridge escarpment, and major freshwater wetland system that is characteristic of the Ridge and Valley Protection Area will impose a significant constraint to development.

In summary, this section of the Comprehensive Plan provides an overview of the environmental resources that need to be protected to safeguard the health and welfare of its residents, and retain the “natural beauty” of Mamakating.

Last, but not least, the Town provides a home and habitat for a range of animal and plant species, including those that are rare, threatened and endangered, and that rely on pristine water and unfragmented, expanses of ecological habitat to survive. In fact, the abundance or lack of wildlife species is an indicator of the “environmental health” in a community. The Comprehensive Plan encourages growth in a manner that protects significant expanses of sustainable ecological habitat.

2. WATER RESOURCES

Freshwater Wetlands

An objective of the Comprehensive Plan is to avoid the disturbance of freshwater wetlands, and maintain adequate buffers between these systems and adjoining development. This section describes the rationale behind this objective.

Freshwater wetlands generally provide the following benefits:

- recharge groundwater supplies
- absorb, store and slowly release storm and meltwaters
- provide erosion control by slowing water velocity and filtering sediments
- filter natural and man-made pollutants
- provide a productive habitat for feeding, nesting, spawning, resting, and cover for fish and wildlife, including rare, threatened and endangered species
- provide recreation, education and research opportunities
- provide valuable natural open space

New York State Department of Environmental Conservation and the Army Corps of Engineers (ACOE) regulate development within freshwater wetlands. The State-designated freshwater wetlands, generally 12.4 acres and larger, are illustrated in the Existing Conditions section of the Comprehensive Plan. The U.S. Fish and Wildlife Service publishes a series of National Wetland Inventory (NWI) Maps that illustrate the location of smaller wetland systems. However, not all of Mamakating has been mapped by the USFWS; therefore, the extent of freshwater wetland systems for a large part of the Town are unknown. When reviewing development applications, it is difficult to determine whether a project will impact a regulated wetland. In fact, developments that result in the fill of between 1/3-acre-3 acres require notice to ACOE. All wetland fills, including those less than 1/3-acre, must be reported to ACOE following the placement of fill.

In the absence of NWI maps, the Sullivan County Soil Survey may be relied upon as a source of information on the location of hydric soils, a primary indicator of wetlands. The hydric soils prevalent in the Town are the following:

Map Symbol	Soil Name	Map Symbol	Soil Name
Ad	Alden silt loam	Os	Ossipee muck
Ca	Carlisle muck	Pa	Palms muck
Ce	Carlisle, Palms, and Alden soils, ponded	Ra	Raynham silt loam
FU	Fluvaquents-Udifluvents,frequently flooded.	So	Suny fine sandy loam
Gn	Greenwood peat	Sp	Suny fine sandy loam, very stony
Ne	Neversink loam	W	Water
Nf	Neversink and Alden soils, very stony	Wd	Wayland silt loam

In order to protect the functioning of wetlands, development proposals should minimize, to the maximum extent practicable, disturbances to freshwater wetlands. Adjacent to major freshwater wetland systems, a wetland buffer should be provided to protect these ecologically important habitats. In considering development capacity, the zoning and subdivision regulations should acknowledge the reduced development capacity of lands with freshwater wetlands. However, density bonuses could be awarded to encourage clustering outside of wetlands and wetland buffer areas.

Stream Protection

Streams and riparian areas -- the habitat bordering streams, rivers, shorelines, and other wetland areas -- are critical for water quality, erosion control, and as a living environment for many species of birds and wildlife. When properly designed, these areas can also serve as linear parks for hiking and cycling recreational activities.

Streams within Mamakating maintains a relatively high level of water quality -- many have a "B" designation, and are also suitable for trout production.

The most important element of stream protection is to preserve the natural character and vegetation adjacent to the stream to decrease runoff velocities, reduce erosion, and protect water quality.

The most important method of protecting stream quality is to limit the amount of impervious surfaces within a watershed. It is well documented that overall stream quality becomes degraded when impervious surfaces exceed 10-15 percent of the watershed. The introduction of extensive roadways, in particular, have a deleterious effect on water quality, by increasing stormwater runoff, and pollutant deposition. Septic systems also will introduce bacteria into streams when adequate distances are not maintained. It should be noted that stream warming is directly related to the amount of impervious surfaces in a watershed; this in turn, has a significant impact on the stream ecosystem, particularly with regard to trout waters.

The Comprehensive Plan recommends that adequate buffers be placed between the stream bank edge and adjoining impervious surfaces and septic systems. It is recommended that buildings and impervious surfaces be situated a minimum of 150 feet from the banks of A and B streams, and trout production waters (**Figure 3**). A minimum of 75 feet should be provided for all other streams. By reducing the amount of impervious surface adjoining stream banks, and retaining the existing canopy, streams are adequately protected. In addition, the protection of streams in their natural state also helps to retain the natural beauty in the community and maintains wildlife corridors.

To the maximum extent practicable, roads should avoid criss-crossing the stream channel. Subdivisions and site plans should retain streams in their natural state to the maximum extent.

3. AQUIFER AND WELLHEAD PROTECTION

An objective of the Comprehensive Plan is to protect aquifer recharge areas by limiting development within and adjoining these areas and design development to permit natural recharge of water into the aquifer.

Development, in and of itself, can impact the environmental resources which are required to sustain a community in the first place. Perhaps the most important resource that a community requires is clean water. Development, if not properly planned, can negatively impact water quality. For example, the gravelly loam soil contained within the Basher Kill valley lies over a large, unconsolidated groundwater aquifer - a primary source of water for valley residents. These same soils are extremely favorable for building development. Development, and the infrastructure that supports this development e.g., septic systems, driveways and roadways, are a major source of pollutants which readily enter the groundwater due to the same soil's poor filtering capability. To accommodate future growth, adequate safeguards must be put in place that protect the Town's drinking water supply.

An unconsolidated aquifer consists of groundwater below the land surface that saturates intragranular spaces - sand and gravel deposits are the best sources of large quantities of groundwater. Three large unconsolidated sand and gravel aquifer systems exist within the Town of Mamakating: Basher Kill/Neversink; Homowack Kill; and, Shawangunk Kill.

The Basher Kill and Homowack Kill aquifers are found in the Port Jervis trough. During the general retreat of the glaciers that once covered Mamakating, a retreating ice front remained for a long time at Summitville where a recessional moraine was deposited. Melt water flowed from this ice front and south of Summitville, filling the valley of the Basher Kill and Neversink River with 100 to 150 feet of silt, sand and gravel. The Basher Kill aquifer between Godeffroy and Summitville has a potential yield of 39 million gallons per day from storage.

North of Summitville, between Philipsport and Wawarsing in Ulster County, the valleys of the Homowack Kill, Sandburg Creek, and a small part of Rondout Creek also contain a sand and gravel aquifer. The Summitville moraine forms the southern end of this aquifer. Deltas of sand and gravel at Spring Glen, Ellenville and Napanoch are part of the aquifer. About 2 million gallons per day of valley length, or a total of 18 mgd, would be available in the aquifer between Phillipsport and Wawarsing.

On the east side of Shawangunk Ridge, the narrow V-shaped bedrock valley cut by Shawangunk Kill is partly filled with irregularly distributed sand and gravel deposits. Between Otisville and Pine Bush along the Mamakating town line, mixed deposits of glacial outwash and moraine occur along the stream in both Sullivan and Orange Counties. While most of the deposits lie above the water table, thick deposits of sand and gravel occur in some of the deep parts of the bedrock valley and form small but highly permeable aquifers.

Because the greatest potential for community water supply exists within these sand and gravel valleys, and since these valleys also represent areas most suitable for building development, adequate protection measures need to be introduced to ensure that this development does not negatively impact the Town's or a landowner's ability to create a viable water supply source. The Comprehensive Plan recommends that a wellhead and aquifer protection program be instituted.

4. STEEP SLOPES

Steep slopes, i.e., slopes of 25 percent and greater, pose environmental constraints to building and infrastructure development. Developing on steep slopes has the following effects:

- erosion is significantly higher, contributing nonpoint pollution to adjoining waterbodies
- decreases slope stability
- increases flooding and runoff
- disturbs overall scenic quality
- disrupts rare, unique or special environments

Disturbances occur since more grading is required on steeper slopes to create buildable sites. For example, on a natural slope of 10 percent, approximately 125 feet would be graded to create a building pad of 100 feet. However, on a slope of 20 percent, approximately 166 feet of land would be graded to create the same 100-foot building pad. On a slope of 30 percent, a horizontal area of 250 feet must be graded to create a building pad. The amount of grading increases dramatically as slopes get steeper because it takes a greater distance for the 2:1 cut and fill slopes to meet back up with existing grade. For very steep slopes, it becomes necessary to use retaining walls to create level surfaces.

To avoid impacts to steep slopes, the Comprehensive Plan recommends the following:

- The development potential of steep slope areas should be reduced to take into account the prevalence of steep slopes on a site;
- Development should be clustered on plateaus or areas with less than 25 percent slopes to reduce potential impacts;
- Multi-family housing, due to their larger footprints, should not be permitted on slopes in excess of 25 percent;
- Terrain-adaptive buildings should be encouraged which step with the landform and reduce the need for massive earth-moving and retaining walls;
- The terracing of hillsides to provide additional density or larger building sites should not be permitted;
- Deep cuts or extensive excavation and fills that scar the landscape should be prohibited.

These policies can be translated into regulations and/or guidelines for development.

5. CRITICAL ENVIRONMENTAL AREAS

The Comprehensive Plan acknowledges the special ecological character of the Bashakill Wildlife Management Area and Shawangunk Ridge.

According to the Shawangunk Ridge Conservation and Design Guidebook, the ridge contains significant flora and fauna for the following species:

- Golden and bald eagles
- Cooper's and red-shouldered hawks
- Peregrine falcon
- Eastern woodrat, fisher
- Hoary, Indiana and small-footed bats
- Timber rattlesnake
- Numerous rare plants, including broom cowberry, trifold rush, sundews, several gentians, and dwarf pitch pine

The Bashakill Management Plan identifies several state and/or federally rare, threatened and endangered species and geographically isolated species including: the American Bald Eagle, Indiana Bat and Osprey, the River Otter, the Blue Spotted Sunfish, the Iron Colored Shiner, the Bow Fin and Tadpole Madtom, Gizzard Shad, and Sea Lamprey.

Due to the ecological, as well as aesthetic and recreational value and significant of these resources, it is recommended that the Town designate these areas as Critical Environmental Areas in accordance with Section 617.14(g) of the implementing regulations of the State Environmental Quality Review Act. This will assure that particular attention is paid to potential environmental impacts of development in or near these areas.

6. WILDLIFE HABITAT

Overall, the Town, because of its large, vacant landholdings, provides forested and wetland habitat to numerous more common species. An objective of the the Comprehensive Plan is to preserve meaningful expanses of ecological habitat.

An example illustrates how ecological habitat preservation may be balanced with growth. A large contiguous interior habitat exists between Route 17, Pine Kill Road, Upper Pine Kill Road, and U.S. Route 209. Over 5,000 acres of largely undisturbed, vacant land exists between these roadways. How could growth be accommodated? The Town grew by approximately 26.9 percent over the last decade – assume the Town must accommodate approximately 2,600 persons every decade. Using the average household size of 2.72 persons, a total of 1,000 housing units would be constructed.

Under conventional development, and assuming each unit would normally require two acres to accommodate an individual well and septic system, and accounting for roads and other infrastructure, approximately 2,250 acres would be required to accommodate this development. Assuming all of this development occurs within this block of land, half would be available to be preserved in open space. By clustering this development (which would likely be required due to environmental constraints), and providing central sewer and water, the amount of acreage could be reduced to one-quarter of that required for conventional development, disturbing only 550 acres of land, or approximately one-tenth the total contained in this subarea of the Town. This would provide a significant, contiguous open space system, protect steep slopes, stream corridors, and wetlands.

This of course is an example; the environmental constraints within the Mountain Greenbelt area may it extremely difficult to yield a higher gross density of more than one dwelling unit/25 acres of land.

As mentioned previously, a TDR program could transfer the development potential from this area of the Mountain Greenbelt to an area where infrastructure is planned, e.g., the Westbrookville hamlet. Here, the potential development of a municipal water supply is greater due to the large unconsolidated aquifer in this location, and there are relatively few environmental features constraining development in the hamlet.

Clustering development will also achieve the objective of limiting the total amount of impervious surfaces introduced into the Town's watersheds, which ultimately impacts water quality.

Clustering or transferring development would also reduce the ultimate cost of servicing development. At a minimum, clustering is an effective tool to preserve expanses of open space, since many of the Town's vacant parcels consist of 100 acres of land and greater.

This example is provided as a means of illustrating that the goals of habitat preservation and economic and residential growth can be accommodated simultaneously.

