



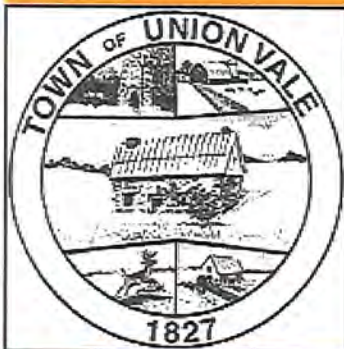
MASTER PLAN

Town of Union Vale



OCTOBER 2001

October, 2001



TOWN OF UNION VALE

Town Master Plan

Executive Summary

The following plan is the result of many hours of thoughtful work from the residents of the community, the Master Plan Committee, local elected and administrative officials, the LA Group and the Hudson Group. The goals and action steps listed in the Plan are a direct result of the public input received regarding the issues facing the town and its future. The Master Plan Committee utilized an extensive public outreach effort consisting of a town-wide survey, an interactive public workshop, and direct contact with the owners of large parcels as a means to obtain input. The suggestions made by the public serve as the building blocks for the stated goals and action steps.

The Plan's main goals are to preserve and protect the community from the uncontrolled growth that is quickly altering the rural character and quality of life enjoyed by residents of the region's towns and counties. The Town of Union Vale's residents and Master Plan Committee would like to see this growth managed in such a way as to promote, support and maintain the character and quality of life currently enjoyed by its residents. The Plan suggests that in order to guide growth in a fashion, which is consistent with the resident's vision of their community, the town must effectively utilize available tools to regulate land use. Ineffective or careless use of the town's

regulatory authority will result in the loss of Union Vale's sense of place, rural character and quality of life.

In response to this concern, the Plan offers concrete suggestions on how to alter the town's existing zoning code in order to prevent the sprawling pattern of development responsible for degrading the rural character and quality of life in surrounding communities. The suggestions for alteration of the code are based on a geographic analysis of the current zoning, proposed alternative zoning and the Hudson Valley Greenway Com-



The town is home to many areas of natural beauty.

Planning Methodology

The **Plan's methodology** consisted of gathering public input, analyzing its content and formulating a consistent plan. The outreach component of the plan resulted in the return of 306 written surveys. Review of the survey responses revealed several underlying themes important to the majority of the community's residents. Through analysis of the public input and regular meetings with the Union Vale's Master Plan Committee, three broad themes were developed. These major themes are the

Preservation of Rural Character, Quality of Life, and Community Development. The next step involved holding a public workshop to discuss the importance of the themes. At the workshop, notes were taken on the residents' response to specific questions related to each theme. In addition, the LA Group and the Hudson Group held regular meetings with the Master Plan Committee to discuss the development and direction of the plan.

Finding your way around the plan:

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Special points of interest:

- *Plan calls for revision of the Town Zoning Law & Subdivision Regulations*
- *Open space plan recommended*
- *Preservation of the Verbank Hamlet area is recommended*
- *Coordination of community development initiatives is suggested*

Goals and Action Steps

From this work, a set of **Goals and Action Steps** were created. These constitute a synthesis of the community's vision and suggestions on how to achieve it. The following list illustrates the major themes and the suggested action steps.

Preservation of Rural Character

- ✓ Place a moratorium on development until codes are updated
- ✓ Update zoning ordinance through increasing minimum lot sizes in selected zoning districts
- ✓ Update subdivision regulations through specified improvements to the application process and updated standards for open space preservation
- ✓ Develop an open space plan for the town
- ✓ Implement a strategy of varying methods to acquire development rights of key parcels which contribute to the rural character of the town
- ✓ Modify site plan review process through improved review criteria that sets forth design guidelines and preservation of natural features
- ✓ Maintain infrastructure consistent with rural character of the town
- ✓ Improve design review for commercial and office uses
- ✓ Explore tax code issues and incentives

Quality of Life

- ✓ Provide safe options for alternative transportation and recreation
- ✓ Maintain hamlet areas
- ✓ Integrate historic preservation into open space protection measures
- ✓ Protect groundwater resources
- ✓ Regulate excessive illumination
- ✓ Integrate Municipal buildings with town's goals

Goals and Action steps "constitute a synthesis of the community's vision and suggestions on how to achieve it."

Community Development

- ✓ Coordinate community development initiatives of local, non-profit, regional and state agencies
- ✓ Explore alternative funding methods for public services
- ✓ Improve design guidelines for signage
- ✓ Create a development information center
- ✓ To provide for appropriate expansion of the town's tax base and employment opportunities modify the Highway Commercial (C-2) Zoning District as follows:
 - Revise the use schedule to allow for offices, service-based businesses, and limited retail business
 - Consider expansion of the existing C-2 district boundary along NYS Route 55 (i.e. expand district boundaries for parcels fronting on Route 55 to follow parcel boundaries rather than an arbitrary dimension from the edge of the road)
 - Provide for adequate dimensional buffering from adjoining residential properties. Buffer areas will have supplemental plantings that reflect the naturally occurring vegetation and be sufficiently dense to screen and mitigate potentially negative visual and noise related impacts
 - Change the name of the zone
 - Incorporate standards from the new design guide-



The Verbank Hamlet

lines into site plan review criteria to create park-like conditions that are in keeping with the natural features that are so prevalent throughout the town. The cumulative effect will be a development pattern that is functionally coordinated and uniform in appearance

Plan Implementation

The **Plan Implementation Manual** provides the town with a general procedure for working through the Goals and Actions Steps. This component of the Plan provides a quick reference, easy-to-use, step by step guide to undertaking the listed actions for the short-term initiatives. It seeks to answer the questions of:

- How will each action be accomplished?
- Who will be responsible?
- When or what is the time frame for accomplishing the action?

Fiscal Impact

The **Fiscal Impact Analysis** section provides an analysis of the town's current property tax capacity and effort situation in relation to the surrounding region's municipalities. Too often, Plans are written without addressing the financial implications of the planned actions. This section provides a description of the existing fiscal conditions present in the town, how it compares to other municipalities in the county and, most importantly, what the fiscal impact of the planned revisions to the land development regulatory program will be. Specifically, this section analyzes the impacts of a complete "build out" for both the current zoning and proposed zoning on the town's population and tax base. The report finds, that when compared to the surrounding communities, Union Vale could expect the tax rate to rise between 15-20 percent under the

TOWN OF UNION VALE

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Fiscal Impact (cont.)

current zoning build-out scenario. The proposed zoning changes would reduce the population increases experienced by a build-out and would equate to approximately a 5-10 percent tax increase. Therefore instituting the proposed zoning changes would limit the population growth of the town and could reduce Union Vale's expected property tax increases (due to population growth and the resulting increased service needs) by approximately 10%.



Panorama of the Clove Mountain Range

Existing Conditions

The **Existing Conditions** section of the plan assesses the town's geography, population characteristics, infrastructure, and services. It looks for trends and issues which may be addressed in the Plan. The Existing Conditions report determined the build-out potential for the town with the existing zoning. A few of the more important issues it has identified pertain to the provision of emergency medical services, potential improvement opportunities in the town's recreation/open space system, a lack of design guidelines for new commercial and office areas and a need to protect the town's water resources.



Clove Mountain Road reflects the rural character of the Town

AREA A

KEY ELEMENTS:

- VISIBLE HAMLET AREA
- CONCENTRATION OF HISTORIC BUILDINGS
- EXISTING CONDITIONS COMPOSE A PLEASING MIXTURE OF RURAL FEATURES IN A NATURAL ENVIRONMENT
- NATURAL FEATURES INCLUDE: FORESTED AREAS, PASTURES, AQUIFER AND SOME WETLANDS
- BUILT FEATURES/USES INCLUDE: RESIDENCES, CHURCHES, CEMETERIES, FIREHOUSE, LIMITED COMMERCIAL USES.

PLAN ELEMENTS:

- PRESERVE EXISTING CHARACTER
- AVOID USES THAT WILL CONTRIBUTE TO INCREASED TRAFFIC OR REQUIRE INSTALLATION OF TRAFFIC CONTROL DEVICES.
- RETAIN AND PRESERVE HAMLET DESIGNATION
- REVIEW OF PROPOSED DEVELOPMENTS SHOULD TAKE INTO ACCOUNT THE IMPACTS ON THE AQUIFER.

AREA B

KEY ELEMENTS:

- LARGE LOT PATTERN-VACANT OR UNDERDEVELOPED.
- NATURAL FEATURES INCLUDE: FORESTED AREAS, PASTURES, WETLANDS, VARYING TOPOGRAPHY, SOME STEEP SLOPES.
- RURAL-OPEN SETTINGS.
- BUILT FEATURES/USES INCLUDE: RESIDENCES, AGRICULTURAL USES, SENIOR HOUSING FACILITY.

PLAN ELEMENTS:

- UP ZONE MINIMUM LOT SIZE TO 5 ACRES.
- PRESERVE AREAS OF OPEN SPACE, PARTICULARLY STEEP SLOPES, OPEN PASTURES, WETLANDS.
- LIMIT LOSS OF VEGETATION AND DEVELOPMENT INTRUSION INTO OPEN SPACE AREAS.
- ENCOURAGE CLUSTERED SUBDIVISIONS EMPLOYING CONSERVATION DESIGN PRINCIPLES.

AREA C

KEY ELEMENTS:

- SITE OF SKY ACRES AIRPORT.

PLAN ELEMENTS:

- CONTINUE AIRPORT USE.
- DEVELOP AWARENESS OF FEDERAL STANDARDS FOR HEIGHT RESTRICTIONS ALONG RUNWAY FLIGHT LANES.

AREA D

KEY ELEMENTS:

- LARGE LOT PATTERN-MANY LOTS ARE VACANT OR UNDERDEVELOPED.
- WEST SIDE OF CLOVE MOUNTAIN ROAD AND SOUTHERN SECTION OF TOWN.
- SIGNIFICANT VIEWS.
- NATURAL FEATURES INCLUDE: VARYING TOPOGRAPHY, AQUIFER, LIMITED WETLAND AREAS, SOME STREAMS, BALANCE OF FORESTED AREAS AND OPEN PASTURE.
- BUILT FEATURES INCLUDE: RESIDENCES ON SMALLER, NARROW LOTS, DEVELOPMENT PATTERN IS SPARSE AND INTERMITTENT, LOCATION OF PRIVATE GOLF COURSE.

PLAN ELEMENTS:

- PRESERVE OPEN SPACE WHERE POSSIBLE.
- ADJUST ZONING IN R-100 TO 3 ACRE MINIMUM LOT SIZE AND TO 5 ACRE MINIMUM LOT SIZE IN R-135.
- PRESERVE VIEW OF MOUNTAIN RANGE THROUGH ESTABLISHMENT OF STRUCTURES AND AREAS OF DISTURBANCE ALONG TREE LINES AND HEDGE ROWS, PLACEMENT OF LIMITS ON CLEARING AND REMOVAL OF VEGETATION, RESTRICTION OF STRUCTURES ON THE RIDGELINE.
- DEVELOP DESIGN GUIDELINES FOR NEW RESIDENTIAL DEVELOPMENT THAT EMPHASIZE USE OF NATURAL PRODUCTS (I.E., WOOD AND STONE) AND CONFORMITY WITH ARCHITECTURE OF THE OLDER HISTORIC HOMES.
- NEW ROADS (PUBLIC OR PRIVATE) AND DRIVEWAYS WILL BE INSTALLED TO LIMIT SLOPE CUTS, GROUND DISTURBANCE AND REMOVAL OF VEGETATION.
- REVIEW OF PROPOSED DEVELOPMENTS SHOULD TAKE INTO ACCOUNT THE IMPACTS ON THE AQUIFER.
- POST INFORMATION REGARDING FEDERALLY MANDATED HEIGHT RESTRICTIONS ALONG RUNWAY FLIGHT PATHS (SEE FIG. 3A & 3B) ON ADJOINING PARCELS AT TOWN HALL AND AT A COMMUNITY INFORMATION CENTER.

AREA E

KEY ELEMENTS:

- LOTS ARE MOSTLY DEVELOPED.
- LOT PATTERN REFLECTS SMALL TO MODERATE LOT AREAS.
- SIGNIFICANT VIEWS OF CLOVE MOUNTAIN RANGE AND VALLEY.
- NATURAL FEATURES INCLUDE: VARYING TOPOGRAPHY, PASTURES, HEDGEROWS AND TREES.
- BUILT FEATURES INCLUDE: RESIDENCES ON SMALL TO MODERATELY SIZED LOTS, WESTERN SECTION IS ORIENTATED TOWARDS WATERBURY HILL ROAD AND WALSH ROAD.

PLAN ELEMENTS:

- LEAVE EXISTING ZONING IN PLACE AS MOST LOTS ARE ALREADY DEVELOPED OR HAVE GONE THROUGH SUBDIVISION PROCESS.
- CONTINUE PREDOMINANT RESIDENTIAL USE.

AREA F

KEY ELEMENTS:

- LARGE LOT PATTERN.
- EAST SIDE OF CLOVE MOUNTAIN ROAD.
- WETLANDS SCATTERED THROUGHOUT THE AREA.
- DRAMATIC VIEWS.
- NATURAL FEATURES INCLUDE: VARYING TOPOGRAPHY, AQUIFER, WETLANDS, FORESTED AREAS, PASTURES, STREAMS AND PONDS.
- BUILT FEATURES INCLUDE: CONCENTRATION OF OLDER, HISTORIC RESIDENCES, AGRICULTURE USES, SCATTERED DEVELOPMENT, RURAL/LOCAL ROAD SYSTEM WITH MINIMAL INTRUSION INTO THE ENVIRONMENT, FIREHOUSE, CHURCH.

PLAN ELEMENTS:

- ADJUST ZONING IN R-225 TO 10 ACRE MINIMUM LOT SIZE.
- PRESERVE OPEN SPACE WHERE POSSIBLE.
- PRESERVE VIEW OF MOUNTAIN RANGE THROUGH RESTRICTION OF STRUCTURES AND ASSOCIATED DISTURBANCE TO AREAS ALONG TREE LINES AND HEDGE ROWS, PLACEMENT OF LIMITS ON CLEARING AND REMOVAL OF VEGETATION, RESTRICTION OF STRUCTURES ON THE RIDGE LINE.
- DEVELOP DESIGN GUIDELINES FOR NEW RESIDENTIAL DEVELOPMENT THAT EMPHASIZE USE OF NATURAL PRODUCTS (I.E., WOOD AND STONE) AND CONFORMITY WITH ARCHITECTURE OF THE OLDER HISTORIC HOMES.
- NEW ROADS (PUBLIC OR PRIVATE) AND DRIVEWAYS WILL BE INSTALLED TO LIMIT SLOPE CUTS, GROUND DISTURBANCE AND REMOVAL OF VEGETATION.
- REVIEW OF PROPOSED DEVELOPMENTS SHOULD TAKE INTO ACCOUNT THE IMPACTS ON THE AQUIFER.

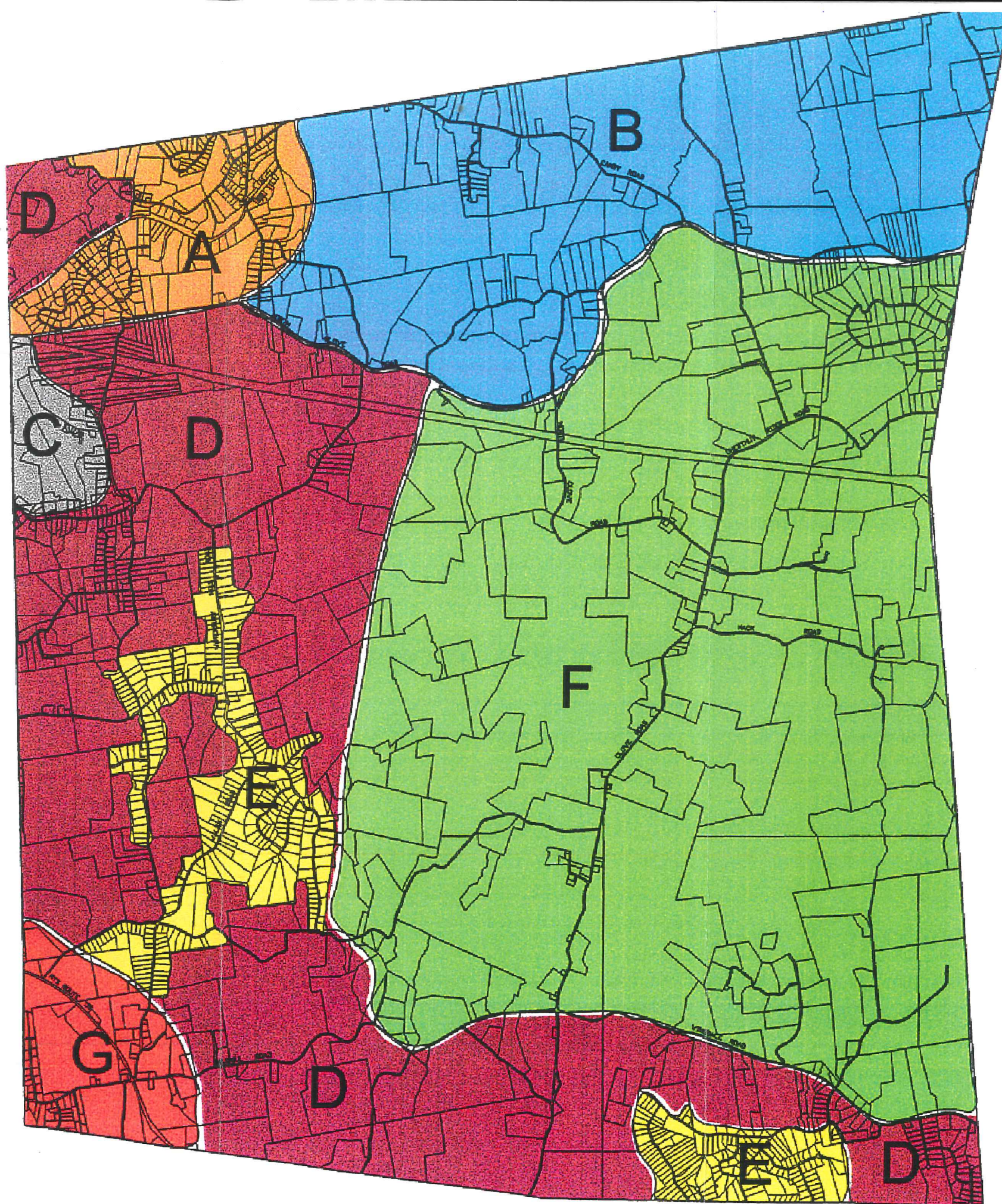
AREA G

KEY ELEMENTS:

- AREA IS PREDOMINANTLY UNDERDEVELOPED OR UNDERDEVELOPED.
- LOCATION OF NEW SCHOOL.
- AREA CURRENTLY IS ZONED FOR COMMERCIAL USES WITH SITE PLAN REVIEW FROM THE PLANNING BOARD.
- NYS ROUTE 55, THE TOWN'S MOST HEAVILY TRAVELED ROUTE, RUNS THROUGH THIS AREA.
- POTENTIAL FOR FUTURE DEVELOPMENT.
- NATURAL FEATURES INCLUDE: VARYING TOPOGRAPHY, AQUIFER RECHARGE AREA, OPEN PASTURES, SOME SPARSE VEGETATION AND HEDGEROWS.
- BUILT FEATURES INCLUDE: SOME COMMERCIAL USES, RECLAIMED GRAVEL MINES, SOME RESIDENCES.
- AREA OF NEW ELEMENTARY AND MIDDLE SCHOOL.

PLAN ELEMENTS:

- ENCOURAGE COMMERCIAL USES, WHICH MAY COMPLEMENT THE EXISTENCE OF THE NEW SCHOOL, AND EXPAND THE LOCAL ECONOMY THROUGH INCREASED ASSESSED VALUES, INCREASED EMPLOYMENT OPPORTUNITIES AND INCREASED SALES TAX REVENUE.
- ENCOURAGE DEVELOPMENT OF AREA THROUGH CONCENTRATION OF LIMITED COMMERCIAL USES.
- USES TO INCLUDE: OFFICE-RELATED USES SUCH AS PROFESSIONAL OFFICE PARKS, SERVICE BASED BUSINESSES, LIMITED COMMERCIAL WHICH MAY COMPLEMENT OFFICE USES OR PROVIDE CONVENIENT AVAILABILITY OF GOODS AND SERVICES FOR TOWN RESIDENTS. EXAMPLES OF USES TO BE ENCOURAGED INCLUDE: MEDICAL OFFICE CENTERS, PROFESSIONAL OFFICE BUILDINGS IN A PARK-LIKE SETTING, RETAIL BUSINESSES WHICH PROVIDE FUNDAMENTAL GOODS SERVICES (I.E., GROCERY, GAS SALES, BAKING/HARDWARE, ETC.) HIGH-POLLUTING LIGHT ASSEMBLY OR PRODUCTION.
- INFORM DESIGN GUIDELINES, WHICH PROVIDE UNIFORM ARCHITECTURAL AND AESTHETIC ELEMENTS TO PROPOSED DEVELOPMENT PROJECTS.
- DEVELOPMENT PROJECTS SHOULD BE DESIGNED TO BE IN HARMONY WITH THE RURAL CHARACTER AND NATURAL FEATURES OF THE COMMUNITY. PROJECT REVIEW SHOULD CONSIDER POTENTIAL IMPACT TO THE AQUIFER. THIS IS ACCOMPLISHED THROUGH USES OF NATURAL MATERIALS WHERE POSSIBLE (I.E., USE OF STONE IN RETENTION WALLS, WOOD GUARD RAILS AS OPPOSED TO STEEL, WOOD OR STONE SIDING AS OPPOSED TO VINYL, LANDSCAPING USING ONLY NATIVE PLANTS AND TREES, ETC.) AND BUILDING ARCHITECTURE WHICH CONSCIOUSLY REFERENCES THE DESIGN OF THE HISTORIC BUILDINGS IN THE TOWN.
- REVIEW OF PROPOSED DEVELOPMENTS SHOULD TAKE INTO ACCOUNT THE IMPACTS ON THE AQUIFER.
- THROUGH ZONING ENCOURAGE USES THAT COMPLEMENT THE NEW SCHOOL.
- ENCOURAGE TRANSPORTATION FACILITIES THAT ACKNOWLEDGE THE PRESENCE OF THE NEW SCHOOL AND FACILITATE THE SAFE MOVEMENT OF PEOPLE, PARTICULARLY CHILDREN, THROUGH THE AREA. TRANSPORTATION FACILITIES SHOULD BE WELL COORDINATED AND MULTI-MODAL.



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UNIONVALE COMP. PLAN

TOWN MASTER PLAN

PREPARED FOR:
TOWN OF UNIONVALE
DUNCAN ROAD
TYMOR PARK
LA GRANGEVILLE, NY 12540

Revisions

REV.	DATE	DESCRIPTION
1	9/22/01	Initial Design
2	9/22/01	Final Design

Project 00148
Date 9/22/01
CAD g. [signature]
Figure: 1

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“Plan: A method devised for attaining an end”¹

¹Webster’s New Collegiate Dictionary

Introduction

The Town of Union Vale is at a crossroads in its history. Located approximately in the center of Dutchess County, it is the perception of many residents that the town will be subject to increased development pressure. The basis for this expectation is the increasing rate of development already occurring in the neighboring towns of LaGrange, Beekman, Wappinger and Pawling. Other regional influences include an announcement of the IBM Corporation's plan to upgrade an existing facility in the Town of East Fishkill, which is projected to create 1,000 new jobs. The impact of this level of employment will significantly affect demands for housing, schools, goods, services and "spin-off" support businesses on a regional level.

In terms of recent activity within the town, there is increased subdivision activity and the demand for housing has been increasing. According to the latest U.S. Census figures, the town experienced a 26 percent increase in population from 1990 to 2000. Two new schools are also proposed for the town. All of these events form the basis for a strong consensus among residents that future growth must be managed to maintain and enhance the rural character of the community rather than becoming a detriment to its aesthetic charm and rural way of life. Additionally, there is legitimate concern that the town's groundwater resources could become overtaxed or degraded by excessive growth. The town has signed the Greenway Compact, affirming its commitment to intelligently manage growth and thereby preserve and enhance the quality of life of its residents.

One need only tour the roadways of the community to understand the pride taken by the residents in their community. Such an examination of the current state of the community reveals strong rural characteristics. Specifically, these rural characteristics include:

- vast expanses of pastures, woodlands and wetland areas;
- varying topography with a predominant north-south ridgeline that provides a striking hillside panorama as a backdrop to the valleys below;
- a development pattern that is still somewhat scattered;
- a road network that follows, and works with, the natural topography, requiring minimal loss of vegetation;
- very limited commercial use, predominantly restricted to state roads and a small hamlet in the northwest;
- with the exception of some limited areas on the west side of the town, a large lot parcel configuration that limits density and demands for infrastructure;
- no municipal water or sewer system.

All of this adds up to a rural way of life, which is more than mere aesthetics or the appearance of rural character but genuine rural living.

In order to understand the sentiment regarding the future of the town, the interests and opinions of residents were solicited through an extensive, multi-faceted public outreach effort. A written survey was distributed with an extended period of time for reply; a public workshop was conducted and structured to provide residents with an opportunity to speak

directly about the future of the town and what direction should be taken. The resulting message was clear and the consensus was strong; maintain the rural character and way of life as it contributes heavily to the quality of life enjoyed by the residents.

Central to the issue of planning the town's future is the practical consideration of cost. Fiscal impact in terms of property values, real property tax and the expense associated with supplying municipal services (road maintenance, snow removal, recreation facilities and programs, property assessment, zoning, and zoning enforcement, building inspection, town court, etc.) need to be considered and factored into the plan if implementation of the plan is to be supported and successful. With this understood, fiscal evaluation of the planned condition and a comparison between a projected condition with no change and the planned condition has been done to gauge the impact and desirability of a planned approach to managing future growth. This evaluation and comparison provides an opportunity for town officials and residents to understand the economic impact associated with a particular set of actions and make adjustments as needed. In the preparation of this plan, other reports and analyses on the impact of residential growth on the municipal tax base and fiscal management were reviewed. The results of the review indicate that, in general terms, additional housing, as associated with typical suburban-residential development patterns, demands more services and more cost than is generated by real property taxes paid. The long-term effect of such a development pattern is increased tax rates to provide the revenue to cover the costs associated with providing more services.

In order to comply with the mandate from the residents, this plan sets forth a series of goals and subsequent actions that are intended to maintain the rural character of the town into the first decade of the 21st century and beyond.

Plan Methodology

The plan is the result of a collaborative effort between the residents, the town's Master Plan Committee, members of the Town Board, the LA Group and the Hudson Group.

The town's Master Plan Committee, members of the Town Board and Town Department administrators have worked closely with the LA Group and the Hudson Group to provide the information concerning the town's infrastructure and physical conditions. Plan assembly has occurred during monthly meetings of the Master Plan Committee. From these information sources and meetings an existing conditions report was created. The report is an assessment of the town's vital statistics. The report looks at the current status of the physical environment, population and infrastructure, while trying to identify trends or changes in these variables.

Direct input from the town's citizenry was gathered in two ways. The Master Plan Committee created, distributed and tallied a survey requesting citizen input on the issues facing the town. In addition to a town-wide mailing, owners of large property were also surveyed in order to allow for direct involvement in the planning process. A total of 306 surveys were received from Union Vale's residents. The following four survey questions received the most responses:

- 256 expressed a desire to maintain the town's rural qualities
- 174 were concerned about the growth occurring in nearby towns like Beekman
- 110 thought the town should use zoning to control growth
- 84 opposed "more housing developments"

The Master Plan Committee and the LA Group worked together to facilitate a well-advertised and reasonably representative public meeting. At the meeting, residents broke out into small groups and were asked to discuss, in depth, three pressing issues identified by the resident surveys. These major issues are:

- preservation of rural character
- quality of life
- community development



Interactive work sessions were held during the public meeting to allow for everyone to participate

Each group at the public meeting was charged with the purpose of discussing the three topics mentioned above and was facilitated by a member of the Master Plan Committee. The public input gathered from this meeting was used in developing the plan's goals and action steps.

Following the format established for the Town Meeting, the goals and action steps are presented under each of the three categories. These goals and action steps have been

developed from the committee meetings, public input received from the resident surveys and town meetings, and analysis of the existing conditions. Each action step is a suggestion for how community members may begin the work of addressing the issues facing the community.

The final result is a realistic manageable plan document built directly from resident input. The goals and action steps developed are to be achieved within the next five years. To assist in the implementation of the plan, the action steps are described in a concise, plain English format. An implementation matrix is provided, which lists the following: the actions to be taken and who or what entity is responsible for taking the action.

The document is intended to be a planning tool to guide the immediate and future decisions of town officials as they relate to both the fulfillment of the community's collective vision for the town and land use decisions from this point forward.

Goals and Action Steps

INTRODUCTION

The defining component to the comprehensive planning process is goal setting and the development of actions to achieve the desired goals. The goals are a direct reflection of the residents' input, and actions are concise steps to be taken to achieve the stated goals.

In reviewing the substance of the public comments received, three categories of goals were developed: preservation of rural character, maintenance of the quality of life, and management of future development (both residential and commercial) in the community.

Preservation of rural character represents a desire to continue to conserve natural resources, preserve the undeveloped rural landscape, and enhance diversity of native vegetation and wildlife through the thoughtful management of the location, intensity and design of new development. This will require maintenance of open expanses between dwellings; preservation of topographical, hydrological and scenic features through well conceived design and effective application of dimensional buffers and screening methods. This also includes the installation and maintenance of infrastructure, which is least intrusive to the environment, supportive to a limited population and preserves the existing low-density, rural development pattern.

The maintenance of quality of life involves the continuance of an environment that supports the preferences of the residents as they relate to a wide range of leisure time activities; family-based pursuits; methods of employment and earning a wage; provision of needed services; multi-modal transportation options to and from places of work, recreation, and service providers; a secure and safe environment to live in; and opportunities for access to all levels of quality education. More specific to the Town of Union Vale, quality of life means preservation of the benefits derived from living in a less dense, non-urban, non-suburban community. Local recreation pursuits are generally more dependent on availability of open spaces and the passive enjoyment of the natural condition rather than those uses associated with, or dependent upon, a built structure, facility, piece of equipment or building, as is found in an urban area. Recreational use of natural areas, however, requires those areas to be preserved for public use and equipped with some sort of trail network.



Management of future development is concerned with provision of development that is responsive to the needs of the residents. Although there is an overriding expression of concern relating to preserving the rural character, the goal here is to provide development opportunities within the context of rural preservation that strives to meet the needs of a rural community in a balanced and thoughtful manner. There remains a need for safe and regular maintenance of roads, affordable housing that accommodates the income levels found in the town, support for local volunteer rescue and fire departments, consistent and effective enforcement of local land use regulations, business development opportunities that

are responsive to the preferences of the local market area, and are proportionately sized and appropriately designed to be in keeping with the rural character and the needs of a non-dense population. It is expressly the intent of this plan to preserve a rural way of life above all other considerations. Future development is to be undertaken in a manner that is respectful of the natural environment and preserves and enhances the rural character of the community.

VISION

To maintain the rural character of the town through the preservation of open space.

This vision statement accurately summarizes the vast majority of the sentiments expressed by the residents of Union Vale. In support of this Vision, the town has signed the Greenway Compact and hopes to codify the concepts of the Greenway into this plan.

