

AMENIA Amenia Union Leedeville Smithfield South Amenia Wassaic
Sinpatch BEEKMAN Clove Valley Poughquag Green Haven CLINTON
Bulls Head Clinton Corners Clinton Hollow Frost Mills Hibernia Pleasant
Plains Rowland Schultsville DOVER Bog Hollow Dog Tail Corners Dover
Furnace Dover Plains Onion Town South Dover Webatuck Wingdale
EAST FISHKILL Brush Clove Branch Junction Fishkill Hook Fishkill
Plains Hopewell Junction Hortentown Pecksville Shenandoah
Stonville Wicopoe FISHKILL Brinkerhoff Dutchess Junction Fishkill
Glenham HYDE PARK Campton East Park Staatsburg LAGRANGE
Arthursburg Billings Freedom Plains LaGrangeville Manchester Bridge
Moore's Mills Overlook Sprout Creek Trusville MILAN Jackson Corners
Lafayetteville Rock City NORTHEAST Skunks Misery Coleman Station
Boston Corners Irondale Mt. Riga Millerton Northeast Center Perrys
Corners Sharon Station Shekomoko PAWLING Holmes Hurds Corners
Mizzen-top Pawling Quaker Hill West Pawling Woodinville PINE PLAINS
Bethel Hammertown Mt. Ross Patchin's Mill Pulvers Corners PLEASANT
VALLEY Gretna Netherwood Salt Point Washington Hollow
POUGHKEEPSIE Arlington Channingville Fairview New Hamburg Red
Oaks Mill Rochdale Spackenkill Stoneco RED HOOK Annandale
Barrytown Cokertown Kerleys Corners Red Hook Upper Red Hook Tivoli
RHINEBECK Burger Hill Eghmyville Enterprise Rhinecliff Rhinebeck
Ways Corners Wurtemberg STANFORD Attisbury Bangall Bear Market
Hunns Lake McIntyre Stanfordville Stissing Upton Lake Willow Brook
UNIONVALE Camby Chestnut Ridge Clove Crouse's Store North Clove
Pleasant Ridge Verbank WAPPINGER Chelsea Diddell Hughsonville
Myers Corners New Hackensack Stringham Mill Wappingers Falls
WASHINGTON Hart's Village Lithgow Mabbettsville Mechanic Millbrook
Oak Summit South Millbrook BEACON Fishkill Landing Matteawan
Groveville Mills POUGHKEEPSIE CITY College Hill Corlies Manor
Garfield Place Mt. Carmel Northside Riverfront Southside Union Street

DIRECTIONS

THE PLAN FOR DUTCHESS COUNTY

DIRECTIONS
THE SOUTH SIDE OF THE

THE SOUTH SIDE OF THE



To the Readers of DIRECTIONS: The Plan For Dutchess County

Growth has become one of the primary community issues within Dutchess County. Each year in the decade of the 70s, approximately 2,200 new residents made Dutchess County their home. By 1985, the county's estimated population reached 257,000 people. This growth has been accompanied by profound changes in the county's landscape and quality of life. Approximately 1,800 acres of farmland and forest were converted to home-sites, shopping centers and industrial plants each year. Prospects are that growth will continue and that 340,000 people will live in Dutchess by the turn of the century. If those estimates are realized, over 29 percent of the county's open space and agricultural land resources will be converted to intensive uses. These changes will result in new demands on our natural resources, transportation systems, utilities and service delivery systems. They will also challenge our ability to plan effectively.

DIRECTIONS: The Plan For Dutchess County has been prepared in response to these pressures and challenges. Its development has been a cooperative venture with local government most of whom have formally endorsed its policies. The plan encourages healthy economic and community development and calls for the preservation, enhancement and promotion of those aspects of the county community we all value. If these values are not reflected in our planning, our opportunities for future economic growth will be diminished.

If the goals and policies of **DIRECTIONS** are to be realized, we must all work cooperatively toward those ends. We urge you as a member of the county community to join with us in an effort to maintain and create a high quality environment through implementation of the sound planning policies set forth in this plan.

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Lucille P. Pattison
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Plans must be implemented if they are to become a significant factor in shaping community growth. Cities, towns and villages have taken a first step toward implementing DIRECTIONS by officially endorsing the plan by resolution. They include: Amenia, Beacon, Beekman, Clinton, Dover, East Fishkill, Fishkill town and village, Hyde Park, LaGrange, Millbrook, Millerton, Northeast, Pawling town and village, Pine Plains, Pleasant Valley, city of Poughkeepsie, Red Hook town and village, Rhinebeck town and village, Stanford, Tivoli, Union Vale, Wappinger and Washington.

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FOREWORD

Dutchess County is pleasing because of variety and vitality. It offers interesting terrain, farmlands, traditional hamlet and village centers, estates along the Hudson River, historic buildings, and a wide range of residential environments. Its economic strength is almost taken for granted, due to a 30-year record of steady growth and low unemployment.

The past three decades of change in Dutchess County reveal several well-established trends. Development has brought about many opportunities for personal and financial growth, but has also resulted in a population decline in the county's cities. Other effects are a decrease in farmland and a loss of many pastoral qualities, especially in southwestern Dutchess County, which has long been associated with country living.

A look at recent growth and its impact on Dutchess County shows:

- * a prosperous and expanding economy;
- * increased awareness of, and concern for, natural resources;
- * increased consumer opportunities;
- * a thriving private and public educational system with many alternatives

from kindergarten to the college level;

- * an awareness of the past and of the need to protect historic buildings and settings; and
- * a growing appreciation of the performing and visual arts.

Unfortunately, this recent growth and prosperity is changing a long-standing land use pattern in the county. Briefly, that pattern is one of strong cities, village centers and rural hamlets sited within an expanse of active farms and open spaces. Suburban and rural development since World War II, which resulted in the construction of more than one-half of the local housing stock, has also resulted in the following:

- * inadequate water and sewer facilities in many areas;
- * loss of some downtown business centers in favor of single purpose consumer centers;
- * unacceptable traffic congestion on many county and state roads;
- * decline of established residential neighborhoods, even as housing of lesser quality is sold to increase supply;

- * loss of many agricultural and open space resources;
- * development with an unattractive "sameness" about it, because of standardized housing designs and unimaginative lot layouts; and
- * proliferation of strip commercial and residential areas, which drain the vitality of existing centers, impede the flow of traffic, and increase dependence on automobile transportation.

The traditional land use pattern of well-defined centralized settlements in Dutchess County makes sense. It promotes community feeling, helps conserve resources, makes shopping a personal and enjoyable experience, fosters the spontaneous and unchauffeured movement of children, respects the long-term economic value of farmland, and promotes individual identity by offering a sense of place.

Currently, Dutchess County land is being converted from rural and agricultural to suburban uses at a rate of 1,800 acres per year. That conversion process is linked to a corresponding growth in population. By 1990, the county is expected to have twice the population that it

had in 1950. The New York State Department of Environmental Conservation and the Dutchess County Department of Planning have established that population will range from a low of 305,000 persons to a high of 340,000 by the year 2000. Such growth implies that nearly 30 percent of the county's land area will be developed.

Directions: The Plan for Dutchess County looks to past land use patterns as guides to future growth. It contains more than 250 policies aimed at reinforcing the cities, villages, and larger hamlets in the county and protecting the county's natural resource base. The plan explores ways to improve existing commercial strips and diminish the trend toward new strip development. It suggests methods of subdivision design that help promote community living. It proposes environmental protection measures, recreational space standards, methods for supplying affordable housing, and ways to ensure water supply.

It is natural to wonder whether such a plan is realistic or appropriate. Even if a traditional land use pattern is desirable, should it be endorsed, especially when residents seem to prefer one acre lots and three cars in the driveway? Is the marketplace giving us

exactly the kind of environment we want? The county plan assumes that the private marketplace is not sufficient to provide us with all we need for an excellent living environment. Traffic congestion, solid waste disposal, water quality, water supply, recreation, road maintenance, protection of sensitive environmental areas, and sanitary waste disposal are some of the primary concerns not being addressed in the marketplace. These concerns must be addressed by public officials as part of the development process. The rapid rise in local taxes can be attributed to our unwillingness or inability to use the development process to solve community problems.

The county plan proposes no quick fixes. Wholesale changes in land use regulations are impossible over the short term because regulation is a local responsibility. Each community must decide for itself how to regulate development. Most municipalities in Dutchess County will need to update their regulations if they are to be full partners in implementing the county plan. Similarly, local builders and developers will need to consider new ways of providing affordable housing in pleasing environments, and county government will need to use the plan as a guide

for capital construction, regulatory decisions and service delivery methods.

Land use decision making is a complex process. Land use performance standards are replacing the more simplistic approaches to zoning. Financing options and marketing procedures are much more involved than they were a few years ago. Available land is becoming harder to find as development continues. The state's environmental review process (SEQRA), although valuable, can be time consuming. Large commercial and residential projects call for cooperative activity among many specific talents and interests. Cooperation between the public and private sectors is more essential than ever before.

Directions recognizes the complexity of the development process. Successful implementation of the plan requires that the concerns of all of the participants in the process be addressed. The private sector and local officials must understand plan policies and be committed to carrying them out. Such commitment requires good will, compromise, patience, and persistence.

Introduction

A plan is a program of action, an orderly arrangement of parts to meet an overall design or objective. A plan must be part of a continual process, one that can be applied in varying ways to complex situations.

Planning is a common occurrence in our daily lives. Parents plan for their families; teachers prepare a daily curriculum plan; farmers plan for the cultivation of their crops; business people plan their daily activities. Everyone plans at one time or another to achieve desired results in a logical, organized manner.



Communities plan just as individuals and businesses do. In community planning, efforts are made to balance public and private benefit. Communities must ensure that individuals do not proceed with actions without first giving proper consideration to their neighbors and their communities as a whole.

Most often, community planning is manifested in a master plan, which can also be called a land use plan, comprehensive plan, or development plan. The plan acts as a guide for government in making decisions concerning physical, social and economic development. It gives guidance to public officials in making decisions that are consistent with the general way in which citizens expect their community to develop.

A master plan must be comprehensive, general and long range. It is comprehensive in that it encompasses all geographical areas in a community and all elements that

have a bearing on development. It is general in that it summarizes policies and proposals, rather than detailing or specifying them. Finally, it is long range because it looks beyond current issues; it anticipates, and attempts to look into the future.

The development of a plan is a process with many components. It involves background data studies, many meetings and public presentations, preparation of goals, data analysis, alternative selection, and the publication of a document that reflects all of these components. Most importantly, the development of a plan is an ongoing process that continues long after the initial document itself is prepared and adopted. A plan should be revised and adapted periodically if it is to have lasting value.

The plan must be a flexible guide to policy. While it is based upon current data and goals, its usefulness is in helping to make decisions that will be to our benefit later on. It is subject to review and change as new information becomes available, or as conditions change.