The Comprehensive Plan recommends the following:

- Large developments, involving over one hundred (100) acres, should include a species environmental inventory of the site to assure that development is accommodated in a manner that protects significant ecological and core habitats.
- Development should be clustered in a small area near the woodland perimeter and avoid intrusion into the remaining habitat. This is an effective way to protect the interior habitat.
- Development should be encouraged within existing roadway corridors to preserve core interior habitats. To achieve this objective, development should be located within 1,500-2,000 feet of major roads.
- The Town should, at least on a voluntary basis, allow transfer of development rights.

- Roads, sewers and transmission lines, and other structures should run along the edge of forest habitats, rather than right through them.
- Maintain continuous canopy cover overhead to avoid “daylighting” a road.

Adequate buffers should be placed along wetland and stream corridors which are primary wildlife movement corridors, and roads should avoid criss-crossing streams to the maximum extent feasible.

C. COMMUNITY FACILITIES ELEMENT

The Town of Mamakating, including its villages, has a population of approximately 10,000 persons (based on 1990 Census data) spread over an approximately 96.2 square mile land area; this is the equivalent, on average, of 104 persons per square mile, or 0.2 persons per acre to be served by a range of community facilities and services. At this very low density, the ability of the Town and various districts to cost effectively provide community services to a rural population is diminished if development is scattered throughout the community. Therefore, the Comprehensive Plan has proposed to concentrate the majority of future development primarily within historic and planned centers of development, i.e., neighborhoods, hamlets, Bloomingburg and Wurtsboro. In this manner, community services and facilities can be sited and expanded in areas where the majority of the future population is anticipated (refer to **Figure 4**).

1. EMERGENCY SERVICES

Police Protection

The necessity to provide police protection in the Town and/or its villages is a matter of public policy, based on the population's perception of security, and the satisfaction with response by existing entities, i.e., the New York State Police, and the Sullivan County Sheriff's department, and a community's ability to pay. Communities with populations as small as 3,000 persons have local police departments; communities as large as 15,000 persons sometimes do not. It is perhaps more common for incorporated villages to develop a local police department than an unincorporated Town, based on the typical population densities found in the incorporated communities. Rural communities such as Mamakating, are typically served by the state and county forces. Town policy at this time does not anticipate the establishment of a local department; complaints will continue to be handled by State Troop F at the Wurtsboro Satellite Office, and the County Sheriff's Department.

The Village of Wurtsboro, sometime in the future, may desire to establish a local police presence; given the amount of vacant, developable land in the village, it is possible that additional growth will spur a desire for local police protection.

The Village of Bloomingburg is not likely to grow to a level of population that will cost effectively support local police protection; however, depending upon the amount of growth that occurs in the planned development areas adjoining the village, the demand by local residents for police protection in the village and vicinity may increase.

The Village of Bloomingburg and/or the Village of Wurtsboro may desire to reinstate a constabulary presence prior to establishment of a local police force.

Police protection is a Town and Village Board policy matter but if and when a police function is established, its location should allow easy access to development and to the courts. Therefore, a location at or near the seat of government is appropriate.

The Comprehensive Plan recommends that any future Town police department be housed within Town Hall, or on adjoining property. The Town Hall's location along U.S. Route 209, and its close proximity to the Quickway, provides adequate transportation access for quick response.

In the event the Town Hall site could not accommodate a police department, it is recommended that a police department be established along U.S. Route 209 within a one-half mile radius of the Quickway interchange.

Fire Protection

Currently, fire protection services and facilities are adequate to accommodate future growth in the community, and facility locations are well situated to handle emergencies within each respective fire district. The Comprehensive Plan supports the expansion of fire protection facilities in their existing locations.

An issue identified previously was the need to maintain adequate access to areas of the community for fire-fighting purposes. In particular, access is difficult in older neighborhoods of the Town which were former seasonal colonies, e.g., Mountain Lake Camps. Roads were not designed in a manner that can easily accommodate modern firefighting apparatus. Potential strategies for upgrading emergency access include:

- Creation of a road improvement district, whereby access improvements are paid by residents of the neighborhood who benefit from the improved access; or
- creation of a utility district to develop a hydrant system to supply water to these higher density residential areas. The ability to install a hydrant system depends partly on geology; some of the communities have been constructed in areas with shallow depth to bedrock. Installation of a hydrant system would require appropriate engineering analysis to determine feasibility.

Ambulance Services

Ambulance service is currently provided by the Mamakating First Aid Squad. Persons requiring aid are transported to area hospitals in Harris, Middletown, Port Jervis or Ellenville. It is anticipated that this entity will continue to provide emergency services to the Town and its Villages. As the Town continues to grow, it is possible that the need for emergency services will increase; the First Aid Squad has the necessary facilities to accommodate this increase, however, the squad would require additional volunteer manpower. In the long-term, it is possible that declines in volunteers may result in the hiring of paid paramedics.

In the long-term, the Comprehensive Plan seeks to create an improved jobs/housing balance by creating planned economic development areas which will promote employment growth in the community. This larger employment base may help to increase the pool of day-time emergency service volunteers in the Town. In addition, local employment will also draw additional residents to the community, who in turn may become volunteers.

2. LIBRARIES

Currently, the Town has two library facilities: a main library in Bloomingburg, and an annex in Wurtsboro. The Town and villages fund the library; in addition, the library holds fundraisers. The Bloomingburg Library is housed in approximately 1,500 square feet of space at Village Hall; the Wurtsboro annex is smaller. The total book collection is approximately 17,000 volumes. The American Library Association (ALA) recommends that libraries serving between 10,000-20,000 persons maintain 2 volumes per capita - the Bloomingburg Library maintains approximately 1.7 volumes per capita. This difference is not considered significant; the library also belongs to the Ramapo-Catskill system, supplementing its holdings. Currently, the library is undersized for the Town's population size, and its computer and other equipment require upgrading. The basic requirements for a library serving 10,000 persons is approximately 7,000 square feet. Space should be provided for: staff work area, children's area and reading stacks, reference, periodicals, adult and young adult browsing and reading stacks, and bathrooms.

As the population grows, the Comprehensive Plan envisions the creation of a larger, permanent Town library in Wurtsboro, the Town Center, or its immediate environs. The future library can also serve as a Town Community Center for cultural and civic functions. Currently, the Wurtsboro Post Office maintains a large underutilized parking lot. The Town could negotiate with the Postal Service and/or property owner to acquire a part of this site for a library, and share parking facilities. Since the primary hours of operation for a library are often evening hours, when the Post Office would be closed, shared parking would be appropriate.

As Mamakating's population continues to expand on the east side of Shawangunk Ridge, the demand for library services will increase in this portion of the Town. However, it is anticipated that this demand may be met by a renovated facility in its existing location. In addition, the Middletown-Thrall Library is located in relative close proximity to Bloomingburg and its environs, therefore, demand can be met through existing regional systems.

3. RECREATION AND OPEN SPACE

One of the Town's primary assets is its wealth of natural and historic resources. The Bashakill Preserve, Shawangunk Ridge, the former Delaware and Hudson Canal, and former rail right-of-ways provide the framework upon which a comprehensive

recreational system can be developed. In addition, because several of these resources are owned and managed by other entities, e.g., New York State Department of Conservation, Sullivan County Department of Public Works, the Town does not necessarily have to fund a large part, or any, of the improvements to these resources. The Town should proactively partner with these other entities to ensure that additional improvements made as part of these resources are located in a manner that benefits Mamakating both from a recreation and economic standpoint.

The **economic impact** of protecting open space is documented in a study entitled Economic Impact of Protecting Rivers, Trails, and Greenway Corridors prepared by the Rivers, Trails and Conservation Assistance, National Park Service (1991). These resources are sources of revenue and economic development generated by:

- direct expenditures on recreational equipment, food and clothing;
- concessions, permittees, and partnerships, including food services, recreation equipment rentals and sales, lessons, lodging, and convenience items;
- special events, e.g., the Roosa Gap Run;
- corporate relocation and retention. The Joint Economic Committee of the U.S. Congress reports that a community's quality of life is more important than purely business-related factors when it comes to attracting new businesses, particularly in the high-tech and service industries. Governors of five New England states recognized that open space was a key element in the quality of life responsible for attracting rapid economic growth to the region.

Mamakating is well-positioned to attract quality economic development due to its proximity to the New York City metropolitan region, and the abundance of natural resource assets which provide an excellent quality of life. The following provides strategies for Open Space and Recreation development.

Nature Preserves

Bashakill Wildlife Management Area

The Bashakill Wildlife Management Area encompasses 2,175 acres of state-owned land in Sullivan and Orange County. The majority of this acreage is located within the Town of Mamakating. In addition, the former Delaware and Raritan Canal, and a former railroad bed, also traverse the management area. Hunting, fishing, trapping, hiking, canoeing, wildlife observation, nature photography, and research are encouraged.

The Comprehensive Plan recommends that any DEC-proposed research facilities, boat launch areas, an interpretative center, picnic facilities, and active recreation facilities be implemented on State Park lands contiguous to the hamlet.

As Westbrookville grows, the Town should partner with DEC in developing a community park in Westbrookville, potentially using DEC lands, provided these lands are suitable for recreational development and do not compromise the goals of the Bashakill Wildlife Management Area.

It is also recommended that a bike/walk trail be instituted, using the former railroad bed and Delaware and Raritan Canal bed as a route. Alternatively, if bike use of these trails are inconsistent with the goals of wildlife protection, a dedicated bike route should be developed along County Route 63 (Orange County), South Road, Sullivan Street, and U.S. Route 209.

Shawangunk Ridge

Shawangunk Ridge is a prominent escarpment that runs in a north-south direction through the Town of Mamakating. It is a major defining element of the community; in particular, the juxtaposition of the ridgeline and the Bashakill Wildlife Management Area provide breathtaking scenic views of the valley from the Quickway, Route 209, and other major public roadways. The ridgeline serves as a significant visual boundary between suburban communities to the south, and serves as the defining gateway into Sullivan County.

Conserving Open Space in New York State, the state's first Open Space Conservation Plan, provides the goals and objectives of New York State's land conservation program, and identifies specific resources recommended for preservation. Shawangunk Ridge, extending from Mohonk Preserve to the New York/New Jersey/Pennsylvania state line, is a "major resource area" recommended for conservation. The Plan identifies this area as a "scenic, rocky escarpment" that has "long been an important place for hiking and rock climbing, contains critical habitat for unique and rare plant communities, and has been protected by longstanding public and private conservation efforts." The ridge has long been a place renowned in the world for rock climbing.

The Catskill Center for Conservation and Development, Inc., in cooperation with the New York-New Jersey Trails Conference, published a Shawangunk Ridge Conservation and Design Guidebook, listing the value of this area for the following recreational uses: hiking, hunting, hang gliding, bird watching, nature walking, swimming, picnicking, fishing, rock climbing, cross-country skiing, bicycling, camping, scuba diving, and small boating. These uses are permitted, provided they do not impact sensitive flora, fauna and biological habitats. New York DEC has purchased several parcels of land along the ridgeline, both north and south of the Quickway.

The Comprehensive Plan recommends the continued preservation of the ridgeline, consistent with statewide goals. In particular, the portion of the ridgeline within the Town of Mamakating is particularly suited to a ridgetop trail. Consistent with the goals of the New York State Open Space Plan, the Mamakating Comprehensive Plan recommends:

- designation of Shawangunk Ridge as a Critical Environmental Area in accordance with Section 617.14(g) of the implementing regulations of the State Environmental Quality Review Act;
- site plan review and approval of applications for building permits within the ridge preservation area to ensure that development is accommodated in a manner that protects the character of the ridgeline;
- acquisition of conservation easements, purchased with Federal, State, nonprofit, and private fundings, for the preservation of the sensitive portions of the ridgeline;
- environmental review of projects, and design of sites in a manner that does not impact the ridgeline aesthetically or ecologically.

The former Shawanga Lodge property is located adjacent to NYSDEC's large northerly landholding in the Town. A portion of this property could be used as a trailhead, interpretative center, and scenic overlook of the Basher Kill/Homowack valley. The Town should partner with NYSDEC, as well as Sullivan County recreation and tourism programs, to explore the creation of a visitor center in this location.

For both of these major Town and regional assets, an attractive sign program should be developed with the coordination and funding assistance of New York State Department of Transportation to direct tourists to these resources. This signage program, developed in cooperation with the Town, would also identify other community places to visit, including Wurtsboro, Bloomingburg, and the hamlets.

Because these natural areas have been identified as locations of state and regional significance, the Town encourages the solicitation of Federal and State funding to protect these resources.

Canal and Rail Trails

Mamakating's history is inextricably linked to the development of the Delaware and Hudson Canal, paralleling U.S. Route 209, and the Midland and Ontario Railway, which operated two rail spurs in the Town. The rail and canal remnants serve as an excellent base for the development of a linear trail system to link various parts of the Town together. Sullivan County has been actively pursuing the purchase and construction of a linear park along the D&H Canal.

The Comprehensive Plan supports the creation of linear parks along the former D&H and rail right-of-ways. The D&H Canal, and the Winterton area rail right-of-way, adjoin proposed planned economic development areas, and serve as business locational assets as well.