Future growth should occur in a form that is lower in density; utilizes a design that is respectful of the community's heritage and rural quality; is responsive to the needs of residents for preservation of natural features and passive recreational enjoyment of the abundant natural features in existence; provides access to limited commercial, retail, and service-based land uses; and involves the maintenance and installation of safe and functional, but limited infrastructure, designed to require minimal disturbance to topography, vegetation and other aspects of the environment.

This vision is intended to summarize the overall input as received from the town residents. To achieve the residents' vision for the town, the following goals have been developed for the plan:

- Preserve rural character
- Maintain the quality of life
- Manage future development responsively to meet the needs of the community

Goal 1: Preserve Rural Character

In order to achieve this goal, it must first be clearly defined. The elements of the town that contribute to its rural character are as follows:

- Varying topography
- A diversity of native vegetation and wildlife
- Non-intrusive and safe roads with minimal lane width and minimal cutting into the topography resulting in retention of vegetation and reduced slope disturbance
- Clustering and screening of structures which preserves views of the wide expanses of undisturbed open areas
- Undisturbed ridge lines and meadow areas/Limited development in viewsheds
- Low density residential development in a majority of the town
- Limited commercial development
- Retention of unique and highly sensitive elements of the environment such as aquifers, wetlands, streams, floodplains, steep slopes, and forested areas
- Agricultural uses such as dairy farms, horse stables, vineyards, managed forests and crop farms
- Absence of a municipal water or sewer system and street lights

- Leisure time, recreational use of the land that is comparatively passive and provides enjoyment based on the elements of the natural environment and their inherent qualities (golf courses, trail networks for walking, biking and riding)
- Absence of intense, large-scale commercial uses
- Absence of large scale housing developments
- Protection of hunting lands/preserves

These elements when considered as a whole serve to define the rural nature of the community. The residents participating in the survey and the public workshop expressly stated that they enjoy the rural setting and strongly feel it must be retained. In order to achieve this goal, the following action steps are suggested:

Actions to Achieve Goal 1:

1. Place a moratorium on major (5 or more lots) subdivisions and commercial developments
 - Enact a moratorium (target duration of approximately 6-9 months) until the changes to the zoning ordinance, subdivision regulations and design guidelines are enacted
 - Set forth a well-defined reason for a moratorium which clearly conveys the intent of providing a mechanism to enact a regulatory program that is in keeping with the desires of the residents
 - Establish a realistic time frame for the moratorium's length
 - During the moratorium, work progressively on developing the suggested changes to the entire regulatory program
2. Revise the town's land use regulatory program.
 - a. **Update the zoning ordinance**
 - Appoint a Zoning Ordinance Revision Committee
 - Develop an overall revision schedule at the beginning of the revision process with *realistic* milestones for drafts of new text involving lot size, yard and dimension revisions, and map changes. The revision schedule should determine the moratorium timeframe
 - Develop and undertake a system for regular communication and correspondence to the Town Board regarding the progress and substance of the revisions being considered. As the local legislative body, the Town Board is ultimately responsible for enactment of the revised zoning ordinance. The adoption of a timely and effective ordinance requires regular, two-way dialogue between the revision committee and the Town Board during the entire revision process
 - With existing uses "grand-fathered in", adjust zoning designations by increasing minimum lot size requirements in conjunction with a clustering provision. These adjustments might include:
 - R-45-elimination of the zone in undeveloped areas while allowing normal application of the district in developed and recently proposed areas to maintain consistency with existing conditions
 - R-60-eliminate for future development and change to 3 acre minimum lot size

- R-100-up zone to a 3 acre minimum with clustering as overlay zoning only
 - R-135-up zone to a 5 acre minimum lot size
 - In areas of the existing R-225 zoning district where new zoning to ten (10) acre minimum lot size is proposed, subdivision of up to four lots may be done to the R-225 standard for minimum lot size. This is suggested to be a on time exception. Any subsequent subdivision must conform to the new standard relating to the ten acre minimum lot size
 - Create a new R-450 zoning designation to accommodate the 10 acre designation
-
- Review and improve the existing conservation density subdivision and cluster development provision incentives in order to encourage developers to contribute to the town's Open Space plan and rural character. These adjustments should include provisions for recreation areas and trail way connections for non-motorized recreational uses such as hiking and biking. (See the Greenway Connections Section A4, "Saving Farmland with Development," and Section A2, "Preventing Strip Subdivisions")
 - Use schedules should consider and accommodate the unique demands that are often associated with "estate" lots (estate lots being defined as lots with an area of 20 or more acres). Uses such as caretaker dwellings, grounds keeper quarters, etc. should be considered. As a means to efficiently accommodate such uses, consideration should be given to accessing ordinances in neighboring towns that have already included similar provisions
 - Review and revise grading, filling, and erosion control plans in order to protect the town's water resources
 - Develop and adopt standards that preserve the natural appearance and viewsheds afforded by the ridgelines occurring throughout the town. Such standards may include limits on clearing, disturbance, and placement of structures through ridgeline areas
 - Review and revise impervious surface regulations
 - Review and change allowed uses for commercial zones. Suggestions include eliminating "big box retail" and encouraging uses that meet the day-to-day needs of the residents, such as professional services, health care offices and day care centers
 - Review and revise commercial parking and roadway access requirements. Adjust existing regulations by reducing the number of parking spaces allowed; encourage alternative lot location, connections, and sharing of access points and parking between adjacent commercial structures and the minimization of curb cuts. (See Greenway Connections Section A2, "Preventing Strip Subdivisions")
 - Use graphic representations wherever possible to convey and illustrate the meaning and intent of the revised zoning code (See Greenway Connections for sample diagrams)
 - Add or update regulations concerning allowable fence types by discouraging "stockade" fencing, which doesn't fit rural character of the town
 - Revise stream buffer setback regulations for both structures and septic systems in order to protect the town's water resources. Develop regulations that utilize best management practices, which take into account slope and vegetative cover.

(A simple suggested solution is to measure a 100 ft. buffer from the normal stream bank.)

b. Update Subdivision Regulations

- Concurrent with the effort to revise the zoning ordinance, revise subdivision regulations to be consistent with the substance of the changes to other sections of the zoning ordinance
- Revisions to subdivision regulations might include new regulations for or amendment of open space design and location criteria, lot layout criteria, building and infrastructure placement criteria, maximum allowable development in any one phase, vegetation retention criteria, pedestrian and bicycle pathways, etc. This may also include adjustments, which make conservation density and clustering more attractive to developers. (One idea includes accepting open space donations in lieu of the recreation fee.)
- Review and revise as necessary, standards for new roads. The appearance of public roads greatly contributes to the character of a community. With an overall emphasis on road safety, depart from conventional standards that place heavy emphasis on “engineered” approaches to road design and layout with new standards that place priority on minimal cutting and filling. This may be achieved by requiring new roads to follow the naturally occurring topography. Lane widths would be held to a minimum thereby minimizing the area of disturbance and maximizing the retention of existing and mature vegetation. Drainage from road surfaces should discourage the installation of built systems consisting of catch basins, piping, retention/detention ponds, etc.
- New standards for drainage should emphasize use of less costly and less impactful approaches to handling runoff such as “sheet runoff” to vegetative trenches. Consideration should also be given to landscaping standards and replacement of vegetation lost during installation of the road. (See the Greenway Connections Section A4, “Saving Farmland with Development” and Section A2, “Preventing Strip Subdivisions”)



Many of the roads in the town serve to enhance its rural character

3. Develop an Open Space Plan for the town

- Charge an existing group (such as the Conservation Advisory Committee) with this task or create a new Committee to complete the action listed below
- Conduct an inventory of vacant parcels
- Develop criteria for assessing the priority parcels worthy of preservation. Criteria may include
 - Significance to the community in terms of recreational opportunities (passive and/or active)

- Scenic viewpoints
 - Historic Sites
 - Ridge line and slope protection
 - Valuable habitat for native wildlife and plant life
 - Quality vegetation covers such as tree lined roadways, old growth areas, hedge rows, etc.
 - Important water resources, stream corridors, wetlands, aquifer recharge areas, etc.
 - Size
 - Financial value
 - Location and proximity to adjoining land uses
 - Opportunity for linkages to other open space parcels
 - Suitability for standard and unique development
- Identify valuable open space areas and connections, which may be used to accommodate the recreational needs of residents (and if possible serve as alternative transportation route connections to services). Once adopted, the plan will be used for the reviews in the new permitting process described above. The plan should provide direction concerning
 - Interconnections between existing open spaces and nearby trail systems
 - Recommendations for the accommodation of a variety of users
 - Property acquisition priorities which includes land, water resource areas (such as stream corridors and aquifer recharge areas), vistas, and historic structures
 - Acquisition, preservation and restoration funding mechanisms (See Appendix I, Open Space Protection Measures, Appendix VI, List of Historic Sites for Protection, Appendix VII, List of Scenic Vistas)
 - Education of town property owners about land conservation easements
 - See all of the Section D in the Greenway Connections, Section D1, “Connected Habitats,” Section D2, “Stream Corridor Protection,” Section D3, “Highways into Greenways,” and Section D4, “Wellhead and Aquifer Protection”
4. Implement a strategy for the acquisition of parcels or development rights
- Consult with the Dutchess County Planning Office to explore cost-effective and meaningful methods to acquire valuable open space land and/or development rights. Such methods may include coordination with on-going County initiatives, to include any one or a combination of the following methods: annual appropriations, multi-year appropriations, bonds, real estate sales tax, capital reserve fund, reduced tax assessment (lease of developments), land acquisition installment obligations, State and County cost sharing
 - Prioritize parcels or development rights for acquisition
 - Identify means to fund parcel acquisition, or acquisition of development rights program and begin acquisition of priority parcels in a phased manner. Options for acquisition include: acquisition of conservation easements, acquisition of title,

- acquisition of development rights, lease of development rights, or a combination of programs. Other options could include the creation of a fund from local revenues or fines and/or some type of minor tax increase
- Select a method to fund the preferred open space protection program. Options include appropriations from the town budget, bonding, real estate transfer tax, imposition of a sale or use tax, or establishment of a capital reserve fund. (See Appendix I, Open Space Protection Measures)
 - Work with County officials to understand how the town effort can interface with the proposed acquisition of development rights programs of the County and State
 - To the extent possible, solicit private donations of land and/or funds to assist with the open space protection program
5. Modify site plan review process to enhance the rural character
- Consider revision of the site plan review process, which would require both the developer and the Planning Board to evaluate the site's natural features and potential contribution to the town's rural character prior to project design. (See the Greenway Connections section entitled "Connections in Every Site Plan")
 - The first step in this new review process would require the applicant to submit a site plan of the parcel in question, which would include the surrounding area (approximately 1500-2000 ft.). This would then allow the Planning Board and the applicant to devise a strategy for the placement of the new building(s), and parking area(s), which contribute to the town's rural character
 - Once the parcel's connection to the town's Open Space Plan has been approved, the next step would entail individual lot or building layout on the site. (See Appendix IV, Sample Cluster and Open Space Site Plan Examples)
6. Revise site plan and subdivision application to complement master plan initiatives and revision to the zoning code (Including the use of illustrative design guidelines)
- Develop and utilize application packets for subdivision and site plan review that introduce applicants to the town's intention for development character, density and quality
 - Develop and utilize application for clustered subdivision that establishes a "stepped procedure" for progression through the review process
 - Specifically, step one should limit the application submission strictly to identification, size and location of the area to remain as open space and stream buffers (which should be clearly marked). Applications for step one providing lot layout designs should be expressly rejected and returned. Upon approval by the Planning Board of the open space area in step one, a step two application would require submission of a lot layout and road design
 - Step two of the application process should provide guidance for and refer to relevant sections of the zoning ordinance, subdivision regulations and design guidelines (relating to road design standards; lot layout standards and guidelines,

building placement standards and guidelines, landscaping, design elements which enhance the rural quality of the proposed project, etc). Step two of the application would include subdivision design at a concept level with consideration given to the project's scale and relationship to the physical qualities of the area to be subdivided such as topography, depth to groundwater, stream corridor buffers or protection, soil profiles, vegetation, archeology, hydrology, etc. (See Greenway Connections Section A1, "Fitting into the Landscape," and Section A4, "Saving Farmland with Development")

- Step three of the application process should include detailed designs for lot and road design that take into consideration the standards and guidelines of the town, relevant state and federal agencies (i.e., US Army Corp of Engineers, New York State Department of Environmental Conservation, New York State Department of Health, etc.) as well as the physical limits of the site. Included with these details would be a specified building location area on each lot with a deed reference and restriction describing the building area location. The submission for step three would conclude with surveyed plot ready for submission to the County Real Property Tax Office and stamped by a licensed land surveyor or landscape architect

7. Maintain infrastructure that is consistent with the town's rural character and Greenway Guidelines

- Evaluate and designate scenic roadways and require new development to maintain the scenic character of the town's roadways (See Appendix IX, Vermont's Scenery Preservation Council Scenic Roads Program and Greenway Connections Section D3, "Highways into Greenways")
- Incorporate pedestrian and bicycle infrastructure requirements into highway standards
- Use innovative methods to maintain rural road character rather than "modernizing" roadways. Avoid widening, straightening and removing roadside trees
- Bury utility lines as part of the road maintenance program
- Where possible, apply for State and Federal funds to strategically and systematically enhance the appearance of streetscapes and intersections across the town
- Given the overwhelming sentiment in the community to preserve rural character and considering the overall sparse development pattern, a municipal water or sewer system is not needed
- Retain the use of unpaved road surfaces along certain town roads. The traffic level on some town roads is very limited and is seasonal in nature. Additionally, the unpaved roads contribute to the rural character and serve as a practical limit to high travel speeds which often improve safety

8. Improve design review for commercial and office uses

- Create commercial development architectural design guidelines which offer helpful suggestions on what to encourage and avoid in commercial signage, which encourage new developments to fit the desired aesthetic character and empower the Planning Board to conduct the design review process. (See Appendix V, "Sample Design

Guidelines” and the Greenway Connections Section B3, “Building in Context,” Section C1, “Commercial Strip Redevelopment,” Section E2, “Signs,” Section E3, “Parking Lots”)

- Require architectural review for all projects

9. Assess tax code issues and incentives

- Examine how the local tax code discourages or encourages development within the town. Look for ways of creating or improving existing tax incentives for farming and open space protection. (See Appendix I, Open Space Protection Measures)
- Explore the financial impacts of new development and acceptable methods of raising funds for infrastructure and open space

Goal 2: Quality of Life

Actions to Achieve Goal 2:

1. Provide safe options for alternative transportation/recreation modes

- Develop a vision for a town-wide trail system and incorporate it into the “Open Space Plan” so that new development will contribute to its creation.
- Look for opportunities to develop recreational pathways, which separate conflicting users (pedestrian and bicycles vs. motorized uses)
- Develop connections between large public open spaces using existing trail system, utility or transportation right-of-ways and corridors. (See the Greenway Connections sections entitled “Regional Connections” and “Connections in Every Site Plan”)

2. Maintain Hamlet Areas

- Establish a small retail/office, mixed-use area to serve local residents needs. This area could be done by enhancing the existing structures within Verbank or along the Route 55 and 82 corridors. Any new center should be architecturally sensitive to its existing neighbors and should follow the example set by the Town Hall. This will require that the “Hamlet” zoning designation be modified to incorporate traditional rural village configuration. The zoning revision committee should check and rewrite as necessary the existing regulations governing lot dimensions, building height and bulk, signage, façade and parking. (See Appendix V – Sample Design Guidelines)
- Maintain the appearance of the Verbank Hamlet area through the adoption of bulk, height and use regulations that are consistent with the existing development and open space pattern occurring in the hamlet area

3. Integrate historic preservation into open space protection measures

- Combine resources by integrating the town’s historic structures and sites into the open space protection plans. (See Greenway Connections section entitled “Promoting Arts and Tourism”)

4. Protect ground water resources

- Determine critical aquifer recharge areas
- Insure that new and existing developments will not adversely affect aquifer due to current or allowed use. Change allowed uses in the zoning ordinance or create a special district in order to protect town’s water supply
- Explore methods of encouraging water conservation
- Explore use of “up zoning”, buffers strips and clustering as protection measures. (See Greenway Connections Section D4, “Wellhead and Aquifer Protection”)
- Initiate a residential sprinkler permit program to monitor water use. The program would include the following elements:
 - Annually renewal with a renewal fee
 - Initial application could be made as part of the subdivision process and would include information on flow rate and adequacy of water consumption and efficiency

5. Regulate excessive illumination

- Establish illumination guidelines for both direct and spillover (off-site) effects on commercial and residential developments. (See Greenway Connection Section E4, “Lighting”)
- Explore the possibility of limiting hours for lighting of parking lots

6. Integrate Municipal Buildings (Schools, Fire Houses, etc.) with the town’s Goals

- Require design review of new structures for their contribution to the town’s quality of life and open spaces



Goal 3: Community Development

Actions to Achieve Goal 3:

1. Coordinate community development initiatives

Too often, community planning initiatives such as preservation of open space and adjustments to zoning ordinances are discussed among planners or residents with similar viewpoints regarding the future of the community, yet community development is also influenced by realtors, home builders, large lot property owners, property owners within commercial districts, economic development specialists, and commercial development companies from within and even from outside the region. In order to include these groups into the plan implementation process the following actions are recommended:

- Develop a mailing list and ascertain contact names for:
 - Real estate agents working regularly in the town
 - Contractors working regularly in the town
 - Owners of parcels of 25 acres or more that are vacant or available for further development
 - Owners of property within commercial zoning districts
 - The County Economic Development Director
 - Project managers of commercial development companies with past involvement in the region
 - Include managers of the town's large organizations (ie. Fountains, Golf Course, Rod and Gun Clubs, etc.)
- Develop an informational brochure highlighting the goals of the town's Comprehensive Plan and actions to be taken to achieve these goals
- Organize and conduct an informational/educational meeting inviting individuals from the contact list developed to learn about the goals for the town as expressed in the Master Plan

2. Improve design guidelines for signage

- Establish new guidelines regulating size, materials and lighting of signage (See Greenway Connections Section E2, "Signs")

3. Create a development information center

- Maintain an information center or office in the Town Hall that educates developers, builders, new residents, and others about the town's goal of preserving its "rural way of life". This would include an explanation of the rules for development of buildings in Union Vale
- Create an information exchange that tracks sensitive properties and proactively (rather than reactively) deals with development proposals. This would allow the town to know in advance of potential opportunities and threats to important or sensitive areas

Plan Implementation Manual

Goals And Objectives Projects

Time Period: Summer of 2001 through Fall of 2002

Step 1: Formation of Plan Implementation Committee – July, 2001

Form a new committee consisting of individuals familiar with the plan's development, the issues facing the community and if possible, representatives from the Town Board. These members should report back to their respective committees in order to maintain constructive communication between the various committees and boards. The Implementation Committee will oversee, assist the other committees and participate in the implementation process. Several other committees will have to be formed to do the necessary work of revising the zoning ordinance, determining stream buffer provisions and aquifer protection areas. The Master Plan Committee will be dissolved once the Master Plan is completed. Members from this committee would be ideal for these new groups.

Step 2: Establish a Moratorium Timeline – July, 2001

Prior to establishing a moratorium, the Plan Implementation Committee should work with the other involved committees to establish a realistic timeline for the length of the moratorium based on the completion of the following tasks: zoning ordinance update, subdivision regulation update, modification of the site plan review process, open space plan creation, and the creation of architectural design and sign guidelines.

Step 3: Establish a Moratorium – July, 2001

Once a timeline is established, the moratorium should be put in place. This will give the committees time to update and create the structures necessary to guide the growth of the town. While the moratorium should be flexible concerning the completion of the tasks, the committees should keep as close to the established timeframe as possible. This is very important for maintaining confidence in the system.

Step 4: Establish Committees and Delegate Planned Committee Assignments

Zoning Ordinance Revision Committee – The Town Board will meet and appoint a Committee to undertake and oversee revision of the Town Zoning Ordinance. Upon appointment, the Committee will thoroughly review the Town Comprehensive Plan to extract reference points relating to revision of the Town Zoning Ordinance and Subdivision Regulations. Representatives from this committee shall attend Town Board meetings on a monthly basis to provide status reports to the Town Board. The goal of this committee is to complete the following tasks by the Fall of 2002:

- ✓ Adjust Zoning minimum lot size designations
- ✓ Update Conservation Density Subdivision
- ✓ Update Cluster Development Provision
- ✓ Review and revise Grading, Filling and Erosion Control Regulations
- ✓ Create and adopt ridgeline protection standards
- ✓ Review and revise Impervious Surface Regulations
- ✓ Review and revise Commercial Zoning's Use, Bulk, Parking and Roadway Access requirements

- ✓ Create fencing regulations
- ✓ Review and revise water resource protection regulations for stream buffers and aquifers
- ✓ Create and implement a sprinkler permit program
- ✓ Review and revise lighting regulations
- ✓ Review design guidelines for signs
- ✓ Create architectural design guidelines
- ✓ Update Site Plan and Subdivision Review Process
- ✓ Create and put into service, new applications for site plan review and subdivision
- ✓ Review definitions and supplement, update as needed

Conservation Advisory Committee – Complete the Open Space Plan for the town. This plan should include the identification of critical habitats, existing and proposed recreational trails, ridge and viewshed protection areas, and historic sites. It should also prioritize the areas for acquisition of development rights. The creation of a map of these areas is essential for the new site plan review process. The plan will list recommendations for open space protection. A program of alternatives for protection should be outlined and should include identification of priority parcels for acquisition and lower priority parcels for protection through regulation.

Town Board – The Town Board shall work with the Conservation Advisory Committee to designate scenic roadways. The goals are to look for innovative ways of maintaining the rural character of the town's infrastructure.

The following topics require consideration by the Town Board:

- Identifying appropriate protection methods for the town's water resources (stream buffers and aquifers)
- Coordination of Community Development Initiatives
- Creation of a Development Information Packet
- Exploration of Alternative Funding Mechanisms for Public Services and Open Space

Plan Implementation Manual						
Goal 1: Preservation of Rural Character	Action Taken By:					
	Plan Implementation Committee	Zoning Ordinance Revision Committee	Conservation Advisory Committee	Town Board	Town Highway Department	Other
Create a Plan Implementation Committee						
Create a timeline	X	X	X	X		X
Institute a Moratorium						
Meet with other committees to develop a realistic time frame				X		
Zoning Ordinance update						
Adjust Zoning		X		X		
Review and revise Grading, Filling and Erosion Control Regulations		X				Town Engineer
Create ridgeline protection standards		X				
Review and revise Impervious Surface Regulations		X				
Review and revise Commercial Zoning's Use, Bulk, Parking and Roadway Access requirements		X			X	X
Review and revise fencing regulations		X				
Review and revise stream buffers			X			
Improve design guidelines for signage		X				
Update Subdivision Regulation						
Update Conservation Density Subdivision		X				
Update Cluster Development Provision		X				
Develop an Open Space Plan						
Develop a trail system plan			X			
Identify important habitat, historic, ridge line, viewsheds and open space areas			X	X		
Prioritize important areas			X			
Create a map of these areas			X			
Create an Open Space Protection Program						
Explore tax code issues and incentives			X	X		
Explore the creation of an Acquisition of Development Rights Program			X	X		X

Plan Implementation Manual						
Goal 1: Preservation of Rural Character Continued	Action Taken By:					
	Plan Implementation Committee	Zoning Ordinance Revision Committee	Conservation Advisory Committee	Town Board	Town Highway Department	Other
Update of the Site Plan Review process						
Incorporate Open Space Plan into site plan review process		X				
Develop a 3 step application procedure for subdivisions (regular, clustered and conservation)		X				
Revise Site Plan and Subdivision Applications		X				
Maintain consistent infrastructure						
Designate Scenic roadways			X	X		
Maintain rural character of roadways					X	
Goal 2: Quality of Life	Action Taken By:					
	Plan Implementation Committee	Zoning Ordinance Revision Committee	Conservation Advisory Committee	Town Board	Town Highway Department	Other
Provide safe options for alternative transportation/recreation modes						
Identify trails for motorized and non-motorized recreation			X			
Create a small town center						
Create design guidelines and zoning regulations which will foster the desired form and type of commercial development		X				
Integrate historic preservation and open space protection measures						
Work with local and County historians to determine important sites for preservation			X			
Protect water resources						
Determine method and protect streams with buffers		X	X	X		
Create a sprinkler system permit program		X	X	X		
Determine critical areas and methods for protecting Aquifers		X	X	X		
Regulate Light Pollution						
Establish guidelines for levels and hours of illumination		X				
Integrate Municipal Buildings with town's Goals						
Require design review for new structures		X				

Plan Implementation Manual						
Goal 3: Community Development	Action Taken By:					
	Plan Implementation Committee	Zoning Ordinance Revision Committee	Conservation Advisory Committee	Town Board	Town Highway Department	Other
Coordinate Community development initiatives						
Develop and disseminate an information brochure explaining the changes to the town's Planning Goals and Procedures				X		X
Create Development Information Center						
Develop an information area and packet explaining the town's Planning Goals and Procedures						X
Explore alternative funding methods for public services						
Explore fee options for Rescue Services				X		X
Explore income producing options for parks department				X		X

Fiscal Impact Analysis

Introduction

This chapter provides a comparative assessment of the town's current zoning density regulations and the zoning changes proposed in the Master Plan, with respect to the community's demographic outlook and the average property tax burden for its residents. The assessment consists of three important analytical elements:

- Comparing Union Vale's current property taxes relative to those of other towns in Dutchess County with respect to taxing capacity and tax effort
- Reviewing the available literature and studies on the fiscal impacts due to different development patterns and projects (the net effect on the cost of public services versus the generated revenues)
- Utilizing the build-out approach discussed elsewhere in proposed Master Plan to assess under current zoning compared to the proposed zoning what might be the differences in expected growth in housing units, households, and total population, and the implications for fiscal impacts on the community

Union Vale's Current Public Finance Characteristics: A Comparative Analysis

Property taxes in Union Vale for calendar year 1999 are \$ 6,448,515. Included in this amount are county, town, special district, and school property taxes. County property taxes were \$1,068,831 (16.6 percent), school taxes \$4,455,881 (69.1 percent), and town and special district taxes \$923,803 (14.3 percent). This translates into a per capita property tax payment of \$1,419, and an average payment of \$3,637 for each taxable parcel of property within the town. For every \$100 of taxable property value, a tax of \$2.36 was levied. The Union Vale property value is based on the full value of the town determined annually by the Office of Real Property Services and reported by the Office of State Comptroller.

But how does Union Vale compare with other cities and towns in Dutchess County? Property tax comparisons are frequently done on a population or an income basis. Both approaches have major deficiencies. Municipalities with significant property wealth may have high per capita property taxes but relatively low effective tax rates. Sparsely populated places frequently will have high per capita property taxes but low tax rates. Property taxes measured in relation to income overlook the property base from which the property taxes are levied. Wealthy suburban municipalities may often have low property taxes in relation to income but high effective tax rates as a result of significant service demands.

In order to obtain a fiscal perspective for Union Vale, two measures of property tax comparisons are developed: *tax capacity* and *tax effort*. "*Tax capacity*" measures the ability of a local government to raise taxes in relation with other municipalities. "*Tax effort*" is an analysis of the actual tax levies and its relationship to a municipality's tax capacity. Tax capacity and tax effort can be analyzed separately or in combination. When combined together, four groupings of municipalities emerge:

Low capacity	-	High effort
High capacity	-	High effort
Low capacity	-	Low effort
High capacity	-	Low effort

From a taxpayer's and/or municipality's perspective it is always best to have high capacity in the property tax base. Whether one prefers a high or low property tax effort will depend on one's attitude and views towards taxes and governmental services and spending.

Tax Capacity

In this study, the determination of *tax capacity* starts with the 1999 property tax levies within Dutchess County. It includes all property taxes, including those for the county, cities, towns, special districts, villages, and school districts. This aggregate tax levy in 1999 was \$389.9 million. This aggregate sum is divided by Dutchess County's 1998 taxable full value (as reported by the Office of the State Comptroller). This taxable full value is \$ 12.3 billion. The 1999 property taxes levied when divided by this countywide taxable full value, results in an effective countywide tax rate of \$28.84 per \$1,000 of taxable property value. This is a countywide average only and is not reflective of any given city or town in the County.

The next step in determining tax capacity is the multiplication of the taxable full value of each city and town by the overall countywide tax rate. This hypothetical tax levy is then converted into a per capita tax capacity for each local government. The 2000 population counts from the Bureau of Census are used to determine the per capita tax capacities. In Dutchess County, as a whole, the overall per capita tax capacity in 1999 was \$1,392. Against this norm, per capita tax capacity ranged from a low of \$769 in the City of Poughkeepsie to a high of \$2,756 in Washington. The Union Vale per capita tax capacity is \$1,731. The details for each local government are contained in Table 7 at the end of chapter.

For purposes of easy comparison and analysis the per capita tax capacities are converted to an index, with the countywide per capita tax capacity of \$1,392 having an index value of 100. The tax capacity indices for Dutchess County cities and towns (as shown in Table 7) indicate a wide difference in the capacity to raise property taxes among the Dutchess County cities and towns. The tax capacity index ranges from 55 in the city of Poughkeepsie to 198 in Washington, a factor difference of 3.6 times.

Union Vale's tax capacity index is 124, substantially above the County standard. This index indicates that Union Vale has a strong property tax base in relationship to the County as a whole. Among the 22 cities and towns, Union Vale ranked 8th in property tax capacity. The towns with greater tax capacity, in rank order, are Washington, Stanford, Pawling, North East, Clinton, Rhinebeck, and Amenia. LaGrange's tax capacity index is very close to that of Union Vale. Of these eight towns, with the highest tax capacities, only Pawling and Rhinebeck have populations over 5,000.

At the other extreme, those cities and towns with the lowest property tax capacity are the cities of Poughkeepsie and Beacon; and the towns of Milan, Dover, Hyde Park, Red Hook, the town of Poughkeepsie, Wappinger, Fishkill, and Beekman.

Perhaps a better measure than population is population density. The population density of each of the 22 cities and towns has been correlated with the property tax capacity index. A significant correlation exists in the rank order of tax capacity (from high to low) to population density (from low to high). Union Vale ranks 8th in tax capacity and 7th in population sparsity. Of the top eight towns in high property tax capacity, all but two also ranked in the bottom eight in terms of population density. Only Pawling and Rhinebeck are exceptions. Pawling ranks third in tax capacity, but ranks 10th in population sparsity; while Rhinebeck ranked 6th in tax capacity and 11th in population density.

Conversely, the cities and towns with low tax capacity were the ones more densely populated with two significant exceptions. The towns of Milan and Dover have below average tax capacity and also have population densities only slightly higher than Union Vale. Pine Plains, while having slightly above average tax capacity, has a low population density. It is not clear why these three towns go contrary to the general pattern found in Dutchess County.

As a general rule it can be said that as population density increases in Dutchess County, property tax capacity decreases. Adding population, by itself, does not enhance the property tax base.

Tax Effort

The *tax effort* analysis begins with the 1999 actual property tax levy in each of the cities and towns in Dutchess County. The property tax levy includes county, city/town/village, special district, and school district taxes. This data comes from the Office of the State Comptroller. For the two villages located in more than one town, an allocation of their property taxes has been done between the respective towns.

In order to derive a per capita tax levy, the actual taxes levied for each municipality are divided by the 2000 Census population counts. The countywide per capita tax levy was \$ 1,392. Within the County, per capita levies ranged from \$ 935 in Beacon to \$ 2,132 in Washington. Union Vale's per capita levy was \$ 1,419.