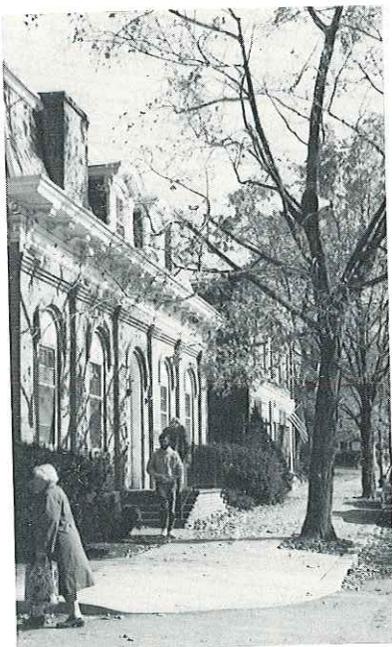
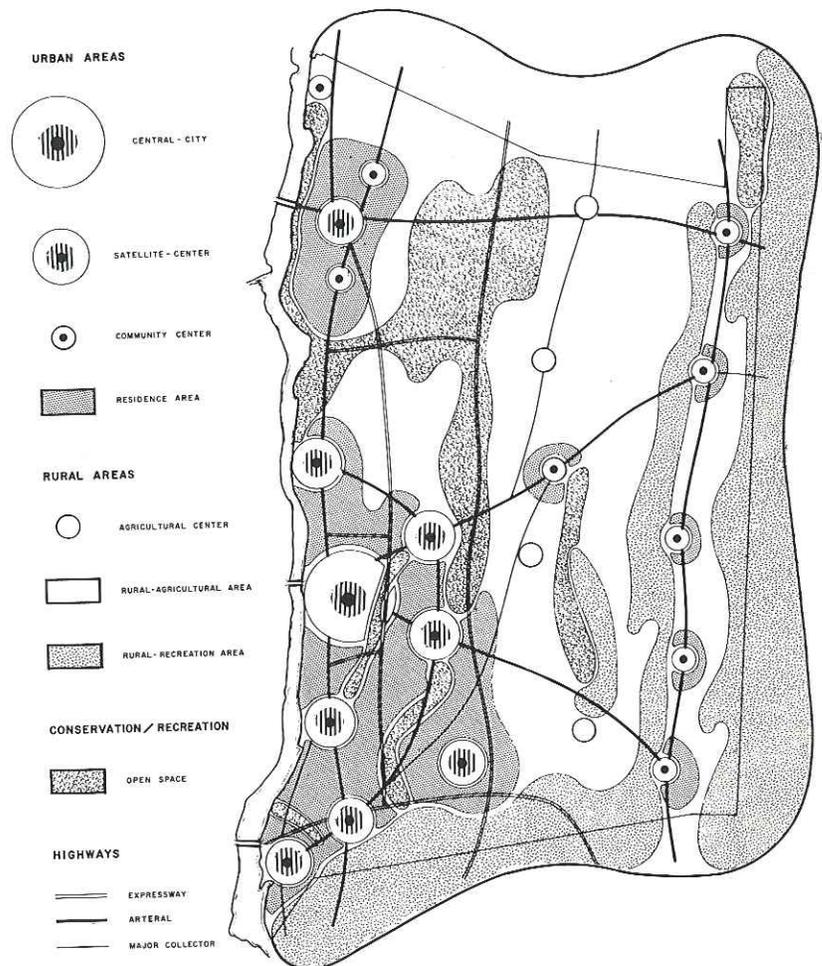
The master plan is used as a guide against which potential actions affecting a community's development are evaluated. It is a working document that should be consulted continually by decision makers in local land use management. It is not another term for zoning, site plan or subdivision control. It is more basic than that; land use controls are merely methods that can be used in implementing a municipal plan.

Development of the Dutchess County Plan

The first Dutchess County Plan was developed in 1965 as a set of policy statements to guide decision making and the preparation of local plans. Entitled *Concept for Growth*, it was designed to stress the conservation of existing communities known as "satellite centers." Each of these centers was to develop around or in close proximity to certain population areas--the city of Beacon, the villages of Fishkill and Wappingers Falls, and the hamlets of Freedom Plains, Hopewell Junction, Hyde Park and Pleasant Valley.

Theoretically, each satellite center would offer many of the advantages of urban living, although on a smaller scale than the so-called "central city," which is the city of Poughkeepsie. A neighborhood pattern of community design would be used, with each neighborhood consisting of a populated area supported by an elementary school and convenience goods stores, churches, and small park areas.

Concept For Growth



The center of each satellite community would serve the economic and social needs of several surrounding neighborhoods, with a high school and a greater variety of shopping facilities, local businesses and government offices, and medical, library and recreation facilities. Outside the urban core, a rural atmosphere would be maintained, with community and agricultural centers as focal points for local activities.

By 1980 the plan was 15 years old, even though minor revisions were made in 1972. Many changes had occurred in the social, environmental and economic climates of Dutchess County. The Department of Planning worked with the Dutchess County Planning Board and a special citizen's advisory committee in developing a new conceptual plan that was presented to the public in 1980 at the 9th Annual Conference on the Future of Dutchess County. Following the conference, public comments on the policies were incorporated into a new document, *Peoplans*, which was then presented to the public in a series of town meetings.

- capital budget additions for park and transportation improvements;
- better training of local review and enforcement officials, and additional use of professional assistance;
- increased flexibility in local regulations through performance standards;
- new management structures to handle regional issues such as waste disposal and waterfront management;
- non-profit initiatives to increase the supply of affordable housing;
- improvement in local site plan regulations; and,
- obtaining better data to assist decision making for groundwater protection and other concerns.

Directions outlines a sensible program for Dutchess County. Its policies offer a challenge to public officials and other citizens who are interested in the future of Dutchess County. For the first time, policies have been organized and justified in such a way that they are useful in charting courses of action.

Efforts are already being made to implement *Directions*. For example, the county is currently using the plan to guide its reviews of development as required by state law. The Department of Planning will prepare a series of companion documents to *Directions*. These documents will consider all policies in terms of recommended implementation methods, costs, timetables and desired results. Once adopted, *Directions* will provide validity to the implementation activities that follow.

Plan Map and Land Use Categories

If implementation of the plan proceeds as described in the Department of Planning's strategies, the result will be that the county will look like the land use plan map presented here. The map is a generalized visual representation of the goals and policies developed in this plan. It is a conversion of the text into a single source of information about where the county wants to go with its future.

The plan map divides the county into nine land use categories:

- Community Center
- Community Uses
- Suburban Uses
- Rural Uses
- Agriculture
- Open Space
- Existing Open Space Uses
- Stream and Wetland Protection
- Slope Protection

Community center uses are recommended within, and adjacent to, the existing cities of Beacon and Poughkeepsie, the county's eight villages, and major hamlet areas. Community and suburban uses are shown in the lower portions of the Fishkill, Sprout, Wappinger, Fallkill, Casperkill, and Maritje Kill drainage basins in the county's southwest corner. Small areas of community uses are also planned adjacent to the villages of Red Hook and Rhinebeck.

Large areas of rural uses surround these villages in the northwest quadrant of the county, in the Harlem Valley south of Wingdale, and in the upper reaches of the Fishkill and Sprout Creek drainage basins in the towns of LaGrange, Unionvale, Beekman and East Fishkill. Another area of rural uses has been recommended along the western boundaries of the towns of Pleasant Valley and Clinton.

The northeastern half of the county from Milan to Millerton and from Unionvale to Pine Plains has been recommended for agricultural use and open space and slope protection. Open space uses are also designated for the Hudson Highlands, along the county's border with Putnam County, and the steep terrain that forms the Harlem and Clove Valleys.



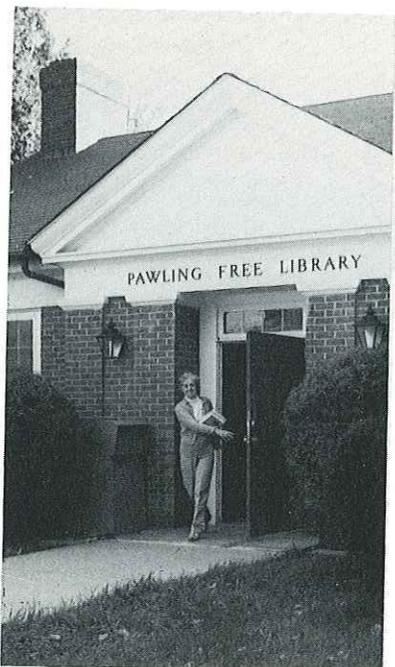
Throughout Dutchess, stream and wetland protection has been recommended for areas that have been identified as floodplains, and in areas with significant concentrations of freshwater wetlands. A separate category has been established for existing open space and open space land use resources in recognition of their two impor-

tant roles in maintaining separations between communities and contributing to the county's valued rural atmosphere.

Each plan map category recommends a unique set of physical characteristics, land uses, land use densities and service levels. The following describes each land use category, its locational criteria and recommended uses.

Community Centers

- located within village, hamlet and city centers and their immediate environs;
- contain highly organized public spaces and have a strong sense of community and place;
- provide a focus for surrounding communities;
- provide the greatest diversity of housing types and opportunities;
- location of the highest density residential development;
- maintained as primary or significant centers of community commercial activity;
- industrial uses are encouraged within the center or immediately adjacent thereto;
- served by areawide central water and sewer systems;
- focus of road and mass transit systems and linked by major elements of the regional highway network;
- emphasis placed on revitalization of downtown areas, rehabilitation of substandard housing units, and construction of new housing units on appropriate vacant lots;
- preferred locations for municipal offices, legal and financial services, cultural and civic centers, and libraries;
- offer the widest range of governmental services, such as street lighting and refuse pick-up;
- land use patterns emphasize pedestrian access;
- rehabilitation and new construction designed to



Policy 1.2

Dutchess County advocates effective public participation in local and county decision making in order to ensure that the concerns of all residents are heard.

Public participation is often viewed as an obstacle to decision making rather than an opportunity. Constructive public involvement requires a strong commitment to its importance and a willingness to work hard toward its realization. The end result will be a stronger meshing of development and community values.

Effective citizen participation is critical to any effort to consider value differences. Municipalities rely on citizen input during the development of local master plans and at the public hearings associated with zoning ordinance implementation. Most local plans, however, are not updated for a period of 10 to 15 years. The tendency is to treat the plan as an end product rather than a process. There is little, if any, emphasis placed on obtaining citizen input during the intervening years between master plan development and revision.

Policy 1.3

Dutchess County endorses efforts to use land use management methods to foster a sense of community.

The physical environment plays a role in the social interaction that is necessary to create a sense of community. In many instances, however, it takes a major effort to create a community feeling; it does not happen simply due to people's close proximity to one another. Planning and land use control efforts can complement and reinforce the notion of community through neighborhood districting, meaningful local involvement in decision making, development project design, and municipal responsiveness to local initiatives.

Policy 1.4

Dutchess County promotes strong community identity throughout the county by means of well integrated mixtures of land uses, establishment of community focal points, and the alignment of governmental service boundaries to correspond with local definitions of community.

The existence of a community is generally indicated by the appearance, location and interrelationships of physical structures such as houses, stores, businesses and schools. Monuments, fountains and gardens also serve to define a community, helping both residents and visitors to recognize exactly where they are and to enjoy a sense of place.

Service boundaries can fragment communities and consequently contribute to a lack of individual commitment to a concern for comprehensive community issues. Quantifiable benefits, such as efficiency in service and delivery, should be weighed against the long-term costs of a loss in community cohesiveness.

has contributed to a loss of individual responsibility to maintain and improve the community environment.

The changing land use pattern associated with suburbanization is also having an important impact on family living. The lack of alternatives to cars means that young people must be dependent on parents for transportation; rising energy costs and working parents contribute to restraints on mobility. Another implication of dispersed development is that children are unable to see adults at work, which can result in a lack of mature role models. Children can also be deprived of the feeling that they "belong" to a place, a feeling taken



for granted in towns and cities which have maintained their center.

The concept of community is still very important to many people in Dutchess County. The revitalization of the villages and cities through facade improvement programs, historic districts, and the creation of new housing attests to the renewed

interest in the traditional community as a living environment. The community-oriented efforts of numerous service clubs, churches, unions, schools and visual environment committees also indicate that many citizens are willing to donate considerable time and effort to improving their communities.

Goal, Policies and Rationale

Dutchess County's community values goal is:

To create strong, healthy communities that facilitate supportive interpersonal communications, enhance an individual's sense of well-being, support and encourage strong families, and provide an environment wherein people can understand and respect one another.

Policy 1.1

Dutchess County encourages all municipalities to emphasize value clarification as a part of the local planning and land use control process.

When we do not explicitly consider what values are operating at any given point in the planning process, we run the risk of creating communities that are based on our assumptions about what is desirable. As a result, the needs of people such as the elderly, those of low and moderate income, single people, and young professionals are often served inadequately. Plans and local land use decisions should reflect differing values to help resolve conflicts and avoid failures in the planning process.