The Comprehensive Plan recommends that continued involvement of the County in the creation of the D&H Canal Linear Park, and recommends developing a partnership with the County to develop the rail trails in the community. For purposes of the Comprehensive Plan, the rail right-of-way on the east side of Shawangunk Ridge is

referred to as the “Winterton Trail”; the rail rights-of-way located on the east side of the ridge and south of Wurtsboro is referred to as the “Westbrookville Trail”; the portion of the trail north of Wurtsboro is referred to as the “Summitville Trail.”

Because of the interest in gliding within Mamakating due to the presence of the Wurtsboro Airport in this area, it is recommended that the State develop a small overlook adjacent to, and on the east side of U.S. Route 209. This can be coordinated with the canal linear park construction.

Money in lieu of land secured through the development process (see below) can be utilized to purchase land for the development of the Town portions of this trail system (e.g., the Winterton Trail and Summitville Trail). The Westbrookville Trail is largely contained in the Bashakill Wildlife Management Area.

Hunting and Fishing Preserves

The Town of Mamakating is home to numerous “rod and gun” clubs throughout the Town, but particularly in the mountainous portion of the Town west of the Basher Kill and Homowack Kill valleys. These operations help to preserve the open space quality of the Town, and offer private recreational opportunities.

The Comprehensive Plan recommends the continued use of land for preserves for sportsmen.

In addition, the Town is endowed with streams that maintain high levels of water quality, something unique to a community on the fringe of major suburban development. The stream quality of these waters is conducive to trout production. New York DEC maintains a fishing access point along Sandburg Creek. In addition, the NYSDEC stocks trout in Sandburg Creek, Homowack Kill, and Shawangunk Kill.

The Comprehensive Plan recommends the development of additional fishing access points along these major trout-stocked streams, in a manner that protects existing water quality of the fishing streams. Access points, to the maximum extent practicable, should be developed in close proximity to existing communities, including Summitsville, PhillipSPORT, and Bloomingburg.

In order to protect streams as recreational resources, the Comprehensive Plan also recommends specific design strategies for protecting the water quality of these streams, and trout production streams in general. These guidelines are contained in the Environmental Resources element of the Plan. These guidelines are intended to:

- limit the introduction of nonpoint source pollution into trout producing streams; and
- avoid thermal warming of streams.

Future Active Recreational Uses

A community, to enhance the quality of life for its residents, provides adequate recreational facilities, including but not limited to ballfields, swimming pools, tennis courts, playgrounds and similar facilities. In determining the need and location of additional recreational facilities, the Town takes into consideration:

- available land;
- proximity to population
- availability of recreation programs offered through school districts, fire districts, etc.

New York State Town Law and Village Law provide a mechanism for funding the creation of parks, the need for which is generated by residential growth in the community. Section 277 of the Town Law, and Section 7-730 of the Village Law establishes that, concurrent with subdivision approvals, the Planning Board may require the reservation of land for park, playground, or other recreation purposes.

In the event that the recreational facility cannot be accommodated within the proposed subdivision or is not an appropriate location, the Village or Town Planning Board may require a sum of money in lieu thereof, in an amount to be established by the Town Board or Village Board of Trustees.

In making a determination of suitability, the applicable Planning Board assesses the size and suitability of lands shown on the subdivision plat which could be possible locations for park or recreational facilities, as well as practical factors including whether there is a need for additional facilities in the immediate neighborhood.

The Planning Board, to require the reservation of parkland, or to collect money in lieu of land, must make a finding for this need by evaluating the present and anticipated future needs for parks and recreational facilities in the town based on projected population growth to which a subdivision may contribute.

The Comprehensive Plan provides a basis for this decisionmaking.

Neighborhood Parks

The Town is well-served by a 103-acre Town Park, located west of the Village of Bloomingburg. This facility contains adequate land and facilities to serve the existing Town population, and to accommodate additional active recreational facilities as the Town grows. The Town Park will serve the Bloomingburg residents for the foreseeable future.

However, due to the nature of the Town’s topography, the park is not well-situated to serve portions of the community west of Shawangunk Ridge, particularly the Summitville and Westbrookville hamlets. In addition, the Village of Wurtsboro might be better served by a neighborhood park within its environs.

The Comprehensive Plan recommends the creation of additional neighborhood parks within the Village of Wurtsboro, and within the hamlets of Summitville and Westbrookville. Based on National Recreation and Park Association Guidelines, a neighborhood park should be developed in accordance with the following:

FACILITY	USE	SERVICE AREA	DESIRABLE SIZE	ACRES/1,000 POPULATION	DESIRABLE SITE CHARACTERISTICS
Neighborhood Park	Areas for intense recreation activities, such as field games, court games, crafts, playground apparatus, skating, picknicking, etc.	1/4-1/2 mile to serve a population up to 5,000 persons.	10-15 ac.	1-2 acres	Suited for intense development. Easily accessible to neighborhood population - geographically centered with safe walking and bike access. may be developed as a school-park facility.
Westbrookville					Coordinate with DEC for a site. Locate in proximity to D&H Canal. Require as part of subdivision.
Summitville					Locate in proximity to D&H Canal. Coordinate with County for a site. Require as part of subdivision.
Wurtsboro					Locate in proximity to D&H Canal. Coordinate with Monticello School District for possible combined school/village facility. Require as part of subdivision.

Shawangunk Kill Linear Park

The Comprehensive Plan envisions the construction of a circumferential road which will link Main Street in the Village of Bloomingburg with Winterton Road, in the vicinity of the Winterton Road planned economic development area. This circumferential road will parallel the Shawangunk Kill, and then turn west and access Winterton Road. Lands adjoining Shawangunk Kill and some lands within the planned economic development area are comprised of hydric soils, freshwater wetlands, and contained within the 100-year floodplain. The Comprehensive Plan recommends that these environmentally sensitive areas remain in their natural state, and serve as the basis for creating a linear park system. Ultimately, this trail could link with the Winterton Trail and the Town Park and would serve as an attractive amenity. The linear park should preserve the stream corridor in its natural state by providing a significant buffer, and avoid impacting this trout-stocked stream.

Town Golf Course

During the Comprehensive Plan review process, some interest was expressed for the development of a Town golf course. According to National Recreation and Park standards, golf courses are recommended to serve a population base of 25,000 persons.

In the event the Town's population achieves this level sometime in the future, or a population base is created, taking into account adjoining communities, the Comprehensive Plan recommends the development of a golf course within the Town, which preferably would be open to Town residents or the public. Preferable locations for a golf-course include:

- North of Wurtsboro, in the vicinity of the Wurtsboro planned economic development area;
- South of Bloomingburg, including or adjoining the Winterton planned economic development area;
- the Burlingham Road area;
- Upper Pine Kill Road vicinity;
- Mountindale Road/Mount Vernon Road vicinity.

Homowack Lodge currently maintains a 9-hole golf course. The Town should monitor future plans for the resort; future sale of the resort could lead to an opportunity to expand the golf course into the Town in this location.

This recommendation does not preclude the possibility of a private enterprise developing a private golf course and/or golf course community.

Recreational Requirements for Large Planned Developments

The Comprehensive Plan envisions the development of several large planned economic development areas. In addition, the Comprehensive Plan supports the development of planned residential, or cluster residential, developments, particularly with the goal of preserving meaningful expanses of open space habitat.

The Comprehensive Plan recommends that these developments provide on-site accessory recreational uses where they are not likely to occur in close proximity to an existing Center. In addition, these developments, where they adjoin a major proposed linear park system, should be designed to enhance and accommodate the park system as an element of the development.

The Town Planning Board, in considering development applications, should ensure that proposed recreational facilities within planned developments do not undermine the potential to provide a community park which will ultimately benefit a larger center population.

D. UTILITIES ELEMENT

A community's ability to grow and accommodate economic development is in large part based on the existing and proposed utility infrastructure, particularly water supply and sewage treatment, that is available to service existing and new development. The Comprehensive Plan has proposed a land use pattern that concentrates new development within existing population centers or areas adjoining these population centers; this pattern of development is intended to encourage the cost-effective provision of municipal level water systems and sewage treatment facilities as a stimulus to economic development. Concentrating development, and providing centralized utility systems, is also important to the preservation of important environmental features such as aquifers, wetlands, and streams.

1. WATER SUPPLY

The Comprehensive Plan encourages and prioritizes the development of comprehensive water supply systems in the following communities, in order of higher to lower priority:

- existing concentrations of residential development, particularly Highview, Yankee Lake, Masten Lake, Wurtsboro Hills and Mountain Lake Camps;
- introduction of a central water supply system in the Bloomingburg Village Center and adjacent Burlingham/Winterton planned economic development areas;
- expansion of the Wurtsboro Town Center system to accommodate development within the airport planned economic development area;
- introduction of a central water supply system in the Summitville/Phillipsport hamlet;
- expansion of Bloomingburg system to service the Burlingham neighborhoods;
- introduction of a water supply system in the Westbrookville hamlet;
- other historic hamlets in the Town.

As mentioned in the Environmental Resources section, the Town's greatest potential for developing a municipal level water supply system is through the use of the sand and gravel aquifers located in the Shawangunk Kill, Basher Kill and Homowack Kill valleys.

The Comprehensive Plan recommends that a comprehensive water supply study be performed to locate potential water supply sources in the community, and to identify the recharge and aquifer protection areas to protect these water supply sources.

Because much of the region's future development is anticipated to expand outward from the Middletown/Wallkill area, it is anticipated that development pressure will first be exerted in the Bloomingburg Village Center. As a result, a study should focus on locating a central water supply source for the Village and planned economic development areas.

The Comprehensive Plan also encourages the development of private central water supply systems serving an individual development which may be expanded to accommodate additional development within the neighborhoods, hamlets, and the Bloomingburg Village Center.

2. SEWAGE TREATMENT

The Comprehensive Plan recommends that central sewage treatment systems be installed within the areas of the community with existing or proposed concentrations of development. Currently, existing population centers are supported by individual septic systems that, due to their proximity to wells, would not likely meet health department standards. Some concern exists that the water quality of existing water supplies may be compromised. In addition, individual septic systems require large tile fields which limit development densities. In order to attain the densities recommended in the Town Center, Village Center, hamlets, and neighborhoods, it is necessary to provide central sewage treatment facilities.

The Comprehensive Plan encourages and prioritizes the development of comprehensive sewage treatment facilities in the following communities, in order of higher to lower priority:

- existing concentrations of residential development, particularly Highview, Yankee Lake, Masten Lake, Wurtsboro Hills and Mountain Lake Camps;
- the Wurtsboro Town Center, including adjoining Airport Planned Economic Development Area;
- expansion of the Bloomingburg Village Center system to accommodate growth in the adjoining Winterton/Burlingham Planned Economic Development Area;
- expansion of the Bloomingburg Village Center system to accommodate the Burlingham neighborhood;
- introduction of a sewage treatment facility to accommodate the needs of the Summitville/Phillipsport hamlets;
- introduction of a sewage treatment facility to accommodate the needs of the Westbrookville hamlet.

The Comprehensive Plan recommends that a comprehensive sewage treatment facility study be prepared, analyzing the feasibility of developing a Town and village sewage treatment facility within the Basher Kill valley. The need for a comprehensive study to develop a joint system is particularly important, since:

- development is proposed in a sand and gravel valley which is highly susceptible to groundwater pollution;
- the higher water quality receiving streams and valley wetland systems may dictate a higher level of treatment; a joint approach for facility planning would therefore be more cost-effective;
- it would be more cost-effective from a capital construction and long-term *operation and maintenance* standpoint to coordinate service through one or two sewage treatment systems.

In addition, the study should determine whether waste generated by the lake and mountain neighborhoods could be treated in this centralized system.

E. TRANSPORTATION ELEMENT

The goal of this element of the Comprehensive Plan is to ensure the efficient movement of people and goods, connect various areas of the Town, and promote economic development activities in areas near major transportation corridors. The Town of Mamakating is endowed with a major transportation system (refer to Figure 9 of the Existing Conditions report) capable of accommodating additional development envisioned in the Land Use Plan Element. The New York State Quickway (Route 17) and U.S. Route 209 are the spines of this system, and are supported by a series of County and Town roads which collect traffic from the major arterials and distribute traffic to various areas of the Town.

In order to achieve Mamakating's vision of the future, some improvements to the existing transportation system are necessary. These are outlined below. The following strategies are recommended for accomplishing the transportation goals of this Master Plan:

1. ROADWAY HIERARCHY

An objective of the Mamakating Comprehensive Plan is to define a hierarchy of roads according to function and form, in order to implement a set of roadway specifications consistent with the anticipated level of use. The Town's roads can be classified according to a hierarchy based on their primary function: transportation, access, or a combination of the two (refer to **Figure 5**).

Roadways that primarily serve a transportation function tend to be built at higher design standards, extend beyond the borders of a particular town, usually carry a high volume of traffic, and tend to permit travel at higher speeds. Roads that primarily provide access are local in nature, support lower traffic volumes, allow lower operating speeds, and do not connect points more than a short distance from one place to another. Many roads provide both these functions.