To determine the tax effort index, the per capita tax levy is divided by the per capita tax capacity. A per capita tax levy in excess of the per capita capacity produces an index greater than 100, indicating that a municipality is fully utilizing its capacity and more. A per capita tax levy that is less than the per capita capacity produces an index of less than 100, indicating that the municipality either has an extremely strong tax base and/or is choosing to tax its citizens at a relatively lower rate. Table 8 (at the end of the chapter) provides a detailed breakdown of the tax effort analysis comparing Dutchess County's cities and towns.

The tax effort indices range from a low of 74 in Stanford to a high of 128 in the city of Poughkeepsie. The range between the high and low is a factor of 1.7, a much tighter range than was found in the tax capacity index. Interestingly, 6 of the 22 cities and towns have an above average tax effort index and 16 have a below average tax effort. Those with the highest tax effort (city of Poughkeepsie, town of Poughkeepsie, Beacon, Hyde Park, and

East Fishkill) have the high population densities. Wappinger is in the top six in population density, but is slightly below average in tax effort.

Union Vale, while ranking 7th in the tax capacity index, ranks 3rd, with an index of 82, in tax effort. Only Stanford, at 74, and Washington, at 77, are lower. This indicates that Union Vale has both a strong tax capacity and is using it more sparingly than others. Pawling, Milan, North East, and Clinton, which all ranked ahead of Union Vale in tax capacity, rank lower in tax effort.

A strong correlation exists between tax effort and population density. Of the eight towns with the lowest tax effort indices, seven of them have the lowest population densities. Only Rhinebeck is in the lowest tax effort group, but not in the lowest population density group. Conversely, all the high tax effort cities and towns have high population densities.

Capacity and Effort Combined

In Graph 1 at the end of the chapter the tax capacity and tax effort indices have been plotted, in order to create a combined profile of the two measures. From this graph, the relative position of each city and town can be seen spatially in relation to the others. The breakdown among the four possible capacity/effort combinations are as follows:

Low Capacity - High Effort

Poughkeepsie-City	Dover
Beacon	Hyde Park
Poughkeepsie-Town	

Low Capacity - Low Effort

Beekman	Red Hook
Fishkill	Milan
Wappinger	

High Capacity - High Effort

East Fishkill

High Capacity - Low Effort

Washington	Union Vale
Stanford	Rhinebeck
North East	LaGrange
Pawling	Pine Plains
Clinton	Pleasant Valley
Amenia	

There are significant variations within a given group. For example, in the high capacity-low effort group Washington and Stanford are clear leaders in having high capacity and low tax effort. North East and Pawling follow next. Union Vale falls into a grouping of Clinton, Amenia, and Rhinebeck. At the low end of this group are LaGrange, Pine Plains, and Pleasant Valley.

Importance of Population Density

Population density plays a major role in defining and determining property tax capacity in Dutchess County. In the table below, the cities and towns have been placed in rank order by population density. Their respective property tax capacity and tax efforts are then shown.

Table 1
Population Density, Tax Capacity and Tax Effort

	Population Density	Tax Capacity	Tax Effort
North East	69	151	82
Stanford	71	192	74
Washington	80	198	77
Pine Plains	83	109	87
Amenia	93	127	83
Clinton	104	142	88
Union Vale	121	124	82
Milan	126	78	95
Dover	154	80	100
Pawling	170	153	93
Rhinebeck	214	134	87
Pleasant Valley	276	112	93
Red Hook	283	93	96
LaGrange	376	122	95
Beekman	382	100	91
East Fishkill	450	114	106
Hyde Park	564	87	106
Fishkill	737	99	93
Wappinger	962	97	94
Poughkeepsie-T	1485	94	120
Beacon	2938	63	107
Poughkeepsie-C	5857	55	128

While there are exceptions, it is clear that as a general rule in Dutchess County, as population density increases, property tax capacity (the ability to raise property taxes) declines and the tax effort (the tax burden) increases.

In a subsequent section, Union Vale's population build-out is projected under current zoning requirements and under the proposed zoning requirements. Union Vale has had a steady population growth over the past 40 years, with the total population now four times higher than in 1960. The rates of growth for each decade and the population density are as follows:

Table 2
Growth Rates and Population Density

Interval	Rate of Growth	Population Density
1960-70	49.6%	45.1
1970-80	56.2	70.5
1980-90	34.6	94.9
1990-00	27.1	120.6

It is interesting to note that the population density has changed by about 25 persons per square mile every decade. The growth in the number of persons in each of the last three decades has been nearly constant.

Union Vale's current population density is analogous to that of Beekman in 1960, Pleasant Valley in 1960, Pawling in 1970, Rhinebeck in 1960, and East Fishkill in about 1965. Population growth rates have been very uneven in Dutchess County. East Fishkill has witnessed an explosion in its population. From 1960 with a population of 4,778 (only slightly higher than Union Vale's current population), it now has 25,589 persons. Conversely, both Amenia and Dover have a lower population than in 1960.

The population growth for Union Vale of 27.1 percent between 1990 and 2000 was higher than for any of the neighboring towns. This results, in part, because of Union Vale's lower base, which can result in larger percentage changes. Only Pawling had a similar growth rate in the last decade, with a population increase of 26.5 percent. The growth rates in the surrounding towns, with the exception of Washington, ranged from 10 to 15 percent. A remarkable consistency occurred. In contrast, in the decade of 1980 to 1990 population growth was very erratic from town to town. Beekman, East Fishkill, and Pleasant Valley witnessed very high growth rates. Dover, LaGrange, and Pawling witnessed only modest growth rates. Washington, on the other hand, has had a very slow growth rate over the decades. Washington with 4,742 people in 2000 only has 28 percent more people than in 1960. Union Vale will probably surpass Washington in population by 2010.

The recent surge in building permits suggests that population is on the rise in many of the towns in the Union Vale area. Of the permits issued during the last ten years in Beekman, LaGrange, and East Fishkill, approximately two-thirds of them were in the last five years. In Union Vale, 57.8 percent of the building permits issued in the 1990's were issued in the last five years. Washington stands in contrast in many ways. Washington, with a population greater than Union Vale's, issued 65 new residential building permits in the 1990's. This is in contrast to Union Vale's 185. Also, most of Washington's were in the first half of the decade, with only 29.2 percent issued in the last five years.

The message from the building permit activity is that population growth in portions of Dutchess County is now on the upswing, and Union Vale can expect to experience increased growth in both building permits and population. The review of the zoning requirements and Master Plan implementation come at what appears to be a critical point in the development and future of Union Vale.

Review of the Literature on Community Development Patterns and Fiscal Impacts

The Hudson Group conducted a review of the literature covering the fiscal impacts of various types of land uses and development projects on communities. The literature ranges from highly technical academic articles, easy to read manuals on “how to conduct fiscal impact studies,” to “position essays” by open space and farm preservation advocacy groups.

There are, in general, two types of fiscal impact analyses and studies. The more common analysis is a site specific one, completed for individual projects, be they residential, commercial, industrial, recreational or other. Fiscal impact studies that attempt to address the cumulative impacts of development in a community like Union Vale are less common and more difficult analytically to accomplish. The review of the literature conducted here in was intended to focus on this latter dimension.

The review accessed: (1) information on file with The New York Planning Federation located in Albany; (2) the open WEB, using the Google search engine, and (3) the proprietary electronic data base EBSCO, which has abstracts and full text of professional journals and more general magazines.

In all, a substantial body of literature was found. (see the following bibliography with partial annotation). However, much of what might be pertinent to the analytical needs for the Master Plan revision for Union Vale appears to be of questionable rigor and credibility. For example, many of the so-called manuals contained simplistic methodologies for estimating the cost of public services generated by development projects. Other pieces tended to be policy advocating and short on substance to support policy, although the policy may indeed have public interest merit.

Notwithstanding the limitations of much of the literature, certain general findings can be supportable with respect to community development patterns and fiscal implications. These “generalizations” are described below.

Typical Fiscal Impacts of Different Projects/Land Uses

Positive Impacts on Both a Municipality and School District

Research Office Parks	Age-Restricted Housing
Office Parks	Garden Condo (1-2Br)
Industrial Development	Open Space Lands
High-rise/Garden Apartments (studio/1BR)	

Negative Impacts on Municipality But Positive on School District

Retail facilities	Expensive Single-family Homes (3-4BR)
Townhouses (2-3BR)	

Negative Impacts on Both

Townhouses (3-4BR)	Garden Apartments (3+ BR)
Mobile Homes	Inexpensive Single-family homes (3-4BR)

SOURCE: *Calculating a Cost of Community Service Ratio for Your Pennsylvania Community*. Penn State College of Agricultural Sciences Cooperative Extension (undated, but likely 1998 or 1999).

What this display indicates is that “on average” nonresidential development projects and open space preservation require less demand for public services than the property taxes they generate. Alternatively, residential projects tend to have the reverse effect – costing more than their revenue potential. It should be stated, however, that specific community circumstances can obviate some of these generalizations and may not necessarily play out in any Union Vale application.

There is an excellent report prepared for the Natural Resources Defense Council (NRDC) that summarizes the methodology and common issues and limitations of most of the approaches to community fiscal impact analysis.

Some of its important points are highlighted from the literature so that Union Vale has a perspective from which to view its actions, and their applicability, to the community in the proposed revised zoning requirements.

“Service Costs in rapidly developing jurisdictions”

“Significant shifts in a jurisdiction’s revenue base or service demands are most likely to occur in communities experiencing rapid new development that differs significantly in rate, type, character, location or intensity from previous development....”

For communities facing rapid development, fiscal impact analyses that use constant per capita cost or revenues “can seriously misrepresent the actual fiscal impact of new development”.

“The tendency for per capita operating costs to increase as jurisdictions become more developed has been demonstrated....”

“Economies of scale in very small jurisdictions”

For small jurisdictions (typically less than about 10,000-20,000 residents) new growth can cause some reductions in per capita local services costs up to a point, beyond which the typical patterns noted above kicks in.

“Revenues in a changing jurisdiction “

“The revenue side of the budget is also sensitive to changes in developing jurisdictions. In particular, local revenues may be sensitive to incomes of new residents, the market value of newly developed properties and changes in the type and amount of employment....”

SOURCE: *Development and Dollars: An Introduction to Fiscal Impact Analysis in Land Use Planning*. Natural Resources Defense Council, May 2000. (www.nrdc.org)

Build-Out Analysis: Demographics and Fiscal Implications

The Hudson Group has projected total housing units (households) and total population for Union Vale, based upon the LA Group's build-out estimates under the current existing zoning for the town and the proposed zoning changes identified in the draft Plan. Our methodology took the number of suitable buildable vacant lots developed by the LA Group in its build-out by zoning district for each case and developed the number of housing units that could be built in each zoning district. Then, through a number of intermediate steps, an estimate of the total population that would be added as a result of each build-out scenario was developed.

The Table below contains the background information and the assumptions that were made in calculating the housing units and population projections. The methodologies used for the demographic projections and fiscal impact analysis are based upon certain assumptions that may not accurately reflect what may happen in the future in Union Vale. They can, however, provide a useful frame of reference.

Table 3
Housing Units By Zoning District-
Current Zoning Compared to Proposed Zoning for Build-Out

District	Existing Zoning-Housing Units	Proposed Zoning-Housing Units
C-1	50 *	50*
H-1	108 **	108**
R-100	1,307	1,002
R-135	844	523
R-225	461	238
R-45	406***	139***
R-60	16	7
Total Max. Housing Units	3,192	2,067
75% of Maximum HU	2,394	1,550

* Assumes 50% of lots are used for residential housing and the other 50% for non-residential permitted uses.

** Assumes 50% 1 family units and 50% 2 family units on lots.

*** Assumes 50% 1 family units and 50% 2 family units on lots.

Demographic Projections

The recently released 2000 Census data for Union Vale shows a total population of 4,546, up almost 1,000 from the 1990 Census, and higher than perhaps expected given the annual recent estimates for the town prepared by the Census Bureau.

Based upon this figure it is estimated that there are about 1570 households (occupied housing units) in the town, using a person per household figure of 2.8, and an estimate of 150 persons living in group quarters, not households. Under the existing zoning in the town, the estimated build-out could result in the following growth:

Build-Out: Existing Zoning

Total Added Housing Units	2,394
Seasonal and vacancy rate	15%
Added Housing Units Occupied by Residents	2,035
Persons per household	2.60
Added Population in Households	5,291
Added Population in Group Quarters	100
Total Added Population to Town	+5,391

The proposed revised zoning plan would increase the lot sizes in the R-100, R135, R-225, R-45 and R-60 districts. The Build-Out under the proposed zoning revisions would result in the following growth.

Build-Out: Revised Proposed Zoning

Added Housing Units	1550
Seasonal and vacancy rate	15%
Added Housing Units Occupied by Residents	1318
Persons per household	2.60
Added Population in Households	3427
Added Population in Group Quarters	100
Total Added Population in Town	+3,527

Comparing the two build-out scenarios from the base Census 2000 Population gives the following results:

Table 4
Build Out Scenarios

	Population	Density (Persons per Square Mile)
Current	4, 546	121
Existing Zoning	9,937	263
Percent Change	+ 119%	
Proposed Revised Zoning	8,073	214
Percent Change	+ 78%	
Population difference	-1,864	

Under the current zoning, if all of the buildable vacant residential parcels were developed, the population of Union Vale could reach nearly ten thousand at some point, which would more than double the population of the town.

If the proposed revised zoning is implemented, then growth would be significantly diminished by about one-third, reaching a population of about eight thousand, which would be an increase of somewhat over 75 percent.

Historical Context and Timing of Build-Out Prospects

To put the demographic projections for the build-out scenarios in perspective, the following shows the demographic changes in Union Vale over the past 40 years by decade:

Table 5
Population, Growth Rate and Density Comparison

Year	Population	Growth Rate Previous Decade	Density (Persons per Square Mile)
1960	1138		30
1970	1702	50%	45
1980	2658	56%	71
1990	3577	35%	95
2000	4546	27%	121

Based upon these historical trends, there are two growth scenarios that can be postulated for Union Vale and relate to the two build-out scenarios. One assumes a very high growth rate over the next two decades averaging 50 percent each decade, similar to the growth rate that the town experienced in the 1960 to 1980 period. This type of growth would mean that the Hudson Valley and Dutchess County had a prolonged economic boom, and there were great pressures for new housing in the towns that still were rural in character.

A more modest, but still high growth rate, would be to project a growth rate of 30 percent over the next few decades, comparable to what has occurred in the aggregate between 1980 and 2000. The positive economic development conditions that have occurred in recent years in the Hudson Valley, its high quality of life attributes and the fact that Union Vale is in the path of development, translate into significant growth pressures on the town.

The first growth assumption means that under the existing zoning, Union Vale could be built-out by 2020. The more modest growth rate suggests that the town could be built-out by 2030. With the change in zoning proposed, the town might reach its new lower build-out by around 2012 under the very high growth rate and around 2020 under the more modest growth outlook. However, it is more likely that with larger required residential lots with higher acquisition costs (coupled with more expensive housing) the build-out period will be stretched out. In fact, given this housing market, it may take more years to reach full build-out under the proposed revised zoning than under the current zoning.

Build-Out Analysis: Fiscal Implications

Fiscal demands are influenced by many factors. In the earlier analysis of the property tax capacity and tax effort of the Dutchess County local governments, Union Vale fared quite favorably. In fact, the local governments with the highest tax capacity and the lowest tax

effort were the towns with lower populations and lower population densities. Conversely, the local governments with the lowest property tax capacity and the highest tax effort were the two cities and two of the larger towns, with Dover also included. Only East Fishkill had both a high tax capacity and a high tax effort.

A goal of Union Vale is to maintain its above average property tax capacity, by having a strong real estate base, and to control its tax effort. There are dimensions and activities that pertain to taxing capacity and to tax effort separately, and others that will simultaneously affect both. From the consultant study, the future Union Vale envisions for itself will not result in significant additional services demands. A primary concern is preservation of the town's rural character and open space. In this context some of the desired features for the town are:

- no municipal water or sewer system
- retain unpaved roads
- minimal road cutting and filling and minimum lane widths
- avoidance of catch basins, piping, and retention/detention ponds
- avoidance of widening and straightening roads

With limited population growth, these activities along with limited demands for other services (other than Tymor Park) should constrain the need to increase the town's tax effort. Its property tax capacity growth should be sufficient to meet the service demands, unless new services are instituted. However, an acceleration of population growth during the next several years could severely alter Union Vale's ability to retain its rural character with limited governmental services. Services and infrastructure, for both school and non-school purposes, could escalate.

A strong property base or wealth base from which to levy property taxes comes about in several ways. Communities with a significant amount of land tend to have stronger property tax bases. Land, in and of itself, demands relatively few governmental services. When fully taxed it produces revenue far in excess of the corresponding expenditure requirements. It is almost always a net plus in financing a local government.

Property tax capacity growth occurs in two ways. First, it occurs by adding to the physical stock of the town. As indicated earlier, commercial additions will tend to provide a positive revenue to expenditure result; while residential additions to the tax base will tend to produce a negative revenue to expenditure result.

Second, and perhaps more importantly, property tax capacity growth will occur as the existing properties become more valuable. In the Existing Conditions section, Table 14, "Dutchess County Home Sales by Town," lists the current average price of single family residential housing. The highest cost housing is in Washington, with an average price of \$215,800. The fact that Washington's population grew by only 7.6 percent in the last 30 years may be an important factor in contributing to its higher housing value and its number one position in Dutchess County in tax capacity, and its tax effort position as the second lowest. (In contrast Union Vale's population grew by 167.1 percent, Beekman's by 100.9 percent, LaGrange's by 36.9 percent, and Pleasant Valley's by 50.6 percent).

Union Vale's average housing price of \$ 192,160 is comparable to those of Beekman and LaGrange. The average housing price is lower in East Fishkill and significantly lower in Dover and Pleasant Valley. Increasing the acreage required for future development and tightening building requirements will have the effect of making existing properties more valuable, plus increasing the per unit values of those properties added in the future. The tax capacity of the town may well grow as fast with more restricted and limited development as would occur under current zoning.

A review of property tax levies over the past thirty years was undertaken for the towns contrasted in this report with Union Vale. The property tax years reviewed are 1970, 1980, 1990, and 1999. From this data, in conjunction with the data from population changes during this time period, a number of observations can be made.

- The Town of Washington with the lowest rate of population growth, other than Dover, had the lowest rate of property tax increase. (Dover is an anomaly with population declines in 1970 and 1980, and a population in 2000 less than that in 1960)
- All towns had a higher rate of population growth than Dutchess County as a whole, except Dover and Washington, and all had a higher rate of growth in property taxes than Dutchess County as a whole
- Rapid population growth appears to be followed on a lagged basis by rapid per capita property tax growth. This pattern appeared in Beekman, East Fishkill, and LaGrange. As an example, the demographic and fiscal data for Beekman that illustrates this pattern is stated below

Population growth 1960-70	71.4 %
Per capita property tax growth 1970-80	169.9 %
Population growth 1980-90	46.3 %
Per capita property tax growth 1990-99	130.7 %

- There appears to be a point in population size at which per capita property tax growth slows down, even as population continues to increase. East Fishkill with 25,589 people falls into this category. During the last decade its population grew by 15.8 percent and between 1980 and 1990 by 22.2 percent, but its growth in per capita property taxes between 1990 and 1999 was only 12.4 percent. However, because of its very rapid property tax growth in earlier decades, it has a high property tax effort
- Union Vale's per capita property tax growth in the 1990-99 period was 18.7 percent, which is remarkably good when contrasted with the neighboring towns. Only East Fishkill at 12.4 percent was lower. The changes in per capita property taxes during the last nine years are: Beekman 130.7 percent, Dover 51.6 percent, LaGrange 32.7 percent, Pleasant Valley 49.0 percent, and Washington 36.6 percent

- During the period 1970 to 1999, Union Vale's rate of growth in per capita property taxes in relation to its rate of population growth is far lower than any of its neighboring towns, with the exception of East Fishkill which is comparable to that of Union Vale

Future Fiscal Outlook

No precise fiscal prediction can be made for Union Vale as it grows from 4,546 persons to potentially 9,937 with current zoning, or 8,071 with revised zoning. With a full build-out Union Vale's population would surpass that of the current populations of Dover and Pleasant Valley.

Service demands and infrastructure requirements come as population densities increase. Under the current zoning, Union Vale's current population density of 121 persons per square mile is projected to rise to 263 persons per square mile, and to 214 persons per square mile under the proposed zoning revisions. Under both scenarios, population density would remain far below that of the neighboring towns to the south and west that have had large increases in population. Beekman now has a population density of 382 persons per square mile, East Fishkill 450, and LaGrange 376.

The rapid increases in property taxes in the other towns followed very significant population increases, often of 40 percent or more in a decade. Many of the towns started out with a population of about Union Vale's current size and then grew by factors of two to five times.

Table 6
Population Comparisons 1960-2000

	1960	1970	1980	1990	2000
Beekman	3,326	5,701	7,139	10,447	11,452
East Fishkill	4,778	11,092	18,091	22,101	25,589
LaGrange	6,079	10,902	12,375	13,274	14,928
Pleasant Valley	4,046	6,021	6,892	8,063	9,066

If Union Vale follows a plan of limited and controlled growth, it should dampen the property tax growth that these towns experienced as their populations reached towards 10,000. The service demands will, to a significant degree, depend on the type of population growth that occurs. There is a significantly different governmental cost for seasonal residents than for year-round resident families with young children. A large influx of families with children over a short time frame could result in substantial infrastructure and service demands, which could produce annual per capita property tax increases of 15-20 percent as occurred in Beekman, East Fishkill, and LaGrange.

If one can use the other local governments in Dutchess County as a benchmark, some projections can be made of the possible fiscal costs of a Union Vale with 9,937 persons and one with 8,071 persons. The data from the other Dutchess County towns suggests that if Union Vale now had 9,937 persons, its property tax cost for existing residents would be in

the range of 15-20 percent higher. If Union Vale's population were at 8,071, as would result from the proposed, zoning revisions, it is projected that the property tax payments of existing residents would be in the range of 5-10 percent higher than currently. These numbers may be on the low side, as commercial properties have not been factored into the equation. The neighboring towns to the south and west have significantly more commercial property than Union Vale, and will continue to have more in the future.

Conclusions

The fiscal impact analysis is intended to help the Union Vale community understand the potential aggregate demographic and financial implications of its development outlook under two conditions – keeping the current zoning and revising the zoning by increasing residential parcel size in certain districts. The projections and analyses provide a context only, and do not provide predictions of what the future of the community will be like, physically or in its social, economic, and financial dimensions. To achieve its desired community, Union Vale officials and residents have to take the necessary actions to implement its Master Plan Vision and defined goals - preservation of rural character, maintenance of quality of life and provision of needed and desirable community development objectives.

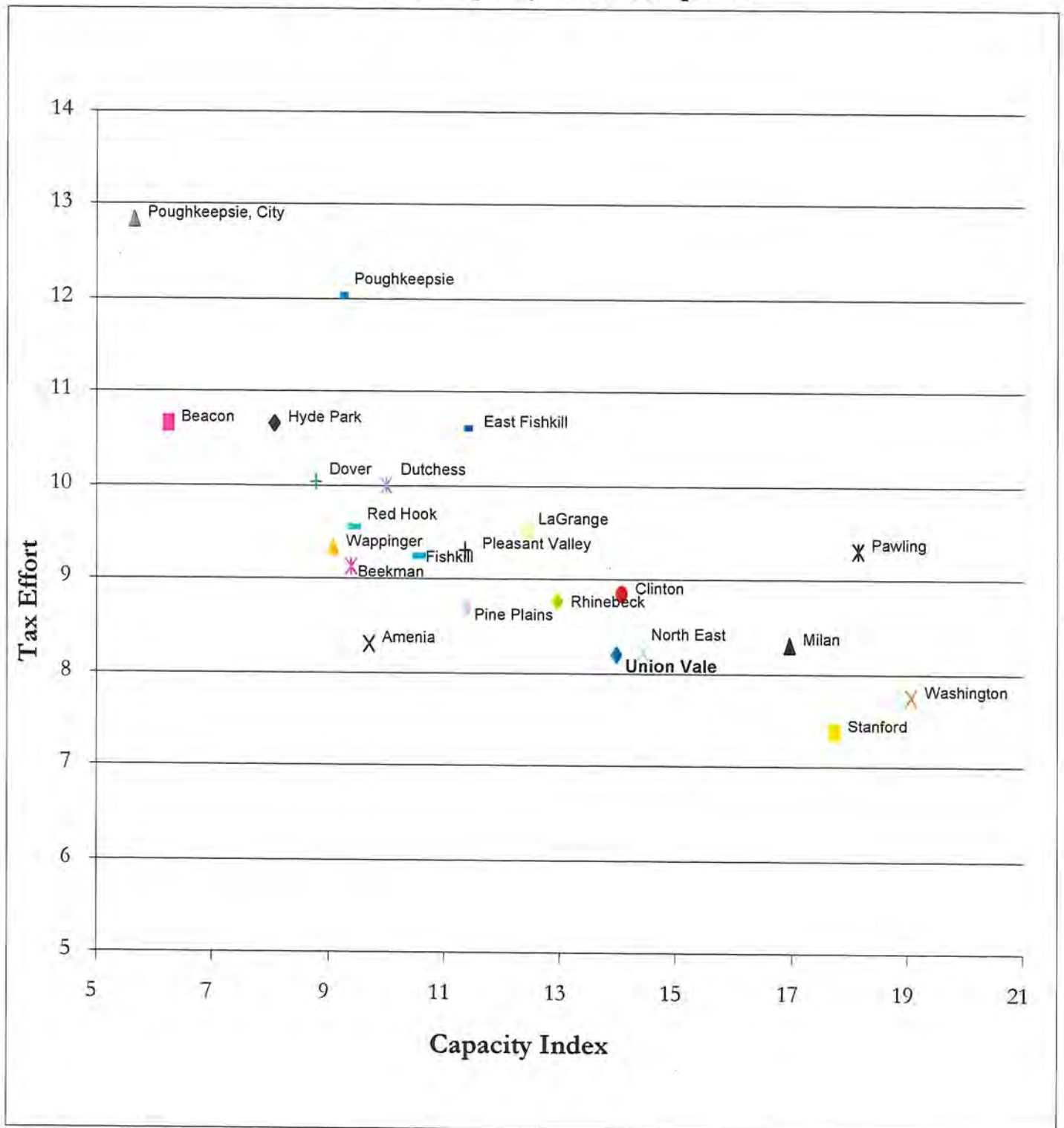
Table 7
Tax Capacity Data

2000 Census	Population	Land Area (sq. mi.)	Population Density (person/sq. mi.)	1999 Tax Capacity	Per Capita Tax Capacity	Capacity Index
Union Vale	4,546	37.7	120.58	7,868,067	1,730.77	124.36
Beacon	13,808	4.7	2,937.87	12,116,839	877.52	63.05
Poughkeepsie, City	29,871	5.1	5,857.06	22,957,034	768.54	55.22
Amenia	4,048	43.3	93.49	7,149,942	1,766.29	126.91
Beekman	11,452	30.0	381.73	15,910,182	1,389.29	99.82
Clinton	4,010	38.5	104.16	7,938,901	1,979.78	142.25
Dover	8,565	55.7	153.77	9,558,716	1,116.02	80.19
East Fishkill	25,589	56.9	449.72	40,760,030	1,592.87	114.45
Fishkill	20,258	27.5	736.65	27,935,765	1,379.00	99.08
Hyde Park	20,851	37.0	563.54	25,106,297	1,204.08	86.51
LaGrange	14,928	39.7	376.02	25,252,198	1,691.60	121.54
Milan	4,559	36.1	126.29	4,969,206	1,089.98	78.32
North East	3,002	43.4	69.17	6,303,905	2,099.90	150.88
Pawling	7,521	44.2	170.16	16,061,864	2,135.60	153.44
Pine Plains	2,569	30.9	83.14	3,909,317	1,521.73	109.34
Pleasant Valley	9,066	32.9	275.56	14,169,727	1,562.95	112.30
Poughkeepsie	42,777	28.8	1,485.31	55,822,972	1,304.98	93.76
Red Hook	10,408	36.7	283.60	13,487,185	1,295.85	93.11
Rhinebeck	7,762	36.3	213.83	14,484,588	1,866.09	134.08
Stanford	3,544	50.0	70.88	9,467,827	2,671.51	191.95
Wappinger	26,274	27.3	962.42	35,609,303	1,355.31	97.38
Washington	4,742	59.1	80.24	13,067,037	2,755.60	197.99
Dutchess County	280,150	801.7	349.44	389,906,915	1,391.78	100.00

Table 8
Tax Effort Data

	1999 Tax Revenues (\$)	Per Capita Tax Levy (\$)	Tax Effort Index	Effective Tax Rate (%)
Union Vale	6,448,515	1,418.50	81.96	2.363
Beacon	12,905,836	934.66	106.51	3.071
Poughkeepsie, City	29,467,336	986.49	128.36	3.701
Amenia	5,942,628	1,468.04	83.11	2.397
Beekman	14,527,276	1,268.54	91.31	2.633
Clinton	7,014,074	1,749.15	88.35	2.548
Dover	9,586,312	1,119.24	100.29	2.892
East Fishkill	43,292,686	1,696.85	106.21	3.063
Fishkill	25,857,884	1,276.43	92.56	2.669
Hyde Park	26,732,309	1,282.06	106.48	3.070
LaGrange	24,024,403	1,609.35	95.14	2.744
Milan	4,125,863	904.99	83.03	2.394
North East	5,177,947	1,724.83	82.14	2.369
Pawling	14,955,910	1,988.55	93.11	2.685
Pine Plains	3,396,111	1,321.96	86.87	2.505
Pleasant Valley	13,211,423	1,457.25	93.24	2.689
Poughkeepsie	67,217,557	1,571.35	120.41	3.472
Red Hook	12,904,518	1,239.87	95.68	2.759
Rhinebeck	12,672,136	1,632.59	87.49	2.523
Stanford	6,985,336	1,971.03	73.78	2.128
Wappinger	33,352,267	1,269.40	93.66	2.701
Washington	10,108,587	2,131.71	77.36	2.231
Dutchess County	389,906,915	1,391.78	100.00	2.884

Graph 1
Tax Effort vs. Capacity Index Comparison



Existing Conditions

Location, History and Cultural Geography

The Town of Union Vale, located within central Dutchess County in Upstate New York, encompasses the beautiful Clove Valley. This valley, created by Clove Mountain to the west and East Mountain to the east, is largely rural. Currently on the edge of the ever-expanding New York Metropolitan Area, the town is located 10 miles east of Poughkeepsie. With easy access to two Metro North Commuter Rail stops, a small airport and the Taconic State Parkway, and with its scenic vistas and rural charm, the town is in an attractive area for residential development.

The town's written history dates back to the first half of the 18th century when European settlers began building farms in the Clove Valley. Shortly after the establishment of these farming settlements, an offshoot of the Quaker's Oblong Meeting in Pawling was established in Union Vale. The Quakers built the Oswego Meeting House, Cemetery and a Friends Boarding School. Early farmers in the town focused on dairy production and by the second half of the 19th century the town was a "busy milk stop on the Dutchess and Columbia rail line." Iron mines, furnaces and mills were also built in the valley.



Today, some of the town's remaining agricultural enterprises include dairies, horse, cattle and sheep farms, feed production farms and tree farms. Other large-scale rural land uses include hunting and fishing, which occur on private lands owned by the town's rod and gun clubs. While the town does not have any major industrial or commercial uses, the small airport is one of the more intensive uses. Areas of the town that are zoned both A-Airport and C2-Highway Commercial, permit the most intensive uses. Residential, agricultural and open space uses are the dominant land uses within the town.