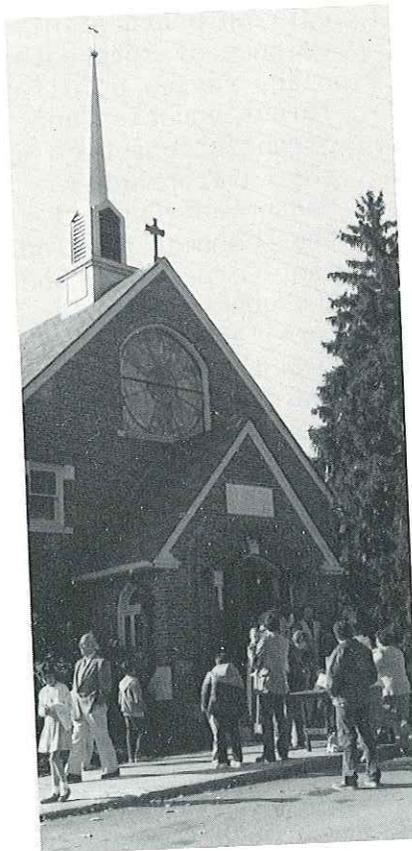
COMMUNITY VALUES

This is the less tangible aspect of planning which is generally not amenable to the establishment of standards and often cannot be translated into dollars and cents. As a result, the social implications of physical planning, which are crucial to fostering a sense of community, are left to chance. It is for this reason that in this chapter, particular emphasis is given to the idea of "community" as a component of quality of life.

Communities are important because they provide the setting in which human interaction is possible. They provide for one's sense of well-being through the sharing of experiences, creation of a restful environment, allowance of impromptu or organized recreational activities and many other factors. Some land use patterns foster community living better than other ones.

There are two basic kinds of communities. The first is defined by people being in close physical proximity to one another, such as in a town, village, neighborhood, or subdivision. In this community, people relate with each other primarily on the basis of their address. In many cases, these communities contain people of a similar economic and social background, so they may share other interests as well.

The second type of community forms on the basis of common interests and, therefore, is generally not defined by any physical boundaries. Any one resident in Dutchess County may be involved in many different communities of interest determined by employment, religion, the school system, hobbies, age group, and so on.



When villages and cities were the primary cultural, social, economic, and residential centers, these two types of communities coincided physically. Opportunities for transportation and communication were limited;

consequently, people had to interact primarily with those who were close by.

The process of suburbanization has led to a dispersed development pattern. Peoples' orientation toward the traditional central community as the focus of activity has been replaced by the focal points of differing communities of interest, few of which coincide in any physical sense. This fragmentation is further emphasized by the overlapping of governmental service jurisdictions. For example, residents with a Hopewell Junction post office address are served by three school systems, six fire companies, and three police forces.

Changes in orientation have occurred at the cost of a lost commitment to the traditional central communities, which has been a contributing factor in their decline. The process of centralization in such areas as schools, power generation, and postal services can result in a loss of focus in central communities and, concurrently, a lack of personal involvement in what originally were community-based activities. Individuals have a less visible influence on, and stake in, decisions that affect centralized services. Furthermore, government's gradual assumption of responsibility for providing public services

be compatible with existing community character, emphasizing historic preservation; and,

- preserve significant wetlands, floodplains and visual amenities.

Community Uses

- located adjacent to existing community centers in the southwest and northwest corners of the county;
- suburban scale development designed to support and complement community centers;
- served by the extension of existing areawide central water and sewer systems;
- separated from community centers by open space and open space land uses;
- offer a wide variety of housing types at residential densities that support central utilities and transit services;
- preserve significant wetlands, steep slopes, floodplains and visual amenities;
- provide for major industrial and office research developments on sites with direct access to major transportation facilities;
- special highway commercial and regional shopping opportunities located at the periphery of community centers on sites with direct access to major highways;
- emphasis is placed on quality of development and a satisfying visual environment;
- provide housing opportunities to support industrial and office research development;
- offer a wide range of governmental services and site amenities, such as sidewalks and street lighting;
- discourage strip commercial development along major transportation corridors;
- land use patterns emphasize maximum use of major roadways as through-traffic connectors among community centers, commercial areas and employment sites;

Policy 1.5

Dutchess County supports efforts to maintain the visual distinctiveness of communities as a means of conveying a sense of cohesiveness and, consequently, reinforcing a sense of place.

In order to maintain visual distinctiveness and coherence, it is necessary to reduce the diversity of possible landscape elements by constraining the available choices. This might involve limiting the number, size and location of signs as well as the material of which they can be constructed. Pedestrian amenities can be mandated along with landscape and building design criteria. Likewise, open space corridors can help to define boundaries.

It is important that local residents specify and identify with those landscape elements that make their community visually distinctive. Otherwise, they will not be in a position to counteract the forces which tend to eradicate any distinctiveness.

Introduction

New York State's population declined from 18.2 million in 1970 to 17.6 million in 1980. This mild decline has typified northeastern states in recent years. In contrast, the lower Mid-Hudson Valley increased by 6.2 percent between 1970 and 1980, despite a three percent loss of population in Westchester County.

Dutchess County has grown steadily since 1900, when there were 81,670 persons in the county. In the beginning of the Depression years, the county population was 105,462; by the end of World War II, it was more than 130,000. Since 1960, the county has grown from 176,008 to 245,055 persons. These increases have been due more to net migration than to natural increase.

Within the county, there has been a general pattern of population decline in the cities of Beacon and Poughkeepsie, while there has been fluctuation in the villages, slow growth in eastern and northern towns, and rapid growth in towns in southwestern Dutchess. All of the 30 municipalities have experienced an increase in housing units during recent years. This has been due to the increased population and a decline in the average household size--from 3.21 in 1970 to 2.84 in 1980.

Average household sizes, which ranged in 1980 from 3.37 in East Fishkill to 2.26 in the village of Fishkill, have declined for four major reasons: there are more single-parent households; people are deciding to get married later in life; there are smaller families; and, people are having children later in life.

The average population density in the county rose from 295 persons per square mile in 1970 to 303 persons per square mile in 1980. Localized densities currently range from 46 persons per square mile in Milan to more than 6,000 persons per square mile in the city of Poughkeepsie. The towns of Poughkeepsie and Wappinger both have densities in excess of 1,000 persons per square mile. Southwestern Dutchess County, which includes these two towns, has 72 percent of the entire county population.

The median age in Dutchess County in 1970 was 29 years. The median age was 31.2 years in 1980. This reflects a declining birthrate and increasing lifespans. Conversely, the dependency ratio (number of people under 15 and over 65 per 100 people age 15-64) has declined. The ratio was 63.9 in 1970 and 49.3 in 1980. This is due to a significant increase in the percentage of productive workers during the 1970s, and it means that on a percentage basis there is less money needed to support the "non-productive" segment of the population.

In 1980, there were 80,642 households in the county, with a total household population of 228,977. The remaining 16,078 individuals lived in group quarters--10,459 of them in institutions. The largest institutional populations were found where there are correc-



DEMOGRAPHY

tional facilities, psychiatric centers and developmental institutions. In Dutchess County, these are in Amenia, Beekman, Dover, Fishkill, Poughkeepsie and Rhinebeck. Most "non-institutional" residents were students at local colleges.

The New York State
Department of Commerce

projects a growth rate in Dutchess County of 12.1 percent between 1980 and 1990 and 11.1 percent between 1990 and 2000. This projection would lead to a population of 305,114 by the year 2000. Projections by the Dutchess County Planning Department are higher, ranging from 326,000 to 340,796 by the year 2000.
The New York State

Department of Environmental Conservation projects 321,700 people by the year 2000. All communities are projected to grow, with the southwestern communities continuing to experience the most growth. Even the most conservative projection for the county shows an increase of 60,000 persons between 1980 and 2000.

Goal, Policy and Rationale

The Dutchess County population goal is:

To provide for anticipated population growth, while allowing for the orderly and reasonably-timed expansion of community services to accommodate this growth.

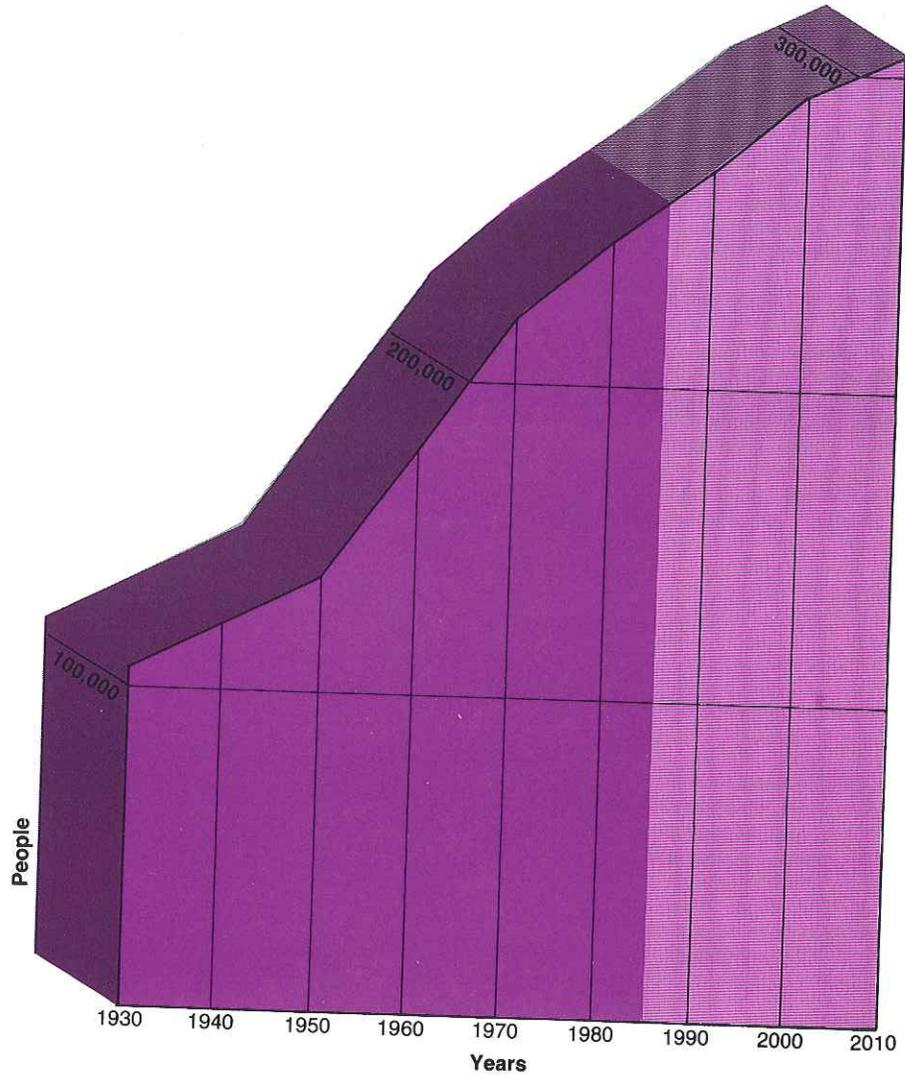
Growth is recognized as being inevitable in the counties of the Mid-Hudson region. It is a major driving force behind the development of *Directions: The Plan for Dutchess County*. This plan is designed to encourage the growth that does occur to conform to the policies outlined in this and following chapters. The policies are in no way intended to be "anti-growth"; rather, they emphasize the need for quality and for changes that respect the existing land use pattern and resource base of Dutchess County. Citizens and public officials should be prepared to accommodate anticipated growth in ways that reflect community values and protect the environment of those already living in Dutchess County.

Policy 2.1

Dutchess County encourages the continuing use of demographic information to predict the demand for land use resources and community services.