Roadways within Mamakating have been classified according to the following categories:

Expressways: Expressways are major limited access roads intended to serve inter and intra-regional trips. They serve an exclusive transportation function and are generally intended for long distance trips. When interchanges occur frequently, expressways may also be used for local trips. The Quickway is the only expressway traversing the Town.

Over time, as the Town grows, this expressway will be used by additional travelers making local trips. As a general policy statement, the Comprehensive Plan supports the provision of full (on and off) access at all interchanges within the Town. In particular, several interchanges, notably Exit 112 (serving two economic development areas) and Exit 115 (Burlingham Road economic development area) should become full access interchanges. The Comprehensive Plan also supports the current proposal to include Route 17 in the federal interstate system.

Major Arterial: Major arterials are major regional roadways that connect cities and towns, generally within one county or among a group of counties that comprise a region. Some trips are local, although many are not. Transportation is the primary function, although access is sometimes a secondary function, particularly in rural communities. Arterials are generally state or federal highways, and usually have relatively high speed limits. They have been designed to carry high volumes of traffic. Development should be limited along the arterial frontage; it should be served from side streets or marginal access roads.

U.S. Route 209 is a major arterial, linking Mamakating with the Village of Ellenville (Ulster County) and the City of Port Jervis (Orange County). The Comprehensive Plan's Land Use Element is intended to accommodate a growth pattern that retains this primary function of U.S. Route 209. The Land Use Plan, by avoiding strip commercial development, and limiting growth in close proximity to the existing hamlets and Village of Wurtsboro, seeks to retain the proper function of this highway as a major arterial.

Developments should be closely reviewed to limit their potential impact on the free flowing character of this highway.

Minor Arterial: The minor arterial system interconnects with, and augments the major arterials. It accommodates trips of moderate length at a somewhat lower level of traffic mobility than major arterials. Based on their traffic volumes, and points of origin and destination, Winterton Road (CR 62), Burlingham Road (CR 61), old Route 17 (CR 166, 171 and 172, and including Main Street in Bloomingburg, and Sullivan Street in Wurtsboro), North Road and South Road in Bloomingburg, Mountaindale Road (CR 55) and Masten Lake Road (CR 56) are classified as minor arterials.

The Comprehensive Plan recommends that access to minor arterials be provided primarily from collector roads. Therefore, new development, to the maximum extent feasible, should be directed to collector roads, which in turn are directed to the minor arterial road system. Individual access should be limited along minor arterials to the maximum extent practicable. However, it is acknowledged that within the narrow valleys, e.g., Sandburg Creek valley, the development of collector roads is not likely feasible, and new development will be located along the minor arterial system.

Collector Roads: The collector system provides both property access and through movements. The collector system penetrates residential areas, distributing trips from the arterials to the local roads. Conversely, the collector road also collects traffic from local roads in neighborhoods and channels it into arterial roads. Within the Town, Mount Vernon Road, Pine Kill Road, Upper Road, New Vernon Road, and portions of Yankee Lake Road, Shawanga Lodge Road, Roosa Gap Road, Nashopa Road, Ski Run Road, and Walker Valley Road can be classified as collectors.

Over time, it is possible that Roosa Gap Road will experience an increase in vehicular traffic as the Burlingham area and Summitville/Phillipsport hamlet grow; the Town Highway Department may need to improve this road. This is partially dependent upon the level of traffic experienced along Route 17 and old Route 17 to access the northern parts of the Town. Roosa Gap Road is the only other road which provides east-west access over Shawangunk Ridge north of Route 17.

Local Roads: The remainder of the roads in the community are local roads. The primary function of local roads is to provide access to abutting properties, and connections to the higher order systems. It offer the lowest level of mobility; service to through-traffic movement is deliberately discouraged.

2. RECOMMENDED ROAD IMPROVEMENTS

The Comprehensive Plan recommends two major road improvements intended to improve circulation in the two villages: creation of the Bloomingburg bypass; and, the Wurtsboro 209/Pennsylvania Avenue link.

The existing conditions analysis acknowledged the difficulty of accommodating a significant number of turning movements at the Main Street/North-South Road intersection. Existing village buildings at this signalized intersection limit the ability to widen this road with adequate turning lanes. In addition, it is anticipated that additional road capacity will be required to handle the traffic volume generated by the Winterton Road planned economic development area. As a result, the Comprehensive Plan recommends the creation of a bypass that commences in the Village in the vicinity of the Shawangunk Kill bridge, paralleling the Kill for a distance of approximately one mile and then turning west to intersect with Winterton Road. This road should limit disturbance to the 100-year floodplain and the existing system of freshwater wetlands, which ultimately could become part of a linear park system protecting the Shawangunk Kill. If possible, Ivy Lane and River Lane should be tied into this roadway.

In addition to the Bloomingburg bypass, the Comprehensive Plan recommends the creation of a connecting road linking Pennsylvania Avenue with U.S. Route 209. This would limit the amount of local traffic utilizing the Sullivan Street intersection to obtain access to the Wurtsboro Town Center. Redirecting traffic will increase U.S. Route 209's capacity to access the Airport Planned Economic Development Area.

Both roads require study to determine the most feasible alignments, and to ensure that environmental and social impacts are minimized, and traffic reducing purposes are served.

3. SCENIC ROADS

Scenic roads have positive aesthetic qualities which set them apart from other corridors: a concentration of historic structures, providing scenic vistas, or a unique set of details such as stone fences or mature tree rows. These corridors are important visual elements of the Town. The following roads are identified as “scenic” in the Town:

- New York State Quickway, between Shawangunk Ridge and the Basher Kill Valley – the road provides a regionally significant scenic vista of the Basher Kill valley and represents the gateway into Sullivan County;
- U.S. Route 209, between Roosa Gap & Summitville Road and the Town’s border with the Town of Wawarsing – the road provides a beautiful view of Shawangunk Ridge;
- Mountain Road for its entire length - the road provides scenic vistas of the Wallkill valley;
- Winterton Road, for its entire length – this road contains stone fences, farm buildings and farm remnants, road curves, and buildings with small setbacks which retain the rural flavor of the community;
- Mountaindale Road for its entire length – this road winds along a deep v-cut valley cut by Sandburg Creek – it has retained its forested rustic character;
- Pine Kill Road, between Upper Pine Kill Road and Yankee Lake Road – like Mountaindale Road, Pine Kill Road winds through a valley cut by the Pine Kill, retaining a forested rustic character.
- Haven Road, for its entire length – this road travels through the Bashakill Wildlife Management Area and includes scenic views of the Town’s hillsides located in the Basher Kill valley.

In order to preserve the scenic elements of these corridors, the following is recommended:

- Development should avoid significant alteration to existing alignments. The winding character of the identified roads provide them with their unique character and visual interest.
- New development should retain the particular road details which lend a road its character, e.g., mature tree rows and stone walls. Subdivisions should incorporate these elements into their overall design and layout.
- Where possible, setbacks should be provided along roads with scenic views to maintain the vista. In this case, the layout of landscaping and proposed structures should be designed in a manner that maintains portions of the scenic vista.
- Developments within the viewshed of scenic roads should be reviewed for their viewshed impact. For example, significant cuts or grading along the Shawangunk Ridge hillside would negatively impact scenic views from U.S. Route 209. Development should be designed in a manner which preserves mature vegetation, and avoids significant cuts to retain the hillside in its natural state.
- Along the forested rustic roads, development should avoid “daylighting,” i.e., development that cuts swaths of mature vegetation adjacent to road rights-of-way. Tree canopies should be retained.

The Comprehensive Plan encourages development in a manner that preserves the scenic features of these roads to the maximum extent practicable. This can be accomplished through Planning Board review of development proposals.

4. MULTI-PURPOSE TRAILS

The Land Use Element acknowledges the importance of linking the neighborhoods and hamlets with the Village Center and the Town Center, the key population and activity centers in the community. In addition to ensuring safe and efficient traffic access to these communities, the Comprehensive Plan recommends the development of a series of multi-use trails which utilize the existing rail and canal right-of-ways within the community. These right-of-ways are intended to be redesigned for pedestrian, horse, and bicycle use. The Comprehensive Plan recommends limiting the trail's usage to non-motorized access to ensure the safety of pedestrians along the length of these trails.

In addition to the existing rail and canal rights-of-way, the Comprehensive Plan recommends the designation of several bike paths within the community as outlined in the Land Use Element. These bike paths would consist of dedicated shoulders within existing road rights-of-way. However, where adequate rights-of-way exists, the Comprehensive Plan recommends the establishment of separate parallel paths to separate traffic from cyclists.

The bike routes are the following:

- Burlingham Road;
- Winterton Road;
- County Route 172, linking the lake and mountain neighborhoods with the Wurtsboro Town Center.

5. TRANSPORTATION IMPROVEMENTS WITHIN NEIGHBORHOODS, HAMLETS, AND CENTERS

This section provides a series of recommended design guidelines to enhance the functionality of the centers' transportation system.

Grid System

A key method of dispersing traffic and reducing traffic impacts at intersections is to develop a "grid" system of parallel and intersecting perpendicular roads that diffuse traffic over the area. This also helps to control traffic speeds; speed is reduced as the number of intersecting streets increases. Grid systems are particularly well-suited to the valley communities, e.g., Wurtsboro, where the topography is relatively flat; it is more difficult to accommodate this type of layout on steep topography without creating significant grades

and roadway cuts, e.g., Wurtsboro Hills. Roadway widths are reduced by providing more roads. Additional access points are also beneficial for emergency services.

On-Street Parking

The reintroduction of on-street parking within neighborhoods, hamlets and the Town and Village Center is desirable to:

- reduce the total amount of parking within off-street parking lots, thus decreasing impervious surfaces;
- provide a buffer between on-street traffic and pedestrian corridors, i.e., sidewalks;
- slow traffic traversing high use areas; and
- maintain a sense of neighborhood and intimacy.

On-street parking allows buildings to be set close to the street frontage and sidewalks. On-street parking should be maintained on the following streets: Sullivan Street; Main Street; North Road; and South Road. In addition, as the hamlets grow, it is anticipated that on-street parking will be provided along Pine Kill Road in Westbrookville, and Summitville Road, Minister Flats Road, Allen Road and Phillipsport Road in the Summitville/Phillipsport hamlet.

Where on-street parking is recommended, parking layout should be reviewed to ensure that appropriate access and rights-of-way are maintained for emergency vehicles.

Sidewalks

One of the key elements of the transportation pattern in community centers are sidewalks. Sidewalks provide dedicated, safe pedestrian pathways in a community, and are particularly important for meeting the needs of the elderly and children. Sidewalks should be maintained, and curb cuts should be provided at street intersections. At a minimum, sidewalks should be provided on both sides of the street along the “main streets” of each community center, e.g., Sullivan Street and Main Street; streets that link these commercial corridors with the adjoining residential neighborhoods should be designed with sidewalks at least on one side of the street. Where on-street parking is anticipated in the hamlets, sidewalks should also be provided.

In outlying, low density areas, formal sidewalks are not appropriate; in some instances, heavy pedestrian activity in rural areas may be accommodated using informal footpaths.

Development of Parallel Roads

Parallel roads alleviate traffic along major arterials. An excellent example of a parallel road is old U.S. Route 209 in Summitville and Phillipsport. The construction of the new alignment of U.S. Route 209 avoided demolition of existing structures in the hamlet centers which were once originally located on the main route. Higher traffic speeds are maintained along the main thoroughfare, while the parallel roads service the adjoining

communities at reduced speeds. To the maximum extent, new development proposed within the Basher Kill valley should incorporate parallel roads into their design. Where a development has access to both a parallel road and a major arterial, access should be provided to the parallel road, avoiding the creation of additional access points along the major arterial.

6. COMMUTER PARKING LOTS

As the Town grows, and with the potential for increased commuter ridership, the Comprehensive Plan recommends that the Town plans for the establishment of park-and-ride lots within the Town Center, in close proximity to the Quickway's interchange with U.S. Route 209, and a park-and-ride lot within the Burlingham portion of the planned economic development area north of the Bloomingburg Village Center.

F. HISTORIC PRESERVATION ELEMENT

History is defined as a “narrative of events” or a “story.” Mamakating’s story has many chapters that center on its importance as a major transportation link in the region. The Town has served as an Indian trail, a canal route, a rail-way, and a high-way, each transportation system serving to expand the Town’s settlement patterns, reflected in its various hamlets and Villages, as well as its former summer colonies.

Each stage of history is visible in the many artifacts, buildings and features which still exist in the community, ranging from Greek Revival buildings to “Native American rock piles.” The Comprehensive Plan seeks to preserve the elements of Mamakating’s landscape which provide the community its unique sense of place – its own story. As part of the Existing Conditions analyses, the Mamakating Town Historian has compiled a “Places of Distinction” list identifying particularly noteworthy elements of the Town’s history. The approximate location of these Places of Distinction are identified in Figures **6a, 6b, and 6c**.