Population, Housing and Economy

Population

Dutchess County estimates that the town's population in 1998 was 3831; this translates to roughly 1275 households. According to the US Census and Dutchess County Department of Planning and Development, the population of the Town of Union Vale has tripled over the past 40 years. While this rate of growth is lower than the neighboring Town of East Fishkill, it is significant and far outpaces Dutchess County as a whole. The following graph provides a comparison of the town's population growth and percent of change with surrounding towns and Dutchess County.

Table 9
Comparative Population Trends and Characteristics
Union Vale and Neighbors

Municipality	Total Population			Estimate		% Change	
	1960	1970	1980	1990	2000	1960-80	1980-2000
Union Vale	1,138	1,702	2,658	3,577	4,546	134	71
Washington	3,695	4,407	4,382	4,479	4,742	19	8
Dover	8,776	8,475	7,261	7,778	8,565	-17	18
Beekman	3,326	5,701	7,139	10,447	11,452	115	60
LaGrange	6,079	10,902	12,375	13,274	14,928	104	21
Pleasant V.	4,046	6,021	6,892	8,063	9,066	70	32
East Fishkill	4,778	11,092	18,091	22,101	25,589	279	41
Dutchess Co.	176,008	222,295	245,055	259,462	280,150	39	14

Source: US Census and Dutchess County department of Planning and Development

Age

The age breakdown for the town according to the 1990 Census figures is illustrated below. These figures indicate that the 15-34 age group of the population is lower than the two age groups above and below. This may indicate that people in these age groups are leaving the town. The relatively high numbers in the 35-44 age group and those in the 0-14 age group may indicate that people are choosing to raise their families in the town.

Table 10
Age Cohort by Percentage for the Town of Union Vale and Dutchess Co. 1990

	0-4	5-14	15-24	25-34	35-44	45-54	55-64	65+
Union Vale	9%	16%	12%	15%	18%	11%	7%	10%
Dutchess County	7%	13%	15%	18%	16%	11%	8%	11%

Source: 1990 US Census

Education

The educational attainment figures below indicate that the town's residents have a somewhat higher than average education level when compared with the County as a whole.

Table 11
Educational Attainment Levels Percent for Persons 25 and Over, 1990

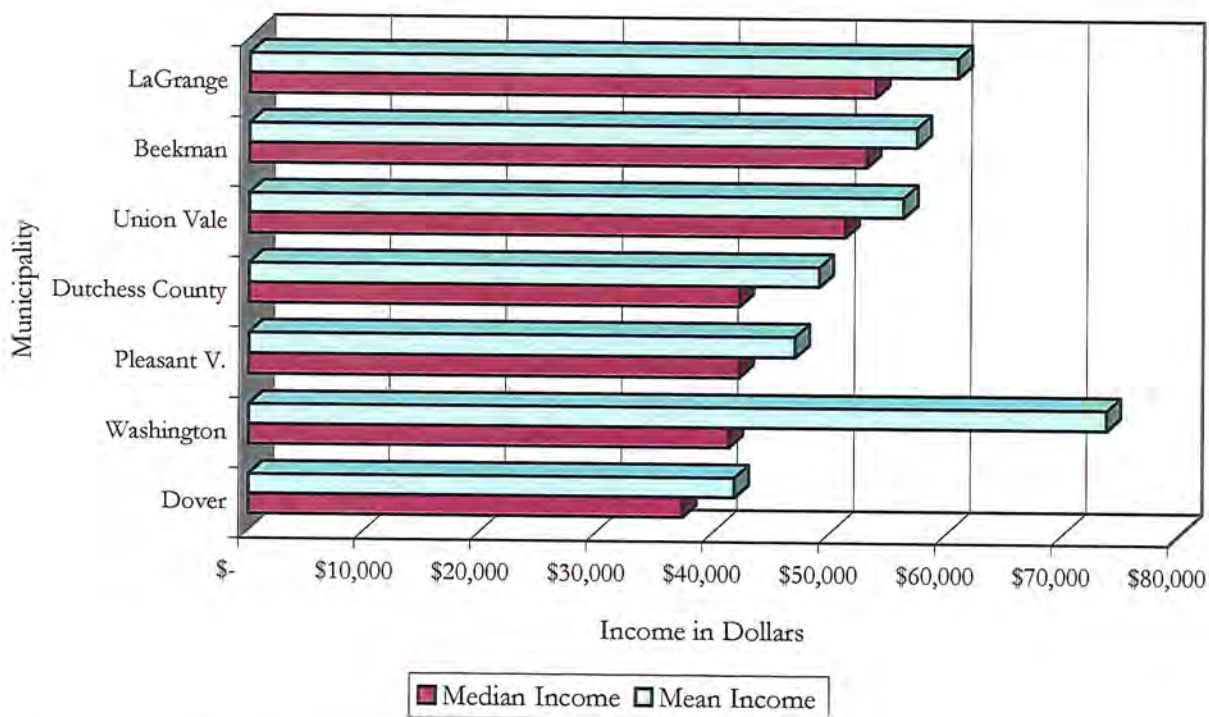
Attainment Level	Town of Union Vale	Dutchess County
Less than 12 th , No Diploma	12%	20%
High School Graduate	29%	29%
Some College, no degree	22%	17%
Associate's Degree and Higher	37%	34%

Source: 1990 US Census

Because education levels generally equate to higher income levels, the following chart illustrates the relationship between the town's relatively high levels of educational attainment and median (middle) and mean (average) household income in 1990.

Income Comparisons between Union Vale and its Neighbors

Chart 1
Income Comparisons between Union Vale and its Neighbors



Source: 1990 US Census

Employment

Also related to the levels of education and household income, are the occupational characteristics of the employed residents over 16 years of age illustrated in the tables below. These tables describe the types of industries in which residents are employed and their general occupations. The high education levels explain why nearly a third of the residents are involved in the managerial and professional specialty occupations. According to the 1990 Census, the farming and forestry occupations account for the smallest percentage of resident occupations.



Table 12
Employment by Occupation for Persons 16 Years and Over

Occupation	Percent
Managerial and professional specialty	30%
Technical, sales and admin. support	27%
Precision, production, craft and repair	17%
Service occupations	13%
Operators, fabricators and laborers	9%
Farming, forestry and fishing	3%

Source: 1990 US Census

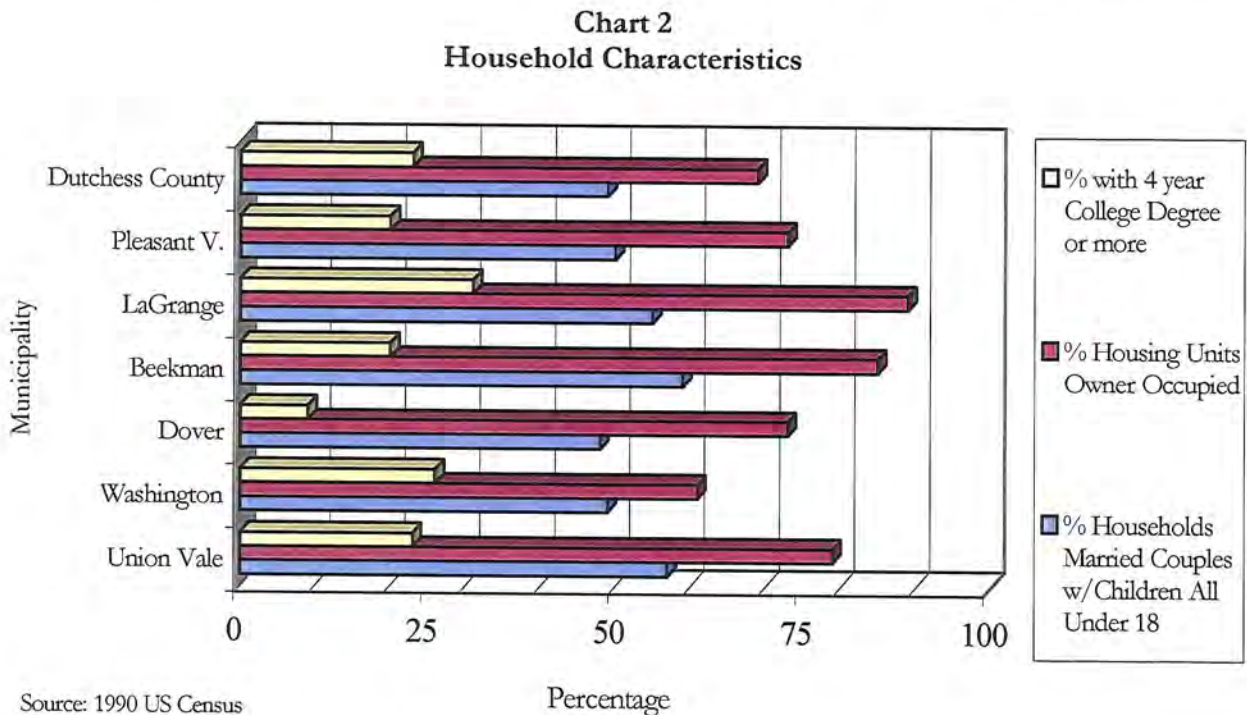
The following table looks at the industries, which employ the town's residents. A large portion of the town's population is employed in the manufacture of durable goods. The jobs in this manufacturing category generally provide livable wages.

Table 13
Employment by Industry for Persons 16 Years and Over

Industry	Percent
Manufacturing, Durable Goods	25%
Retail Trade	11%
Construction	10%
Educational Services	9%
Other Professional Services	9%
Health Services	7%
F.I.R.E.	5%
Public Administration	4%
Agriculture, Forestry and Fishing	3%
Manufacturing, Nondurable Goods	3%
Communication and Public Utility	3%
Business and Repair Services	3%
Transportation	2%
Mining	>1%
Wholesale Trade	1%

Source: 1990 US Census

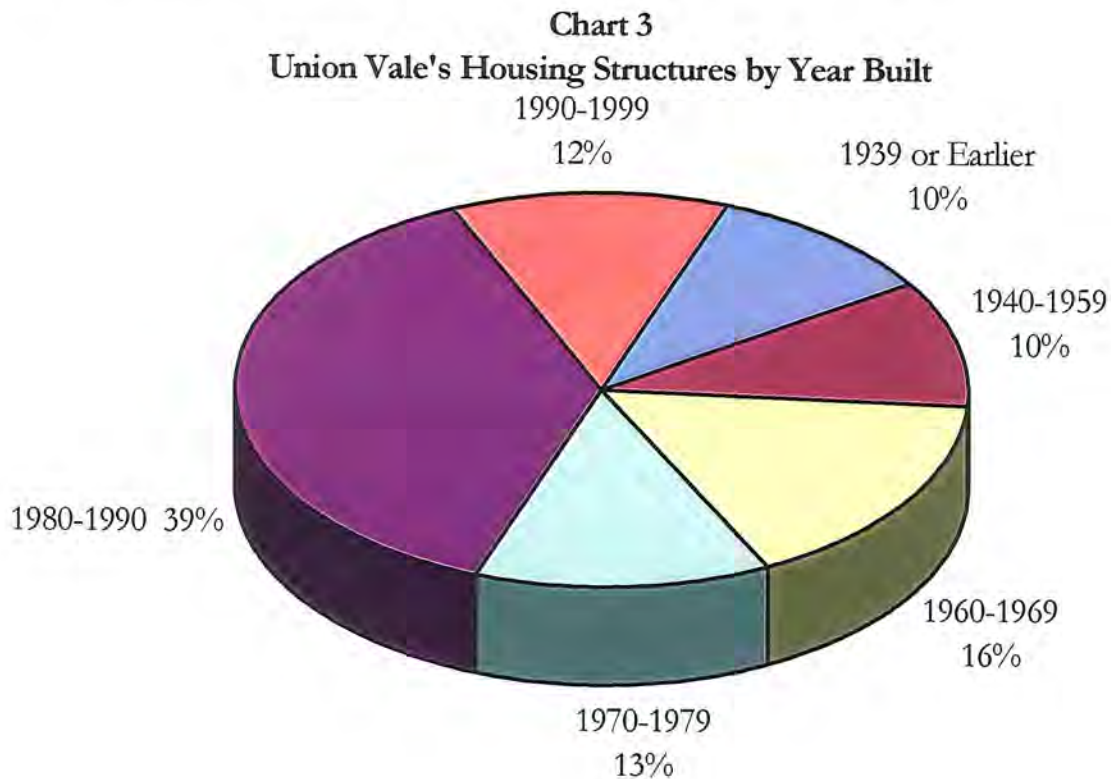
The following bar graph is a regional comparison of three resident characteristics, percent of population with at least four years of college, percent housing units that are owner occupied, and the percent of households with married couples and children all under the age of 18.



Housing

According to the 1990 Census, 79 percent of Union Vale's housing units are owner occupied. The majority of housing within the town tends to be located on large lots and is widely dispersed. The development pattern changes in areas like Verbank Village, where a denser, small town development pattern emerges around the green. Most of the housing appears to be located adjacent to the town's main roads. Housing has also been developed along private and other roadways throughout the town.

According to the US Census and Dutchess County Department of Planning and Development, two thirds of the housing within the town has been constructed since 1970. An unusually large spike in housing production occurred within the town during the 1980's. The chart below illustrates this housing development trend.



According to the 1995 Dutchess County Forecasting Project Executive Summary, the number of housing units within the town equaled 1,324. Of these, 1,096 were single-family, 169 were multi-family and 59 were seasonal. In 1990 approximately 20 percent of the housing units were renter occupied. The percentage increase in housing units from 1990 to 1995 was 1.4 percent for the town and 1.7 percent for the County.

Housing Sales

The following chart compares home sales figures within Union Vale, the surrounding towns and the county over the first six months of the year 2000. The actual number of home sales within Union Vale is lower than the average number of sales in both the county and the surrounding towns. One potential reason for this is that the average price for a home within Union Vale is nearly \$40,000 higher than the Dutchess County average. Other potential reasons for this may be the availability of housing within the town and/or proximity to mass transit.

Table 14
Dutchess County Home Sales by Town

(Single-Family Residential Sales(under 5 Acres) for 6 months, 1/1/2000-6/30/2000)

Municipality	Sales	Avg. Price	Total Sales
Union Vale	23	\$192, 160	\$4,419,680
Washington	8	215,800	1,726,400
Dover	22	162,857	3,582,853
Beekman	80	192,694	15,415,562
LaGrange	59	198,474	11,709,976
Pleasant V.	33	145,685	4,807,615
East Fishkill	81	182,945	14,818,600
Dutchess Co.	916 (29.5 avg.)	152,900	146,824,000

Source: Dutchess County Website, 2000



New development needs to be carefully planned in order to preserve and maintain the rural character and aesthetic integrity of the community

Zoning, Land Use and Development Trends

Density

Higher density housing development is occurring along the edges of the town. Visual surveys and the population density figures below indicate that despite a high rate of growth, Union Vale has maintained its rural character. The natural topography (i.e. steep terrain) and the presence of large parcels used for farming and hunting areas are partially responsible for the maintenance of this rural character. The trend shown in the graph below, however, indicates that population density is increasing and this suggests that the rural character of the place may be threatened. Increased densities and the corresponding increases in traffic and disturbance or destruction of habitat could have an impact on the wildlife populations necessary for maintaining the profitable rod and gun clubs.

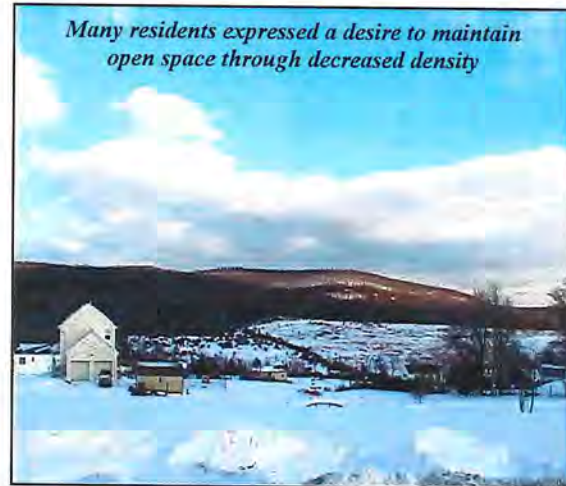
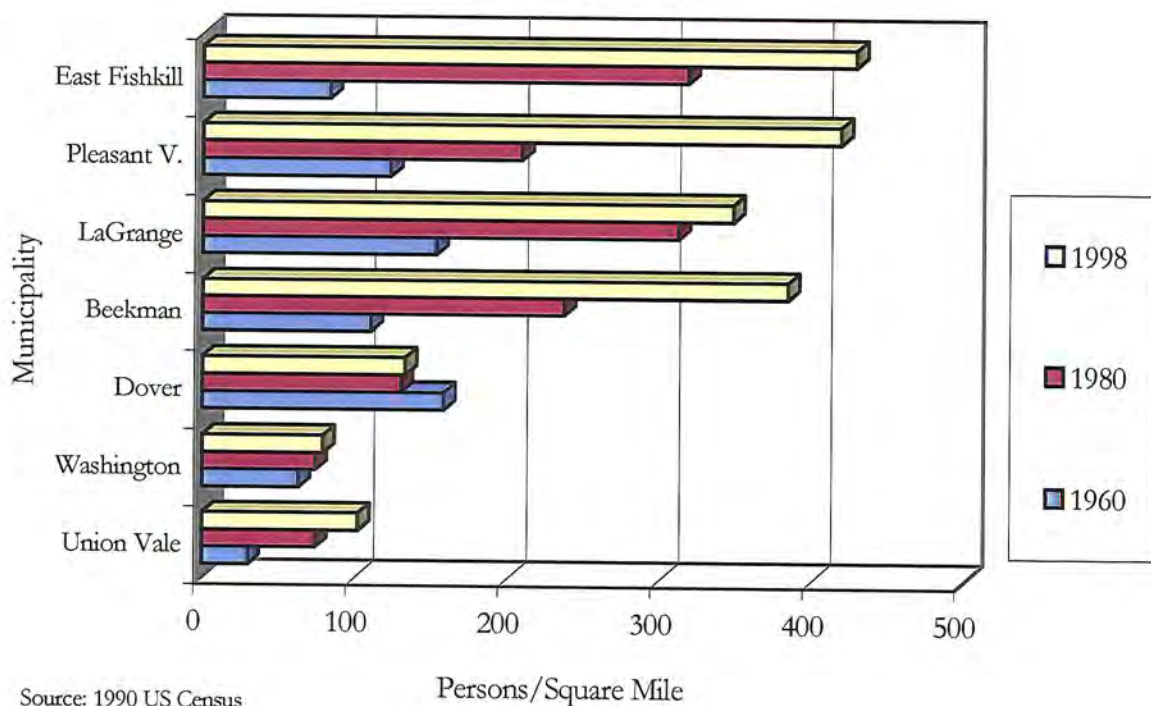


Chart 4
Population Density



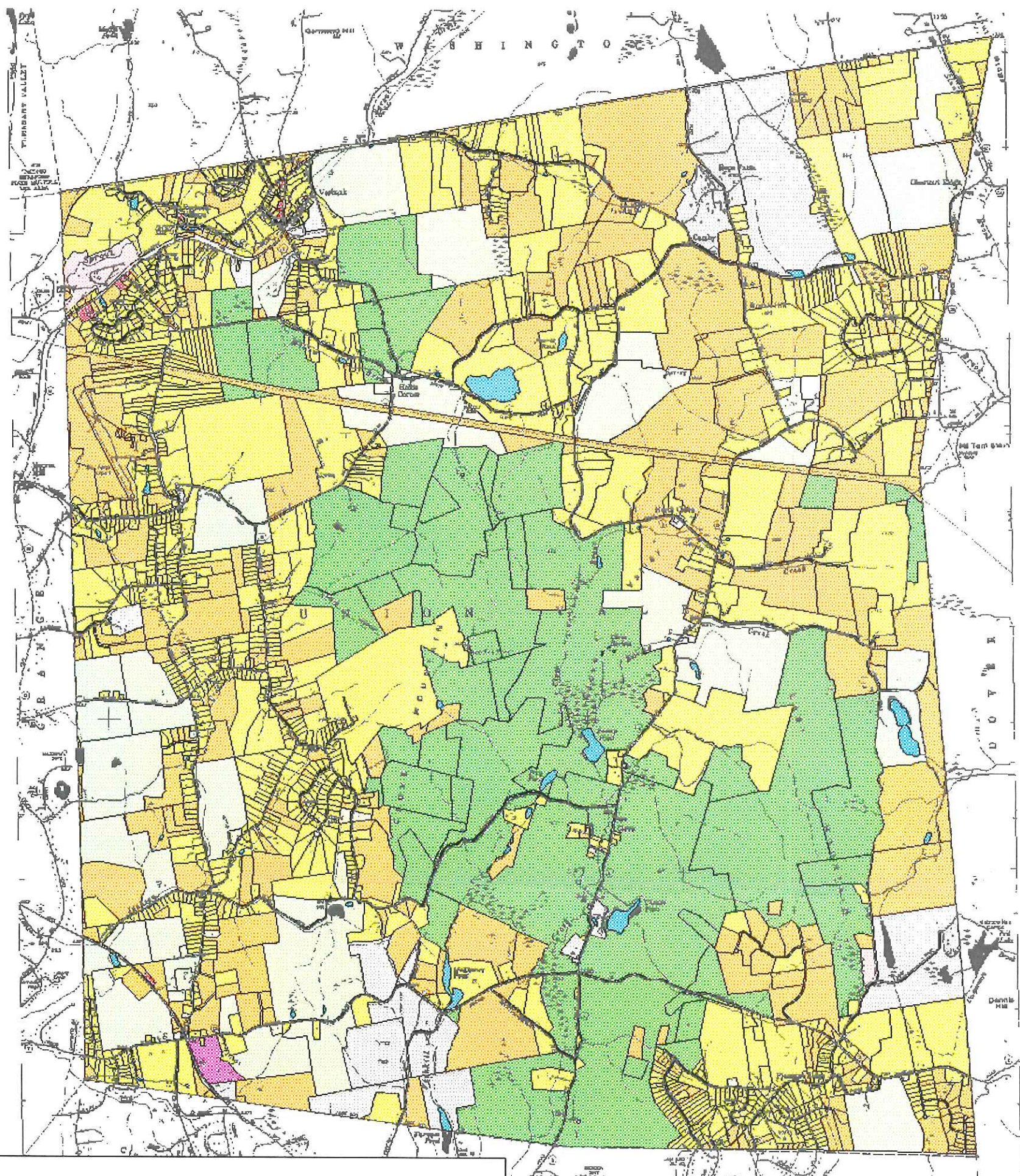
Building Permits

The table below compares the number of building permits issued over 10 years by Union Vale, surrounding towns and Dutchess County as a whole. The chart illustrates the volume of housing development occurring in the immediate region. Although the number of permits has fluctuated from year to year, development within the county appears to be accelerating. Over the 10 year period shown below, the highest number of buildings built each year occurred in 1998 and 1999.

Table 15
Building Permits Issued for New Residential Buildings, 1990-1999

Municipality	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Union Vale	22	20	20	10	6	16	19	19	26	27
Washington	16	16	5	7	2	3	3	3	0	10
Dover	41	41	32	27	41	34	41	32	34	34
Beekman	56	70	67	43	57	46	84	98	142	206
LaGrange	26	31	47	27	50	37	47	66	89	84
Pleasant Valley	22	40	32	14	18	8	11	29	21	45
East Fishkill	64	68	95	71	124	144	152	192	210	234
Dutchess County Total Buildings	589	686	832	420	565	516	621	753	856	1066
Total Units	647	776	1095	434	574	552	711	823	927	1205

Source: 1990 US Census and Dutchess County Dept. of Planning and Development



LEGEND

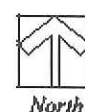
Existing Land Use

- Agricultural
- Single Family Residential
- Multi-family Residential
- Other Residential
- Vacant Land
- Commercial
- Recreation and Entertainment
- Community Services
- Industrial
- Public Services
- Conservation Lands & Public Parks
- No Data

Land use/land cover (LULC): Dutchess County Environmental Management Council digitized LULC from 1994-5.

Figure 2

Town of Union Vale Comprehensive Plan EXISTING LAND USE MAP



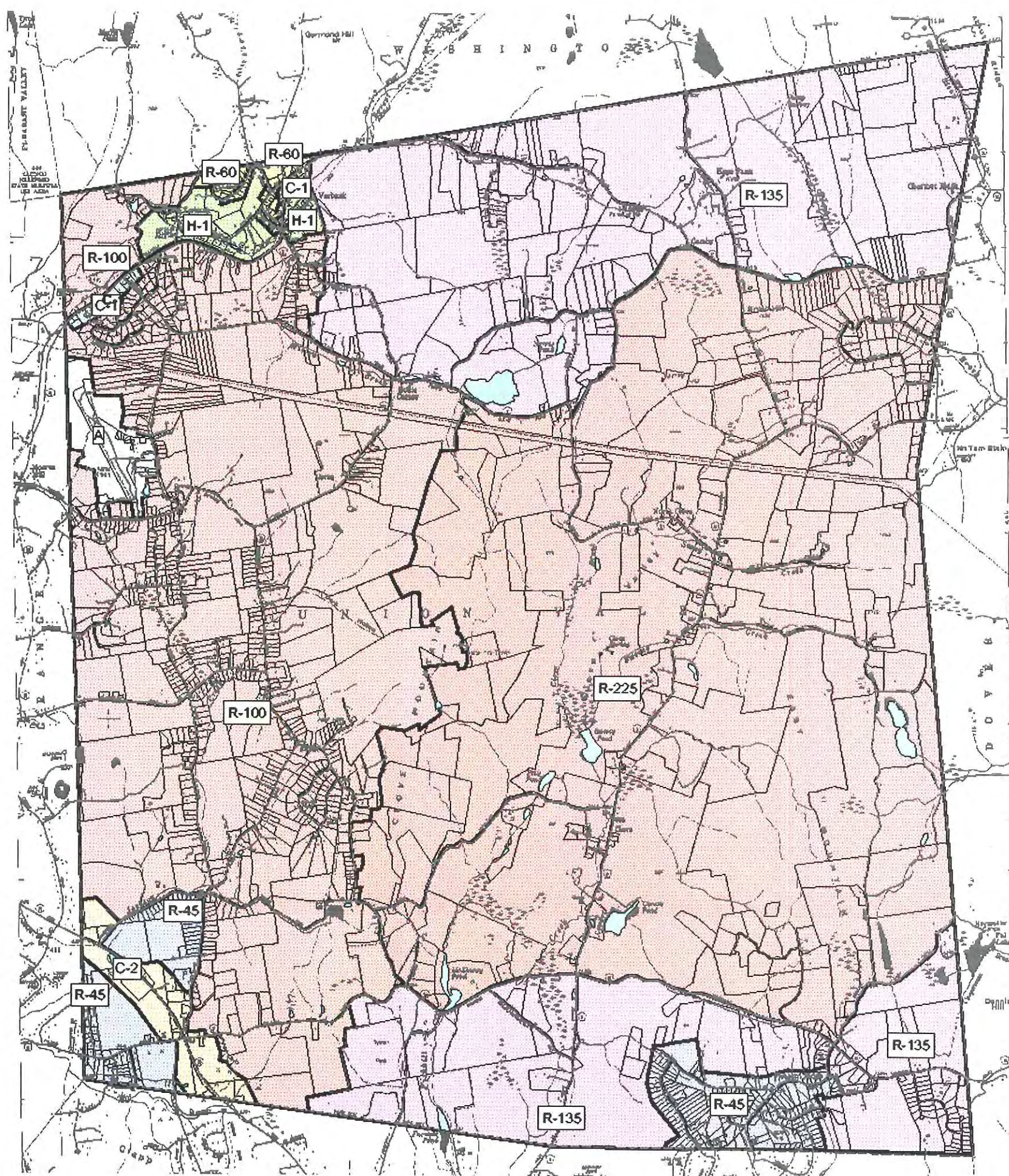
North



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and Planning, PC

0 4000 Feet

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LEGEND

Zoning










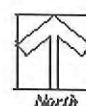
-  A Airport
-  C-1 Village Commercial
-  C-2 Highway Commercial
-  H-1 Hamlet
-  R-100 Residential
-  R-135 Residential
-  R-225 Residential
-  R-45 Residential
-  R-60 Residential

Figure 3

Town of Union Vale Comprehensive Plan

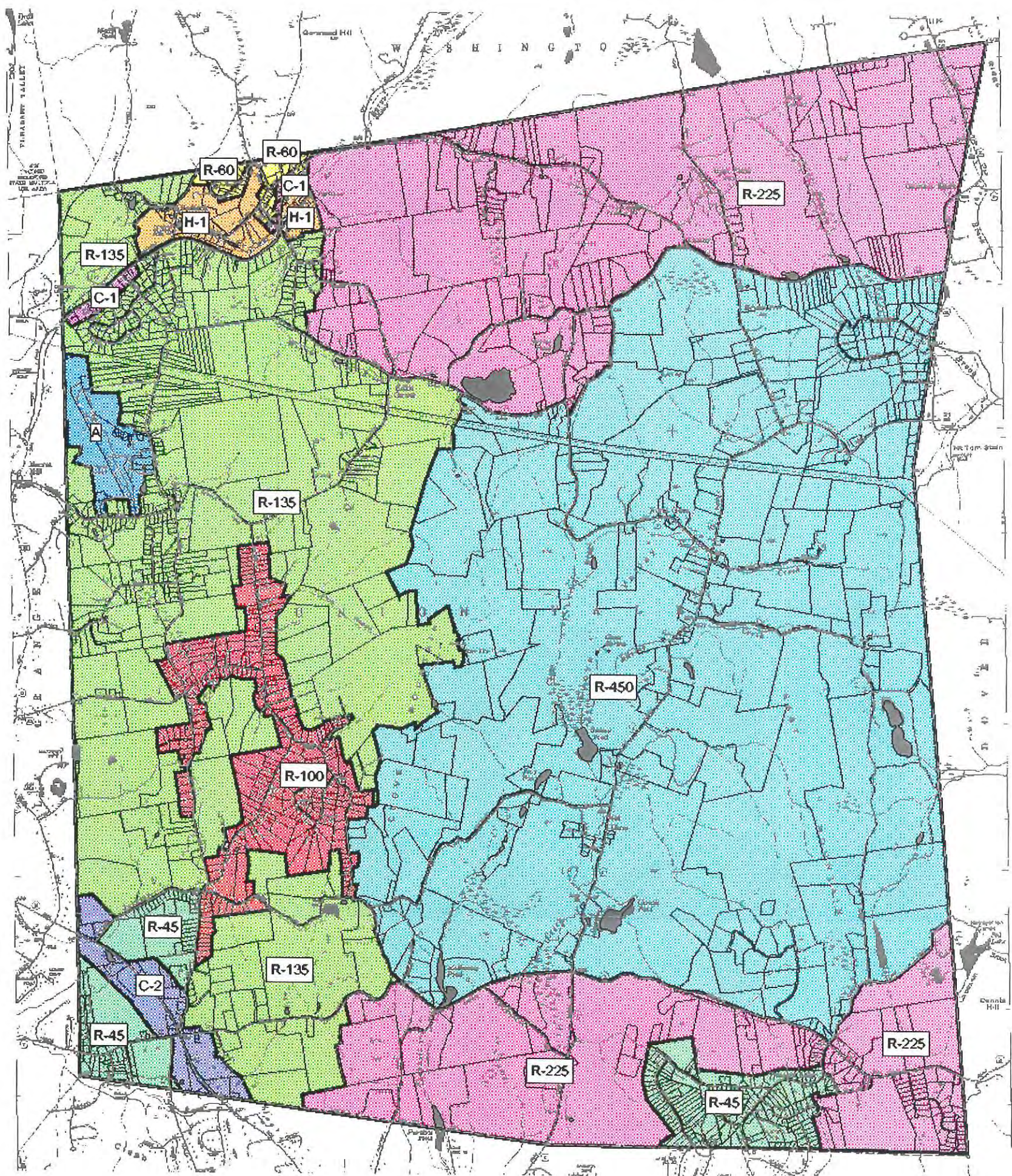
ZONING MAP



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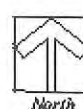
LEGEND