Government agencies tend to be reactive, addressing problems and crises rather than anticipating and preventing them. For most Dutchess County communities, continued growth is a certainty. This will add demands on local roads and on many government services. Decision makers should use demographic data to help determine long-range consequences of current trends so that necessary programs and services can be planned and financed with equity and economy in mind. This data should also be used to determine the adequacy of existing facilities and services. The adequacy of a community's recreation system can be approximated by calculating the number of acres of developed recreation space for each thousand residents and comparing that value to nationally recognized recreation standards.

Population Growth 1940 - 2010



Policy 2.2

Dutchess County supports equal opportunity for all individuals regardless of race, color, sex, national origin, religion, age or handicap.

The unique character and desirable quality of life that exists in Dutchess County is partially attributable to the heterogeneous nature of its residents. Equal opportunity in areas such as housing, employment, recreation, transportation and community facilities is important to the well being of all residents. Diversification, affordability, availability and location are key elements in providing services and opportunities. These items should be carefully considered by all levels of government as development proposals are made. Various chapters in this plan will set forth policies and rationales that will help ensure equal opportunity for all.

Introduction

The Mid-Hudson region has been called New York's natural growth area. This is due primarily to its proximity to New York City and its attractive landscape. Recent population figures support the idea that the Mid-Hudson is a natural growth area--the population of seven Mid-Hudson counties rose 43 percent between 1960 and 1980, even as the state lost 700,000 people.

The New York State Department of Transportation defines the Mid-Hudson region as Columbia, Ulster, Orange, Putnam, Rockland, Westchester and Dutchess counties. Because of Westchester County, this transportation region is first in the state in number of state road miles (2,160), in millions of vehicle miles (8 million), and in number of bridges (1,069).

Dutchess County is located in the center of the Mid-Hudson region. Columbia County, to the north, is a rural farming area. While Connecticut is rural along the eastern Dutchess County border, Danbury, Connecticut is a metropolitan area within commuting range of southeastern Dutchess County. Putnam County, New York forms the southern border of Dutchess County. Putnam County has a rugged, tree-covered

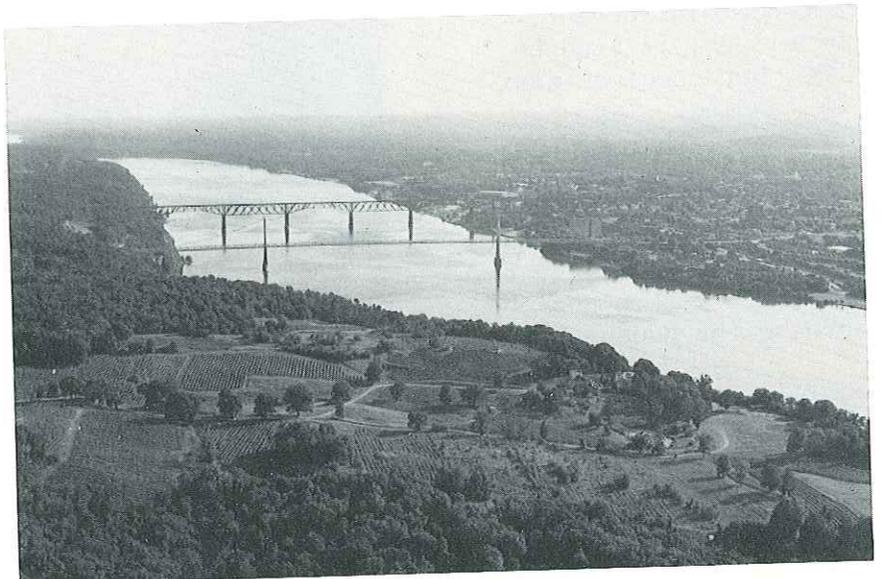
landscape and is a suburban location for many who work in Westchester County and New York City.

The Hudson River forms the western border of Dutchess County. The River, between 2,000 and 7,500 feet wide along the Dutchess shoreline, is traversed by bridges between Beacon and Newburgh, Poughkeepsie and Highland, and Rhinecliff and Kingston. While the salt water influence of the Atlantic Ocean extends to southern Dutchess County, the tidal influence extends north to Albany.

Orange County, New York lies to the west of Putnam County and southern Dutchess County. Orange County has growth potential due to its proximity to New York City, the availability of the former Stewart Air Force Base as a major industrial site, and the

extensive interstate road network. Dutchess County shares most of the Hudson River with Ulster County. Ulster is mainly rural, with orchards, vineyards and wooded foothills to the Catskill Mountains. The State University of New York at New Paltz is located in Ulster County within easy commuting range of Poughkeepsie.

The Regional Plan Association, a long-standing private organization in the Metropolitan New York region, has traditionally considered Dutchess County to be part of greater New York. Recent commuting figures bear out this consideration--on any given workday, 25,000 commuters cross Dutchess County borders in roughly equivalent numbers between incoming and outgoing traffic. About 2,000 persons commute to Manhattan daily, while many more commute to Westchester County.

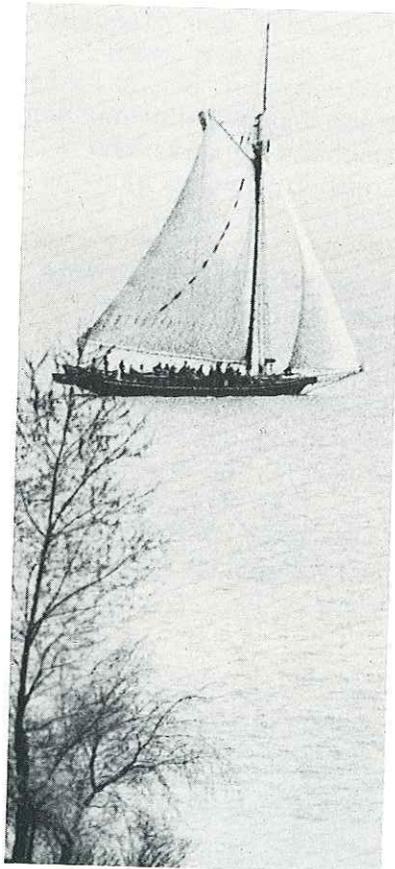


While Poughkeepsie and Dover Plains are the end of the line for commuter rail service, one can reach Manhattan by rail in two hours from either location.

The Mid-Hudson area has a strong regional identity, but it has yet to foster an institutional presence that can shape comprehensive goals and implement programs. Currently, there is no strong regional planning agency in the Mid-Hudson region. In 1981, the Tri-State Regional Planning Commission was disbanded. The Hudson Valley Regional Council (HVRC), which has never had a large staff, is kept intact by part-time staff support from Mid-Hudson Pattern for Progress and by the willingness of county executives and county planners to meet on a regular basis. The Economic Development District of the Hudson Valley, established under federal Economic Development Administration guidelines, is tied to HVRC, but receives minimal funding. The Heritage Task Force, organized under the New York State Department of Environmental Conservation, meets regularly to deal with issues concerning the Hudson River.

Regionalism is well represented by private and special purpose entities. Mid-Hudson Pattern for Progress recently celebrated its 20th birthday.

Scenic Hudson is an active, issue-oriented group. Sloop Clearwater is an environmental education group which focuses on issues affecting the Hudson Valley. County tourism directors meet regularly and advertise cooperatively. Their cooperative attitude signals an opportunity for a broader emphasis on areawide problem solving.



Mid-Hudson Pattern for Progress recently identified "controllable liabilities" for the Mid-Hudson region. They include:

- * inadequate water and sewer provisions;

- * poor land use planning;
- * visual pollution;
- * underdeveloped tourism appeal and infrastructure;
- * urban under-employment;
- * inadequate road network;
- * unrealized industrial potential of Stewart Airport; and,
- * inadequate venture capital.

The Regional Plan Association (RPA) has warned that the Mid-Hudson region is beginning to succumb to "spread city," a land-wasting growth phenomenon associated with a scattered, formless settlement pattern. The Association's observation coincides with liabilities identified by Pattern for Progress. It supports fears expressed in a 10-year-old plan prepared by the RPA for southern Dutchess County.

Directions heeds the RPA warning. The liabilities outlined by Pattern for Progress are viewed in this plan as being controllable through a concerted plan implementation program.

The Dutchess County Plan recognizes that economic growth issues are truly regional. The 33 percent decline in farmland since 1950 is a regional and national occurrence, with profound implications for land use in Dutchess County. Another example

involves water supply. New York City has a back-up source of potable water through an aqueduct which draws water from the Hudson River just above the salt water block in Dutchess County. If New York City draws significantly more water from the "Chelsea Tap" in Dutchess County, it may not be without significant economic and environmental consequences for Dutchess and other Mid-Hudson counties.

Regionalism should be viewed as a positive force. We can share solutions and develop opportunities just as we share problems. IBM Corporation employment in Kingston causes residential growth in Red Hook. Increased tourism at West

Point can lead to a brisker season at Hyde Park. Planned development of the Stewart complex in Newburgh will affect Dutchess and Ulster, as well as Orange County. Economic growth in Danbury, Connecticut will cause changes in Dover and Pawling. Recreation and second home activity near Sharon, Connecticut is shared, to some degree, by Northeast, Millerton, Amenia and Pine Plains. Poughkeepsie's role in entertainment and the arts is regional, as implied in the city's title "Queen City."

The Mid-Hudson region has a good and improving self-concept. Dutchess County, whose economy is

a prime reason for the good regional image, can help lead the region into a future of optimism and growth. Dutchess County is a bustling boom town in the southwest and a pastoral setting in the northeast. It can choose what it wants to be, rather than passively submitting to the forces of growth and change. In exercising this capacity to choose, Dutchess could proceed as a Mid-Hudson leader, as a model for the 21st century. The policies in this element support a high regional profile for Dutchess County, expecting its leadership status to be earned through its capacity to steer a planned and steady course into the future.

Goals, Policies and Rationales

This chapter outlines two goals. First, Dutchess County's Regional Perspective goal is:

To foster Mid-Hudson regional identity and cooperative activity.

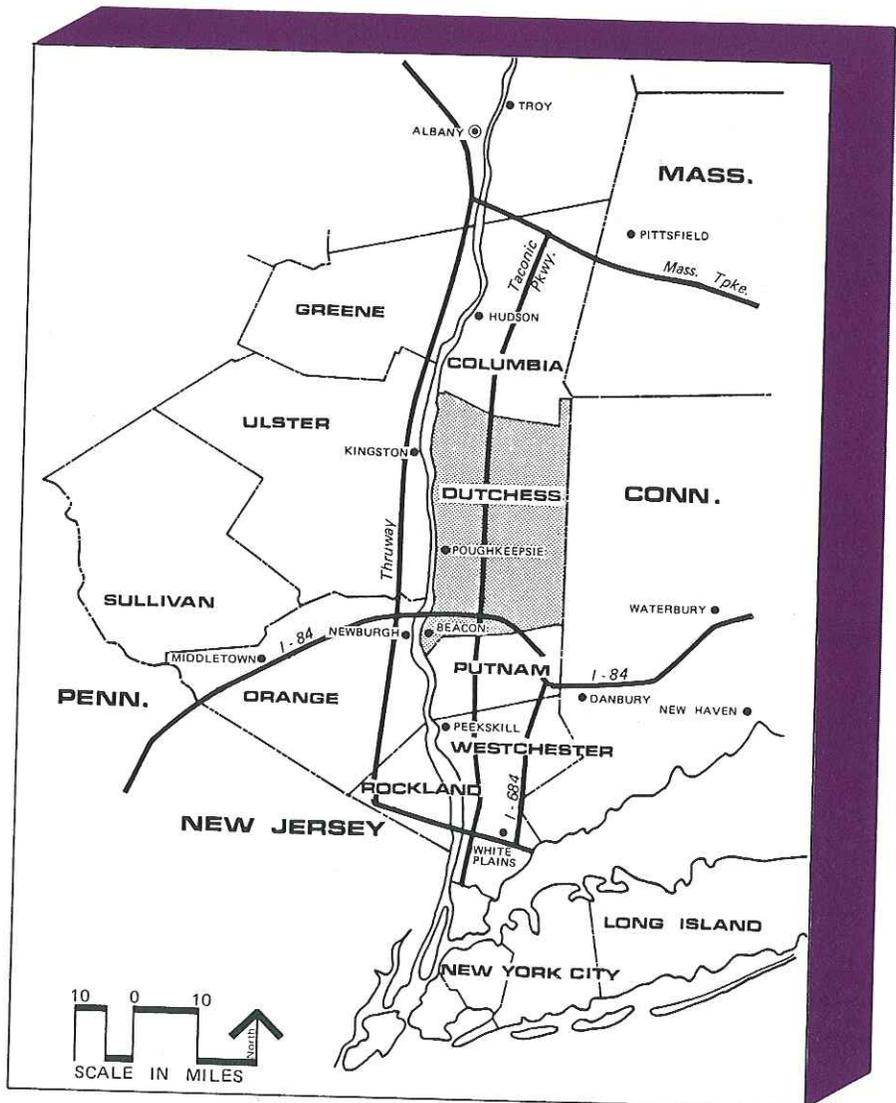
The Hudson River Valley is known nationally. Its national image is mostly based on a general understanding of history, rather than notions of landscape, weather and the economy. Areawide images must be built on substance and a clear understanding of regional assets and liabilities. Weaknesses can usually be overcome, provided that they are recognized and that there are deliberate programs to counter them. Opportunities can be expanded, but this also entails a conscious effort to improve. The policies below are based on the assumption that a positive regional image and united regional action can help to improve the economy, appearance and way of life in all municipalities within the Mid-Hudson region.