There are many ways by which the Town can actively preserve its historic resources; the following provides a discussion of the objectives outlined in the Comprehensive Plan. It should be noted that the Land Use Plan Element itself is intended to perpetuate the historic pattern of development which in turn should assist in the revitalization of the structures and features within the villages and hamlets.

1. PROTECT AND REVITALIZE HISTORIC STRUCTURES

Protect and revitalize existing historic structures that provide the Town’s communities with its sense of place. The most effective means of protecting local historic structures is to implement a local historic preservation law. Section 119-dd of the General Municipal Law establishes that Village and Town Boards are empowered to “provide by regulations, special conditions and restrictions for the protection, enhancement, perpetuation and use of places, districts, sites, buildings, structures, works of art and other objectives having a special character or special historical, cultural, aesthetic interest or value. Such regulations, special conditions and restrictions may include appropriate and reasonable control of the use or appearance of neighboring private property within the public view, or both.”

The Boards may establish a landmark or historic preservation commission to carry out the regulations. Alternatively, through a community’s zoning and planning authority, the Planning Board may also function as a reviewing agency. Generally, persons may not carry out any exterior alteration, restoration, reconstruction, demolition, new construction or moving of a landmark or property within a historic district, or make a material change to the structure or property, without first obtaining a “certificate of appropriateness.” The certificate is required in order for the Building Inspector to grant a building permit.

The purpose of application review and receipt of a certificate of appropriateness is to ensure that landmarks or properties which contribute to the character of a historic district are retained, with their particular historic features altered as little as possible. In addition, structural alterations should be compatible with a landmark or historic district's historic character. Lastly, new construction within a historic district is intended to be compatible with the character of the historic district.

Without regulations in place, the Town and its villages have no authority or control over the demolition or alteration of historic features. Ultimately, a reviewing agency may decide that a structure is beyond repair or cannot be rehabilitated in a manner whereby the owner still receives a reasonable return on the property; however, at least there is a mechanism for review before the resource is irretrievably lost.

2. ADAPTIVE REUSE

Provide incentives for the adaptive reuse of the Town's historic resources by permitting a wider range of uses to occur in historic structures. The Comprehensive Plan strongly encourages flexibility in land use control for historic structures as an incentive for preserving them. The rehabilitation of historic structures can be a costly endeavor; however, if an owner is provided with a range of opportunities for use of a property, the cost may be offset by a more "marketable" use, thereby encouraging preservation of the structure. The Comprehensive Plan recommends that if a property is designated as a landmark or historic property, that it be permitted to be used for alternative uses, including:

- bed and breakfast;
- dining establishment;
- antique or artisan shop, art gallery, museum;
- limited retail use;
- office uses;
- quasi-public uses;
- mixed residential/commercial use.

Recognizing that many of these structures are located in the hamlets and villages, these uses are compatible with those recommended in the Land Use Plan element. The use should not be of a nature which would result in any negative impact, e.g., noise, traffic, to a surrounding residential neighborhood – these impacts may be mitigated by establishing appropriate screening and hours of operation, and perhaps regulating adaptive reuses by special permit.

3. HISTORIC RECOGNITION PROGRAMS

Develop a voluntary recognition program for the Town's historic structures. Numerous communities have instituted voluntary plaque programs as a means of identifying and acknowledging the existence of historic resources in the community.

For example, the Preservation Foundation in Saratoga Springs, and the Greene County Historical Society offer these programs. In Saratoga Springs, a homeowner obtains a plaque application, and conducts research on the history of their home. The plaque is custom-made for each structure, and includes the Preservation Foundation logo, the date of initial construction, the owner or architect, and four or five words describing the significance of the home, e.g., home of blacksmith. A significant amount of neighborhood pride has been generated by the plaque program, and it has acted as an incentive for homeowners to maintain and rehabilitate their residences. Designation as a "significant" property **does not impose** any restrictions on the structure or the owner. The Preservation Foundation uses the information on the application to develop "house histories" of each property. With this database, the Preservation Foundation uses the information as a basis for developing a **self guided tour** in the community.

The Greene County Historical Society also administers a voluntary survey program which is very popular; the county has listed 100 properties on their Registry over the last seven years. An application is filled out by the applicant, and a ten member register committee reviews the application and determines its eligibility for designation. The program is designed to identify structures of historic and architectural interest. If selected, the owner may purchase a bronze plaque. The County boundary is outlined on the plaque, and the name of the Greene County Historical Society is embossed on it. The plaques are not customized for the individual properties. **The designation does not impose any restriction on the structure or the owner.** The structures are identified on the Registry, and the photos accompanying the application have been utilized in a booklet published by the society. In addition, the information contained in the application will be published in a booklet. News releases describing the designation are published in the local newspaper, identifying the designated site.

Several companies, including the Erie Landmark Company, make plaques for historic organizations. Custom-made oval plaques (10"x7") cost approximately \$95 per plaque; Greene County's plaques cost \$45 each since they are ordered in groups of 25, and each plaque is identical.

Another means of perpetuating the historic sense of place is to encourage that new roads or buildings use names that recall the past; the Town of Woodbury has implemented this concept, and has established a committee to develop a list of historical names. Unlike an out-of-state subdivision which named all of its roads after the television show "Dallas," Mamakating could recommend that streets be named after historic persons or places or significant environmental features. Wurtsboro is an obvious historic reminder of the community's canal history. The Town Historian and/or a local preservation group could develop a list, which is then used to name roads or community buildings.

4. TOWN HISTORIC LOGO

Develop a town logo that recognizes the Town's history. The Comprehensive Plan recommends that the Town design a logo as the Town's official seal to help create a sense of place and a unifying theme for Mamakating.

For example, the Town of Cornwall (Orange County) has a logo that illustrates an outline of Schunemunk Mountain with the Moodna Bridge viaduct (rail trestle) and Moodna Creek valley in the foreground, as well as several other historic features. The Town's date of incorporation is also provided. The Town of Tuxedo illustrates the Town's historic railroad station on its seal.

This logo could be used on historic markers throughout the community, incorporating any one of the numerous unique historic and scenic features in the community:

- the Delaware and Hudson Canal;
- the Basher Kill valley and/or Shawangunk Valley;
- a "historic" scenic view, such as the steeple in Bloomingburg visible from old Route 17.

The logo could be used along major road corridors to identify the entrance to the Town along its borders, the villages, or its historic hamlets. This concept is used in the Town of Fallsburg. This type of signage program would also serve as a means to unite the many locations of the Town, which fall under numerous school districts and postal zip codes.

IV. IMPLEMENTATION

A. PLAN ADOPTION AND ZONING

The Mamakating Comprehensive Plan provides a framework within which to achieve the collective vision of the Town and its Villages. This vision, and the goals and objectives for achieving it, find their ultimate expression in a plan that portrays the preferred pattern of development and land use within the community.

Mamakating citizens must be committed in the short and long-term to making decisions and undertaking activities that are consistent with the Vision expressed in this Plan. The first and most important action to be undertaken is the **adoption of the Comprehensive Plan**. Adoption of the Comprehensive Plan by Mamakating's Town Board, and the Bloomingburg and Wurtsboro Village Boards, establishes the Plan as the official expression of town and village policy related to the future. Plan approval alone will not ensure that growth occurs in a manner consistent with Plan; the Plan must be implemented by a series of regulations, as well as public and private investment. To effectuate the Plan, existing regulations must be reviewed and revised, where appropriate, and new regulations implemented to guide decisionmakers. In fact, certain regulatory mechanisms available to the Town and its Villages by law, including zoning, require consistency with an adopted Comprehensive Plan.

Public investment in capital improvements, e.g., community facilities and infrastructure, are key elements of the Plan's implementation. The Plan provides the framework for decisions by various governmental units affecting the Town, including school and fire districts, county, state and federal agencies.

The Implementation section outlines the regulatory mechanisms that should be amended and made consistent with the Comprehensive Plan. The zoning regulations and zoning map, perhaps the most important tools for effectuating the Plan, should be adopted at the same time as the Plan, or shortly thereafter. Adoption of zoning regulations and a zoning map consistent with the Plan will go a long way towards enabling officials to effectively control development in a manner consistent with the Comprehensive Plan.

1. ZONING REGULATIONS

As mentioned previously, zoning regulations are implemented to effectuate the planning goals and objectives contained in the Town's Comprehensive Plan. Generally, zoning accomplishes this by regulating the use, the density, and the location of development, as well as the design and impact of individual sites. In drafting zoning, a certain amount of flexibility is desirable in order to respond to changing needs and markets while protecting the community from potential negative impacts. Within the zoning framework, it is

possible to create additional provisions or incentives to accomplish particular Comprehensive Plan objectives. These techniques are outlined below.

Generally, a community is divided into districts, or zones, and each zone is governed by a particular set of regulations establishing uses and density of uses permitted within the zone. Regulations governing a district must be uniform within a district, but can vary from district to district.

The zoning map is an integral element of the zoning law. The map must be adopted by the Town and Village Boards, and filed with the Clerk with any amendments which may be made to the map from time to time.

The zoning map illustrates each community divided into districts, or zones. The boundaries of the zones are illustrated on the map¹. Each zone, as mentioned previously, has its own specific set of land use, density (bulk), and in some instances, performance standards regulating development on properties within each zone.

A zoning map will be adopted consistent with the Comprehensive Plan and zoning law. The zoning local law will include a number of important provisions, definitions, purposes, zoning district designations, categories of uses, and various zoning techniques. Several of the key elements, in addition to the zoning districts, are described here.

a. Special Use Permit

Most zoning districts list a number of permitted uses which are allowed provided they comply with specific standards that govern the siting of the use on a particular parcel of land. These dimensional requirements are referred to as bulk standards. Uses that comply with the bulk standards of the zone are referred to as permitted uses. In addition to the bulk standards, there are often additional requirements concerning parking, lighting, drainage, signs, etc., which require specific review as they may apply to a particular property, which must be approved in accordance with a site plan (see below).

In addition to permitted uses, a zoning law often identifies special uses by permit, also known as conditional uses. These uses are allowed provided they meet additional standards, usually related to the potential impact of the specific use. Special uses, while they may be desirable since they fulfill specific community needs, could negatively impact adjoining uses if not regulated appropriately; it may not be acceptable in all locations within a district. Unlike permitted uses, the consideration of a special use requires the exercise of discretion, and applications are reviewed on a case-by-case basis.

¹There are some zoning techniques which incorporate zones into the text but which are only mapped based on a specific application and a specific set of criteria. These are usually referred to as "floating" zones and are discussed herein.

The zoning regulations will set forth procedures for the approval of a special use permit. These uses can be approved by the Town Board, Planning Board, or the Zoning Board of Appeals although most communities assign this function to the Planning Board except for unusual or very large-scale uses. Examples of uses that are often only allowed by special use permit include fast-food establishments with drive-throughs, gas stations, live entertainment, dry cleaning establishments, and home occupations.

b. Floating Zones

This is an important concept that can be utilized with the review and approval of large projects in accordance with the Comprehensive Plan.

A floating zone establishes a zoning district that is not mapped. It essentially "floats" and will not appear on a zoning map until its application has been approved in accordance with a set of standards. A floating zone consists of a set of standards articulating the use or uses permitted within the zone, bulk requirements within the zone, and conditions for its application to a particular parcel of land. The floating zone is approved by the Town Board, and the Planning Board usually advises the Town Board on the consistency of the zone's application with the Plan. Therefore, it is important to set forth guidelines in the Plan for the application of floating zones, and to establish specific standards for its application in the zoning ordinance.

Planned unit developments (PUD) are often implemented as floating zones. A PUD is a large-scale development, consisting of multiple/mixed uses at varying densities, planned as a unit and developed by an individual entity. PUDs often permit flexibility in bulk requirements, and are often designed to provide a mix of housing types, preserve expanses of open space, and/or promote economic development. Planned unit developments can lead to the creation of new mixed use neighborhoods. As a floating zone, regulations for the PUD's application are established in the zoning text. When a specific PUD development proposal is submitted, the Town Board determines if the regulations are met, and if consistent with the Plan, the zoning map is amended, and the property rezoned to permit a PUD. The Town Board decision should be based on any review comments the Planning Board may have regarding the development.

c. Overlay Districts

Unlike a floating zone, an overlay zone is a mapped zone that is usually applied to a specific geographic area of concern, often an environmentally or historically significant area, and can overlay portions of several zoning districts, or part of a specific zoning district. Overlay zoning is a technique that is often applied to areas where specific criteria are to be added to the existing zoning to achieve a particular purpose, e.g., protection of historic areas or aquifer recharge areas.