Zoning

- A Airport
- C-1 Village Commercial
- C-2 Highway Commercial
- H-1 Hamlet
- R-45 Residential
- R-60 Residential
- R-100 Residential
- R-135 Residential
- R-225 Residential
- R-450 Residential

Figure 4

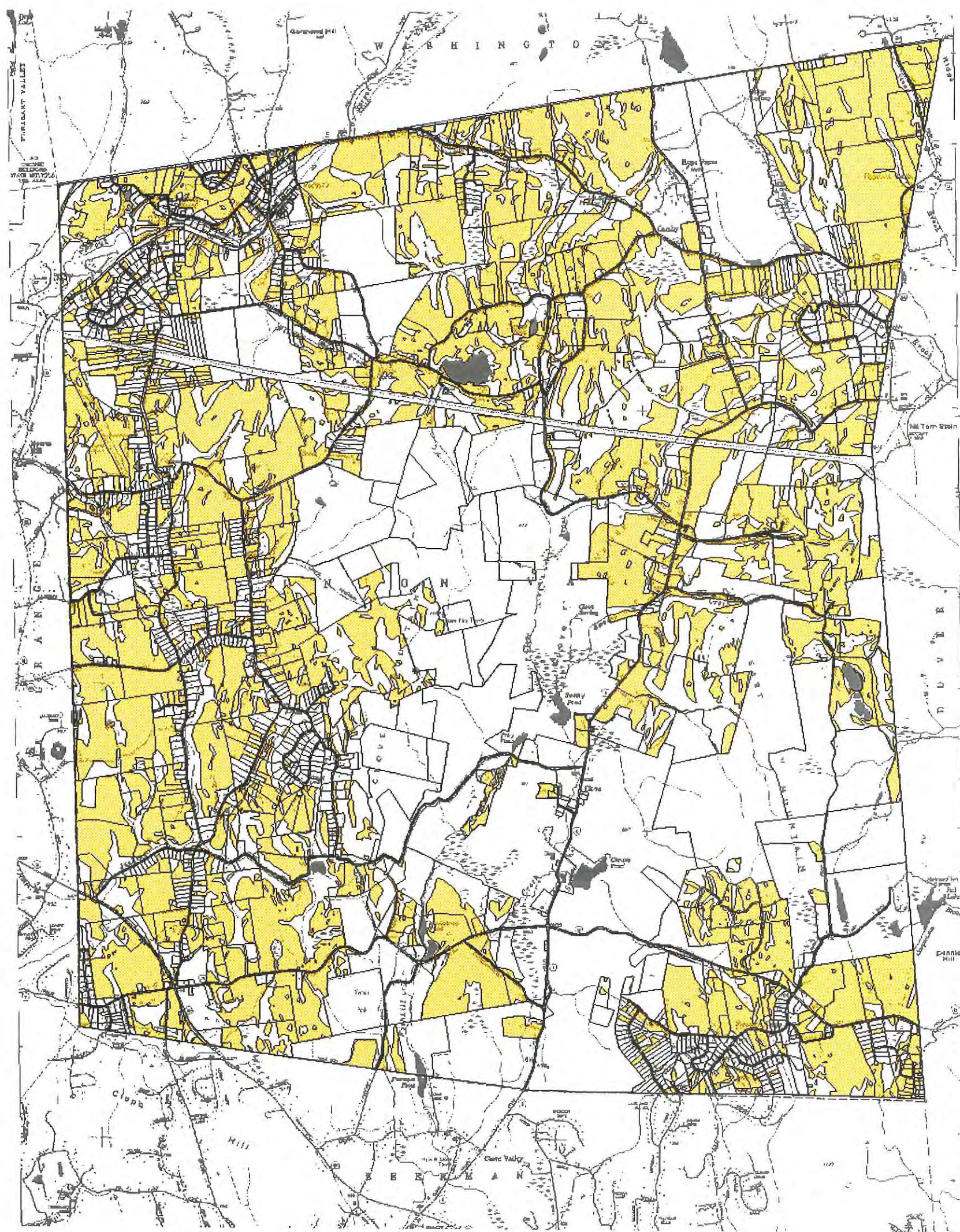
Town of Union Vale Comprehensive Plan PROPOSED ZONING MAP



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LEGEND

Suitability

- Suitable
- Unsuitable

Suitable Land derived by:

1) agricultural and vacant parcels. 2) parcels greater than five acres. 3) no wetland or floodplain. 4) slope less than 15%

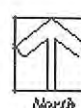
Total town acreage: 23,776 acres

Suitable Land: 8,695 acres

(no data: 430 acres)

Figure 5

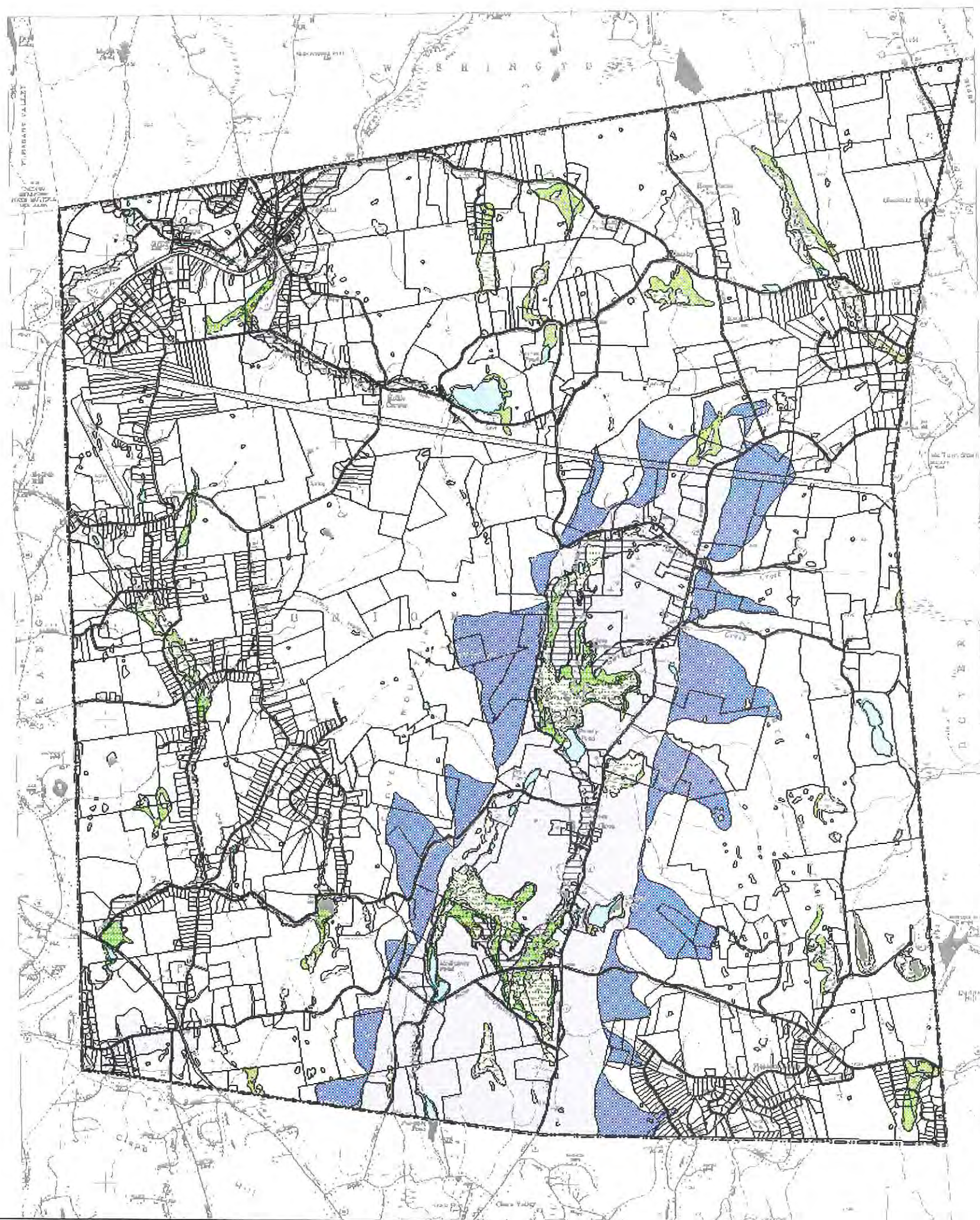
Town of Union Vale Comprehensive Plan DEVELOPMENT SUITABILITY BUILD-OUT MAP



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and Engineering


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00148suitable - 6/01



LEGEND


Wetland

 National Wetland Inventory

 NYS DEC Wetland

 Floodplain

Aquifer

 Zone 1

 Zone 2

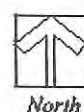
Data Sources

Wetlands: National Wetland Inventory, U.S. Fish and Wildlife Service.
New York State Regulatory Freshwater Wetlands,
New York State Department of Environmental Conservation.
Floodplains: Federal Emergency Management Agency
Q3 Digital Flood Data, 1996.
Aquifer: Dutchess County Water Supply Protection Program
report by Horsley, Witten, Inc., prepared for the Dutchess County
Water and Wastewater Authority, 1993.

Figure 6

Town of Union Vale Comprehensive Plan

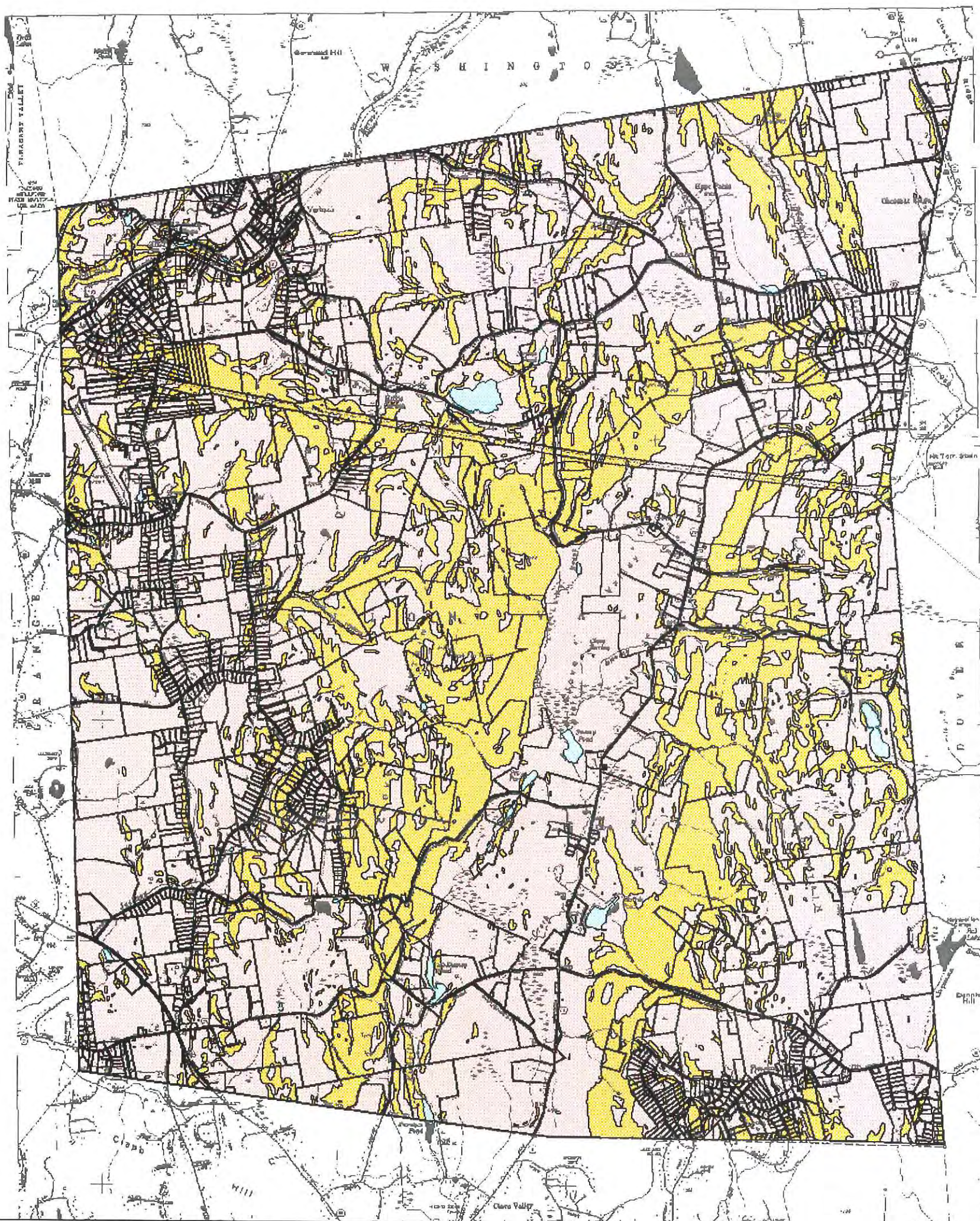
WETLAND, FLOODPLAIN AND AQUIFER MAP



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00148-601



LEGEND

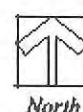
Slope

- Areas that are less than 15% slope
- Areas that are greater than 15% slope

EMC GIS Lab generated the steep slopes from the USGS 10-meter resolution DEM, Dec. 2000.

Figure 7

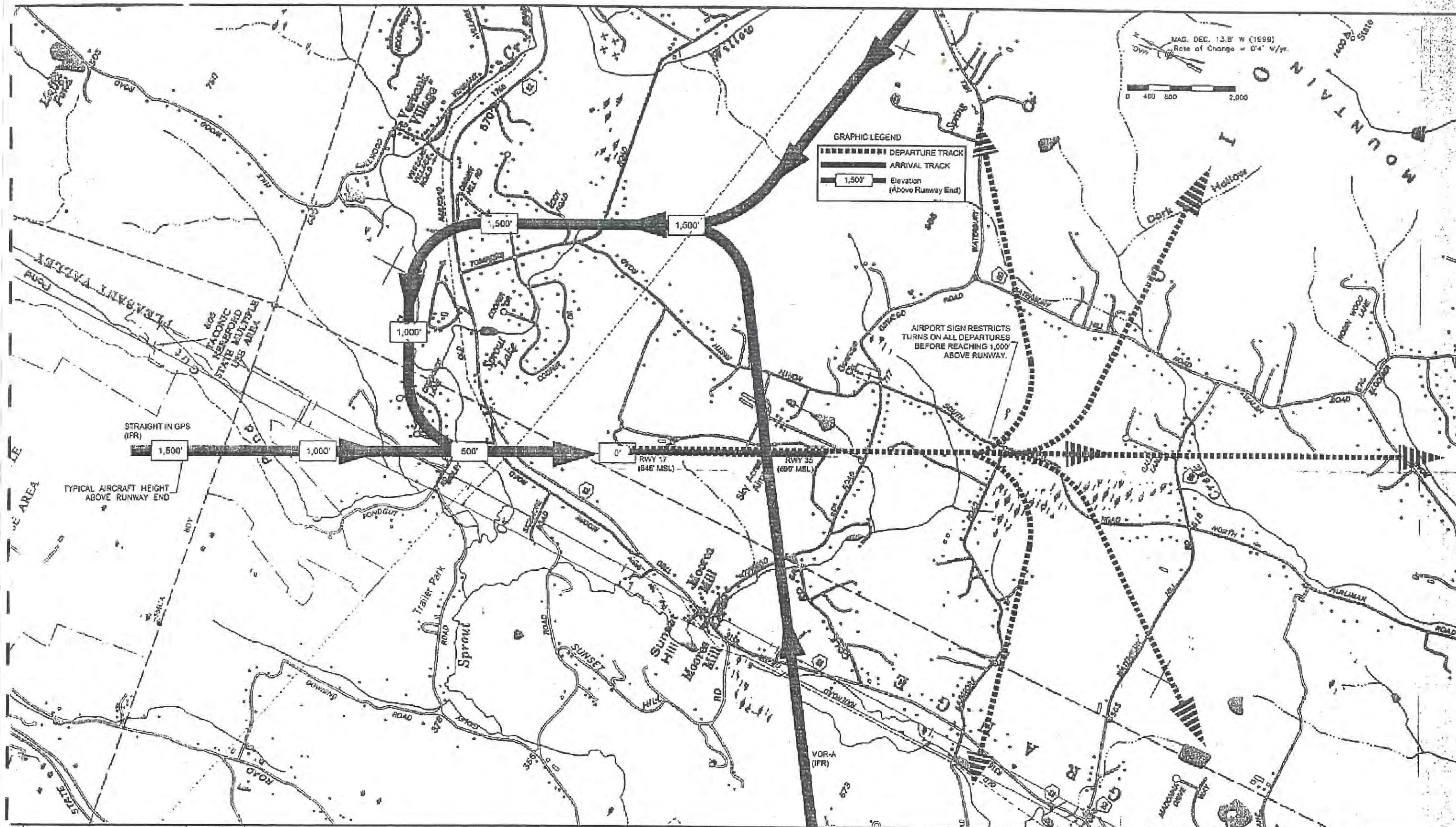
Town of Union Vale Comprehensive Plan SLOPE MAP



the LA group
Architecture
& Engineering, LLC

0 4000 Feet

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NO.	REVISIONS	DATE
1		
2		
3		
4		
5		
6		
7		

This drawing and electronic file is prepared for the exclusive use by the Owner and Engineer for the project indicated.

Sky Acres Airport

LaGrangeville, New York

Owner: Sky Acres Enterprises, Inc.

TSPE TriState
Planning & Engineering, P.C.
Specializing in Airport Services

205 Glen Cove Road
Old Westbury, NY 11568-1824
(516) 294-4776
tspe@tspe.com

PROJECT:

ALP UPDATE

ALP No. 3-38-0223-08-98
NYDOT PIN 6910.07

SHEET TITLE

Runway 17 Arrival And Departure Flight Tracks

DESIGNED BY: JMC

CHECKED BY: SVM

SCALE:
Horiz : 1" = 800'
Vert : N/A

DATE:
July 21, 2000

FIGURE RA

Zoning

The town has nine zoning districts, five of which are residential designations and cover the majority of land area within the town. Two of the remaining four zones are commercially related. The non-residential zones are limited to lands in both the northwest and southwest corners of the town. The zones currently covering the town are as follows:

- H-1-Hamlet
- A-Airport
- C-1-Village Commercial
- C-2-Highway Commercial
- R-45-Residential (1.03 Acre or 45,000 SF Lot Minimum)
- R-60-Residential (1.38 Acre or 60,000 SF Lot Minimum)
- R-100-Residential (2.30 Acre or 100,000 SF Lot Minimum)
- R-135-Residential (3.10 Acre or 135,000 SF Lot Minimum)
- R-225-Residential (5.17 Acre or 225,000 SF Lot Minimum)

A review of the existing land use patterns reveals that very few developable locations with the R-45 zoning (those areas where the minimum lot size is 1 acre) remain undeveloped within the town. Generally, the town's three commercial zones and higher density residential classifications are located along the periphery. The larger minimum lot size zones are more centrally located within the town. (See Figure 2 Existing Land Use Map for Real Property Services classifications, Figure 3 Zoning Map and Figure 4 Proposed Zoning Map)

Suitability and Build-Out with Current Zoning

Initial analysis of the Development Suitability Map indicates that a “donut” of suitable lands follows the town's borders with a large portion of the lands located near the town's center classified as unsuitable. Lands with the highest potential for development due to suitability and zoning lie to the west of the Clove Mountain Range. Generally, the zoning in this area of town is R100. The R100 zone allows for development of lots with a minimum lot size of one dwelling unit per 2.29 acres. A significant portion of the town's suitable areas also lie along the north and south borders. Zoned predominately R 135, these areas have a minimum lot size requirement of one dwelling unit per 3.1 acres. Additionally, a small area near the intersection of Clove (9) and Chestnut Ridge (24) Roads has been classified as suitable and has a zoning of R225 or one dwelling unit per 5.17 acres. (See Figure 5 Development Suitability Build-Out Map)



Build Out Analysis

The chart below is a Geographic Information System analysis of corrected New York State Real Property Service data. The intent of the analysis is to determine the development potential or build-out of the town's remaining "undeveloped" Agricultural and Vacant lands. The build-out analysis does not include lands with the following characteristics as developable:

- greater than 15 degree slope
- wetland (NWI or NYDEC) classified
- hydric soil (potential wetland) classified
- floodplain classified

(See Figure 5 Development Suitability Build-Out, Figure 6 Wetland, Floodplain and Aquifer Map and Figure 7 Slope Map)

The analysis also accounts for each parcel's zoning designation and calculates the potential number of dwelling units, which may be constructed. The actual building area and number of units would be slightly lower due to roadways and odd lot configurations. Two different build-out scenarios (current zoning and proposed zoning changes) are explored in the Fiscal Impact Analysis section.

Table 16
Development Suitability and Build-Out Calculations

Zone	Minimum Lot Size or Density (Acres)	Developable Area in Square Acres	Number of Lots
A	2.75	13.91	5.06
C-1	1.03	143.36	139.18
C-2	1.38	122.49	88.76
H-1	1.38	99.71	72.26
R-45	1.03	279.93	271.77
R-60	1.38	21.76	15.77
R-100	2.30	3,007.77	1,307.73
R-135	3.10	2,617.66	844.41
R-225	5.17	2,383.67	461.06
Total Suitable	-	8,690.25	3,205.99
Unsuitable	-	14,656.16	-
Total Acreage	-	23,346.42	-

The addition of 3,205 units would not contribute to the preservation of the town's current rural character. (The figure above doesn't include underdeveloped lands which currently have housing such as an estate on 100 acres.) (See Figure 5 Development Suitability Build-Out Map)

Design Guidelines

The establishment of special districts or design guidelines for commercial areas will be necessary if new developments are to fit well with the rural character of the town. Design guidelines for commercial corridors along Routes 55 and 82 will be necessary to protect the rural character of the town's commercial and industrial areas (like those near the airport). Without design guidelines, new developments tend to fall into the typical "placeless" suburban styles found in every corner of the country. Town center design guidelines for the higher density residential and commercial areas shall include requirements for mixed-use developments and shall address architectural styles. The design of commercial areas shall incorporate the following: internal roadways, uniform building appearance, regional rural architectural details, and coordinated signage. The Town Hall is a perfect example of how place-sensitive architecture can help maintain the rural character of the landscape. Mixed use developments consisting of ground floor retail and second floor office or apartments may also be appropriate for town center areas. (See Appendix V - Sample Design Guidelines)

Commercial Areas and Hamlets

The commercial corridors of the town exist along Routes 55 and 82 and are zoned C1, Village Commercial and C2, Highway Commercial. These areas have the potential to be developed into either architecturally interesting commercial centers or generic strip malls. The town should consider adopting guidelines that encourage traditional architectural designs that are consistent with existing, local rural forms (as is done for LaGrange Town Center). Commercial centers, for functional and practical reasons, are generally located near higher residential concentrations. Small, traditionally designed commercial areas could be of great service to all of the town's residents by making retail, offices and services more accessible.

Serving as the starting point for the town's Historic Tour, Verbank Village is a traditional agricultural town center, which grew up around the now abandoned railroad and Sprout Creek. Although this area is called Verbank Village, because it has no elected government, it is in reality a Hamlet. While there are a few commercial uses along Route 82, residential uses dominate around the Green and Sprout Creek. The area is zoned H1, Hamlet Area, R-60, Residential and C1, Village Commercial.

The Route 55, commercial corridor is zoned C2, Highway Commercial. The southwestern corner of the town also contains one of the larger concentrations of residential population. Nearby zoning consists of R-45 and R-100 residential. A new school has also been planned for the area. Due to the relatively high traffic volume existing on Route 55, careful consideration should be given to the design and placement of new commercial structures. If a new school is built in the area, some residents have expressed a desire for a nearby small mixed-use development, offering limited commercial and professional services. A commercial area near the school could be beneficial to Union Vale's residents' quality of life because it allows them to combine automobile trips to the school with stops at adjacent commercial areas. Guiding development of the area towards a traditional small town pattern represents an opportunity to maintain the town's rural character. It is clear that residents appreciate design, which is sensitive to the town's rural character. Allowing a typical automobile oriented, suburban strip mall to develop in the area would be a lost opportunity for the town.

Transportation and Circulation

The town has a variety of transportation options with local and nearby bike and pedestrian trail ways, an excellent rural road network, and access to the parkway, commuter rail and airports. While the predominant method of transportation is by automobile, the existing transportation system offers an unusual variety of transportation options for a rural area.

Automobile

The Taconic Parkway
State, County, Town and Private
roads

Mass Transit

Metro North
The Loop Bus (limited access)
County senior and disabled citizen
shuttle

Air

Skyacres Airport
Stewart International Airport



The existing road system in terms of character and function serves the town well

Trailways

Tymor Park
Harlem Valley Rail Trail
Appalachian Trail
Mid-County Rail Trail (proposed from Poughkeepsie to Hopewell)
Local Trails (proposed and adjacent town trails)

Residents have traffic concerns such as lax enforcement of speed limits and illegal turning at the roundabout at the intersection of Routes 9 and 21. Additionally, pedestrians, cyclists, horseback riders and all-terrain vehicles must share many of the trails (with each other) and roadways (with cars). The town may look for ways of minimizing conflicts among these users through the creation of separate trailways or use areas. The roadways appear to be adequate for their current levels of use. The addition of many more residents to the town could necessitate the expansion of the roadways through straightening and widening. This kind of roadway work would doubtlessly alter the character of the town's landscape.

Community Facilities and Services

Emergency Response Services-

The Town of Union Vale has both a fire department and rescue squad, both of which are staffed by volunteers. The fire department maintains two firehouses, which house both the fire fighting and ambulance equipment. Firehouse #1 is located at Route 82 and Duncan Rd. and firehouse #2 is located at 795 Clove Rd. The Fire department currently maintains 8 vehicles consisting of 4 engines, 2 utility trucks, a rescue truck and a hose truck. Each engine has a 1500 gallon per minute pump and at least a 1000 gallon tank capacity. The engine ages are 1982, 1985, 1992 and 1995. The 1982 engine is slated for replacement. The

department is also in the process of selling the hose truck. Last year the fire department responded to approximately 200 calls. Both the fire and ambulance services have a mutual aid plan, which is coordinated through Dutchess County 911 dispatch.

The Union Vale Ambulance Corps/Rescue Squad maintains two rescue vehicles, a 1997 Ford and a 1991 Ford. The squad received over 200 calls last year. The current volunteer staffing consists of 12 EMTs and 5 drivers. Volunteer firefighters will also substitute as drivers when necessary. Though the service is available 24 hours a day, seven days a week, the volunteer levels are slightly lower than optimal. The rising cost of ambulances and equipment is also overburdening the squad's budget. The declining rates of volunteerism and monetary donations are the impetus behind the establishment of a local committee to explore the issues.



The Town of Union Vale Constabulary provides limited policing services to the town. The constabulary consists of four peace officers and one vehicle. These peace officers in conjunction with the county sheriff and state police constitute the police protection covering the town. The constabulary is not on call but rather provides patrols seven days a week with increased patrols during emergencies and on certain holidays like Halloween.

Public Health Facilities

The nearest hospitals are Vassar and Saint Francis in Poughkeepsie and Sharon in Connecticut. Specialists' offices are located in neighboring towns along the main commercial corridors.

Recreational Facilities

With regards to recreational facilities, Union Vale is fortunate. The town has two large parks, the Frederick E. Godfrey Memorial Park and Tymor Park. Expansion of trail interconnections between public open spaces, higher density residential areas and nearby open spaces and trail ways would increase accessibility and usefulness for residents.

Tymor Town Park

Tymor Town Park in Union Vale is the largest town park in New York State and is limited to town residents only. It is an exceptional property with natural and historic features and developed park facilities that provide a comprehensive, year-round recreational resource primarily open for town residents. Well-managed sports fields, indoor recreational spaces, a pool, a lake, a small historical museum, a bandstand, an equestrian area, and miles of trails serving many activities are provided in the park.

The fields, streams and forested hills in this 500 acre (approximately) park offer valuable ecologically important open space that extends south into the Town of Beekman. The park was received through a gift in 1970, to serve the town and its residents in perpetuity. Tymor

Park and Town Hall also serve the town as activity and cultural centers, and therefore are probably regarded by many residents as a town center.

The facilities in Tymor Park are clustered around well-maintained farm buildings, which are used for indoor programs, summer day camp, maintenance spaces and offices. The farm motif this lends to the developed section of the park is well suited to the surrounding landscape that includes a Town Hall, open fields (some used for grazing, some farming) and stately homes. The wooded north – south trending hills in the park show signs of rocky outcrops that had at one time provided iron ore, limestone and wood (for charcoal) for early 19th century iron works.

The hills in Tymor Park continue from Beekman, north into Union Vale, and are natural geologic features that should guide future town open space protection efforts, and if possible, extensions of easements for additional trail systems. Coordination with adjoining towns and Dutchess County in the efforts to protect these highland ridges may provide a broader vision, which will appeal to land conservation interests, as well as benefit the town park.

Fishkill Creek feeds McKinney Pond, just north of the Park, then continues through the developed section of the park, before feeding Furnace Pond. Furnace Pond is said to be more than 100 years old. It is a beautiful and valuable, historic resource for the park. These waterways are used for fishing and enhance trails that cross the park. Boating is also available on the 10 acre pond. Remnants of a 19th century water-power system and a somewhat more recently abandoned penstock (pipe from the dam) provide historic points of interest in the park below the pond.

The trails activities located in the uplands along the west side of the park wisely separate some trail activities in order to minimize conflicts between trail users in the park and adjoining neighbors. Sports fields are either slightly elevated or located within the farm-like activity complex, maintaining the open-visual spaces of the park. Open fields in the valley offer equestrian areas and a visual link to nearby fields on private properties. The overall effect is bucolic, providing a link to the town's rural past.

The park's resources, facilities and programs include: Tymor Forest (500 acres including Furnace Pond and 1 mile of Fishkill Creek); Furnace Pond Boat House/Nature Center; Senior's Hall; Union Vale Historic Society Museum, Reading Room; Equestrian Center; Swimming Pool; Tennis Courts; Basketball Courts, Ball fields and hiking trails. Tymor's programs include: Youth Softball League; Tee Ball; Lacrosse Clinic; Mountain Bike Clinic; Tennis Lessons; Equestrian Clinic; Swimming lessons; Summer Sports Series and Athletics; Counselor-in-Training; Golf, Aquarobics; Fall Outdoor and Aerobic Fitness Programs. Other programs include Teen Dances; Summer Day Camp; and Nature Workshops; and the Tymor Velo Club. Special events include Community Day; Festival of Lights; Bus Trips; Fireworks Display; Octoberfest; The Great Swamp Canoe Trip; Craft Fair; Children's Holiday Party; Family Dinners and Family Camping Weekend.

Godfrey Memorial Park and Verbank

Godfrey Park and Verbank form a quaint and attractive hamlet, with a different and distinctive character from the rest of the Town of Union Vale. Open space located just a few hundred feet from the hamlet center is a great contribution to this area. Located in the north side of the town, this facility can provide a needed service, as Tymor Park does in the south.