Policy 3.1

Dutchess County advocates the establishment of a close working relationship with other Mid-Hudson counties to promote regional tourism.

The Mid-Hudson region is geographically well located for tourism. Neighboring Ulster County realizes considerably more revenue from tourism than Dutchess County. West Point in Orange County is the region's single largest tourist attraction. The Dutchess County tourist economy can benefit by helping to build a strong image for the region. Although Dutchess already has a large number of attractions, opportunities for further growth are well recognized. Cooperative marketing and promotional activities are cost effective ways of encouraging this growth, particularly since Dutchess is not yet in a strong position to market itself as an overnight tourist destination point.

Environs



Policy 3.2

Dutchess County supports continuing work to maintain a regional distinctiveness in its use of land and natural resources.

The New York Regional Plan Association warns against "spread city," a kind of land use cancer that consumes the natural and man-made landscapes alike, producing an excessive automobile-dependent, suburban settlement pattern. A common perception in Dutchess County is that portions of its southwestern sector are giving in to "spread city" pressures, taking on a Long Island or Westchester appearance. This is viewed negatively by those who remember a slower pace of life and a more open and rural atmosphere. "Spread city" can either be viewed as uncontrollable or controllable. Commitment to planning implies the belief that constructive land use patterns can be achieved and that distinctiveness can be maintained, even in the face of growth pressures. Specific planning measures cannot succeed, however, unless there is a common desire to be selective and careful in managing land resources.

Policy 3.3

Dutchess County recognizes its cultural, transportation and economic relationships to the greater New York metropolitan region and encourages participation and leadership in areawide decision making.

Dutchess County is the outermost county in the Regional Plan Association's definition of the New York metropolitan region. It is in the Metropolitan Transportation Association's service area. It provides a backup inlet for the New York City water supply. Increasingly, it acts as a bedroom community for persons working in Westchester County and New York City. The proximity of New York City and its suburbs to Dutchess provides an excellent tourism market and many employment opportunities. Independence from city influences should neither be asserted nor encouraged. Instead, these influences must be understood. This understanding will help the county as it works to maintain its distinctiveness and to seek the best opportunities that a great metropolitan region allows.

Policy 3.4

Dutchess County supports cooperation with regional groups to address common land use and resource management issues in the Mid-Hudson region.

The Mid-Hudson region has struggled to maintain a regional identity. It is one of the few areas in New York that is not served by a full-fledged regional planning agency. This is ironic and unfortunate because the Mid-Hudson counties collectively possess the state's most active economy. Considerable growth and change are ensured in the Mid-Hudson region during the 1980s and 1990s. The Mid-Hudson counties share many opportunities for economic growth. As Dutchess County strives to be discriminating in its attempt to protect the best of its natural environment, its efforts should be complemented by similar efforts in neighboring counties. The Hudson Valley Regional Council, Scenic Hudson, the Heritage Task Force, the Lower Hudson

Conference, Sloop Clearwater, Pattern for Progress, the Hudson River Shorelands Task Force, the Mid-Hudson Economic Development Corporation and the Regional Plan Association are among the organizations that cultivate regional identity and cooperation.

Policy 3.5

Dutchess County endorses broadly based support for issues of regionwide concern.

Several issues are common to all Mid-Hudson counties. The degree of importance varies by county, but each issue influences the quality of life for nearly all Mid-Hudson residents. These issues include:

- affordable housing;
- commuting patterns;
- energy requirements;
- acid rain reduction measures;
- housing and health care alternatives for the elderly;
- extent of access to the riverfront;
- visual quality of the waterfront;
- enhancing the status of, and opportunities for, minorities;
- management of toxic waste sites;
- solid waste disposal methods;
- demand for Hudson River water;
- quality of land use management;
- countering the trend toward sprawl;
- protecting aquifers, wetlands, and prime farm lands;
- promoting good site planning and adequate drainage;
- development of Stewart Industrial Site;
- variety and quality of tourism opportunities;
- train service to New York City;
- state and federal highway improvements;
- scenic roads;
- second home development; and,
- water pollution of the Hudson and its tributaries.

Agreement on issues and priorities can lead to stronger individual program initiatives within counties and to more effective lobbying at state and federal levels. The potential strength of a united voice is not used. The new regional economic development council provides an immediate vehicle for identifying and pursuing common objectives, particularly for economic issues needing state support.

Policy 3.6

Dutchess County endorses regional promotion of the Mid-Hudson Valley as an attractive area

Site selection occurs in different stages. Major companies often begin by evaluating broad regions, e.g., the Northeast, the New York Metropolitan area, an area

for new businesses, concentrating on high technology opportunities and striving to increase diversity.

within a 90-minute drive of a designated city. As with home buying, many locations are investigated before one is selected. Environmental factors, labor supply, transportation network and other elements are considered. Often, an entire region must be promoted to highlight the attractiveness of subregional locations. Dutchess will benefit from the promoting of the Hudson Valley, thereby helping guide industrial decision making at its earliest stages.

The second goal in this chapter recognizes that the Hudson River Valley must be the theme and rallying point for regional cooperation. Dutchess County supports the following goal:

To maintain and improve the beauty of the Hudson River shoreline

Water is a prime environmental and visual asset. Yet the Hudson River is a resource that is taken for granted and hidden from everyday view. The following policies are aimed at protecting the river and weaving it--and what it represents--more directly into the lives of people who work in, and visit, the Hudson Valley.

Policy 3.7

Dutchess County views the Hudson River and its shoreline as the centerpiece for activity among counties in the Mid-Hudson region and supports efforts to increase public access to the river and preserve its visual appeal.

Public access to the Hudson River is severely limited. The river's breathtaking beauty is rarely apparent except during bridge crossings and mansion tours. Land use along the river reflects an older economy when the river was considered to be primarily utilitarian. The river has enormous potential to add to the quality of life of area residents, provided that it becomes more accessible. Without public involvement, available riverfront property will be converted to private residential lands. It is important that the heritage, the views, and the accessibility of the river be used by the general population. Protection activity should have a strong regional dimension, in accordance with the overall goal of promoting a positive Mid-Hudson identity and in recognition of the mutual dependence among communities in protecting views and environments.

Policy 3.8

Dutchess County encourages the additional use of Article 49 of the New York Environmental Conservation Law to extend scenic boundary designations along the Mid-Hudson shoreline.

Currently, only northern Dutchess County, between Hyde Park and southern Columbia County, falls under the Article 49 planning process. Dutchess residents benefit from good views, and from sound land use practices, to the extent they exist, across the river. There has

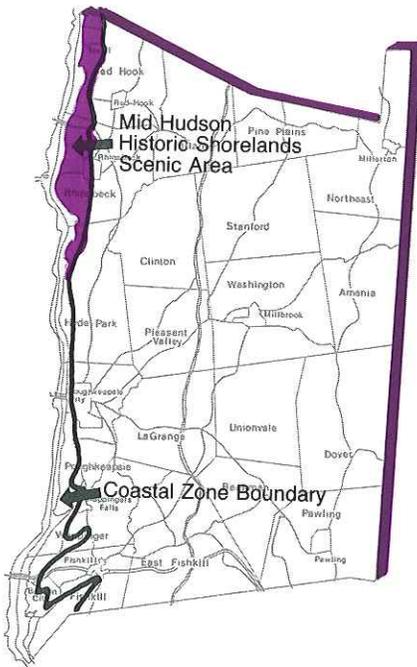
been a proposal for a major coal loading facility on the west side of the river. There will be increased pressure to intensify land use along the river corridor. Local regulatory responsibility is fragmentary and unable to manage adequately the land use change process. Communities will benefit from a common understanding of problems and from a united commitment to goals for shoreline use. The Scenic District Management Plan provides a valuable framework for implementing wise shoreline management policies.

Policy 3.9

Dutchess County encourages the pursuit of a special scenic resource designation in the Mid-Hudson Valley.

There is currently no unified form of land use management to protect the Hudson River shoreline from inappropriate kinds of development. A scenic river implementation strategy would allow a measure of unified local control over the future of the shoreline. There are federal and state wild and scenic river designation programs. Presently, a coastal program is being considered to designate scenic areas of statewide significance. Dutchess County is also considering official designation of significant natural areas. The Scenic District Management Plan is another way to implement shoreline protection policies. Several local communities are in the process of endorsing this plan. Failure to act will compromise the tourism appeal of the Mid-Hudson region and diminish the overall appeal of the Mid-Hudson as a place to live and establish new businesses. Scenic river provisions are a powerful advertisement to say, "we're special."

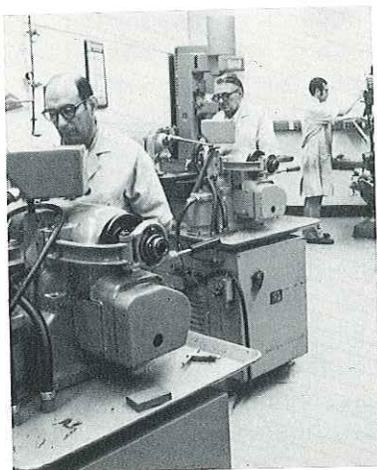
Special River Districts



Introduction

The Dutchess County economy is generally strong. This fact enables the county to proceed towards the deliberate advancement of many factors which improve the local quality of life. By demanding high quality development and investing in projects with long-term dividends, Dutchess will remain competitive over the long term, just as it has been in recent years.

Manufacturing employment represented 28.8 percent of the Dutchess County work force in 1982, compared to 17.8 percent statewide. Nearly three-quarters of the manufacturing labor force in Dutchess County is employed by the IBM Corporation. Principal plant locations are in East Fishkill, Poughkeepsie and Kingston (Ulster County). Other significant employers include Standard Gage, Fargo Manufacturing,



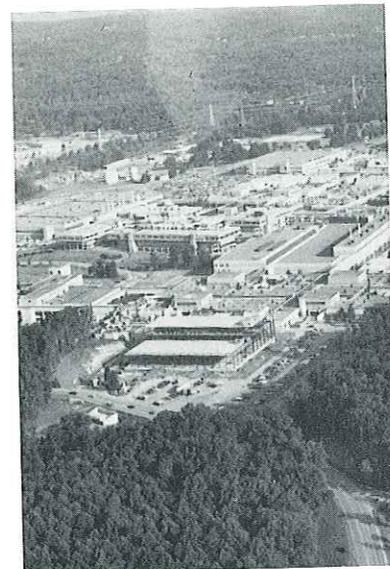
Taconic Products (a division of Keuffel and Esser), Pawling Rubber Corporation, Tri-Wall Container, and Automatic Systems Developers. Texaco also operates a sizeable research laboratory in Glenham, north of the City of Beacon.