Included with the overlay zone are specific regulations governing the use of the particular area of concern, e.g., design criteria for sensitive viewsheds, elevated structures within floodplains, etc. The overlay district provides regulations that are in addition to the regulations of the underlying zoning district.

d. Incentive Zoning

Incentive zoning is yet another technique to accomplish the goals and objectives of various comprehensive plan policies. In accordance with Section 261-b of Town Law, a Town Board, and 7-703 of the Village Law, a community may provide for a system of zoning incentives, or bonuses, for purposes of advancing specific physical, cultural, design and social policies in accordance with the Comprehensive Plan. An incentive or bonus is an adjustment to the permissible population density, area, height, open space, use or other provisions of a zoning local law to achieve certain community benefits or amenities. These amenities are defined in the Town and Village Law, and include preservation of open space, housing for persons of low or moderate income, parks, elder care, day care or other specific physical, social or cultural amenities, or cash in lieu thereof, of benefit to the residents of the community.

Examples of the application of this zoning tool are:

- Allow an increase in the development density of market rate housing to achieve senior citizen housing.
- Allow an increase in the development density of a commercial use to convert an existing streetscape into one consistent with the design guidelines of the Comprehensive Plan.
- Allow an increase in the development density of a commercial use and in exchange for the development of civic space within a hamlet or Village.

The zoning law should set forth the appropriate use of incentive zoning to achieve objectives of the Plan.

2. COMMUNITY DESIGN GUIDELINES

The Plan contains a section on community design guidelines that describe methods for accommodating development in a manner consistent with the Town's vision, and nurturing communities with a sense of place. These guidelines should be used during site and subdivision plan review, and should be referenced in the site plan and subdivision regulations.

3. SITE PLAN REVIEW

Section 274-a of Town Law, and Section 7-725-a of the Village Law, set forth regulations regarding the review and approval of site plans. A site plan is defined as "a rendering,

drawing, or sketch prepared to specifications and containing necessary elements, as set forth in the applicable zoning ordinance or local law, which shows the arrangement, layout and design of the proposed use of a single parcel of land..."

The zoning law must identify the land uses which require site plan approval and the elements to be included on plans submitted for approval; site plan review and approval is usually conducted by a Planning Board. The enabling legislation specifies that the elements may include, where appropriate, those related to parking, means of access, screening, signs, landscaping, architectural features, location and dimensions of buildings, impact of the proposed use on adjacent land uses and such other elements as may be reasonably be related to the health, safety, and general welfare of the community. These are as established by the Town and Village Boards in their respective zoning laws.

Typically, site plan approval is required as a prerequisite for a building permit for other than single family or two-family homes.

An important element of the site plan enabling legislation is that a Planning Board, in approving a residential site plan (see also subdivision regulations), may require that the site plan include a park or parks suitably located for playground or other recreational uses. This requirement must be based on findings that a need exists for such a facility, and based on an evaluation of present and anticipated future needs, taking into account anticipated population growth to which the site plan will contribute. In the event that a park may not be suitably located on the same parcel of land, the Planning Board can require a payment in lieu, the sum to be established by the Town or Village Boards.

It is anticipated that the site plan regulations will be reviewed and updated, as necessary, along with any proposed revisions to the zoning law. These regulations are currently contained within the zoning law.

B. OTHER REGULATORY MECHANISMS NECESSARY TO EFFECTUATE THE COMPREHENSIVE PLAN

The following regulatory mechanisms should be revised or adopted to effectuate the Comprehensive Plan. Implementation of these procedures should follow immediately after adoption of the Comprehensive Plan and revised zoning law and map to ensure decisions and activities are carried out in a manner consistent with the Plan.

1. SUBDIVISION REGULATIONS

Section 276 of Town law and 7-728 of the Village Law authorizes the Town and Village Boards to delegate their authority to the Planning Board to review and approve subdivisions. A subdivision is defined as " the subdivision of a parcel of land into a number of lots, blocks or sites as specified in a local ordinance, law, rule or regulation, with or without streets and highways, for the purpose of sale, transfer of ownership, or development."

The review and approval of subdivisions is intended to provide for the future growth and development of the town by ensuring adequate facilities for the housing, transportation, distribution, comfort, convenience, safety, health and welfare of its population.

The subdivision regulations should be reviewed, and amended, if necessary, to ensure their consistency with the Plan.

2. OFFICIAL MAP

Section 270 of the Town Law, and 7-724 of the Village Law, authorizes the Town and Village Boards to establish and adopt an official map illustrating streets, highways, parks, and drainage systems. The map, upon adoption, is final and conclusive with regard to the location and width of streets and highways, drainage systems and the location of parks.

The official map sets important community policy regarding future improvements related to the infrastructure listed above. A purpose of adopting an official map is to illustrate the location of future improvements, including proposed new roadways, drainage systems, and parks, so that the public is informed of the reservation of certain lands for these purposes. The official map also serves to inform other governmental and regulatory agencies of the Town's intentions with respect to streets, highways, parks and drainage within its borders, thus insuring a greater degree of cooperation and concern by these entities.

3. CLUSTER SUBDIVISION

Cluster development is an alternative technique for laying out lots when designing a subdivision. Its purpose is to encourage flexibility in the design and the development of land, promote its most appropriate use, facilitate the adequate and economic provision of streets and utilities, and preserve the natural and scenic qualities of open lands. This method of development generally permits the development of land at the density that would have occurred on the entire parcel to be located on only a portion of the land, thus keeping the remaining land open.

This procedure can result in a more compact arrangement of small lots, reduced infrastructure and expanded common open space that has no greater density and no more dwelling units than would have occurred if the subdivision had been accomplished utilizing the minimum lot sizes for the applicable zoning district. This concept works best where the zoning ordinance specifies large lot sizes. Sometimes, an increase in density is permitted to occur as an incentive to cluster for specific purposes, e.g., the preservation of open space.

C. OPTIONAL IMPLEMENTATION MEASURES

There are a number of optional regulatory mechanisms that would further assist the Town and Villages in the implementation of the Comprehensive Plan.

1. ARCHITECTURAL (OR DESIGN) REVIEW BOARD

Despite the widespread use of architectural review boards (ARB), also referred to as design review boards, there is no specific enabling legislation to guide their creation. Most municipalities in New York State base their authority to establish these boards on Section 96-a of the General Municipal Law. This section empowers a municipality to provide regulations, special conditions and restrictions to protect, enhance, perpetuate and use "places, districts, sites, buildings, structures, works of art, and other objects having a special character or special historical or **aesthetic interest** or value." Such regulations may include appropriate and reasonable control of the use and/or appearance of a neighboring private property within public view.

Typically, a design review local law is enacted, establishing an ARB. The board focuses on issues related to the visual environment of the entire municipality. Many ARBs have the power to approve or disapprove an application for a building permit based on a set of specified criteria, e.g., excessive similarity and excessive dissimilarity. In some communities, the Planning Board sits as the ARB.

An ARB local law should establish the following:

- Membership of the Board should include practitioners in the fields of architecture, graphic arts, community planning, land development or other relevant profession
- Application and Submission procedures and their priority status in the review process
- Well-defined criteria for approving and disapproving applications and the relevance to building permits
- Appeal process
- Process should be flexible but, it should define the parameters of discretion and avoid the establishment of styles or pre-determined solutions

Many communities avoid the enactment of architectural or design review laws because of the concern that such a law would be unduly burdensome on businesses or new residential developments, particularly small scale projects which may not have the resources to provide renderings or other details related to the proposed building. However, the following is noted:

- Most individuals financing the construction of a new building require a rendering as part of the development process. However, it is true that if the ARB is dissatisfied with the rendering, it could disapprove the permit.
- An architectural review process could be considered as part of the large project overlay process. However, we note that the Comprehensive Plan is concerned with the visual quality established **by all activities that incrementally impact the visual environment.**

- A priority of the Architectural Review Board could be to review applications that impact the Town Center which represents an area of regional and national significance.

2. LOCAL HISTORIC RESOURCE PRESERVATION LAW

The historic and architecturally significant resources, identified in the Historic Resources section, are important elements of Mamakating's landscape. The Plan recognizes that the elements that make up Mamakating's unique history are worthy of preservation.

Enactment of a local historic resource preservation law should be seriously considered given the wealth of historic resources found within the community, and identified in the existing conditions analyses of the plan process.

State and National Register of Historic Places designations primarily safeguard properties from state and federal actions; these properties are not safeguarded from local activities, including demolition.

Enabling legislation to enact a local historic preservation law comes from four sources: Sections 96-a and Article 5-k of the General Municipal Law, described previously; the zoning enabling statute, and the Municipal Home Rule Law.

Typical preservation regulations include the following:

- Statement of Purpose
- An Administrative Entity
- A Description of the Conduct Being Regulated
- Standards for Decisions
- Procedures
- An appeals mechanism

If the local historic preservation is enacted under the authority granted by the Municipal General Law or the Municipal Home Rule Law, an existing entity, e.g., the Planning Board, or a new entity, e.g., Town or Village Historic Commission, may be used to administer the regulations. If enacted by the zoning enabling statute contained in the Town Law, the administrative body must be the Town or Village Board, the Planning Board or the Zoning Board of Appeals.

3. TRANSFER OF DEVELOPMENT RIGHTS

Section 261-a of the New York State Town Law, and Section 7-701 of the Village Law, empowers the Town and Village Boards to provide for the transfer of development rights (TDR) subject to the conditions enumerated in the law.

Development rights are "the rights permitted to a lot, parcel or area of land under a zoning ordinance or local law respecting permissible use, area, density, bulk or height of improvements executed thereon." The Boards are authorized to transfer the development rights in a lot, parcel or area of land from a "sending district" to a lot, parcel or area of land in a "receiving district".

The establishment of a sending district should be based on the resource that is intended to be preserved, e.g., a natural, scenic or historical resource. A receiving district should be able to accommodate the additional development rights being transferred from the sending district, taking into account environmental constraints, the availability of adequate public facilities including transportation, water supply, waste disposal and fire protection and similar considerations.

This technique is an important tool to assure reasonable return on the property to be retained in open space without requiring direct public investment.

A transfer of development rights program may be instituted for the following purposes:

- protect natural, scenic or agricultural qualities of open lands
- preserve and protect sites and areas of special character or special historical, cultural, aesthetic, or economic interest or value
- enable flexibility of design
- encourage careful management of land
- recognize land as a basic and valuable resource.

Examples of the appropriateness of this technique to accomplish the goals and objectives of the Plan include:

- preserving viable agricultural lands and vacant lands with soils conducive to agriculture
- preserving greenbelt or waterfront areas to demarcate community forms
- preserving historic buildings and sites
- increasing development densities within a hamlet or Village to achieve the critical densities required to cost-effectively establish and support necessary local or areawide infrastructure

Overall, the transfer of development rights system is not anticipated to impact the Mamakating's town or school districts' tax base since the taxable value is essentially transferred from one area of the Town to another within the same district. However, application of the TDR concept, and its impact on more regional service districts, e.g., a fire district or Mamakating Fire and Water District should be considered.

This technique requires significant commitment from the Town's legislative body to carry out the program and administer it effectively. In the absence of a TDR program, other mechanisms, e.g., cluster development and incentive zoning, should be utilized to accomplish the same objectives.

4. CONSERVATION EASEMENTS

Every parcel of land has attached to it a bundle of rights. Among these rights is the right to develop the property for uses consistent with a municipality's zoning law.

It is possible to separate this development right from the property and sell or donate the right to an organization interested in preserving the land in its current state. A conservation easement is placed on the property, restricting its use to that outlined in the easement. The conservation easement is used as a method of preserving open space, farmland, lands within or contributing to scenic vistas, and other important community resources.

One of the primary benefits of the conservation easement program is that the easement does not eliminate the full value of the property from the tax roll, as does a land transfer or sale to a tax-exempt organization.

It also allows an individual to retain ownership of a parcel of property, and to realize some equity from its sale, if sold rather than donated. If donated, the land owner realizes tax benefits from the donation of the development rights.

The Town is empowered to acquire interests or rights in real property or the preservation of open areas in accordance with the regulations contained in Section 247 of the General Municipal Law. This right could be exercised to protect Shawangunk Ridge, the Places of Distinction, or other elements that make up the Town's open space system.

D. CAPITAL IMPROVEMENT PROGRAM

In accordance with Section 99-g of the General Municipal Law, a municipality may undertake the planning and execution of a capital program. A capital improvement program is defined as a plan of capital projects proposed to be undertaken during a six-year period, the estimated cost of the improvements, and the proposed method of financing. A tentative budget is prepared according to the projects to be undertaken. For each project, a description of the following is required:

- Description of project and total cost
- method of financing, including a breakdown of the sources of the finances
- an estimate of the impact of the project on the municipality's operating budget for three fiscal years following the project's completion.

If the Town takes a proactive position to undertake improvements to the community consistent with the Comprehensive Plan, these improvements should be structured into the overall fiscal program of the community. By long-term planning and financing of the improvements, it reduces the impact

of the cost of a new project on any single fiscal year by creating a more even level of capital expenditures and thus adding uniformity and predictability to debt service. In addition, with a clear itinerary and prioritization of projects, the Town can also seek funds for any improvements from various county, state, regional and federal funding sources.