Godfrey Park has a ball field, a playground and a "nature area". A farm field adjoins the park to the east and woods are located to the south, so the possibility to provide buffers through easements and to design landscaping that will convey this impression for the park edge should be possible.

Though a small stream parallels On-the-Green near the Park, this feature is not incorporated into the hamlet's design or associated with Godfrey Park. Hills to the south of the Park may include public lands that extend to the open space associated with the Verbank United Methodist Church and adjoining cemetery.

Research would probably indicate that Verbank United Methodist Church and the adjoining cemetery are eligible for the State and National Registers of Historic Places. These appear to be original structures and features, all well maintained, and a scenic attraction, located on a signed County Historic Touring Route. A sign offering information regarding these historic locations may help attract people who are following the Route to add a stop in Verbank.

The firehouse and many of the residential buildings in the hamlet of Verbank appear, however, to be of varied ages and styles. The visual effect of this hamlet center is pleasant, and it could form a recognizable historic district. Improved landscaping and improved pedestrian connections may attract some people to the area. The creation of a walkway over Sprout Creek would facilitate access to amenities located on the opposite side of the creek for residents on either side.

Trails and Bikenways

The great Appalachian Trail passes nearby to the south and east through Beekman, Pawling and Dover. A connection to the Trail, via the southwest corner of the town, is in the process of being developed. This is a fantastic resource for hikers and spans from Maine to Georgia. The Harlem Valley Rail Trail, a new 7 1/2 mile linear park located to the northeast of the town, is a converted rail corridor. This was originally the right of way of the New York Central Railroad's abandoned Harlem Valley Line. Dutchess County has leased 17.6 miles from New York for further development of the Harlem Valley Rail Trail. The Conservation Advisory Council is developing a map of the town's existing and proposed trails.

Educational, Institutional and Cultural Facilities

Three school districts, Arlington, Millbrook and Dover Plains encompass the town. Two new schools have been proposed for the town, one of which is in the process of being built in the southwestern corner of Union Vale. This development may put a strain on the area's groundwater and surface resources.

The region's rich past offers many historic and cultural opportunities. Dutchess County Tourism offers a scenic driving tour directory on the Internet, which provides maps and historical information for designated sites within the County. Preserving the historic character of places like Verbank Village is important to maintenance of the town's historic culture.

Municipal Affairs

Open Space Protection and Acquisition

Currently there are only a few opportunities for the protection of Open Space. Open Space acquisition measures include the Purchase of Title, Acquisition of Development Rights, Lease of Development Rights and a combination of programs. Revenue sources include Real Property Taxes (Appropriations and Bonds), Real Estate Transfer Programs, Sales or Use Taxes, and Capital Reserve Funds. Other tax incentives are available for parcels, which are being actively farmed within the town's Agricultural District. Owners of large tracts of land may also donate land to the town or create a conservation easement. This has been demonstrated with Tymor Park and is a great benefit to the town's residents. The County is exploring the possibility of creating a Real Estate Transfer Tax as a way of generating funds for open space acquisition.

The town could offer an incentive such as a "Density Bonus" to developers who donate open space lands in exchange for increased density allowance. The town could explore the creation of an Acquisition of Development Rights program. These programs must be done in reference to an Open Space plan and require some involved administration. The town could also preserve important aspects of open space through rezoning in order to protect environmental resources like town water supply aquifers, critical habitat, ridgelines, stream banks, and wetlands. (See Appendix I for a more detailed discussion of Open Space Protection Measures and Appendices VI, VII and VIII for lists of important sites for consideration in an Open Space Protection Plan.)

Telecommunications Infrastructure Improvements

Local telecommunications services are in the process of upgrading to fiber optic cables. This will make the area more attractive to industries and residents who rely on access information technologies. The town may want to explore methods of land use control for reducing the impact of telecommunications towers.

Environmental Resources

Water Resources

The town is rich in water resources and has no centralized water supply or sewage treatment systems. Residential and commercial uses generally provide their own individual onsite well and septic services. The town has worked with various organizations to create a surface and subsurface water resources map. A water resource protection orientated review of the use and



*The natural environment in the town is diverse
... providing habitat for a range of plants and animals*

intensity of use portions of the zoning code will help preserve the quality of these important natural resources. The town could seek to have the United States Environmental Protection Agency designate Union Vale's aquifer as a sole source aquifer, which would provide some added protections. (See Figure 6 Wetlands, Floodplain and Aquifer Map and Appendix X Primary and Principal Aquifer Determination Guide)

Private Hunting Lands

Local Rod and Gun Clubs own a comparatively large portion of the town. While these organizations and their expansive land holdings are partly responsible for maintaining the rural, undeveloped character of the Clove Valley, their ownership of the land does present a unique situation. Land that is owned by the clubs is private and not open to the public. The nature of the use on these lands, hunting and fishing, is prohibitive to the establishment of an interconnecting public trail system running through the area. Another issue concerning the future use of these lands should these hunting clubs be abandoned, is that the parcels could be sold for development. Their central location in the bucolic Clove Valley makes these parcels prime locations for new home sites. (See Figure 2 Existing Land Use Map) The town should explore the different options available for preserving these areas as open space. In consideration of this, large lot zoning may be appropriate.

Historic Resources and State Lands

Historic Resources

Union Vale has a rich history with a variety of historic structures and areas located throughout the town. Dutchess County Tourism has created a scenic driving tour featuring the Towns of Union Vale, Beekman, Pawling and Dover. Tour Number 5 begins in Union Vale on Camby Road near an early mill site on Sprout Creek in Verbank Village and winds through the town noting 13 historic sites and ending at Tymor Park. Appendix IX lists sites for further consideration for historic designation. Important designated historic sites within the town are listed below.

Verbank Village and the Green - 18th century

The Verbank Methodist Church and Cemetery - est. 1870

Oswego Meeting House and Cemetery - ca 1828

Abel Tree Farm

Union Vale Grange # 887 - active since 1900

Town Garage (WPA project)
School House and Stone House - ca 1740
The Clove Cemetery - ca 1858
Valley Bible Fellowship Church - ca 1871
Skidmore House - ca 1790
Tymor Park

State Lands

Listed below are the state and federal parks/historic sites located in the towns surrounding Union Vale.

James Baird State Park
Taconic-Hereford State Multiple Use Area
Wassaic State Multiple Use Area
West Mountain State Multiple Use Area
Depot Hill State Multiple Use Area
Franklin Roosevelt Home National Historic Site
Eleanor Roosevelt National Historic Site
Vanderbilt Mansion National Historic Site
Clinton House State Historic Site

Appendix I

Open Space Protection Measures

The following information is a summary of a recent article in Environmental Law in New York, "Funding Local Government Acquisition of Open Lands in New York State," Volume 11, No. 7, July 2000. According to the article there are a variety of ways to preserve open space or lands, viable farmlands, habitat, wetlands and other natural resources within New York State. For the purposes of this discussion open space and open lands are defined as those lands which have not yet been subdivided into relatively small lots and dedicated to residential, commercial or industrial use. "The preservation of these lands and their open character is one of the few land use objectives found in the State Constitution. It is the policy of New York State to "conserve and protect [the] natural resources and scenic beauty [of the state] and encourage the development and improvement of ... agricultural lands for production of food and other agricultural products." The following text provides an introduction to both the local legal authority and the programs that localities in New York have established.

Local authority to acquire open lands is derived from:

- "General Municipal Law," Section 247. This allows municipalities to acquire land by sale, gift, grant, bequest, devise, lease, or otherwise fee or any lessor interest, development right, easement, covenant, or other contractual right in lands defined as "open space"
- Sections 49-0301 through 49-0311 of the Environmental Conservation Law provides additional authority that municipalities may use to acquisition development rights of open lands. This statute permits municipalities to acquire conservation easements for the purpose of conserving, preserving, and protecting the environmental, historical and cultural resources of the state, including the preservation, development and improvement of agricultural lands. The conservation easement allows the landowner to be paid for the development restriction unless he or she donates the easement. This payment is typically the difference between the value of the land before the development restriction and the value of the land after the development restriction. The landowner can also receive certain tax benefits in the form of reduced property taxes or reduced estate taxes

There are two differences between acquisitions made under the conservation easement provisions of the Environmental Conservation Law and lessor interests in land acquired under Section 247 of the General Municipal Law. A third party named in the instrument creating the easement can enforce a conservation easement. This allows the municipality to delegate monitoring and enforcement responsibilities under the conservation easement to a land trust or other not-for-profit organization with the legal authority and capacity to do so. This flexibility does not exist under Section 247 of the General Municipal Law. The Conservation Easement Law also allows not-for-profit land trusts and conservation organizations to acquire and receive donations of easements directly.

Local Programs to Acquire Open Lands

1. Acquisition of Title

Acquisition of full legal title to a parcel of open land by sale or donation. The municipality also assumes full legal authority for, and all costs of maintaining the property. Acquired land then becomes a municipal asset and is removed from the tax roles. Because of direct and indirect costs, many towns leave title to open lands in the hands of the private owner, allow current land uses to continue, and earn property tax revenues for those uses.

2. Acquisition of Development Rights

Under the acquisition of development rights (ADR) program the municipality pays a landowner for restricting the future use of the land. The restriction usually takes the form of a conservation or agricultural easement under which the land owner maintains title of the land and the municipality gains the right to enforce the restriction imposed by the easement. Cost of the easement is typically the difference between the value of the land before the development restriction for its "highest and best use" and the value of the land after the development restriction. In exchange for the restriction the property owner receives a number of tax benefits including reduced property taxes and estate taxes.

3. Lease of Development Rights

The lease of development rights program (LDR) involves the municipality acquiring the development rights of a parcel for a period of years rather than in perpetuity. The landowner receives preferential tax treatment in the form of reduced taxes and a yearly rental payment. The LDR allows the landowner to retain their rights to develop in the future. A municipality may issue an installment sale obligations to achieve some financial benefit for the community.

4. Combination Programs

Towns may combine these programs in a variety of ways in order to achieve their goals and maximize their financial resources.

Local Revenue Sources for Open Lands Acquisitions

1. Real Property Taxes

Municipalities are allowed to expend property tax revenues for any valid local purpose under many state statutes that delegate programmatic authority to municipalities.

- Appropriations - Municipalities can allocate a fixed amount in a given year to acquire title or land development rights. No referendum is required for a local legislature to allocate the current year's property and other tax revenues for public purposes
- Bonds or Notes - Municipalities are authorized to contract indebtedness for public purposes. Indebtedness must be repaid within 30 years. The issuance of municipal bonds may be subject to a voter referendum, depending on the amount of the bond issue, the length of the repayment period, and the purpose for which they are intended

2. Real Estate Transfer Programs

These programs involve levying a tax on the sale of real estate. General state enabling legislation that permits the municipality to impose such a tax must be proposed. This option requires passage of specific enabling legislation from the state legislature pursuant to Municipal Home Rule Law Section 40.

3. Sale or Use Tax

Counties may assess and collect local sales and use taxes, which may be used to fund the acquisition of open space lands under certain circumstances. The revenues may be set aside for county purposes or distributed to constituent municipalities.

4. Capital Reserve Fund

Municipalities may set aside a portion of the funds collected from taxation or the issuance of debt obligations for specific purposes established by the local legislature. When established for this purpose, the fund is subject to a permissive referendum. Money placed in the fund can only be used for the specified purpose and may not be diverted by future local leaders.

Local Examples

1. Creation of a Capital Reserve Fund through a Multi-year Property Tax Increase

The *Town of Greenburgh in Westchester County* financed a "Greenways Fund" by increasing by 0.5 percent the prevailing tax rate levied on the assessed value of property in the town. It was estimated that this cost the average homeowner about \$10 per year.

2. Lease of Development Rights

The *Town of Perinton in Monroe County* enacted a conservation easement law to acquire the interests in land, both open space and agricultural, for five years. Rather than paying for these easements, the town agrees to reduce the property taxes for the 5 years in exchange for the development restrictions. A landowner who violates the restriction is charged for back taxes and a penalty for early withdrawal from the program. This money is placed into a fund designated acquisition of other lands.

3. Municipal Bonds to Acquire Development Rights

The *Town of Pittsford in Monroe County* performed a fiscal impact study and determined that it would cost the town less to issue bonds for the acquisition of the town's remaining open space / farms than to allow it to be developed for single family housing as permitted by the local zoning. The town prioritized its acquisitions and issued \$9.9 million in municipal bonds to acquire 1,100 acres of farmland. While the farmland is still farmed and remains on the tax roles, there are also areas, which are protected as habitat and others which provide public access.

Suffolk County established the first ADR in the country in 1974. Initially, the program issued \$21 million in bonds to acquire development rights to 3,883 acres of farmland. Subsequent bonds were \$20 million and \$60 million. To finance the obligations incurred by the bond the average taxpayer pays \$10.93 per year.

4. Real Estate Transfer Tax

The *Towns of East Hampton, Riverhead, Shelter Island, South Hampton and Southold* imposed a 2 percent tax on the price paid for a property. The legislature requires each of these towns to follow a set of unique rules and exemptions. For one town, the tax is not assessed on homes which sell for less than \$150,000. Each town must also hold a referendum on the local transfer tax before it may be instituted.

Open Space Protection Opportunities in Union Vale

The limited review of Tymor and Godfrey Parks and the hamlet of Verbank may suggest that other acquisitions of easements may be desirable in Union Vale. Some specifics to be determined should land acquisition be considered are discussed below.

Identify the features to be preserved.

If properties are to be "preserved", the landforms, scenic vistas, forest lands, waterways, floodplains ecological and historic / archeological resources that are to be protected need to be identified. Where possible, the basic features that should be preserved should be specifically delineated, mapped and reflected in other planning decisions. If possible, appropriate buffers, aesthetic aspects and unifying land linkages should also be considered. A system of rocky, forested ridge-tops, stream shorelines, wetlands and lakes can constitute a part of this system.

Often there are important issues relating to the development constraints of the lands that are identified through this process that need to be considered. (See Figure 5 Development Suitability Build-Out Map) Wetland regulations, floodways and soils with poor drainage are often already protected or costly to develop. If the provision of water, sewer service and access is difficult, the concept and cost of land preservation become much more practical considerations.

Identify the rights that are best to be secured.

After the lands that are to be preserved are identified, it is important to consider what rights the town may need to obtain. Usually the least costly possibility is the acquisition or the solicitation of donations of development rights, conservation easements, or other such constraints on future development of lands that also maintain the current uses and are compatible with the activities of the existing owners. Grazing fields associated with properties where horses are being kept, stream and lake frontage that is already landscaped in a compatible manner, or steep woodlands that are a valued part of a large rear lot may fit in this category.

The primary long term cost to the town associated with obtaining these rights (conservation easements) is the loss of taxable lands. (Note: This loss, and the net cost of providing public services to developed parcels that are taxable, such as residential subdivisions, is being addressed in other sections of the Master Plan). One of the great benefits to the town of acquiring these targeted conservation easements is that the property owner will retain the right to use, and the responsibility to maintain the lands in question.

If there are more rights which need to be obtained related to the properties that are to be preserved, such as trail access or fishing rights, the costs of easements mounts, and often negotiations with landowners becomes more difficult. Costs of these rights can range up to

90 percent of fee value. Additionally, landowners may require town coverage for liability or maintenance agreements as a part of the negotiation.

If unique ecological or archeological resources are to be protected, easements securing these features can get difficult to describe and enforce. It does little good to seek redress from a landowner who “beautified” a protected property by destroying the critical habitat that was to be preserved. Forests that have been protected by easements are occasionally logged to improve a view, and habitats are disrupted to be more welcoming to people. For these reasons it is often best to secure truly unique lands outright.

There are landowners with unusual requirements who can deliver great land preservation value if their land uses can be protected. Farmlands are one example that should be explored. The properties that are not viable farm operations will not be good prospects for these programs. Farms that can continue to operate, will perhaps require supportive zoning and land taxing decisions and other support. These properties should be carefully considered with the help of organizations that are conversant with the goals and the economic imperatives of the farmer. Other specialized uses, such as the Rod and Gun Clubs, offer open space protection benefits, but must receive special consideration to continue successful operations.

Solicit partnerships with supportive organizations and agencies.

Unfortunately open space protection using acquisition, easements and negotiated rights is a complex and time-consuming task. There are land transactions that have required skilled negotiators many years to specify, fund and transact. For these reasons, acquisitions should only form a part of any municipality’s land protection policy.

Additionally, even the largest local governments and state and federal agencies cooperate with organizations that are skilled in negotiations, that can offer tax-benefit analysis and that are familiar with the details involved with complicated easements. Also these organizations may be able to act to protect properties in an expeditious manner, which is often a difficulty for governments. The Dutchess Land Conservancy, Scenic Hudson, The Nature Conservancy, the Open Space Institute and the Trust for Public Land are some of the organizations that are active in open space preservation in the Hudson Valley. Union Vale will require these partners to advance a comprehensive plan to acquire land rights.

Dutchess County Department of Planning and Development is attempting to provide a framework for good land use policies that can help implement goals, and perhaps coordinate with the policies of adjoining towns, and agencies that control roads and other holdings within the town. Additionally, the County is considering legislation that would establish a fund for the protection of open space and other lands suitable for protection, so these funds too may apply to Union Vale’s acquisition plans (if any).

For acquisition of lands, land rights and easements, the Dutchess Land Conservancy published the Hudson Valley Rural Design Guidebook in 1992 and can recommend the regional, statewide or national organization that would be the most helpful in addressing each specific acquisition that will be advanced. This organization may also help to facilitate the work envisioned in the town Plan. Many of these same organizations will also provide updates of grant programs that are applicable and offer good prospects for the properties under consideration.

Appendix II Union Vale Citizen Survey

QUESTIONS	TOTAL	% OF TOTAL
Total Number of Surveys Tallied	306	100%
Note: Some final tally sheets are missing original surveys.		
Broad Points		
Rural Quality		
Maintain Rural Quality (i.e. preserving beauty, quiet, open space, wildlife, etc.):	266	87%
Concerns		
Concerned About Development (i.e. Beekman's growth, traffic, shopping centers, etc.)	179	58%
Concerned About Higher Taxes:	43	14%
Wants		
Increased Services (i.e. youth services, trash pick-up, more programs at Tymor, highway maintenance, etc.)	60	20%
Development (along 55, restaurants, stores, etc.)	27	9%
Specific Points (check as many as apply for each form)		
Development		
adjust or maintain zoning to slow growth	116	38%
opposes more housing developments	88	29%
opposes large stores and/or strip malls	45	15%
maintain natural resources	44	14%
better planning and/or Master Plan	26	8%
maintain family farms	25	8%
wants some stores and/or restaurants	23	8%
opposes Iroquois expansion	16	5%
make scenic highways	11	4%
opposes cellular tower	7	2%
wants affordable housing for young people	6	2%
wants better cable and/or data service	6	2%
Enforcement		
lower speed limits	29	9%
stop illegal businesses	2	1%
Recycling Center		
wants brush pick-up and/or drop-off	8	3%
wants more hours	7	2%
Services		
better road maintenance	20	7%
better litter removal	19	6%
more younger child activities	17	6%
more teen activities	16	5%
better snow removal	12	4%
add biking/hiking trails	11	4%
less crowding in schools	9	3%
deer control	8	3%
Taxes		
keep taxes low	41	13%
wants incentives for open space and/or historical preservation	11	4%
would pay more for services	2	1%
Tymor		
avoid commercialization or outside use	23	8%

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Survey Responses from Landowners of More than 25 Acres

What do you like about Union Vale?

Rural openness	Relaxed
Friendly people	Tymor Park
Green	Lack of commercial sprawl
Park	Large property parcels
Scenery	Proximity to New York City
Character of area	Peaceful
Organization of town hall	Wildlife
Small population	Watching town meetings on TV

What are your concerns?

Too much growth like Beckman	Strip malls
That it will turn into Beckman	Chain stores
Suburbanization	That ridges stay undeveloped
Subdivisions	High taxes
Excessive speed on roads	Not enough community volunteers
That more structures could be built on ridges	Lack of plan for future
Would like to see more stores on Route 55	Poor local schools
Unrestricted development	That small lots will be allowed
That rigid zoning could stifle development	Increased traffic
Lack of guidelines for commercial development	

What would you like to see changed?

Some more improved roads	Less litter
More trails and environmental walks	More businesses on Route 55
No more strip malls	Our own school system
Tax break for the disabled	Limit building Bike paths
Lowered speed limits	More cohesive planning
More commercial zoning	A newer grocery store
More restrictive zoning	More land in land conservancy
Rezoning to larger plots	Reduced lot size

What would you not want changed?

- Let's not lose our rural atmosphere
- Volunteer fire department
- Character of town
- No cluster developments
- The park
- Current lot sizes
- Keep as many farms as possible

Miscellaneous Survey Comments

AM 6/18/00 (no backup surveys)	
Keep Firehouse as is	2
ES 6/18/00 (no backup)	
No street lights	1
Concerned about lyme disease	2
Wants own town Police force	1
Concerned about gun clubs	1
Park free for residents	2
Knowing my neighbors	1
Need volunteers	1
Bike and hiking paths	1
More family activities (but only for churchgoers)	1
JSS 6/18/00 (no backup)	
Concern that Town Board favors developers	1
Egress/ingress to Oakbrook Meadows	1
Increase involvement in local government	1
Maintain clove Valley	1
Likes new golf course	1
concern w/residents maintain property	1
Concern w/business conducted from homes	1
Wants updated playground equipment	1
Do away with variances	1
Likes Volunteer Fire Dept.	1
Wants own school system	1
Wants more housing so taxes would be lowered	1
Concern about one party government	1
Increase zoning for light industrial, retail	1
Wants more mixed use zoning	1
Wants UV Post Office	2
PCJ 1/5/00 (with backup)	9
Need local bank	1
Halt McMansion	1
Keep out chain stores	1
Inform community and increase involvement	1
Open spaces through Dutchess Land Conservancy	
Work with "Farmland Protection Board" to save Marshall and Andrews Farms	
Make more areas 5 acre zoning and use cluster housing	1
Would like to see Town Board on the side of resident homeowners instead of housing developers	
Now that it is there, would like Oakbrook Meadows to have at least one more entrance/exit	

DKS 6/18/00 (incomplete backup)	
New golf course	
Strick (***) zoning	1
Own school	1
SKM 6/14/00 (complete backup)	14
Like Tymor Park	9
911 Response time	1
Roaming dogs	1
Tymor as "Town Center"	1
3 acre zoning	1
3 acre zoning – return to good old days (***)	1
Like people in town	1
SK 6/14/00 (incomplete backup)	21
no miscellaneous	
WTN 6/14/00 (complete backup)	19
No more traffic lights	1
Water supply and septic systems	1
Wetlands and water supply	1
Control off-road vehicles	1
Allow "Village" style zoning	1
The Constables	1
Historical Society	1
AFK 6/14/00 (complete backup)	14
Inform Town	1
Recreation business for Town owned property	1
Airport enforcement	1
Compost program	1
No streetlights	2
Don't rush to sell Town owned property – hold out for big bucks	1
PH 6/14/00 (complete backup)	18
Open Town Gov	1
5 acre zoning	3
Love the Park	6
Like recycle	1
Like golf course	1
Community day events	2
Concern lyme disease	2
Street lights	1
Garbage pick up	1
Scenic road	1
Bulk pick up	1

DC 6/14/00 (incomplete backup)	26
Band shell in (Verbank) on green or in park	1
Move Town Garage out of Clove	1
Rec fee too high	1
No street lights	1
Sr. housing	1
1% transfer tax to fund land trust	1
No industry	2
Hospital needed nearby	1
No compressor	2
Do away w/variances	1
Tax relief for Vets	1
Compensate Town Super = to park manager	1
Town Board lack of effort in selling Rte 55 property	1
LA 6/18/00 (1 extra backup)	41
Likes Tymor	12
Library	1
Band Shell in Verbank	1
School system	1
1% transfer tax to fund land trust	1
3 acre zoning	1
3 acre zoning – return to good old days (***)	1
5 acre zoning	3
911 Response time	1
Airport enforcement	1
Allow “Village” style zoning	1
Band shell in (Verbank) on green or in park	2
Bike and hiking paths	1
Bulk pick up	1
Community day events	2
Compensate Town Super = to park manager	1
Compost program	1
Concern about one party government	1
Concern lyme disease	4
Concern that Town board favors developers	1
Concern w/business conducted from homes	1
Concern w/residents maintain property	1
Concerned about gun clubs	1
Control off-road vehicles	1
Do away w/variances	2
Don’t rush to sell Town owned property – hold out for big bucks	1
Egress/ingress to Oakbrook Meadows	1
Garbage pick up	1
Halt McMansion	1
Historical Society	1
Hospital needed nearby	1
Increase involvement in local government	1

Increase zoning for light industrial, retail	1
Inform community and increase involvement	1
Inform Town	1
Keep Firehouse as is	2
Keep out chain stores	1
Knowing my neighbors	1
Library	1
Like golf course	1
Like people in town	1
Like recycle	1
Like Tymor Park	21
Likes new golf course	1
Likes Volunteer Fire Dept.	1
Love the Park	6
Maintain clove Valley	1
Make more areas 5 acre zoning and use cluster housing	1
More family activities (but only for churchgoers)	1
Move Town Garage out of Clove	1
Need local bank	1
Need volunteers	1
New golf course	
No compressor	2
No industry	2
no miscellaneous	
No more traffic lights	1
No streetlights	4
Now that it is there, would like Oakbrook Meadows to have at least one more entrance/exit	1
Open spaces through Dutchess Land Conservancy	
Open Town Gov	1
Own school	1
Park free for residents	2
Rec fee too high	1
Recreation business for Town owned property	1
Roaming dogs	1
Scenic road	1
School system	1
Sr. housing	1
Street lights	1
Strick (***) zoning	1
Tax relief for Vets	1
The Constables	1
Town Board lack of effort in selling Rte 55 property	1
Tymor as "Town Center"	1
Wants more housing so taxes would be lowered	1
Wants more mixed use zoning	1
Wants own school system	1
Wants own Town Police force	1

Wants updated playground equipment	1
Wants UV Post Office	2
Water supply and septic systems	1
Wetlands and water supply	1
Work with "Farmland Protection Board" to save Marshall and Andrews Farms	
Would like to see Town Board on the side of resident homeowners instead of housing developers	

Appendix III

Public Meeting Comments January 16, 2001

Discussion Topics

A. QUALITY OF LIFE

1. What do you like most about living in this community?
2. What changes would you like to see in the future?
3. What is the general quality of local services?

B. PRESERVATION OF OPEN SPACES/RURAL CHARACTER

1. What factors will shape the future of the community over the next 10-25 years?
2. What changes would you prefer to see?
3. Where are the best locations for agricultural, commercial, industrial, residential growth and for open space preservation and outdoor recreation to occur, and does the Town need to address changes in its land use regulations?
4. What incentives are needed to help protect remaining open space?

C. COMMUNITY DEVELOPMENT

1. What does development mean to you?
2. What are appropriate types of commercial and residential development?
3. What opportunities should the community be seeking to bolster economic development and /or protect open space?

Group # 2

COMMENTS ON QUALITY OF LIFE

- | | |
|---------------------------------------|---|
| - Quiet rural area | - Learn from other towns |
| - Bucolic | - Dump - more to be covered |
| - Not much commercial | - 2 acre vs. cluster housing |
| - Friendly | - Not sure cluster housing good |
| - Mixed socio-economic | - Acquire land - A land conservancy |
| - Rolling Hills | - More - don't want to see change |
| - Open Space | - Have builders keep aesthetics |
| - Lack of congestion | - Trails? |
| - Moderate traffic | - Bike path? |
| - Good fire coverage | - Need to keep today's style |
| - Park (give back to town people) | i.e. Barnstable MA |
| - Park good for kids | - Roads fantastic |
| - Object to people of Green Haven | - Park - good job with kids |
| kids using park | - Police - no concern |
| - Question about who cleans park | - Elderly pick up service - Question |
| - Closeness of new school to property | need at this time (town pays county) |
| lines - 90' from property | - More services for seniors |
| - Neighborhood petition to move | - Lack of town center |
| middle school - from proposed site | - Loss of tax base with school building |
| - Water problem - 18,000 gallons per | - A community center without strip |
| day for school kids | mall |
| - Asking schools to be cooperative | - Septic - golf course and school |
| - Nice to have services using closer | - School - create septic problem for |
| - Have limited commercial | aquifer |

Group # 2

COMMENTS ON PRESERVATION OF OPEN SPACE / RURAL CHARACTER

- 1) Iroquois gasoline threat
Development generally
i.e. residential
Rod and gun club - what is land protection?
3 rod and gun clubs - protect land
Fisher Forrest Act 80% + break
Homestead/Non-homestead
Vacant land pays more - not fair
Arlington School District
Incentive to sell land
- 2) No change
Trial system? -LaGrange opposed
- Question of liability
Waterbury Hill _____ problem
Pay taxes on property others use
Easement came with property
Trails - an unresolved issue
- 3) Agricultural gone/disappearing less than on map
Need to keep as open space
Only agriculture - dairy
Airport/Industrial - illegal zoning
No new industrial
Along 55 - only place for commercial
Community commercial
Increase acreage for zoning
- 4) Stricter land use/zoning
Buy development rights
Land conservancy used to protect land

COMMENTS ON COMMUNITY DEVELOPMENT

- 1) Traffic/noise
Pollution
Crime
More infrastructure
More fire coverage
Shortage of volunteer fireman
Volunteer/paid services
Services evaluated/upgraded
Need for sheriff substation
More use of town park
Park and who uses it - an issue
- 2) % Of town for open space/natural
% Of town for residential
% Of town for commercial
% Of town for light industrial
Only commercial on 55
Commercial must be designed in good taste
Building code - only design in certain ways
Architectural review (e.g. Hyde Park)
- 3) Not bolster economic development
Protect open space
Stipulate that developers keep (20%) in green space
Strict regulation
Use zoning
Control the growth
Find successful towns - copy them
Homeowner's association
Make it difficult for builders
Development - pushing property values up
Not want to look like Westchester
Developments - going in - ugly
Protect natural environment as development occurs
Road system - need upgrading to support development
Bridges being redone
Wider roads- speeding motorcycles
Designate roads scenic

Group # 3
COMMENTS ON QUALITY OF LIFE

1) Likes

Low taxes
Rural area (large land)
Feel of town
Open spaces
Lack of traffic
Lights and low traffic
7% growth - a lot of traffic increase
No major thoroughfares
Semi-rural
Access to the country
Quality of schools
Safety of people
Walking (physical safety)
Open spaces
Tymor park
Recreation (facilities)
i.e. hiking trails
Access to cultural activities
Farms (would like these to stay)

Growth

Changes

Growth may bring in infrastructure
i.e. may be sewage and water system

Town library

Safety

Police dept presence

Only one constable

Visual

Trash being dumped on side of streets

Example: School (new) - control what
goes around it in a consistent manner

Limited signage

Neon - to maintain rural character

Willing to pay reasonable increases in
taxes

Commercial development in relation to
the residential development

No additional commercial development
except Routes 55 and 82 corridor

No heavy industry

Drainage problem on town roads

Control of radio (CB) cell towers

Concerns (dislikes)

COMMENTS ON PRESERVATION OF OPEN SPACE / RURAL CHARACTER

1) Larger parcels for residential cluster
housing

Aquifer/water availability

Up the zoning in S-W corner (R 100)

Larger acreage - up zoning to control
development

Sales tax 0.25%/property tax to save open
spaces

Cluster development/open space

Incentives acceptable to maintain open
spaces (sales tax, transfer tax etc.)