The total Dutchess County work force in 1983 was 112,300. The labor force grew by 32.5 percent during the 1970s, even though the total population increased by only 10 percent. Annual employment gains averaged 2,340 jobs during the 1970s, or about 10 new jobs each work day. Manufacturing employment grew by 3,000, half of the entire increase in the Mid-Hudson Valley. This was in spite of the loss of two major employers--Western Publishing and Schatz Federal Bearings, and the continued decline in textile and apparel industries. There was a 20 percent growth in the number of firms during the 1970s.

The service sector grew by 10,000 jobs between 1970



and 1980. However, amusement and recreational employment declined between 1973 and 1982. Service sector employment, involving one-third of the entire labor force, is largely comprised of state employees. Dutchess County reported 10,293 state employees in 1983, the fourth highest total in the state. Many of these employees work at the three mental health related facilities: Harlem Valley Psychiatric Center in Wingdale, which now is also the site of a New York State Division for Youth facility; Harlem Valley Developmental Center in Wassaucott; and Hudson River Psychiatric Center along the Hudson River between Poughkeepsie and Hyde Park. Dutchess is also the home of two large state correctional facilities: Green Haven in the town of Beekmantown; and Downstate, north of Beacon in the town of Fishkill. The regional headquarters of the New



York State Department of Transportation and numerous smaller office facilities providing employment counseling, law enforcement and other needed services also contribute to the county's healthy employment picture.

Dutchess County has led the state in percentage of employed during recent years. Unemployment rates varied between 3.5 percent and six percent during the 1970s and has been 4 percent through 1986.

Dutchess County boasted the eighth highest median family income in New York in 1980--\$23,123. The county is among the national leaders in per capita purchasing power. Only seven percent of the residents were classified as living in poverty, well below the state and national averages.

In recent years, Dutchess County has increasingly become a bedroom community for out-of-county employees. On a given work day, about 17,200 commute out of Dutchess while another 15,600 enter the county for employment. Many of those commuting out of the county go to jobs in lower Westchester County. An increasing number also commute to new job opportunities in the Danbury area. Many of these have located in Dutchess because of the relatively lower housing

costs. Of those commuting to Dutchess, most travel to manufacturing and research jobs from homes in Orange and Ulster Counties.

Agricultural enterprises and tourism are two means of maintaining a balanced local economy. About \$41 million in farm sales was reported in 1983. One-half of the sales were of dairy products. Tourism accounted for an estimated \$61 million of local revenue in 1983. By far, the most important single tourist attraction in the county is the Roosevelt Home and Library in Hyde Park which draws about a quarter of a million people to the county each year. The largest single tourist event is the Dutchess County Fair which attracts over a million people to the fairgrounds in Rhinebeck during one week in the month of August. There are, however, numerous smaller sites and activities that attract visitors and employ residents throughout the county.

The Dutchess County economy is varied geographically. The major industrial sphere of influence prevails in southern Dutchess and forms an ever-expanding ring around Poughkeepsie. Eastern and northern Dutchess County have a substantial rural orientation. Unemployment is higher, wages lower, and job opportunities fewer in many eastern and

northern communities. In these areas, there is opportunity for development of small, diversified, resource-based businesses to balance the farming economy.

Diversification of the local economy is a primary objective of *Directions*. The closings of Schatz Federal Bearings, Western Publishing and Fairchild Corporation--three major employers--have resulted in a less diversified industrial economy. Other major firms, such as Texaco, and Alpha Laval have cut back employment. Dutchess County lost 2,528 jobs through closings and reductions between 1978 and 1982. There has been no net increase in manufacturing jobs through 1986. A nationally threatened agricultural sector could result in further reducing economic diversity in Dutchess County. To attract new industry, Dutchess must have available sites, a good road network, a diversified labor pool, and a range of available housing. Presently, vacant industrial sites are sometimes without utilities or ideal road access in Dutchess County. Housing availability is another local employment issue. Housing supply is tight, and residents face increased competition for local housing from persons employed outside Dutchess County.

Goal, Policies and Rationales

Dutchess County's principal economic goal is:

To preserve and strengthen the economy of Dutchess County, and to encourage a growing and increasingly diversified economic base.

Dutchess County has a strong economy. Unemployment is low and salaries are relatively high. A sound economic policy must consider long-term economic capacity. Are recent changes in the county's economic base ones that will help or hinder long-term economic growth and stability? It is important to use the current position of economic strength in a way that perpetuates conditions for continuing prosperity. It would be a mistake to assume a "company town" attitude, or to develop a kind of complacency based on the notion that local economic conditions can be sufficiently supported on the performance of a large and very successful employer. Also, eastern Dutchess County has a dual challenge--to protect its agricultural base, while attracting new employment in the service and light industrial sectors. The following policies look to the needs of all economic sectors, and to employers of various sizes. Moreover, these policies recognize that economic strength and diversity are needed for all portions of the county, including some less developed areas.

Policy 4.1

Dutchess County encourages the development of well-planned industrial parks. Industrial parks should have limited access points with good sight distances, an interior road system, utilities, flexibility in lot size and adequate buffering.

Most new job production occurs in small firms that have fewer than 20 employees. Dutchess County must seek continued growth in small firms, especially ones that will diversify employment opportunities. New firms prefer to select from a range of locations. The public benefits from discrete industrial locations with limited access points. This is particularly true in Dutchess County with its limited highway network.

Large firms, most notably established national firms, expect well-planned industrial and office sites, ones where services are provided. Many firms expect to move into existing buildings. If prospective park sites are in multiple ownership, efforts should be made to consolidate management so that a unified park concept is possible.

Policy 4.2

Dutchess County recognizes the potential advantage of industrial performance zones in its rural communities. Assuming that to expand industrial job opportunities is a local goal, small industrial developments can be

In recent years, performance standards have proven to be a legally acceptable substitute for traditional district zoning. Performance standards base suitability decisions on objective standards that are applied to specific situations, rather than predisposing suitability through a rigid zoning classification. Performance standards must be applied uniformly within

encouraged to locate within rural communities, provided they meet well-defined performance standards.

a municipality. They are advantageous in situations where the reasons for incompatibility between land uses can be predicted, and where a blending of land uses may be desired. Performance standards allow better protection against incompatibility than special use permits because these standards are adopted by the legislative body of the municipality and are available to the public and developer before development is proposed.

Light industrial development is desired by many rural communities. It is unrealistic to expect all those communities to develop well-planned industrial or office parks. If too much land is zoned for these purposes, its capacity for other potential uses will be severely limited. A performance zoning approach allows the potential for light industrial development, maintains the potential for private sector incentive, protects the public from incompatible land use, and gives the landowner flexibility in how he or she may use the land. It allows a process of negotiation between the developer and local land use boards.

Performance standards can be established to ensure that new development is compatible with surrounding land uses. Such standards can address the following concerns, among others:

- buffer width and vegetation;
- signage;
- noise or glare;
- road access;
- minimum lot size;
- sight distance;
- size of building or work force limit;
- adequacy of parking;
- waste disposal;
- water and air quality protection;
- protection of good agricultural land;
- proximity to existing centers; and,
- protection of wetlands, aquifers and other natural features.

Small industries can blend harmoniously into rural landscapes. Through carefully specified performance standards, small industrial enterprises can "float" so that small zones are created only after protective standards have been met.

This performance approach can be adapted to conditions in areas such as the Harlem Valley. Small resource-based industries, such as produce, packaging, wine making, hardwood manufacturing, and dairy processing can thrive in locations close to the resource. Small cottage-type industries are not likely to locate in a

planned industrial park. Good local standards can guide the decision making process so that small-scale industrial development is possible in decentralized locations, provided that it does not threaten neighboring property owners or destroy the integrity of the existing land use pattern.

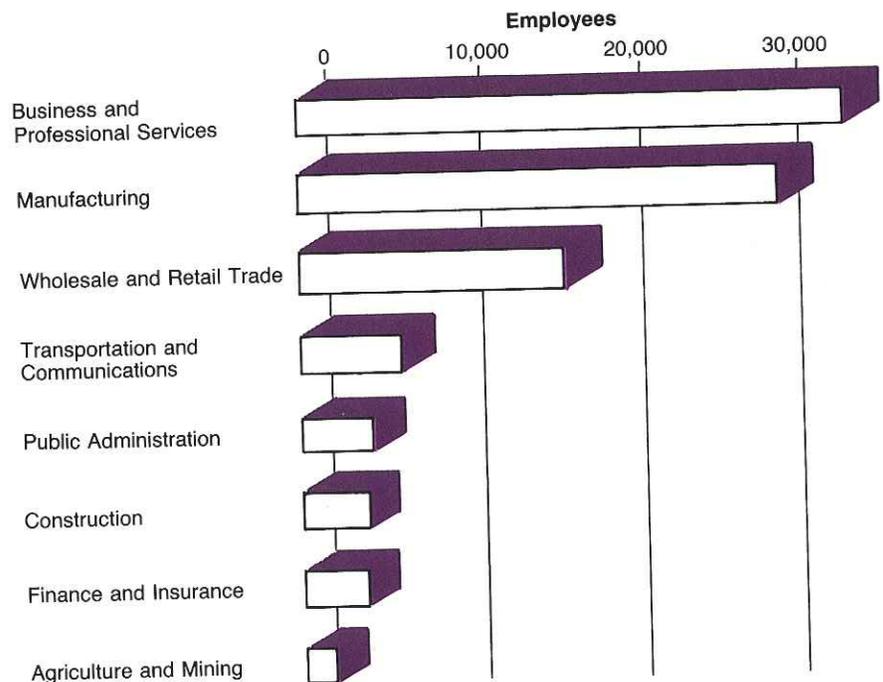
Policy 4.3

Dutchess County encourages the establishment of an increasingly diverse economy.

One measure of the health of a local economy is the degree to which component industries are diversified. Dutchess County lacks diversity, especially in its manufacturing sector. Trends toward or away from diversification develop slowly. Techniques to encourage new and diverse industries include:

- the preparation of marketing programs designed to attract specific, well-targeted economic sectors;
- the development of good industrial sites which are serviced by central utilities;
- attention to the overall Dutchess environment as an interesting and healthy place to live;
- the maintenance of the agricultural sector of the Dutchess economy;
- the solicitation of investment capital and research enterprises which can benefit from location near educational institutions;
- the provision of available and affordable housing; and
- the strengthening of the tourism sector of the local economy.