E. SEQRA

New York State's Environmental Quality Review Act establishes a process to ensure that projects which may impact a community and its environment are analyzed to determine the significance of the impact, and whether any impacts may be mitigated. SEQRA identifies and established thresholds for the types of activities likely to require no environmental review (Type II action), or, conversely, activities likely to require the preparation of full documentation, in the form of an environmental impact statement (Type I actions).

A municipality is required to make an environmental determination of significance for Unlisted actions not identified in the environmental regulations implementing SEQRA. A municipality can adopt its own list of Type I and Type II actions. The adoption of Type I and Type II actions can streamline the review process by providing some certainty as to the anticipated environmental procedures that will be required.

In addition, SEQRA allows a local agency to designate a specific geographic area as a Critical Environmental Area (CEA). Any Type I or Unlisted action proposed within a CEA must be treated as a Type I action. To be designated a CEA, an area must have exceptional or unique character covering one or more of the following:

- benefit or threat to human health
- a natural setting
- social, cultural, historic, archaeological, recreational or educational value
- an inherent ecological, geological, or hydrological sensitivity to change.

Some communities have designated areas as diverse as scenic vistas to natural wildlife habitats as CEAs. As mentioned previously, the Plan recommends that the Shawangunk Ridge and the Bashakill Wildlife Management Areas be designated as Critical Environmental Areas.

Adoption of the Comprehensive Plan will also be subject to SEQRA.

F. ECONOMIC DEVELOPMENT COMMITTEE AND INITIATIVES

The Comprehensive Plan Committee has stated that it should be one of the Town's priorities to establish an economic development committee responsible for creating and overseeing economic development initiatives within the community. Responsibilities of this organization could include:

- information gathering related to economic development programs
- grant application writing
- coordination with other economic development agencies and agencies whose functions and/or regulatory authority impact the economy of Mamakating, e.g.,
- administering and implementing economic development initiatives
- marketing

G. SUMMARY

In conclusion, the Town and Villages possess many tools to implement the Comprehensive Plan. Dedication to the vision, and long-term consistency with the Plan, will safeguard the unique character of Mamakating and its villages, and promote responsible growth, into the 21st century.

VISUAL SURVEY METHODOLOGY

In order to develop a set of design guidelines, the community's preferences must first be sought. As part of the public participation element of the planning process, the Mamakating Master Plan Committee sponsored a Visual Survey at a workshop held on Saturday, August 23, 1997. The Town's master plan consultants, Stuart Turner & Associates, provided an overview of the **preliminary master plan** and the various land use areas envisioned for the Town and its villages. The land use areas, described in the Comprehensive Plan, range from areas intended to remain primarily in open space, to areas where larger scale nonresidential uses are proposed to provide employment opportunities and an overall improved jobs/housing balance within the community. These land use areas and their locations had already been the subject of previous Master Plan Committee deliberations and public comment and input.

After the overview, the visual survey was conducted in order to determine the preferences of participants with regard to community design. A set of 113 images was projected:

The Visual Survey elicited responses to various images of the physical environment, ranging from open space to mid-rise office buildings. The participants were asked to respond to two questions:

- Do you like this image?
- Is it appropriate for Mamakating?

During the presentation, it was emphasized that the uses had not been firmly determined for each area, and that one of the purposes of the Visual Survey was to address the types or intensity of uses that might be appropriate.

The images shown were the following:

- open space scenes, including farmland, woodland, and water resources;
- rural scenes, including farm buildings, rural roads, and large lot farmhouses;
- residential uses, ranging from very low density, single family detached structures, to high density, multistory attached residences;
- miscellaneous tourist-related uses, including restaurants;
- auto-related uses;
- mixed use residential and commercial development;
- public uses, including town and community halls, religious institutions, and general gateways;
- highway/strip corridor development and village environments;
- industrial uses; and
- small-scale to large-scale office and retail development.

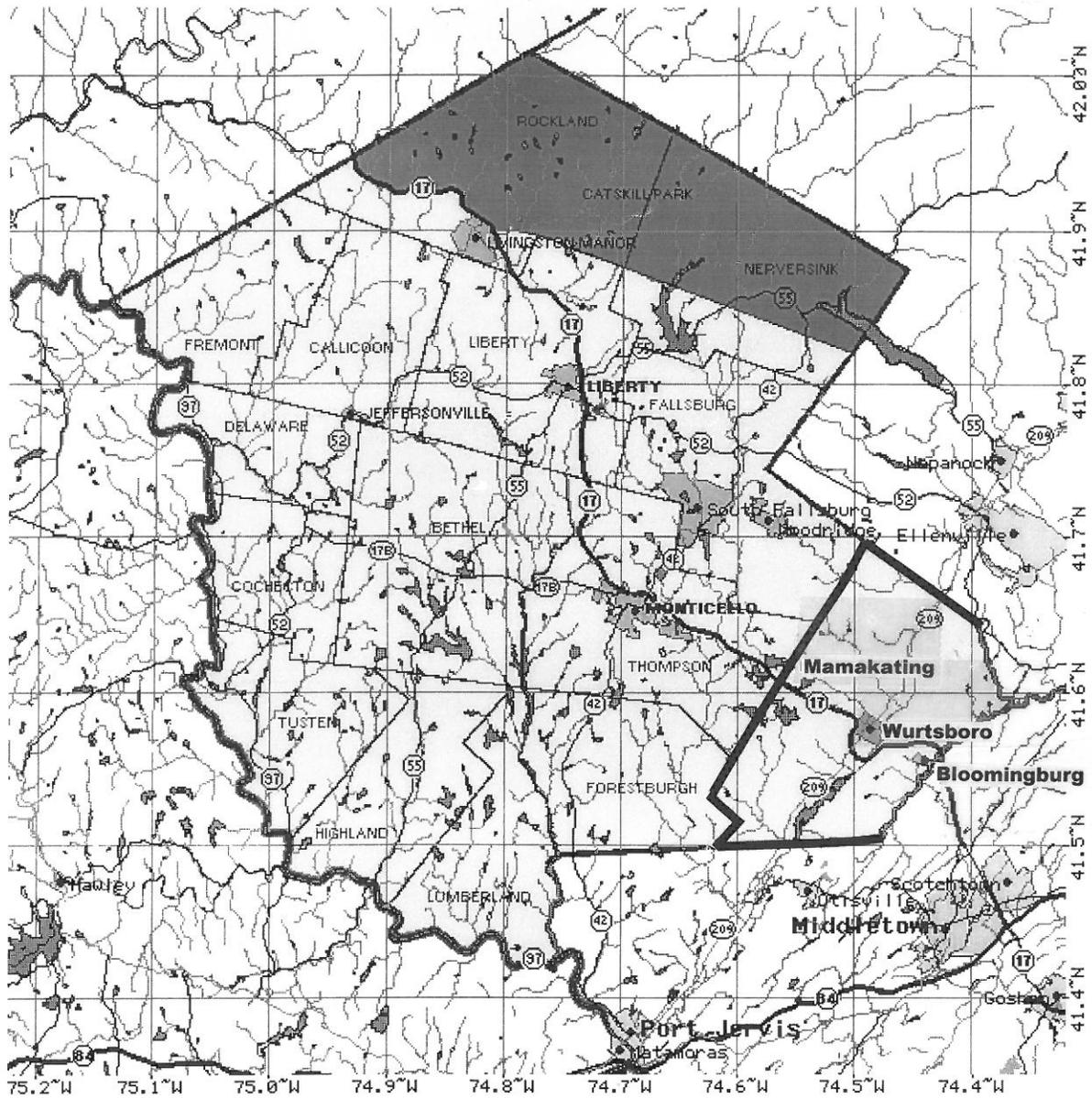
Approximately 15 percent of the images used in the survey were local; the remaining images were taken from other communities in the region. The images were generally arranged in ascending order of development intensity; the survey was ordered in this manner to determine whether or not there was a limit to what participants felt was the appropriate density for the community.

The written results were submitted to ST&A, and the results were tabulated. The images were then arranged in order, and the percentage of persons who approved each image was tabulated. For example, if 10 persons liked the image, and no one disliked the image, the image received a 100 percent rating. The images were arrayed from the highest to lowest rated images, to determine the design elements present at each end of the spectrum. In addition, images depicting similar places or development forms which rated significantly different were compared to determine why. These differences provided key defining guidelines for development.

The results of the visual survey were rated as follows:

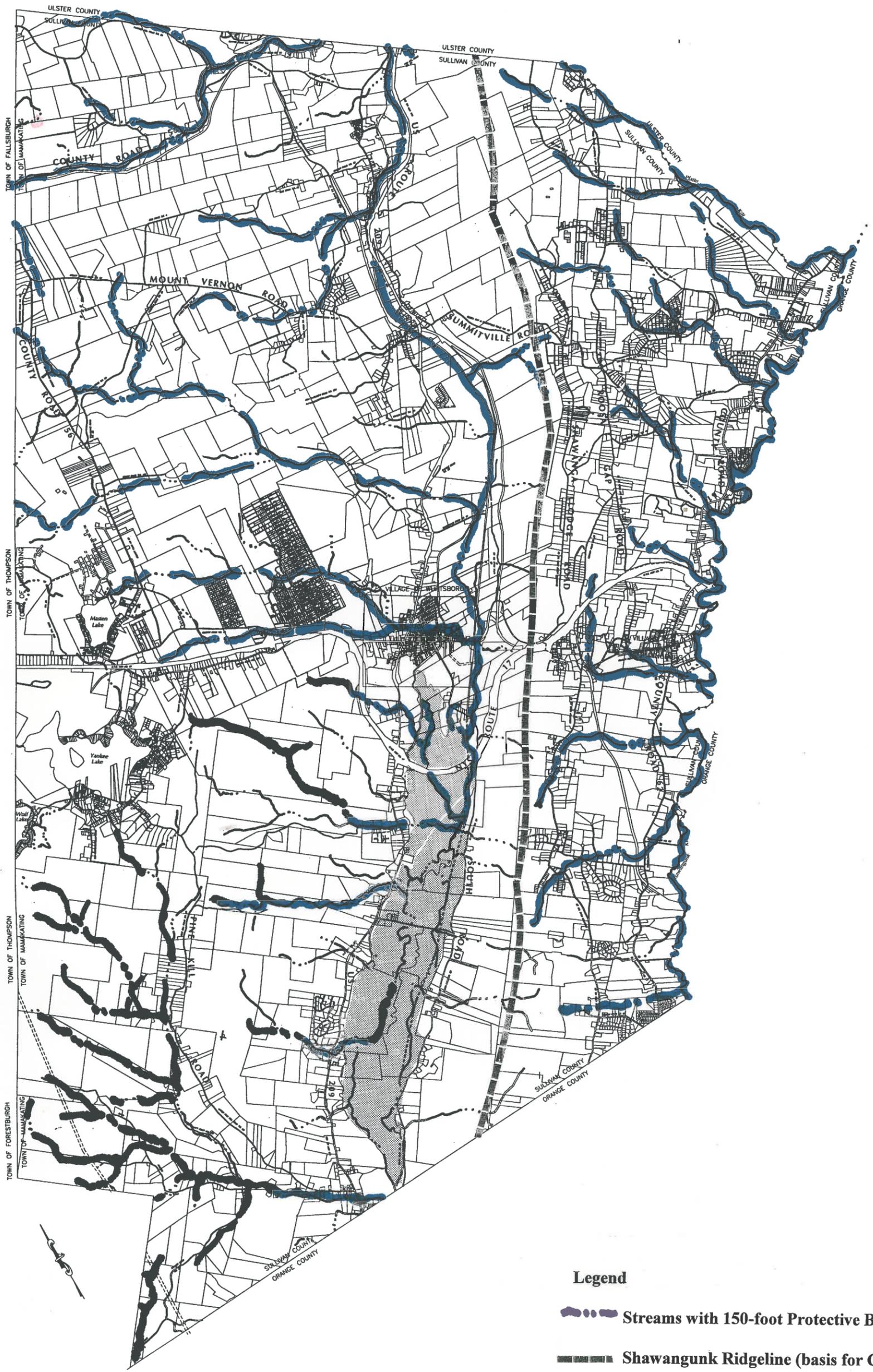
90-100 percent	Most Appropriate
70-90 percent	Highly Appropriate
50-70 percent	Appropriate
30-50	Inappropriate
10-30	Highly Inappropriate
0-10	Most Inappropriate

It should be noted that 18 persons, including several members of the Master Plan Committee, participated in the survey. This is a small, but representative sample of the community. It should be noted that the design guidelines are not only based on the preferences indicated in the visual survey, but are also based on previous Master Plan Committee deliberations and public participation events, including community surveys conducted earlier in the Comprehensive Plan process.



<p>Figure 1 REGIONAL LOCATION</p>	
<p>TOWN OF MAMAKATING Villages of Bloomingburg & Wurtsboro <i>Sullivan County, New York</i></p>	
<p>COMPREHENSIVE PLAN STUDIES</p>	
<p><i>Not to Scale</i></p>	<p>Stuart Turner & Associates, Oct. 1997</p>

Source: U.S. Census Tiger Files, 1990.