Do Not Want

Do not want environmentally insensitive
business (ground water contamination)

Commercial development with byproduct
(oil etc)

No industrial development

No soil mining

Commercial lighting to conform to rural
character

Street light at Wisseman and Route 55 to
light up the intersection

Group # 3
COMMENTS ON COMMUNITY DEVELOPMENT

Gun clubs dilemma
Development rights/state-county
matching funds
Correlate potential development with
water availability
View shed preservation
Code enforcement
Manpower for code enforcement to be
provided
Scenic road
Speeds control
Road width
Bike paths on roads
Address:
 Volunteer opportunity in town
 Architectural Review
 Parking in back (Greenway)
 Recreational facilities with the rock
 climbing facility
Reduce external use of pool and facilities
as population grows

Group # 5
COMMENTS ON QUALITY OF LIFE

1) Openness

Openness of the people
Trees and wildlife
Openness and topography
Rural
Openness feeling
Stars no ambient light
Low traffic/good golf course

2) Changes you'd like to see?

Lower density
See development that optimizes open space
Work with developers to get well planned development proposals
As brought by developers
Development that is more focused
"I believe in Stagnation"
Town to do something creative, take risks to preserve open space.
Consider land banking, lower land taxes
"Love to up zone" larger lot sizes
Combination private/public Investment
Historic structures that could be part of land banking venture
Architectural review standards on commercial proposals, offices, Routes 82 and 55 in particular
Town running well now, Halt everything to keep it as it is now
Avoid cookie cutter houses
Setbacks sometimes create rigidity to development response
Lack of concern for trees in housing developments

3) Quality of services

Likes roads as they are now
Elevation important in town, needs to be taken into account in planning.
i.e. Development around airport
Deeds restrictions for lands around airports, city of Elmira
Concern for litter
Consider planned village/community commercial center
Clove Valley Road Example
Traffic improvement remove kink, now people go too fast
Now need to lower speed limit therefore
Keep roads curvy to control speed

Group # 5

COMMENTS ON PRESERVATION OF OPEN SPACE/ RURAL CHARACTER

- 1) More populations
More people on roads
- 2) Bike trail next to house trail
Restrict motorized vehicles on public trails and open space
Improve enforcement of trespassing primarily hunters
Promote commercial use of old town hall site by one sole tenant
 Encourage controlled commercial development in a plaza or central location, contained, village concept of commercial development
- 3) Pharmacy, restaurants, doctors offices, child care
Provisions to encourage development proposals with viable marketing plan
Minimum lot size should be 3 acres with intent to keep more open character
ID large lots in jeopardy of development talk to these people
Develop an open space plan for town to be used as tool to protect as resource
Protect valleys and slopes, the clove and gentle rolling old farms
Lands indicated as vacant are moving towards sale for development
Are current codes and standards adequate and being enforced for water quality and sanitary

COMMENTS ON COMMUNITY DEVELOPMENT

- 1) Development means
Expansion of airport and surrounding lands has been and will be positive for town. Has +’s and -’s
 i.e. noise...
Negative aspects of major housing development moving up the valley
- 2) Small, innocuous businesses are appropriate000
Encourage small at home, professional offices, day care, and cottage industries
- 3) Opportunities to bolster town facilities well managed now
If tax base is static it becomes problematic because costs will continue to go up
Encourage development of life care facilities as growth opportunity
Promote economic development by targeted advertising.

Group # 7
COMMENTS ON QUALITY OF LIFE

- 1.) Likes
Views, open space, history, streams, rural aspects, forests, farm fields,
Enjoyed the town's atmosphere from 40 years ago, good schools, rural atmosphere
Changes:
Like to see more control of development to slow growth and preserve character
Balance between development and rural preservation
 Pedestrian space (horses too) along roads - wider roads - extra space could be
 used for snow
 Public areas or parks could be established closer to higher density residential
 areas-Lots of open space much of which is private or restricted
Create a trail system that interconnects neighborhoods
- 3) Deer Control would be nice
Appreciate the limited services such as no street lights, no garbage pick up, these add to
rural character
Local services seem adequate

COMMENTS ON PRESERVATION OF OPEN SPACE/ RURAL CHARACTER

- 1) Hunt clubs are important to town's character
Should protect aquifers and water
Land prices - affordability of housing
- 2) Trails – connections to open space
 Bikeway connecting mountain road
 Preservation of ridgelines and view sheds
 Limit cell towers
- 3) No need for big box retail
 Grocery store needed (on 55)
 Gas station needed / not needed
 Route 55 commercial corridor
 Services near east side of 55 and 21 – small or light commercial near new school and
 transfer station
 Width of commercial zone - west to town line/east 1500-2000 ft.
New development should fit rural character
 No street lights/parking lot lights after 11pm – limit “light pollution”
Commercial corridor along east side of 21 (1000 ft of space) (near school)
 Light commercial that meets needs of town's population rather than acting as a
 regional draw – doctor's offices, grocery, gas station, etc...
Verbank could be tastefully added to – (pedestrian improvements to rail line corridor

Group # 7

COMMENTS ON PRESERVATION OF OPEN SPACE / RURAL CHARACTER

- 2.) Developers could donate trails/land rather than money to town when constructing new developments
 - Cluster housing rather than typical large lot development
 - Residents could be given incentives like tax breaks for preserving open space
 - The tax situation on Baptist property some feel is unfair
 - Trading land for development bonuses

COMMENTS ON COMMUNITY DEVELOPMENT

- 1.) Consider effects on water – streams, aquifers, drainage, sewer/septic, drinking water
 - Accommodate some development but make sure it's architecturally sensitive – colonial or farm design guidelines
 - Mix of housing types – expensive and affordable
 - Limit impervious surfaces to control drainage issues
 - Development increases traffic congestion and related issues – speed
 - Small appropriate retail will lessen number of auto trips
 - Control traffic – improve police coverage, (particularly at traffic circle), keep roads narrow
 - Investigate why zoning isn't strictly enforced
 - Create incentives
 - Planning department and board should use this option - conservation density subdivision more. The law is on the books – Barmoor Road Town line and Route 82 East Mountain are good examples of its use
 - Economic Development – along Route 55, golf and airport
 - How do we pay for open space?
 - Sales tax
 - Real estate transfer tax – at county level
 - The problem with a countywide tax is that some communities get more than others
 - Need to keep open space funds local

Group # 8

COMMENTS ON QUALITY OF LIFE

1) Like in your Community

Rural atmosphere

Neighborhood community

Consistency in zoning and accountability

Changes in the Community

Highway needs a strong boost (maintenance)

Accountability of the Highway Department

Safety in the community

Police protection

Increased highway services

Create an atmosphere that attracts small local business

Provide jobs to maintain the quality of life that is affordable to live here

COMMENTS ON PRESERVATION OF OPEN SPACE / RURAL CHARACTER

Consistency in zoning

Traffic levels now are reasonable

Do not care for clustering

Resulting in smaller lots and narrow road frontages

Taxing inequity from clustering as well

Commercial – Route 82 and 55

Small service oriented

Like large lot zoning

Like deed restrictions as means to control

15 acre lot or larger

COMMENTS ON COMMUNITY DEVELOPMENT

Higher taxes

Increased population in schools

Increased road traffic

Preserve open space

Regulating development

Do not want big box stores

Slow growth development

Tax incentives to small businesses

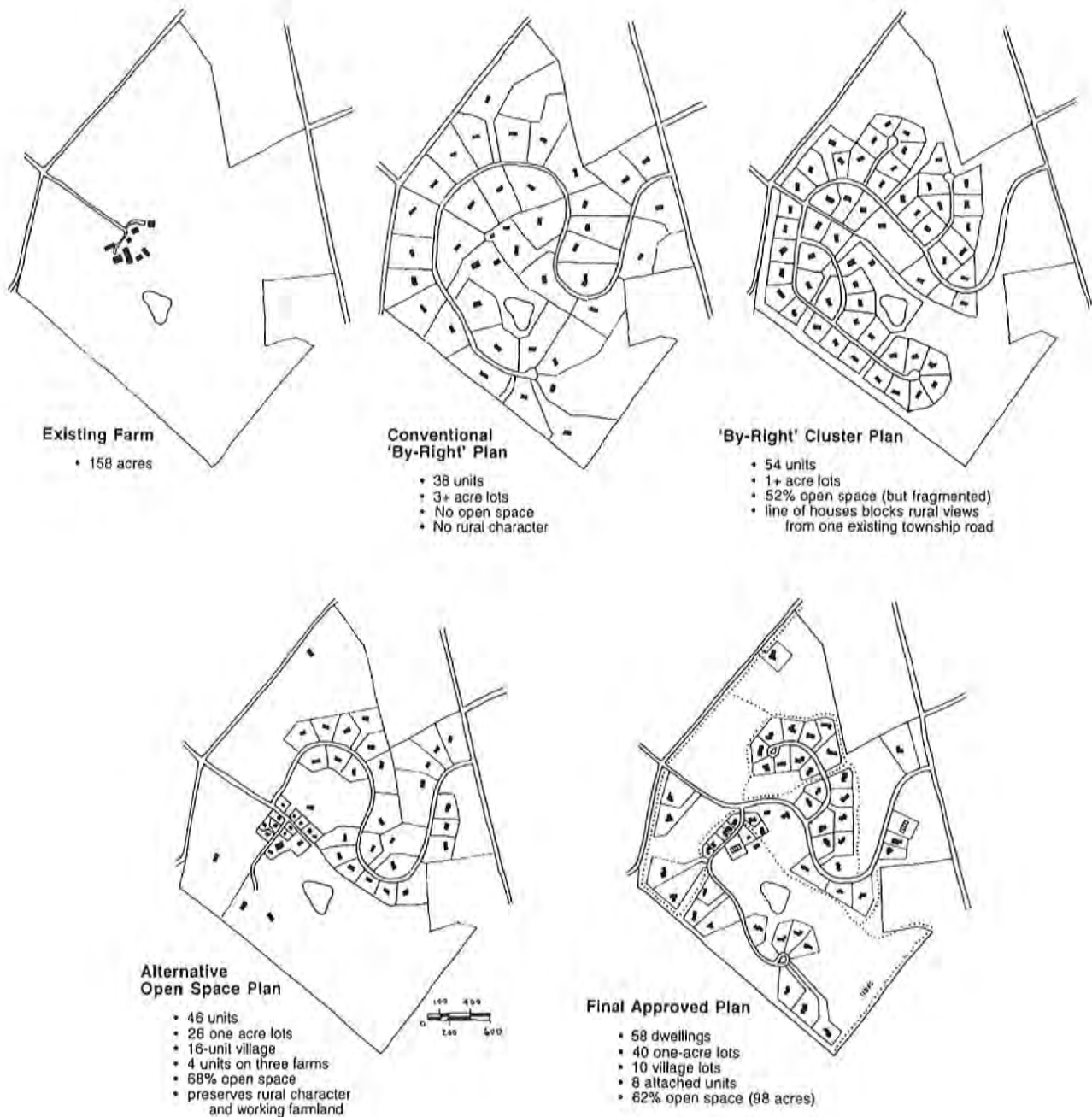
Establish a farmers market / co-op

Increased need for small local business

Internet access for high-speed dial-up service to better service local business – regulation by town to cable company

Appendix IV Sample Cluster and Open Space Site Plans

Source: Arendt, Randall, *Rural By Design*, APA Planners Press, Chicago, IL. 1994, pg. 227.



Source: Arendt, Randall, Rural By Design, APA Planner Press, Chicago, IL. 1994, pg. 239..



Figure 14-6. These three sketches, prepared by the Montgomery County (Pennsylvania) Planning Department, show a rural neighborhood and two alternative future scenarios. One is to become blanketed with wall-to-wall subdivisions, each consisting of a checkerboard of houselots and streets. Another is to preserve large blocks of land, with many open spaces adjoining one another, through cluster designs on each parcel. Source: Prepared by Montgomery County Planning Commission, October, 1990.

Appendix V Sample Design Guidelines

TRADITIONAL NEIGHBORHOOD DEVELOPMENT (TND)

Source: City of Belmont, North Carolina website www.ci.belmont.nc.us/tnd.html

[Intent](#)

[Development Provisions](#)

[General Design Standards and Provisions](#)

[Public Design Standards and Provisions](#)

[Civic Design Standards and Provisions](#)

[Shopfront Design Standards and Provisions](#)

[Attached Home Design Standards and Provisions](#)

[Detached Home Design Standards and Provisions](#)

[Business Design Standards and Provisions](#)

[Architectural Standards](#)

[Example of a Rural TND](#) [Example of a Urban TND](#)

4.11.1 INTENT

The purpose of this district is to allow for the development of fully integrated, mixed-use pedestrian oriented neighborhoods. The intent is to minimize traffic congestion, suburban sprawl, infrastructure costs, and environmental degradation. Its provisions adapt urban conventions which were normal in the United States from colonial times until the 1940's and historically were based on the following design principles:

- All neighborhoods have identifiable centers and edges
- Edge lots are readily accessible to retail and recreation by non-vehicular means (a distance not greater than 1/4 mile)
- Uses and housing types are mixed and in close proximity to one another
- Street networks are interconnected and blocks are small
- Civic buildings are given prominent sites throughout the neighborhood

4.11.2 DEVELOPMENT PROVISIONS

Minimum Development Size: 40 acres

Maximum Size: 200 acres (Tracts larger than 200 acres shall be developed as multiple Traditional Neighborhood Developments, each individually subject to all such provisions.

Maximum permitted densities and total number of dwelling units shall be established during the site-plan review process. All TN development shall follow the preliminary and final plat procedures listed in the Belmont Subdivision Ordinance.

4.11.3 GENERAL DESIGN STANDARDS AND PROVISIONS

A. USE

- The entire land area of the TND shall be divided into blocks, streets, and lots and optional natural or greenbelt areas
- Similar land categories shall generally enfront across streets. Dissimilar categories shall abut at rear lot lines. Corner lots which front on streets of dissimilar use shall be set back the same as the adjacent use with the lesser setback
- Large-scale, single use (conference spaces, theaters, athletic facilities, etc.) shall occur behind or above habitable street front space

- Uses permitted with conditions are uses which generate Significant Impacts on City and/or State services and infrastructure; Essential Services class 1, 2, and 3; and Service Stations, Garages, and Fast Food Franchises. See Chapter 5 for provisions
- Prohibited uses: Any commercial use which encourages patrons to remain in their automobiles while receiving goods or services, except service stations; chemical manufacturing, storage or distribution as a primary use; enameling, painting or plating, except artist's studios; outdoor advertising or billboard as a principle use; carting, moving, or hauling terminal or yard; prisons, detention centers, or half-way houses; manufacturing, storage, or disposal of hazardous waste materials; scrap yards; mobile homes; kennels; sand, gravel, or other mineral extraction; and any use which produces the following adverse impacts: noise at a level greater than typical street or traffic noise, offensive vibration, emission of noxious solids, liquids, or gases
- Accessory structures may be used for rental housing on attached and detached home lots
- All uses shall be conducted within complete enclosed buildings unless otherwise specified
- Fences and Walls shall adhere to the provisions of Chapter 3 Section 3.4, unless otherwise specified in this Section

B. LOTS and BUILDINGS

- All lots shall share a frontage line with a street or square
- All buildings, except accessory structures, shall have their main entrance opening onto a street or square
- Stoops, open colonnades, and open porches may encroach up to 12 feet into front setbacks

C. STREETS and ALLEYS

- Streets shall provide access to all tracts and lots
- All streets and alleys shall terminate at other streets within the neighborhood and connect to existing and projected through streets outside the development
- There shall generally be a continuous network of alleys to the rear of lots within the TND
- The average perimeter of all blocks within the TND shall not exceed 1,350 feet. No block face shall have a length greater than 500 feet without a dedicated alley or pathway providing through access
- Utilities shall run along alleys wherever possible
- If provided, street lamps shall be installed on both sides of the street no less than 100 feet apart
- Rights-of-way and streets are encouraged to differ in dimension and each street shall be separately detailed (See Section 4.6 in the Belmont Subdivision Ordinance)
- Steady and even build-to lines shall be established along all streets and public space frontages, determining the width desired for each street or public space. A minimum percentage build-out at the build-to line shall be established along all streets and public square frontages
- The long axis of the street shall have appropriate termination with either a public monument, specifically designed building facade, or a gateway to the ensuing space

D. PARKING

- Parking lots shall generally be located at the rear or at the side of buildings and shall be screened from the sidewalk by low walls, fences or hedges
- Parking lots and parking garages shall not abut street intersections or civic buildings, be adjacent to squares or parks, or occupy lots which terminate a vista
- Primary street frontages shall have no vehicular entries, for properties with another street frontage. Properties with a single-frontage on a primary street shall be limited to a maximum of two single lane-width vehicular entries separated by a minimum of twenty feet
- Adjacent parking lots shall have vehicular connections via an alley or internally
- On-street parking directly enfronting shall count toward fulfilling the parking requirement of that lot. One parking space credit shall be given for every space in front of the lot that is over 50% of the length of the parking space

E. LANDSCAPING

- Trees shall be planted within right-of-ways parallel to the street along all streets. (Exception: alleys)
- Tree spacing shall be determined by species type. Large maturing trees shall be planted a minimum of 40 feet and a maximum of 50 feet on center. Small and medium maturing trees shall be planted a minimum of 10 feet and a maximum of 30 feet on center
- Large maturing trees, such as willow oaks, tulip poplars, and american beech shall generally be planted along residential streets and along the street frontages and perimeter areas of parks, squares, greenbelts, and civic structures
- Small maturing trees such as flowering dogwoods, crepe myrtles and aristocrat pears shall generally be planted along non-residential streets, interior portions of parks, squares, greenbelts, and civic lots
- Plantings in immediate proximity to buildings in front and side yards shall respect architectural lines (should be seen as extension of architectural walls)
- Plantings toward the street shall respect the integrity of the street by not obscuring important buildings and respecting views to and from streets, porches, walks, and public open spaces
- Existing trees 18" in caliper or greater may count towards all tree requirements. All such trees not within a drive or building footprint after grading may not be cut without permission from the Zoning Officer
- All plantings shall installed free from disease in a manner that ensures the availability of sufficient soil and water for healthy growth, and which is not intrusive to underground utilities

4.11.4 PUBLIC DESIGN STANDARDS AND PROVISIONS

A. USE

- Land designated for public use shall consist of the following: parks, squares, greenbelts, streets and alleys
- Public use tracts may contain civic use lots
- Large scale recreational uses such as golf courses and multiple game fields shall be located on the perimeter of neighborhoods (i.e. within a greenbelt)
- A minimum of 5% of the gross area of the neighborhood, or two acres, whichever is greater, shall be permanently allocated to squares or parks
- Each neighborhood shall contain as its central focus, at least one square or park no smaller than 1 acre, and no greater than 3 acres. This square shall be within 600 ft of the geographic center of the neighborhood
- Neighborhoods along waterfronts shall provide park and square requirements along the waterfront
- Squares, parks, and other natural amenities shall have at least 75% of their perimeter abutting street rights-of-way. Golf courses shall have at least 30% of their perimeter abutting street rights-of-way
- The remaining public use area shall be divided at least into thirds and distributed such that no portion of the TN-D is further than 600 ft from a park or square

B. LOTS and BUILDINGS

- Balconies shall be permitted to encroach up to 8 ft into a public use tract
- All lots share a frontage line with a street or square. All buildings shall have their main entrance opening to a street or square (except accessory structures)
- Similar building massing and uses at ground level shall front a street, park, or square

C. STREETS and ALLEYS

- Alleys shall not form the boundary of a park, square, or greenbelt unless a wall a minimum of 6 feet in height is used for separation

D. PARKING

- The developer shall demonstrate the provision of adequate parking for public use tracts containing squares and parks. Shared parking shall be encouraged
- Parking lots on public use tracts shall be graded, compacted, and landscaped, but may be left unpaved

E. LANDSCAPING

- Streets fronting parkways shall at a minimum have trees planted on the developed side of the street
- Streets in developed areas shall not have a planted area forming a continuous band between the curb and the sidewalk
- Streets in less developed areas (with frontage setbacks) shall have a continuous band of plantings between the curb and the sidewalk. Streets abutting open spaces shall conform to the surrounding sidewalk treatment
- Greenbelts shall be left natural. Fronting ROW's shall require no plantings or landscaping

4.11.5 CIVIC DESIGN STANDARDS AND PROVISIONS

A. USE

- Land designated for civic use shall contain but not be limited to the following: community buildings including meeting halls, libraries, post offices, schools, child care centers, clubhouses, religious buildings, recreational facilities, museums, performing art buildings, and municipal buildings
- A minimum of 2% of the gross area of the neighborhood shall be designated for civic use lots
- Civic lots shall be within or adjacent to a square or park or on a lot terminating a street vista

B. LOTS and BUILDINGS

- Civic use buildings shall be not be subject to setback limitations

C. STREETS and ALLEYS

- The long axis of the street shall have appropriate termination with either a public monument, specifically designed building facade, or a gateway to the ensuing space

D. PARKING

- The developer shall demonstrate the provision of adequate parking for the various types of civic uses. Shared parking shall be encouraged
- Civic use lots within public use tract may count on-street parking fronting the public use tract toward its parking requirements
- Off-street parking for civic uses shall occur at the rear or side of the building

E. LANDSCAPING

- Parking lots shall conform to Section 3.7.8 (B)
- Utility, storage, and loading areas shall conform to Section 3.7.8 (C)
- Interior plantings shall respect vistas and building lines

4.11.6 SHOPFRONT DESIGN STANDARDS AND PROVISIONS

A. USE

- Land designated as shopfront use shall contain residential and commercial uses
- At least 50% of the building area shall be designated for residential use
- Residential uses are not permitted on the ground floors of shopfront buildings
- A minimum of 2% and a maximum of 30% of the gross area of a neighborhood shall be designated for shopfronts

B. LOTS and BUILDINGS

- Buildings on shopfront lots shall have the facade built directly on the build-to line along at least 70% of its length. The unbuilt portion of the build-to line shall have a street wall directly upon it
- Buildings on shopfront lots shall have no setback from at least one side lot line
- Buildings on shopfront lots shall cover no more than 60% of the lot area
- The maximum height shall be 35 feet
- The minimum height shall be 26 feet

E. LANDSCAPING

- Streets fronting parkways shall at a minimum have trees planted on the developed side of the street
- Streets in developed areas shall not have a planted area forming a continuous band between the curb and the sidewalk
- Streets in less developed areas (with frontage setbacks) shall have a continuous band of plantings between the curb and the sidewalk. Streets abutting open spaces shall conform to the surrounding sidewalk treatment
- Greenbelts shall be left natural. Fronting ROW's shall require no plantings or landscaping

4.11.5 CIVIC DESIGN STANDARDS AND PROVISIONS

A. USE

- Land designated for civic use shall contain but not be limited to the following: community buildings including meeting halls, libraries, post offices, schools, child care centers, clubhouses, religious buildings, recreational facilities, museums, performing art buildings, and municipal buildings
- A minimum of 2% of the gross area of the neighborhood shall be designated for civic use lots
- Civic lots shall be within or adjacent to a square or park or on a lot terminating a street vista

B. LOTS and BUILDINGS

- Civic use buildings shall be not be subject to setback limitations

C. STREETS and ALLEYS

- The long axis of the street shall have appropriate termination with either a public monument, specifically designed building facade, or a gateway to the ensuing space

D. PARKING

- The developer shall demonstrate the provision of adequate parking for the various types of civic uses. Shared parking shall be encouraged
- Civic use lots within public use tract may count on-street parking fronting the public use tract toward its parking requirements
- Off-street parking for civic uses shall occur at the rear or side of the building

E. LANDSCAPING

- Parking lots shall conform to Section 3.7.8 (B)
- Utility, storage, and loading areas shall conform to Section 3.7.8 (C)
- Interior plantings shall respect vistas and building lines

4.11.6 SHOPFRONT DESIGN STANDARDS AND PROVISIONS

A. USE

- Land designated as shopfront use shall contain residential and commercial uses
- At least 50% of the building area shall be designated for residential use
- Residential uses are not permitted on the ground floors of shopfront buildings
- A minimum of 2% and a maximum of 30% of the gross area of a neighborhood shall be designated for shopfronts

B. LOTS and BUILDINGS

- Buildings on shopfront lots shall have the facade built directly on the build-to line along at least 70% of its length. The unbuilt portion of the build-to line shall have a street wall directly upon it
- Buildings on shopfront lots shall have no setback from at least one side lot line
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- The maximum height shall be 35 feet
- The minimum height shall be 26 feet

E. LANDSCAPING

- Streets fronting parkways shall at a minimum have trees planted on the developed side of the street
- Streets in developed areas shall not have a planted area forming a continuous band between the curb and the sidewalk
- Streets in less developed areas (with frontage setbacks) shall have a continuous band of plantings between the curb and the sidewalk. Streets abutting open spaces shall conform to the surrounding sidewalk treatment
- Greenbelts shall be left natural. Fronting ROW's shall require no plantings or landscaping

4.11.5 CIVIC DESIGN STANDARDS AND PROVISIONS

A. USE

- Land designated for civic use shall contain but not be limited to the following: community buildings including meeting halls, libraries, post offices, schools, child care centers, clubhouses, religious buildings, recreational facilities, museums, performing art buildings, and municipal buildings
- A minimum of 2% of the gross area of the neighborhood shall be designated for civic use lots
- Civic lots shall be within or adjacent to a square or park or on a lot terminating a street vista

B. LOTS and BUILDINGS

- Civic use buildings shall be not be subject to setback limitations

C. STREETS and ALLEYS

- The long axis of the street shall have appropriate termination with either a public monument, specifically designed building facade, or a gateway to the ensuing space

D. PARKING

- The developer shall demonstrate the provision of adequate parking for the various types of civic uses. Shared parking shall be encouraged
- Civic use lots within public use tract may count on-street parking fronting the public use tract toward its parking requirements
- Off-street parking for civic uses shall occur at the rear or side of the building

E. LANDSCAPING

- Parking lots shall conform to Section 3.7.8 (B)
- Utility, storage, and loading areas shall conform to Section 3.7.8 (C)
- Interior plantings shall respect vistas and building lines

4.11.6 SHOPFRONT DESIGN STANDARDS AND PROVISIONS

A. USE

- Land designated as shopfront use shall contain residential and commercial uses
- At least 50% of the building area shall be designated for residential use
- Residential uses are not permitted on the ground floors of shopfront buildings
- A minimum of 2% and a maximum of 30% of the gross area of a neighborhood shall be designated for shopfronts

B. LOTS and BUILDINGS

- Buildings on shopfront lots shall have the facade built directly on the build-to line along at least 70% of its length. The unbuilt portion of the build-to line shall have a street wall directly upon it
- Buildings on shopfront lots shall have no setback from at least one side lot line
- Buildings on shopfront lots shall cover no more than 60% of the lot area
- The maximum height shall be 35 feet
- The minimum height shall be 26 feet

C. STREETS and ALLEYS

- Shopfronts shall have their rear lot lines coinciding with an alley at least 24 feet containing a vehicular pavement width of at least 10 feet
- Shopfront lots shall enfront on streets with a maximum right-of-way of 65 feet consisting of at least two 12 foot travel lanes, 8 foot parallel parking on both sides, and 12 foot sidewalks. Curb radius shall not exceed 10 feet

D. PARKING

- No less than 75% of the parking places shall be to the rear of the building. Access may be through the frontage only if the alley entrance providing access is not within 200 feet of the lot
- For shopfronts and workplaces, on-street parking directly enfronting a lot shall count toward fulfilling the parking requirement
- All shopfront and workplace streets shall have parallel or diagonal parking on street
- The required number of parking spaces may be reduced by demonstrating the possibility of shared parking
- The parking requirements may be suspended for select retail uses of 2,000 square feet or less, that portion of restaurant setting which is outdoors and adjacent to the street, for daycare, or for other uses which require encouragement
- There shall one parking space per 300 square feet of building space for non-residential uses, and one per room of lodging, and per 2 bedrooms of residential use

E. LANDSCAPING

- Parking shall conform to Section 3.7.8 (B)
- Loading, storage, and utility areas shall conform to Section 3.7.8 (C)
- Sidewalks for shopfront lots shall not have a continuous band of plantings separating the curb from the sidewalk

4.11.7 ATTACHED (Multi Family) HOME DESIGN STANDARDS AND PROVISIONS

A. USE

- Land designated for attached home use shall contain buildings for residential use and limited commercial use, such as a coffee house, home occupation, or bed and breakfast
- An accessory building is permitted on each lot
- 100% of the building area above the ground floor shall be residential
- A minimum of 15% and a maximum of 30% of the gross area of the neighborhood shall be designated for attached houses (multi-family) and small lot (50 ft or less in width) detached houses

B. LOTS and BUILDINGS

- Buildings on attached home lots shall be setback between 0 and 15 feet from the frontage line, and frontage lines (except for corner lots) shall be constant for a street. Buildings at street intersections set be setback 0 feet from both frontage lines
- Buildings on attached home lots shall have no required setbacks from side lot lines
- Buildings on attached home lots shall cover no more than 50% of the lot area
- Building height shall not exceed 35 feet
- Buildings on attached home lots shall have a masonry wall, wood fence, or hedge between 3 and 5 feet tall built along the unbuilt portion of the frontage line

C. STREETS and ALLEYS

- Attached homes and small-lot detached homes shall have their rear lot lines coinciding with an alley 24 feet wide containing a vehicular pavement width of at least 10 feet

- Attached house lots shall enfront on streets with a maximum right-of-way of 50 feet consisting of at least two 10 foot travel lanes, 8 foot parallel parking on both sides, and 6 foot sidewalks. Curb radius shall not exceed 10 feet

D. PARKING

- All off-street parking places shall be to the rear of the building. Access shall be by an alley only
- There shall one parking space per 300 square feet of building space for non-residential uses, and one per room of lodging, and per 2 bedrooms of residential use

E. LANDSCAPING

- No tree 18" in caliper or greater may be removed unless it is located in a grading area, building footprint, or drive

4.11.8 DETACHED HOME DESIGN STANDARDS AND PROVISIONS

A. USE

- Land designated for detached home use shall contain buildings for residential uses, customary home occupational uses, and bed and breakfast inns
- An accessory building is permitted on each lot
- 100% of the building area above the ground floor shall be residential
- A maximum of 30% of the gross area of the neighborhood shall be designated for large-lot (50 feet or more in width) detached homes

B. LOTS and BUILDINGS

- Buildings on detached home lots shall be setback between 0 and 25 feet from the frontage line
- Buildings on detached home lots shall be setback from the side lot lines equivalent to no less than 20% of the width of the lot. The entire setback may be allocated to one side
- Buildings on detached home lots shall be setback no less than 30 feet from the rear lot line
- Buildings on detached home lots shall cover no more than 50% of the lot area
- Building height shall not exceed 35 feet
- Buildings on detached home lots shall have a masonry wall, wood fence, or hedge between 3 and 5 feet tall built along the unbuilt portion of the frontage line

C. STREETS and ALLEYS

- Detached home lots may have their rear lot lines coinciding with an alley 24 feet wide containing a vehicular pavement width of at least 10 feet
- Attached house lots shall enfront on streets with a maximum right-of-way of 40 feet consisting of at least two 10 foot travel lanes and 5 foot wide sidewalks. Curb radius shall not exceed 25 feet

D. PARKING

- All off-street parking places shall be to the side or the rear of the building. Where access is through the frontage, garages or carports shall be located a minimum of 20 feet behind the front facade
- There shall one parking space per 300 square feet of building space for non-residential uses, and one per room of lodging, and per 2 bedrooms of residential use