Distribution of Employment by Industry- 1980

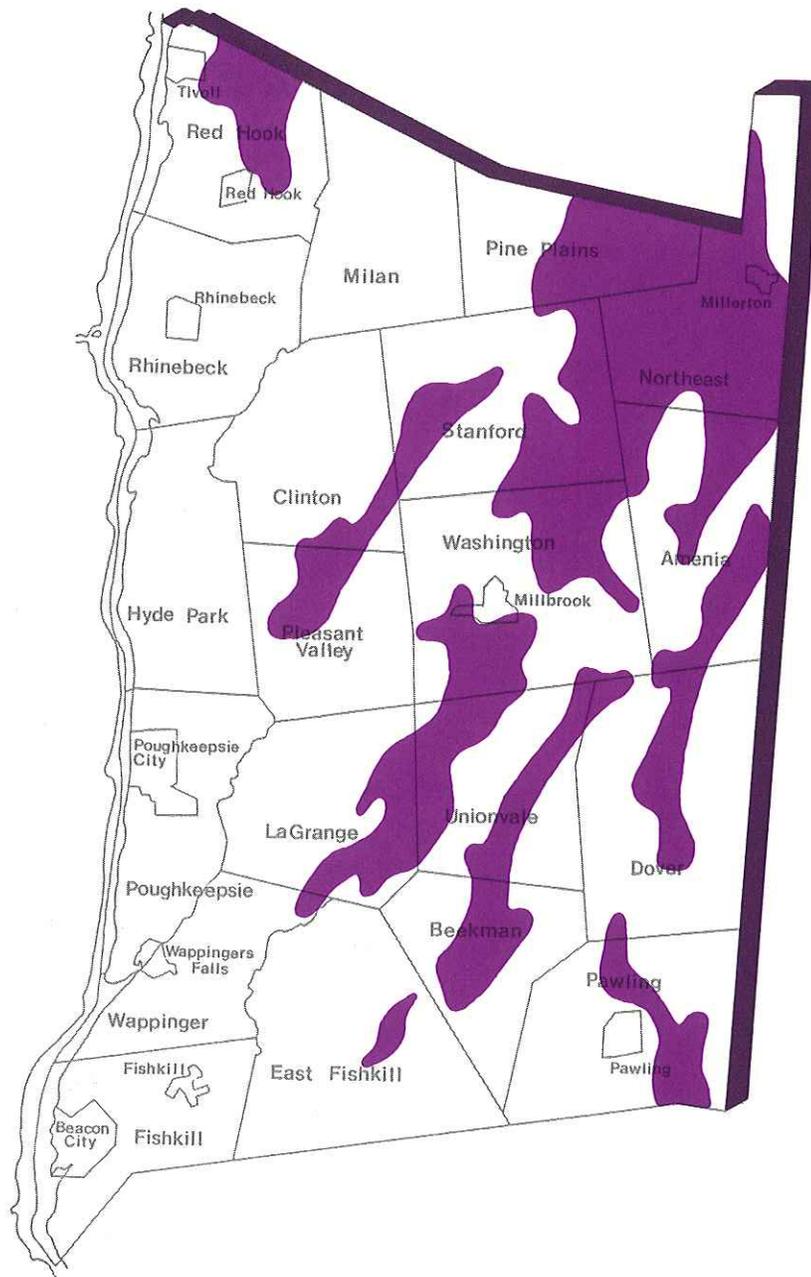


Policy 4.4

Dutchess County supports efforts to maintain the vitality, and increase the diversity, of agricultural enterprises in the county.

While there has been a strong market for local dairy farmers, the current overall condition of agriculture enterprises is not good. Poor profitability, especially over extended time periods, will result in the closing of some operations. Farm landowners need some alternatives for selling their land. If it is not suited, or currently marketable for development, its fair value will depend on finding a suitable owner who

Agricultural Areas



can maintain the farm as an investment. The Dutchess County Cooperative Extension Service should continue efforts to introduce farm management techniques, assist absentee owners in maintaining farms, present new and more profitable operational alternatives, and devise cooperative marketing approaches for small producers.

Policy 4.5

Dutchess County supports local land use management techniques that serve to protect agricultural lands, especially within agricultural districts.

The agricultural economy employs less than two percent of the Dutchess County work force. Yet it is the productive use of land which generated approximately \$41 million in direct sales in 1982.

Agricultural land use provides a system of open space that aids air quality, stormwater retention and water quality. It offers a wildlife sanctuary, especially in the transitional vegetation areas, between forests and fields. It is an asset to visitors and residents alike, providing a unique sense of space and aesthetic quality. It helps to promote the growth of manufacturing and other businesses in that Dutchess has maintained a reputation for its pleasing rural attributes.

Community survey results, from the Department of Planning and others, indicate that both the general public and the farm landowners want to see the best farm lands protected. This attitude is reflected through widespread participation in the Agricultural District program. Districting is a public-private agreement to withhold agricultural land from development in renewable eight-year time periods. Since property tax dollars are shifted from participants to non-farm property owners to support this agricultural preservation technique, it is important that other public policies reinforce the investment in districts.

Of particular importance are the prime and important agricultural soils because farmers get the best crop yields on these soils. Communities should consider the use of density bonuses, transfer of development rights, cluster housing requirements and specific standards to test for premature development in order to encourage development on farm lands that are not prime.

Land sold for development typically fetches a higher price than if sold for farming. But that has an essentially one-time impact on the economy, with the seller being the obvious and primary beneficiary. Development produces taxes, but most development causes increased costs for services. Residential development, typically consuming 70-80 percent of all developed land, does not produce sufficient taxes to cover in-

creased service requirements. In contrast, farms continue to support the local economy year after year, without requiring many local services.

Land use regulation must be equitable, but it need not guarantee an appreciated value for any property owner. Zoning regulations should provide order and predictability in the land exchange process and protect land values by helping to avoid land use conflicts. Zoning should also prevent "premature development," wherein development would require costly road or other improvements in rural areas.

When the development of the best agricultural lands in Dutchess County is being considered, the public interest must be taken into account. This should include:

- neighboring farmers who need each other to help maintain the marketing and supply infrastructures;
- future farmers who can benefit from producing on the best soils in the county;
- consumers who benefit from the reduced transportation costs of agricultural products; and,
- other property owners who have available land that is suited to development.

Dutchess County is a net importer of agricultural products. Assuming 100 percent value added on agricultural products, Dutchess residents produce in dollar value less than one-half of what they consume. Thus, the maintenance of prime agricultural land is a good long-term investment for those who appreciate a balanced economic base and a measure of economic self sufficiency. The value of local agricultural land will become more apparent as energy and transportation prices increase in future years.

Policy 4.6

Dutchess County supports the development of tourism in ways that promote the county as it is, including its historic and visual environment.

The county's National Park Service site, which includes the Roosevelt Library and Museum and the Vanderbilt Mansion, is second to the U.S. Military Academy at West Point as the most popular tourist attraction in the Mid-Hudson Valley. The county is well located in the Northeast population center. It has a large variety of natural, cultural and recreational attractions, yet its sales in tourism are a small fraction of those in Ulster County, and its dollar expenditures per visitor are low because so many visitors are either on day trips or just passing through. Tourism is the second largest economic stimulant in the United States, and marketing tourism is becoming very competitive.

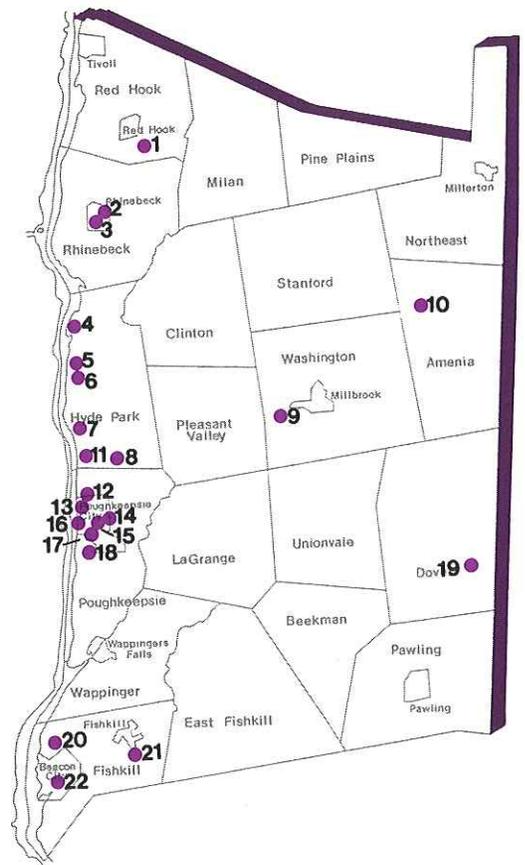
ECONOMIC BASE

Dutchess County, with the Dutchess County Tourism Agency and others, can develop its tourism potential in a number of ways:

- working to secure public access points to the Hudson River through easements or ownership for marinas, boat tours, small shop and restaurant environments, picnic and viewing areas, and transportation transfer points for land-based tourism opportunities;
- improving visual access in strategic locations along the river;
- cooperating with the Shorelands Task Force to implement provisions of the Scenic District Plan;
- combining public and private initiatives to define and achieve common goals for improving the tourism environment;
- promoting an increase in accommodations, including a downtown hotel and bed and breakfast facilities, and perhaps gradually developing a small convention trade;

Major Tourist Attractions

1. Old Rhinebeck Aerodrome
2. Dutchess County Fairgrounds
3. Beekman Arms
4. Mills Mansion
5. Wave Crest
6. Vanderbilt Mansion
7. Franklin D. Roosevelt Home
8. Val-Kill
9. Cary Arboretum
10. Cascade Mountain Winery
11. Culinary Institute of America
12. Mid-Hudson Civic Center
13. Cuneen Hackett Cultural Center
14. Glebe House
15. Barrett House
16. The Bardavon 1860 Opera House
17. Hudson River Sloop Clearwater
18. Young-Morse Site
19. Webatuck Craft Village
20. Mount Gulian Site
21. Van Wyck Homestead Museum
22. Madam Brett Homestead



- incorporating cultural activities into the vacation experience of an increasing percentage of visitors;
- coordinating marketing efforts and combining vacation experiences to help attract people for longer visits; and,
- continuing support of a professionally staffed tourism coordination and promotional agency.

Policy 4.7

Dutchess County encourages the growth of Poughkeepsie as a financial, cultural and service center.

Traditionally, a strong regional economy has a vital urban center. The center is both symbolic and functional. It has well-recognized and appreciated purposes--focal point for offices, business and government; center for culture; center for specialized retail opportunities; hub for a mature transportation network; center for employment opportunities; and location for a variety of housing types. While the city of Poughkeepsie uniquely serves Dutchess County in these functions, its image has not always measured up to its importance. The continued revitalization of Poughkeepsie will assist every neighboring community in an overall effort to promote Dutchess County sites for new business development. Likewise, the city of Beacon should be promoted for its economic importance to southern Dutchess County.

Policy 4.8

Dutchess County supports close cooperation between economic development and comprehensive planning activities within the County, and recommends that economic assistance programs be consistent with the policies expressed in the County Master Plan.

Directions contains locational criteria, developmental standards and methods to ensure representation of community values. The plan outlines a long-term program for a strong and thriving economy. As the most comprehensive policy document in Dutchess County, and as an expression of public concern and values, the plan will be useful in ensuring the quality of economic development projects. Economic development issues are inseparable from housing, environmental, traffic, and other concerns. A sound planning process helps to ensure that attention is paid to interrelated growth issues. Public expenditures should be tied to carefully prepared and accepted public policies. The County Master Plan will provide decision makers with valuable criteria for judging the value of proposed projects.

Introduction

To maintain the environmental health and well-being of Dutchess County, it must be recognized that growth and change are appropriate only as long as they respect environmental tolerances and physical constraints. The needless destruction of natural resources inevitably destroys economic and social values as well. Therefore, the goals of environmental protection and continued growth must be reconciled if the quality of life in Dutchess County is to be preserved and enhanced.

This chapter presents policies designed to protect the natural resource base of Dutchess County. If these policies are carried out, constructive growth will be accommodated, while the long-term value of land in the county will be preserved. Also, the water resources that support diverse land uses will be protected and the charm and character of the natural landscape will be retained.

Concerns and policies are presented for several specific types of resources found in the county. These include wetlands, floodplains, aquifers, surface waters, steep slopes, soils, forests and scenic resources. The limitations and qualities of these resources, discussed briefly below, raise

numerous issues that should be addressed in the planning and development process.