Legend

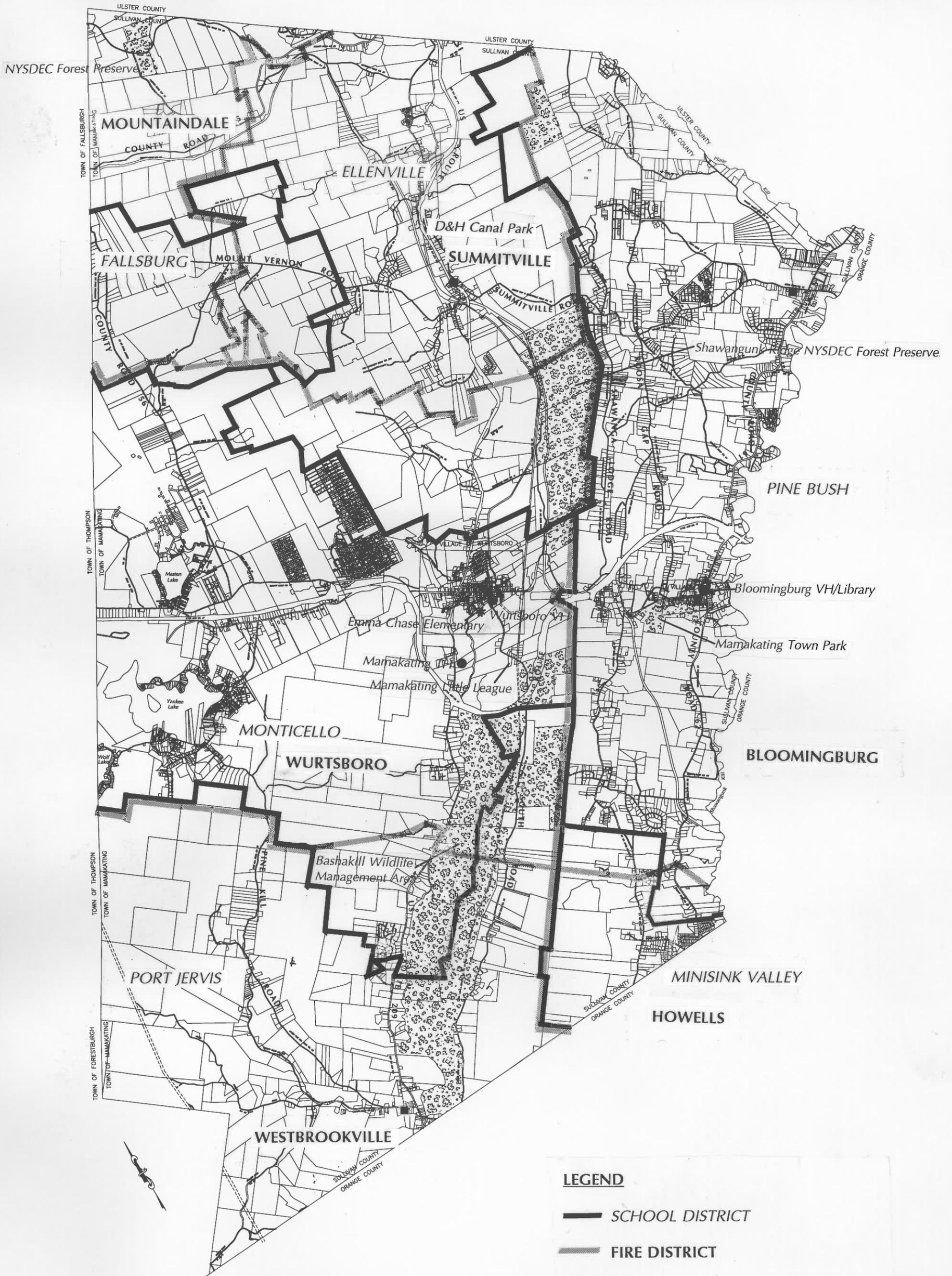
-  Streams with 150-foot Protective Buffer
-  Shawangunk Ridgeline (basis for CEA)
-  Bashakill Ecosystem (basis for CEA)

**Figure 3
ENVIRONMENTAL RESOURCES**

TOWN OF MAMAKATING
Villages of Bloomingburg & Wurtsboro
Sullivan County, New York

COMPREHENSIVE PLAN STUDIES

Scale: 1" = 6,000' | Stuart Turner & Associates, Oct. 1997



**Figure 4
COMMUNITY FACILITIES**

**TOWN OF MAMAKATING
Villages of Bloomingburg & Wurtsboro
Sullivan County, New York**

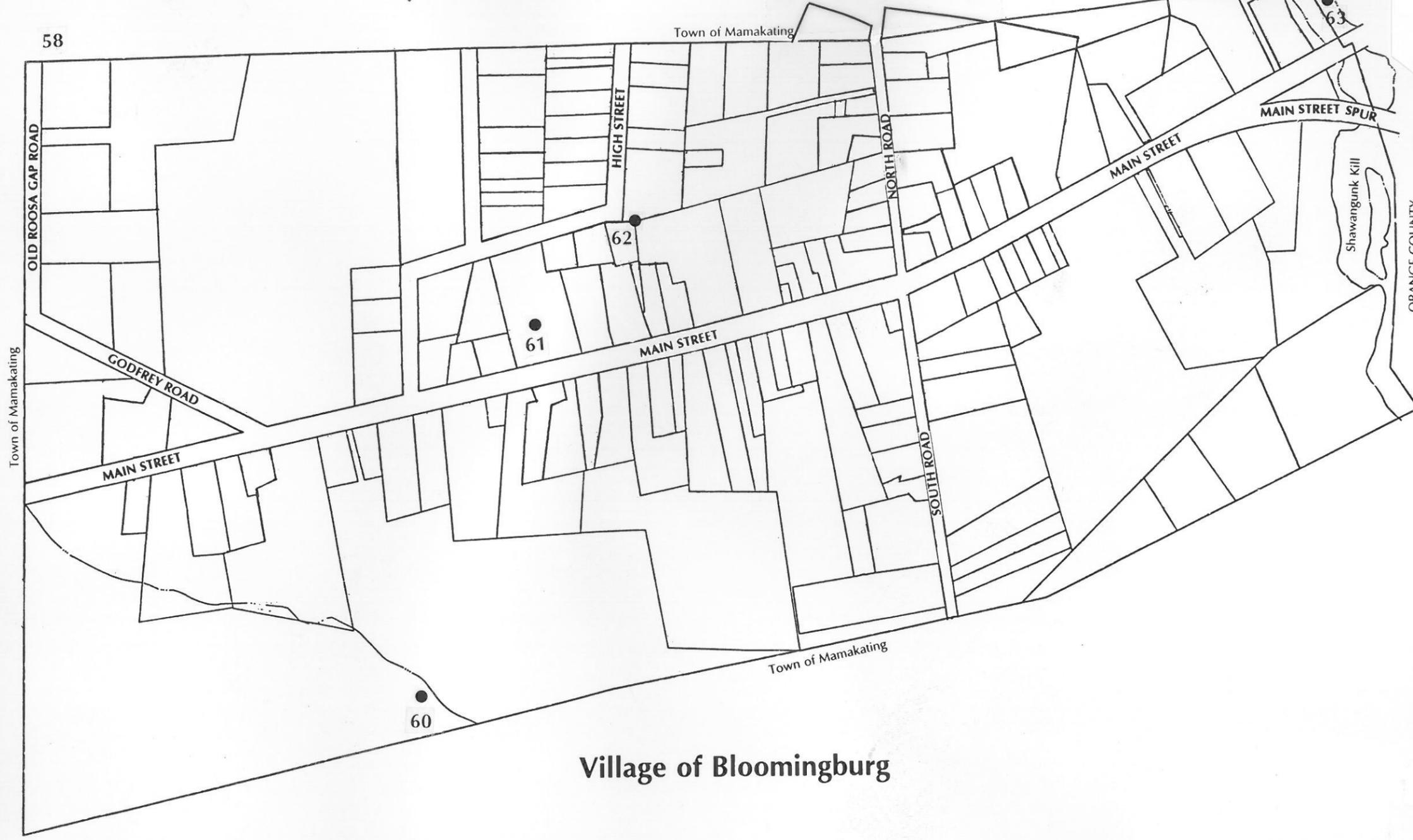
COMPREHENSIVE PLAN STUDIES

Scale: 1" = 6,000' **Stuart Turner & Associates, Oct. 1997**

LEGEND

- SCHOOL DISTRICT
- FIRE DISTRICT
- Fire Department
- Village/Town Hall
- * School
- ▲ Library
- ▨ Designated Parkland and Open Space

Note: Refer to Village Land Use Maps for exact location of Community Facilities.



LEGEND

1 PLACES OF DISTINCTION

- | | |
|--|---------------------------------|
| 1. Westbrookville | 51. Stanton Cemetery |
| 2. Fort Westbrook | 52. Shaugnassy |
| 3. Old Cemetery | 53. Mamakating Train Station |
| 4. Fort Cemetery | 54. Toll House |
| 5. Westbrookville United Methodist Church School | 55. Train Tunnel |
| 6. Terra Cotta Cemetery | 56. High View |
| 7. Westbrookville Cemetery | 57. Lost Gold Mine |
| 8. Indian Caves and Falls | 58. Bloomingburg |
| 9. Blanket Factory | 59. Bloomingburgh Train Station |
| 10. Blue Stone Quarry | 60. Mill Site |
| 11. Old Mine Rd. | 61. Dutch Reformed Church |
| 12. Basha's Land | 62. First School |
| 13. Brown's Settlement | 63. Mill Site |
| 14. Brown's Cemetery | 64. Family Cemetery |
| 15. Culvertown | 65. NY, O&W, Main Line |
| 16. School House | 66. NY, O&W, Kingston Branch |
| 17. Pigeon Hill | 67. Fort Devins Site |
| 18. New Vernon Old Baptist | 68. Gonsalus Grave |
| 19. Lockwood Cemetery | 69. Shawansberg (Council Bluff) |
| 20. Norbury Mills | 70. Gumaer Mill |
| 21. Stage Coach Road | 71. Tomco Falls |
| 22. Old Mine | 72. Railroad Trestle |
| 23. Sylvan/Jewish Cemeteries | 73. Summitville |
| 24. St. Joseph Cemetery | 74. Summitville Train Station |
| 25. Wurtsborough | 75. Lead Mine |
| 26. Yough House Spring | 76. Fort Roosa |
| 27. Methodist Church | 77. Roosa Gap |
| 28. Dutch Reformed Church | 78. Old Family Cemetery |
| 29. School | 79. Norris-Horton Cemetery |
| 30. St. Joseph Church | 80. Burlingham |
| 31. Train Station | 81. School |
| 32. Canal Store | 82. Methodist Church Cemetery |
| 33. Gumaer Hotel (Danny's) | 83. Todd Cemetery |
| 34. Dorrance Hotel | 84. Dietz Family |
| 35. Boat Yard | 85. Tannery |
| 36. Canal Store | 86. Mill Site |
| 37. Toll House | 87. Buried Cannon |
| 38. Tannery | 88. Mines |
| 39. Valentine Dam | 89. Canal Museum |
| 40. Old Cochection Tpk. | 90. Canal Reservoir |
| 41. Yankee Lake School | 91. Boat Yard |
| 42. Vegetarian Manor | 92. Phillippsport |
| 43. Yankee Lake | 93. Locks |
| 44. Wolf Lake | 94. School |
| 45. St. Andrew's Chapel | 95. Church |
| 46. Rock Quarry | 96. Train Trestle |
| 47. Masten Lake | 97. Death Hill |
| 48. Mamakating Park | 98. Cemetery |
| 49. Indian Settlement | 99. Rock Pile |
| 50. Mill Site | |

Village of Bloomingburg

**Figure 6A
PLACES OF DISTINCTION**

TOWN OF MAMAKATING
Villages of Bloomingburg & Wurtsboro
Sullivan County, New York

COMPREHENSIVE PLAN STUDIES

1" = Approx. 350' | Stuart Turner & Associates, Oct. 1997

Source: Virdana Lawrence, Town Historian, 1996.



Town of Mamakating

Town of Mamakating

Town of Mamakating

Village of Wurtsboro



LEGEND

1

(Refer to Places of Distinction Table for Description).

Figure 6B PLACES OF DISTINCTION	
TOWN OF MAMAKATING Villages of Bloomingburg & Wurtsboro Sullivan County, New York	
COMPREHENSIVE PLAN STUDIES	
1" = Approx. 525'	Stuart Turner & Associates, Oct. 1997

Source: Virdana Lawrence, Town Historian, 1996.



LEGEND

1 (Refer to Places of Distinction Table for Description).

Figure 6C
PLACES OF DISTINCTION
TOWN OF MAMAKATING
Villages of Bloomingburg & Wurtsboro
Sullivan County, New York
COMPREHENSIVE PLAN STUDIES
 Scale: 1" = 6,000' | Stuart Turner & Associates, Oct. 1997

Source: Virdana Lawrence, Town Historian, 1996.