E. LANDSCAPING

- See the provisions of 3.11.7 (E) (1)

- Attached house lots shall enfront on streets with a maximum right-of-way of 50 feet consisting of at least two 10 foot travel lanes, 8 foot parallel parking on both sides, and 6 foot sidewalks. Curb radius shall not exceed 10 feet

D. PARKING

- All off-street parking places shall be to the rear of the building. Access shall be by an alley only
- There shall one parking space per 300 square feet of building space for non-residential uses, and one per room of lodging, and per 2 bedrooms of residential use

E. LANDSCAPING

- No tree 18" in caliper or greater may be removed unless it is located in a grading area, building footprint, or drive

4.11.8 DETACHED HOME DESIGN STANDARDS AND PROVISIONS

A. USE

- Land designated for detached home use shall contain buildings for residential uses, customary home occupational uses, and bed and breakfast inns
- An accessory building is permitted on each lot
- 100% of the building area above the ground floor shall be residential
- A maximum of 30% of the gross area of the neighborhood shall be designated for large-lot (50 feet or more in width) detached homes

B. LOTS and BUILDINGS

- Buildings on detached home lots shall be setback between 0 and 25 feet from the frontage line
- Buildings on detached home lots shall be setback from the side lot lines equivalent to no less than 20% of the width of the lot. The entire setback may be allocated to one side
- Buildings on detached home lots shall be setback no less than 30 feet from the rear lot line
- Buildings on detached home lots shall cover no more than 50% of the lot area
- Building height shall not exceed 35 feet
- Buildings on detached home lots shall have a masonry wall, wood fence, or hedge between 3 and 5 feet tall built along the unbuilt portion of the frontage line

C. STREETS and ALLEYS

- Detached home lots may have their rear lot lines coinciding with an alley 24 feet wide containing a vehicular pavement width of at least 10 feet
- Attached house lots shall enfront on streets with a maximum right-of-way of 40 feet consisting of at least two 10 foot travel lanes and 5 foot wide sidewalks. Curb radius shall not exceed 25 feet

D. PARKING

- All off-street parking places shall be to the side or the rear of the building. Where access is through the frontage, garages or carports shall be located a minimum of 20 feet behind the front facade
- There shall one parking space per 300 square feet of building space for non-residential uses, and one per room of lodging, and per 2 bedrooms of residential use

E. LANDSCAPING

- See the provisions of 3.11.7 (E) (1)

- Attached house lots shall enfront on streets with a maximum right-of-way of 50 feet consisting of at least two 10 foot travel lanes, 8 foot parallel parking on both sides, and 6 foot sidewalks. Curb radius shall not exceed 10 feet

D. PARKING

- All off-street parking places shall be to the rear of the building. Access shall be by an alley only
- There shall one parking space per 300 square feet of building space for non-residential uses, and one per room of lodging, and per 2 bedrooms of residential use

E. LANDSCAPING

- No tree 18" in caliper or greater may be removed unless it is located in a grading area, building footprint, or drive

4.11.8 DETACHED HOME DESIGN STANDARDS AND PROVISIONS

A. USE

- Land designated for detached home use shall contain buildings for residential uses, customary home occupational uses, and bed and breakfast inns
- An accessory building is permitted on each lot
- 100% of the building area above the ground floor shall be residential
- A maximum of 30% of the gross area of the neighborhood shall be designated for large-lot (50 feet or more in width) detached homes

B. LOTS and BUILDINGS

- Buildings on detached home lots shall be setback between 0 and 25 feet from the frontage line
- Buildings on detached home lots shall be setback from the side lot lines equivalent to no less than 20% of the width of the lot. The entire setback may be allocated to one side
- Buildings on detached home lots shall be setback no less than 30 feet from the rear lot line
- Buildings on detached home lots shall cover no more than 50% of the lot area
- Building height shall not exceed 35 feet
- Buildings on detached home lots shall have a masonry wall, wood fence, or hedge between 3 and 5 feet tall built along the unbuilt portion of the frontage line

C. STREETS and ALLEYS

- Detached home lots may have their rear lot lines coinciding with an alley 24 feet wide containing a vehicular pavement width of at least 10 feet
- Attached house lots shall enfront on streets with a maximum right-of-way of 40 feet consisting of at least two 10 foot travel lanes and 5 foot wide sidewalks. Curb radius shall not exceed 25 feet

D. PARKING

- All off-street parking places shall be to the side or the rear of the building. Where access is through the frontage, garages or carports shall be located a minimum of 20 feet behind the front facade
- There shall one parking space per 300 square feet of building space for non-residential uses, and one per room of lodging, and per 2 bedrooms of residential use

E. LANDSCAPING

- See the provisions of 3.11.7 (E) (1)

- Attached house lots shall enfront on streets with a maximum right-of-way of 50 feet consisting of at least two 10 foot travel lanes, 8 foot parallel parking on both sides, and 6 foot sidewalks. Curb radius shall not exceed 10 feet

D. PARKING

- All off-street parking places shall be to the rear of the building. Access shall be by an alley only
- There shall one parking space per 300 square feet of building space for non-residential uses, and one per room of lodging, and per 2 bedrooms of residential use

E. LANDSCAPING

- No tree 18" in caliper or greater may be removed unless it is located in a grading area, building footprint, or drive

4.11.8 DETACHED HOME DESIGN STANDARDS AND PROVISIONS

A. USE

- Land designated for detached home use shall contain buildings for residential uses, customary home occupational uses, and bed and breakfast inns
- An accessory building is permitted on each lot
- 100% of the building area above the ground floor shall be residential
- A maximum of 30% of the gross area of the neighborhood shall be designated for large-lot (50 feet or more in width) detached homes

B. LOTS and BUILDINGS

- Buildings on detached home lots shall be setback between 0 and 25 feet from the frontage line
- Buildings on detached home lots shall be setback from the side lot lines equivalent to no less than 20% of the width of the lot. The entire setback may be allocated to one side
- Buildings on detached home lots shall be setback no less than 30 feet from the rear lot line
- Buildings on detached home lots shall cover no more than 50% of the lot area
- Building height shall not exceed 35 feet
- Buildings on detached home lots shall have a masonry wall, wood fence, or hedge between 3 and 5 feet tall built along the unbuilt portion of the frontage line

C. STREETS and ALLEYS

- Detached home lots may have their rear lot lines coinciding with an alley 24 feet wide containing a vehicular pavement width of at least 10 feet
- Attached house lots shall enfront on streets with a maximum right-of-way of 40 feet consisting of at least two 10 foot travel lanes and 5 foot wide sidewalks. Curb radius shall not exceed 25 feet

D. PARKING

- All off-street parking places shall be to the side or the rear of the building. Where access is through the frontage, garages or carports shall be located a minimum of 20 feet behind the front facade
- There shall one parking space per 300 square feet of building space for non-residential uses, and one per room of lodging, and per 2 bedrooms of residential use

E. LANDSCAPING

- See the provisions of 3.11.7 (E) (1)

4.11.9 BUSINESS DESIGN STANDARDS AND PROVISIONS

A. USE

- Land designated for business use shall contain office, retail, light industry, warehousing, and gas stations
- A minimum of 5% and a maximum of 15% of the gross area of the neighborhood shall be designated for business
- Business uses shall be grouped together as follows: Office and retail may be grouped with shopfront buildings to form town centers. All other business uses shall be grouped together outside town and neighborhood centers

B. LOTS and BUILDINGS

- Business buildings shall not require setbacks from front or side lot lines
- Business buildings shall not cover more than 50% of the lot area
- Business lots shall be separated from other use types at the side and rear lot lines by a continuous masonry wall no less than 8 feet in height
- The maximum height shall be 35 feet

C. STREETS and ALLEYS

- Business lots may have their rear lot lines coinciding with an alley at least 24 feet wide containing a vehicular pavement width of at least 10 feet
- Shopfront lots shall enfront on streets with a maximum right-of-way of 65 feet consisting of at least two 11 foot travel lanes, one 10 foot central turning lane, 8 foot parallel parking on both sides, and 9 foot sidewalks. Curb radius shall not exceed 15 feet

D. PARKING

- There shall be one parking space per 500 square feet of building space, except for office use which shall have one per 300 square feet
- Off-street parking places may to one side or to the rear of the building

E. LANDSCAPING

- Parking shall conform to Section 3.7.8 (B)
- Loading, storage, and utility areas shall conform to Section 3.7.8 (C)

4.11.10 ARCHITECTURAL STANDARDS

Due to the mixed use nature of the development, architectural compatability is necessary in order to visually integrate development and allow for proximity of varied uses. All residential uses shall conform to the standards detailed in Section 3.3 (Neighborhood Center Residential)

Materials

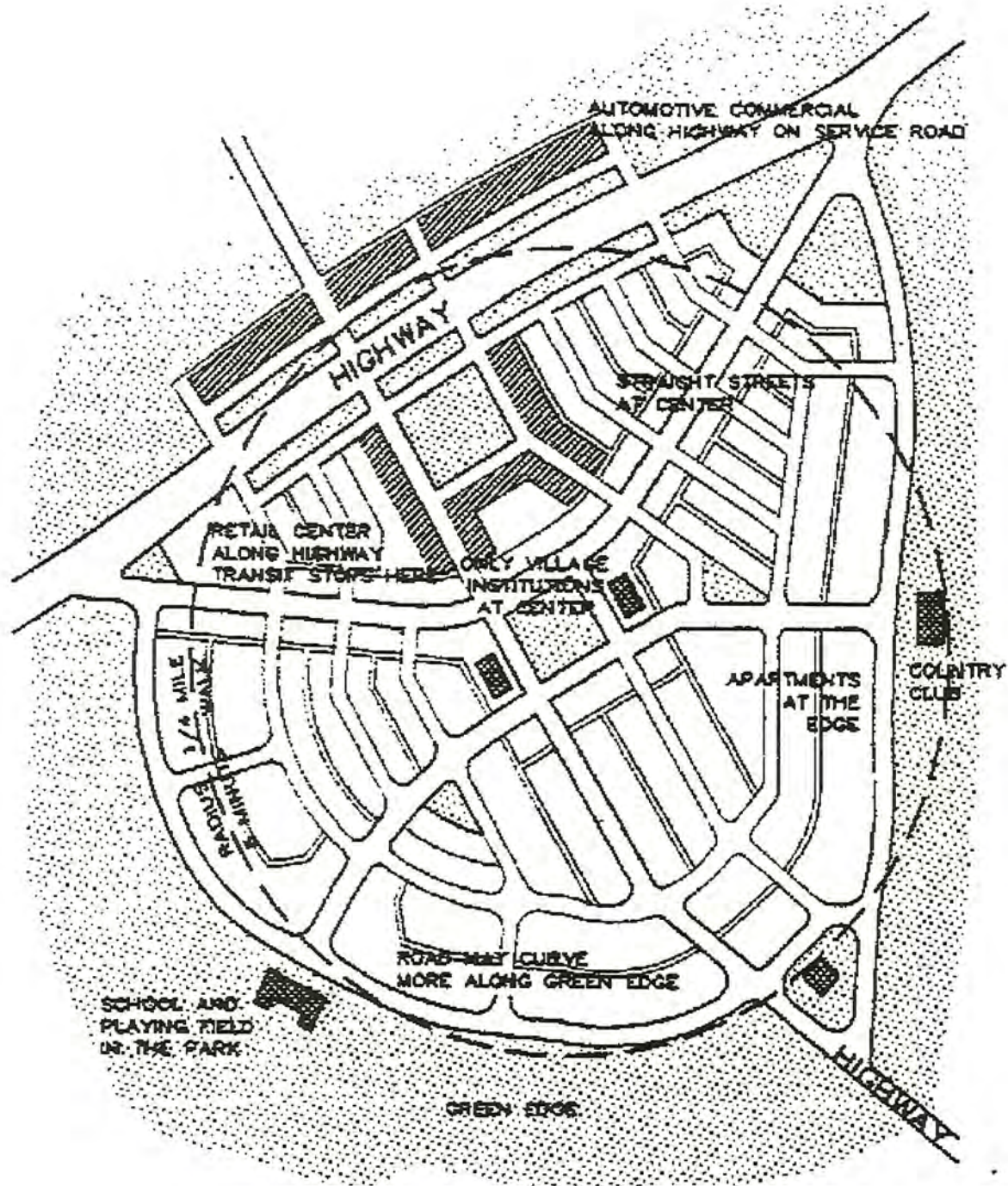
- All walls visible from public streets shall be clad in brick, cast concrete, stone, stucco, approved metal paneling (no more than 20% of a building wall), or material similar in appearance or texture
- Screening walls shall be made of materials which match the principle structure (if a structure consists of more than one material, the heavier material shall be used)

Configurations

- Two wall materials may be combined (horizontally) on one facade. The heavier material must be below
- Maximum screening wall height shall be eight (8) feet. Barbed wire shall be allowed only in areas that are not visible from streets and public parking areas
- Roofs shall be flat

Techniques

- Stucco shall be float finish
- All rooftop equipment shall be enclosed in the building material that matches the structure or is visually compatible with the structure



Appendix VI
List of Historic Preservation Sites

See Historic Inventory Map
Churches and Cemeteries
Railroad Remnants
19 Century Industrial and Agricultural Structures

Appendix VII
List of Scenic Vistas

Waterbury Hill and Rickes Road	Views from Town Hall
View from Airport	View from Blue Berry Hill
View from Brush Hill	View from Rt. 82 at
	Washington Town Line

Appendix VIII
List of Natural Areas for Protection

Clove Mountain	Beaver Brook
Clove Spring	Willow Brook
Clove Valley	Jackson Creek
Fishkill Creek	Seeley Creek
Gorge of Sprout Creek	Sweezy Creek
Blueberry Park	Clove Brook
DEC Wetlands	Clove Spring

Appendix IX

Vermont Scenery Preservation Council Scenic Roads Program

What is the Scenic Roads Program?

The Scenic Road Law adopted by the Vermont Legislature in 1977 enables local officials and town residents to participate in the process of designating town-owned routes as scenic roads. The Scenic Roads Program, formed under the direction of the Vermont Scenery Preservation Council and the State Transportation Board, is designed to identify, manage and protect special and attractive, natural and man-made qualities of Vermont's rural roadways.

How Does It Work?

Private citizens, regional or local planners or selectmen, may initiate a town scenic road program but it is important to involve all of these groups in the process. The program guidelines and standards are based on a detailed survey of area roads which examines features such as forest and agricultural patterns, panoramic and scenic views, terrain and contour and man-made and natural focal points. Those roads chosen to be of scenic importance are recommended to the Board of Selectmen or appropriate officials, who in turn hold a public hearing to receive comments on the proposals. Once a road achieves scenic status, subsequent maintenance and reconstruction work must conform to standards established by the state Transportation Board, which examine material changes in width, alignment, surface grade, elevation and ditch lines.

What are the program's benefits?

The Scenic Roads Program provides a method of local control to guide changes to town roadways and may help protect important features such as bridges, stone walls, or lines of trees near the roadbed. A designated scenic road may also attract tourists and visitors to the local area.

The survey data collected during the process is useful to planners and road commissioners and be incorporated into the town plan. Road crews may also use the data to avoid damaging other special areas identified in the survey.

What are the limitations?

While the Scenic Road Program may be valuable for managing changes to roads and roadbeds, it does not restrict development of adjacent land and therefore to be effective it must be coupled with other land-use methods to preserve scenic vistas. To retain open agricultural land the Use Value Appraisal Program may help stabilize tax rates for local farmers and keep farmland active. Other methods such as easements and Transfer of Development Rights may also be possibilities.

Ironically, the largest limitation of the Scenic Roads Program is underuse. Despite available assistance and clear guidelines, no Vermont town has utilized the program. The reasons most given by public and private officials are fear of restrictions to the roads, a lack of financial incentive and a general lack of knowledge about the program's existence.

Where can I go for more information?

To begin the process and gather preliminary information concerning the Scenic Roads Program contact your District Transportation Office. They will be able to provide visual and printed materials necessary to make the endeavor a success.

The Vermont Heritage Network

The University of Vermont Historic Preservation Program
Wheeler House, University of Vermont
Burlington, VT 05405
(802)656-3180
<http://www.uvm.edu/~vhnet>
[E-mail To: vhnet@zoo.uvm.edu](mailto:vhnet@zoo.uvm.edu)

Appendix X

Primary and Principal Aquifer Determination Guide

New York State Department of Environmental Conservation
60 Wolf Road, Albany, New York 12233



Thomas C. Jorling
Commissioner

October 23, 1998

MEMORANDUM

TO: Regional Water Engineers, Bureau Directors, Section Chiefs

SUBJECT: Division of Water Technical and Operational Guidance Series (2.1.3.)
PRIMARY AND PRINCIPAL AQUIFER DETERMINATIONS
(Originator: Mr. DeGaetano)

PURPOSE

To clarify the meaning of the terms "Primary Water Supply Aquifer" and "Principal Aquifer" as they are set forth in the Upstate New York Groundwater Management Program, and to establish guidance for determining whether an aquifer is considered a Primary Water Supply Aquifer or Principal Aquifer.

DISCUSSION

"Geographic targeting", as set forth in the Upstate New York Groundwater Management Program, is the adoption of special program policies and/or priorities to provide a special (i.e., extra) level of protection in locations where the groundwaters are both highly productive and highly vulnerable. The basic categories of areas which have been identified for use in geographic targeting, in order of priority, are:

- Public Water Supply Wellhead Areas
- Primary Water Supply Aquifer Areas
- Principal Aquifer Areas
- Other Areas

The intention of geographic targeting is not to remove or lessen the basic regulatory protections afforded by existing program such as SPDES, the Solid and Hazardous Waste Programs, the Bulk Storage Program, and others, for any geographic area. Rather, it provides a method for enhancing regulatory protection in critical locations where the groundwater resource is most productive and most vulnerable.

The importance of this concept for responsible and effective management of the state's groundwater resources cannot be overemphasized. To make the concept serve its intended purpose, the meaning of the terms "Primary Water Supply Aquifer" and "Principal Aquifer" must be better understood and guidance must be available on how an aquifer is determined to be a Primary Water Supply Aquifer or a Principal Aquifer.

General Intent Of The Terms "Primary Water Supply Aquifer" And "Principal Aquifer"

Highly productive unconsolidated aquifers which provide, or which have the potential to provide water for large populations and which are highly vulnerable to contamination from activities on the land surface directly over the aquifer, underlie only a small portion -- roughly ten percent -- of the state's land area. They are termed:

- Primary Water Supply Aquifers: Highly productive aquifers presently being utilized as sources of water supply by major municipal water supply systems.
- Principal Aquifers: Aquifers known to be highly productive or whose geology suggests abundant potential water supply, but which are not intensively used as sources of water supply by major municipal systems at the present time.

The Primary Water Supply Aquifers were originally identified by the NYSDOM in the "Report on Groundwater Dependence in New York State", 1981. The municipal populations supplied with water from the 13 identified Primary Water Supply Aquifers range in size from 8,100 people (Croton-on-Hudson) to roughly 150,000 people (Schenectady).

The range of populations supplied by the Primary Water Supply Aquifers is an indication of the water resource capability envisioned when the terms "Primary" and "Principal" were originally used in the development of the Upstate Groundwater Management Program. In regard to the ability to yield water to wells, there is intended to be no difference between a Primary Water Supply Aquifer and a Principal Aquifer. The only difference is that one is used intensively now, and the other is not. The Principal Aquifers are, in effect, the potential Primary Water Supply Aquifers of the future.

Where the phrase "potential for development" is used in evaluating an aquifer, it refers only to the capability to supply significant quantities of water. It should not be used to refer to whether or not human development will

over locate in that particular spot. In protecting the groundwater resource, we cannot presume to know where development may or may not locate at some time in the distant future.

Productivity, And Natural Water Quality

As used in the definitions of Primary Water Supply Aquifer and Principal Aquifer, the term "highly productive" means aquifers with capability to provide water for public water supply of a quantity and natural background quality which is of regional significance. As discussed above, the range of populations currently served by the Primary Water Supply Aquifers serves to illustrate the intended meaning of this term.

Existing contamination which is the result of man's activities is not part of "natural background". On the other hand, some aquifers have the physical capability to supply significant quantities of water, but the natural background quality of the water makes it unsuitable for drinking. Aquifers with naturally unpotable water will not be considered Principal Aquifers. Consistent with 6 NYCRR Part 703, this means water with a natural chloride concentration of more than 250 mg/liter or a natural total dissolved solids concentration of more than 1,000 mg/liter.

Vulnerability, Confined vs. Unconfined Aquifers, And Unconsolidated vs. Bedrock Aquifers

As used in defining "Primary Water Supply Aquifer" and "Principal Aquifer", the term "highly vulnerable" refers to aquifers which are highly susceptible to contamination from human activities at the land surface over the identified aquifer. Additionally, so that the special policies designed to protect them can be applied fairly and equitably, such aquifers must be generally identifiable based on available mapping if they are to be considered Primary Water Supply Aquifers or Principal Aquifers.

Unconfined (water table) aquifers consisting of unconsolidated geologic deposits (a) are the most common type of high-yielding aquifer system in upstate New York, (b) are generally mapped, so that regulated entities and the general public can be provided with at least reasonably accurate comprehensive mapping showing where they exist, and (c) are vulnerable to contamination from the land surface over the aquifer. These aquifers, where they are sufficiently productive, fall within the meaning of "Primary Water Supply Aquifer" and "Principal Aquifer".

Where a highly productive aquifer is overlain by thick, continuous impermeable deposits and the predominant recharge to the aquifer is from land areas outside of the aquifer area, the aquifer does not fall within the meaning of the terms "Primary" and "Principal". Special protective policies applied to the land area over the aquifer will provide little if any additional protection for it. Where the major sources of recharge for confined aquifers can be iden-

tified, those areas should receive appropriate special consideration through the operation of ongoing regulatory programs and procedures. However, such areas cannot be comprehensively identified and mapped across the entire state at the present time. Therefore, it is neither reasonable nor feasible to include them within the meaning of "Primary" and "Principal".

Some high yielding aquifer areas are underlain by patterns of geologic deposits which include unconfined permeable deposits in some portions of the area, and less permeable confining layers over the highly permeable deposits in other portions. Often, however, the confining layers are not well defined and they are not so extensive, thick, and continuous as to assure that there are not pathways for contaminants to reach the aquifer from the overlying land surface. Where a high-yielding aquifer system exhibits this type of condition and it cannot be shown that major potential contamination pathways from the land surface do not exist, the Division of Water will treat the system as being an unconfined system (i.e., it falls within the meaning of "Primary" and "Principal").

Where it can be identified that a high-yielding bedrock aquifer is potentially vulnerable to contamination from a proposed activity at the land surface over the aquifer, protection of that aquifer should receive special emphasis through the normal operation of regulatory programs (e.g., through the application of Part 360 procedures for landfills). However, it is not currently feasible to comprehensively map the specific land areas across the state where bedrock aquifers are vulnerable to contamination from the overlying land surface. Therefore, it is not appropriate to include bedrock aquifers within the meaning of "Primary Water Supply Aquifer" and "Principal Aquifer" at the present time.

Sole Source Aquifers

Sole Source Aquifers are those which are designated by the USEPA as the sole or principal source of drinking water for a community, under provisions of the Federal Safe Drinking Water Act. The designations are made in response to a petition from the locality, and after public hearing. New York State has little influence over such designations, other than through testimony and comments during the review process.

At the present time, the programmatic implications of Sole Source designation are limited. The principal benefit is symbolic, in drawing attention to the aquifer. In New York State, we believe that all of the Primary Water Supply Aquifers would qualify for such designation and that the localities relying on them should petition. However, there is no evidence that the Federal designation process utilizes considerations of groundwater resource potential and vulnerability in the same way they are used with regard to identification of Primary Water Supply Aquifers and Principal Aquifers. Therefore, there is no direct technical relationship between the designation of "Sole Source" aquifers and the subject of this TCGS memo.

Factors Used In Principal Aquifer Determinations

During the development of the draft Upstate New York Groundwater Management Program it was recognized that criteria would likely be necessary to determine whether a specific geographic location is considered to be within a Principal Aquifer area. For that criteria the draft report suggested a minimum sustained well yield of ten (10) gallons per minute, to be obtainable generally for locations throughout the aquifer and not just from one isolated spot.

There has now been considerable experience in making Principal Aquifer determinations. Experience suggests that the single criterion of 10 gpm sustained well yield does not fully reflect the intent of the phrase "aquifers known to be highly productive or whose geology suggests abundant potential water supply".

The actual boundary of an aquifer area is determined by the pattern of geologic deposits, not by an arbitrary well yield number. However, the value of 10 gpm sustained well yield tends to occur near the edge of an aquifer area, where the thickness of saturated permeable deposits is quite small. Maps illustrating the locations of unconsolidated aquifers often use 10 gpm (somewhat arbitrarily) as the lower end of the range of well yields associated with highly productive aquifers.

Further inside of the boundaries of major aquifers there are ordinarily very substantial areas where the sustained yield to wells is considerably in excess of 10 gpm. Thus, a continuous area of locations which can sustain 10 gpm may help to define the boundary of an aquifer area but does not establish whether the aquifer is sizable enough to be considered a "Principal Aquifer". The term "Principal Aquifer" is intended to reflect the overall capability of the aquifer to supply water, rather than just the capability at the boundary of the aquifer area.

The attached Table 1 provides relevant data for the upstate Primary Water Supply Aquifers and several aquifers considered to be "Principal Aquifers". The data are from the "Atlas of Eleven Selected Aquifers in New York", U.S. Geological Survey, 1982, plus other hydrological reports and data available in DEC files.

On the Table, the columns showing existing population served and the existing average daily pumpage indicate the range of public water supply usage associated with identified "Primary Water Supply Aquifers". The area of the aquifer, thickness of saturated deposits (both average and maximum), and maximum obtainable well yields (actual or estimated) are types of data which are available or obtainable for most unconsolidated aquifers. When considered collectively, they are indicative of the overall capability of an aquifer to supply water. They can serve as a common basis of comparison for considering whether an aquifer is a Principal Aquifer.

To qualify as a Principal Aquifer, overall yields should be comparable to those of the smaller Primary Water Supply Aquifers. Roughly, this means the ability to supply a population of 5,000-10,000 people, or a yield of 500,000 to

1,000,000 gallons of water per day. Based on the data in Table 1, the general guidelines for aquifer area, thickness, and well yields contained in the guidance below are consistent with these aquifer yields and are appropriate for determining whether an aquifer should be considered a Principal Aquifer.

The guidelines below relating to aquifer productivity are general guidelines. They should not be applied rigidly, and there may be instances where all three need not be met simultaneously. For example, there may be situations where the thickness of highly permeable deposits and the ability to produce high well yields (e.g., through interconnection with a major surface stream) lead to the conclusion that a particular aquifer is a Principal Aquifer, even though its areal extent is smaller than the suggested minimum range. In all cases, however, the general level of water resource capability suggested by these three guidelines should be met.

GUIDANCE

1. The general factors outlined in the discussion above, regarding the role of groundwater productivity, natural water quality, aquifer vulnerability, confined vs. unconfined aquifers, and unconsolidated vs. bedrock aquifers, will be utilized by the Division of Water in determining whether an aquifer is a Primary Water Supply Aquifer or Principal Aquifer.
2. In addition, the Division of Water will use the following guidelines relating specifically to the question of aquifer productivity:
 - Area of the Aquifer: Five (5) to ten (10) square miles of contiguous area at a minimum;
 - Thickness of Saturated Deposits: Saturated deposits of highly permeable materials should average at least twenty (20) feet through much of the area, with some locations at least fifty (50) feet thick;
 - Obtainable Well Yields: Sustained yields to individual wells should be 50 gpm (gallons per minute) or more from sizable areas (two square miles or greater) throughout the aquifer.
3. The aquifer maps and reports as available now and as periodically updated by new or improved mapping will continue to be the basis for preliminary identification of Primary Water Supply Aquifer Areas and Principal Aquifer Areas.

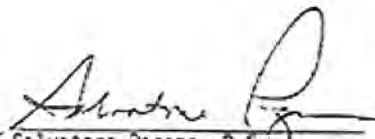
These include, in descending order of detail, Primary Water Supply Aquifer maps; regional and/or basinwide aquifer maps; and Kantrowitz and Snively's "Availability of Water from Aquifers in Upstate New York" (USGS, Open File Report 82-437). In using these maps, the map which provides the highest level of detail and coverage of the area in question should in most cases, be one used in decision making.

Table 3.
TYPICAL HYDROGEOLOGIC CHARACTERISTICS OF PRIMARY WATER SUPPLY AQUIFERS AND SELECTED PRINCIPAL AQUIFERS

	Present Population Dependence	Area Sq. Mi.	Thickness		Maximum Well Yield (gpm)	Present Average	
			Average (Feet)	Maximum (Feet)		Daily Pumpage (mgd)	Est. Aquifer Yield (gpm/ft)
<u>Primary Water Supply Aquifers</u>							
Endicott - Johnson City	110000	21	101	60+	2000	16.3	
Ramapo - Mahwah	82000	6	40+	150	100	9.6	9.6+
Irondequoitan	47500	52	130	200	700	4.0	725-10
Jamestown	52000	34	40-50	100+	1000	8.6	101
Elmira - Horseheads - Big Flats	50000	43	30-40	100+	1000	10.4	18+
Cortland - Homer - Freeble	38000	20	48-80	200+	1000	6.5	
Corning	29000	78	40	100+	1000	16.5	
Sprout Creek - Fishkill	24500	30	30-40	100+	660	3.0	
Vulton	22000	50	20-30	60	1000	4.1	
South Palisburg - Woodbourne	19000	20	50+	100	400	2.0	
Schenectady	142500	25	50-100	200+	3500	24.6	30-100
Cohocton River	20000	64	20-40	100+	1000	2.5	
Tonawanda Creek	12300	23	30	60	1000	1.9	
Seneca River	15800	10+	20-30	100+	350+	1.6	
Clinton Park	22000	25-30	20	100+	500+		
Olean - Getzville			MAPPING INCOMPLETE				
Croton - on - Hudson			MAPPING INCOMPLETE				
Owego - Waverly			MAPPING INCOMPLETE				
<u>Principal Aquifers</u>							
Smyrna - Chenango County	260	7	40-60	140	1550	0.064	12.0
Glens Falls Deposits		90	25-50	109	400		
West Milton - Saratoga County	Unknown			80	800	3	
Sandburg Creek Valley - Ulster Co.		7	25-100	106	1000	1	16
Lower Neversink River		12	100	150	330	.5	100
andasher Kill Valleys - Orange Co.		40					
Pine Bush - Albany County			40	150	200		
Almond - Alfred (Allegany County)	7556	2.4	40-60	155	703	0.745	12

* Based on available information, some of which has not been field verified.

4. Where an applicant believes that more detailed hydrogeologic information will change the identification of a particular location as being within/outside a Primary Water Supply Aquifer Area or Principal Aquifer Area, the pertinent information should be submitted to the Department with a request for a determination. The information should be submitted through the regulatory program having jurisdiction in the particular situation (e.g., for a landfill site, the Division of Solid and Hazardous Wastes). It is not appropriate to establish specific, detailed guidelines for the types of information and the methods of field investigation which may be required, because conditions in specific locations are too variable. However, hydrogeologic staff of the Division of Water will be available to consult with other regulatory program staff and with applicants as needed on the information required in specific instances.
5. The Division of Water is ultimately responsible for making the formal determination as to whether a location is within a Primary Water Supply Aquifer Area or a Principal Aquifer Area. Requests for determinations by the Division of Water will be referred to the DOW by the appropriate regulatory program offices as per Item #4 above.


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