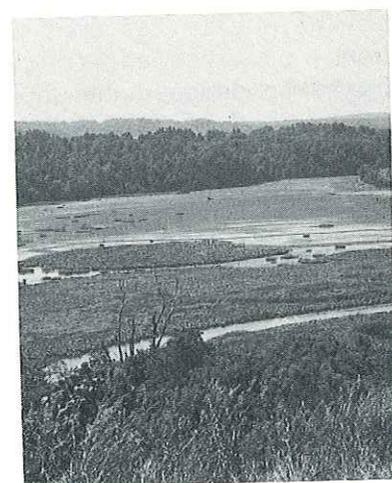
Natural groundwater reservoirs, called aquifers, provide water for domestic, commercial and industrial uses throughout Dutchess County. At least 60 percent of the county population relies on community or individual wells that draw on local groundwater supplies. It is important that these wells be protected from the contamination and depletion that result from unwise land use practices. The most prolific aquifers are located where sand and gravel deposits overlie limestone bedrock in the county's major stream valleys. The largest aquifers are found along the Tenmile and Swamp Rivers, the Wappinger Creek, the Fishkill Creek, the Sprout Creek in East Fishkill and LaGrange, and the Sawkill Creek in Red Hook. Much remains to be learned about the boundaries and capacities of these aquifers, and their sensitivity to development pressures.

Dutchess County lies within two major river watersheds--the Hudson and the Housatonic. Within these large drainage basins are more than 800 miles of streams, in addition to the Hudson River, as well as 93 named lakes and ponds. These surface waters are

important water supplies, wildlife habitats, storm-water storage areas, recreational areas, scenic resources and open spaces. They also act as receiving waters for treated sewage and industrial wastes, and as transportation corridors, in the case of the Hudson River.

The quantity, quality and location of surface waters greatly influence land use patterns and the county's quality of life. Pollution, water supply needs and drainage patterns present major surface water management issues that demand attention.

Freshwater wetlands cover 6.4 percent of Dutchess County, or approximately 33,000 acres. Nearly 70 percent of this wetland acreage is regulated through the New York State Freshwater Wetlands Act.



Wetlands exist in a zone of transition between water and land, where

they play a crucial role in maintaining environmental health. They are not suitable sites for development. When wetlands are drained or filled, the county loses part of its natural stormwater retention system, water-cleansing capacity, ability to replenish groundwater supplies and prime wildlife habitats.

Low-lying areas adjacent to streams and rivers provide space for excess runoff during heavy rains or severe snow melts. Left unobstructed, these floodplains act as shock absorbers that can safely channel flood flows.

Floodplains line the stream and river valleys of Dutchess County. Construction within these areas is usually unwise because of the likelihood of property damage from future floods. Inappropriate floodplain uses impose significant costs on the public for emergency services and repairs to damaged facilities. Floodplains are ideal locations, however, for recreational and open space areas, farmlands and other uses that involve minimum interference with flood-carrying functions.

Steep slopes (slopes greater than 15 percent) are concentrated along the walls of the Harlem Valley and Clove Valley, in the Hudson Highlands along the Putnam County

border, and in the Stissing Mountain region of Pine Plains. They provide a scenic backdrop to the county's valley floors, and they support much of the county's wildlife and forests, as well as recreational facilities, such as the Appalachian Trail. Road building, provision of utilities, erosion control and on-site waste disposal needs present difficult problems on steep slope areas.

Soils with low permeability appear throughout Dutchess County, but they are most extensive in the county's western half. These soils have poor drainage characteristics that severely limit their ability to absorb water and filter wastes.

Shallow soils, where bedrock generally lies less than three feet below the ground surface, coincide with steep slopes along the county's hills and mountain ridges, and also cover much of Hyde Park, Clinton and Milan. Shallow soils limit the placement of wells, septic systems, foundations, agricultural uses, roads, and utilities.

Prime soils, classified as the most productive agricultural soils by the U.S. Soil Conservation Service (SCS), are concentrated along the major stream and river valleys and in Red Hook, Rhinebeck, Clinton and Pleasant Valley. Also,

they used to be abundant in the southwestern quarter of the county. Prime soils once covered 15 percent of the county's land surface. It has been estimated that as much as one-half of this soil area has been developed for residential, commercial or industrial uses, and is no longer available for agricultural purposes.

Important soils, also designated by the SCS, usually support good crop yields, but possess certain limitations that distinguish them from prime soils. They once covered one-third of Dutchess County, and they are still common in Stanford, Washington, Hyde Park, Pine Plains and the Harlem Valley.

Although significant progress has been made in controlling erosion from active farmlands in recent years, development and erosion continue to reduce the quality and availability of the county's best soils for agricultural uses.

Sand and gravel mines are found throughout the county, with concentrations in the southeastern towns, the Harlem Valley, and along the Wappinger Creek. New York Trap Rock in Poughkeepsie is one of the state's largest rock quarries. Limestone and dolostone bedrock are mined in Pleasant Valley and the Lake Ellis area of Dover.

NATURAL RESOURCES

Mine reclamation needs and potential groundwater impacts are primary issues surrounding Dutchess County mining operations.



Dutchess County is endowed with many areas which are significant for their beauty and natural characteristics. These unique resources, such as the Tivoli Bays, Mt. Beacon, and the Panhandle Wetlands of Northeast, are irreplaceable, and

they lend diversity and distinctness to the landscape. The need to identify and protect such resources through a variety of methods is being recognized as development pressures increase.

Nearly one-half of Dutchess County is covered by brushland, forests, tree plantations or inactive land. Forests are most common on hillsides and ridges, particularly in the eastern and southern towns where much of the land is steep and rocky. Forests are widely recognized as providers of building materials, fuel, wildlife habitat and recreation opportunities. They also provide many critical benefits that tend to be overlooked. They build up soil and hold it in place, replenish oxygen supplies, filter and absorb certain pollutants, settle dust from the air, absorb noise, give privacy, trap rainfall, provide transition areas between land

uses, enhance beauty and diversity of the landscape, and convert solar energy into basic foods that support the food chain. The major human influences affecting the county's forests are woodcutting, land clearing and pollution.

Air quality in Dutchess County and throughout the Mid-Hudson region is generally good, and it has improved significantly since the 1960s under state and federal pollution control programs. However, acid rain affects Dutchess County as well as the entire Northeast. The serious long-term impacts of acid rain on the region's water quality, forests, soils and structures, and its potential effects on human health, are only beginning to be recognized and understood. A lack of information about levels and effects of toxic indoor and outdoor air pollutants is also cause for concern.

Goals, Policies and Rationale

Dutchess County's diverse natural resources can be divided into two broad categories: water resources and land resources. Goals for both categories, and the policies that will enable the county to meet those goals, are presented below.

Dutchess County's water resources protection goal is:

To preserve and maintain the quantity and quality of the county's surface and groundwater resources.

Dutchess County's water supply supports a large human population and sustains a diverse natural resource base. The abundance of water in the county has made it easy to take these resources for granted, and to treat land and water use as if they were unrelated. In recent years, however, the interdependence of land use, water quality and water quantity has become more apparent as reports of water shortages, groundwater contamination and drainage problems have multiplied. It is now clear that allowing water supplies to be damaged by overuse and pollution can threaten the county's environmental, social and economic well-being. Well-integrated land and water management plans are needed to restore water supplies that are showing signs of misuse, and to prevent further damage from occurring. It is also necessary to recognize the links between groundwater and surface water supplies, and the critical roles of watersheds, floodplains and wetlands in the hydrologic system. Resource management policies should be based on this comprehensive view so that piecemeal, counterproductive water programs can be avoided.

Policy 5.1

Dutchess County advocates the use of strict land use controls and development density limits to protect aquifers from contamination.

Dutchess County's aquifers are vulnerable to contamination. Industrial waste discharges, road deicing salts, overcrowded septic systems, landfills, leaky petroleum storage tanks, and the innumerable household, commercial and agricultural chemicals that find their way into groundwater contribute to the risk of aquifer contamination.

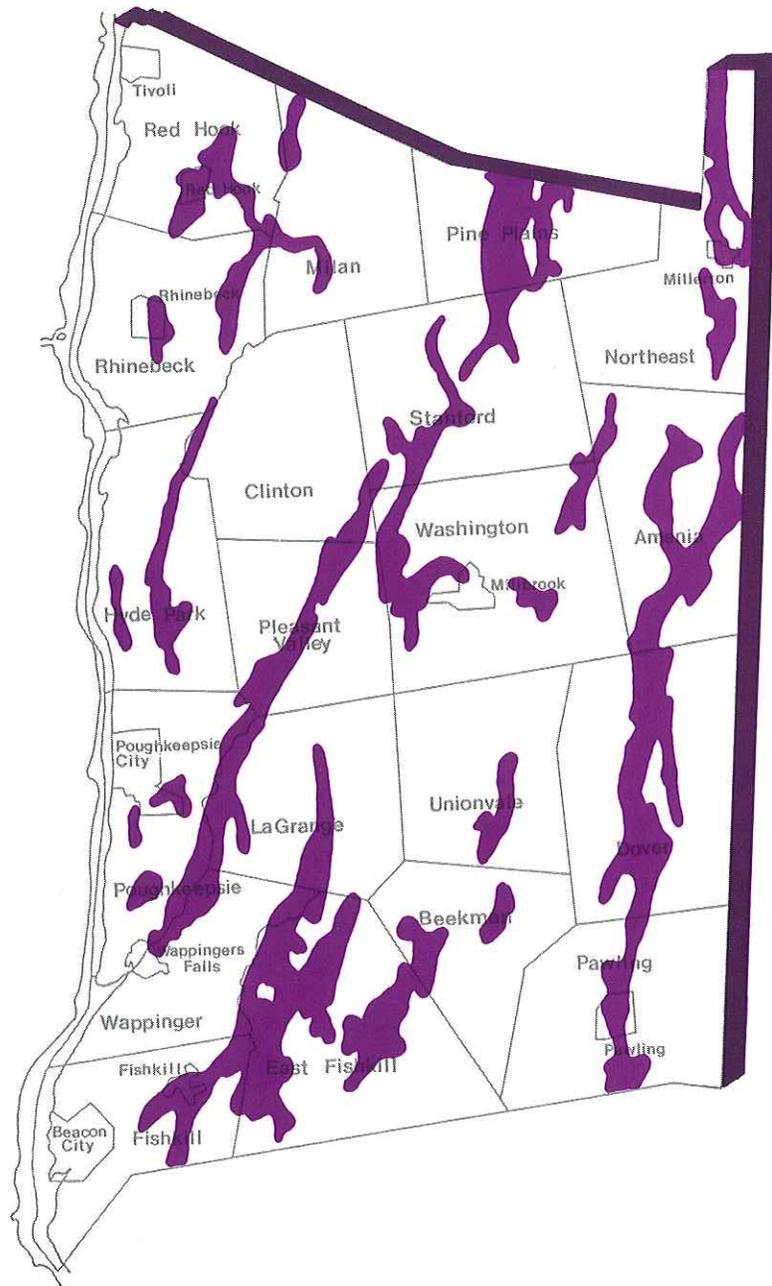
In residential areas, overcrowding that prevents adequate treatment and dilution of septic wastes can cause serious health problems by contaminating groundwater supplies.

Development densities should not strain the ability of geological materials to treat the nitrates and other pollutants in septic wastes. Certain soils and surficial deposits assimilate these wastes better than others. The county is developing density guidelines for local planning that reflect these varying abilities. The geology of the county is so complex, however, that no general density guidelines can take the place of field investigations and detailed hydrogeologic studies when a specific site is being considered for development. Site-specific data should be gathered wherever the potential impacts of new development on groundwater resources are cause for concern. Appropriate performance standards that call for such analyses should be included in local land use regulations. Local governments should use permeability, depth, and other applicable soil characteristics to devise basic limits on allowable development densities.

In addition to using density limits, as appropriate, local land use controls should strictly govern the siting of industrial and commercial facilities that handle

toxic or hazardous substances. Such facilities should be kept away from important aquifers, recharge zones and water supplies to minimize the damage that leaks, spills and other accidents could cause.

Sand & Gravel Aquifers



Policy 5.2

Dutchess County supports the development of local groundwater protection strategies, even

Communities that draw their water from surface sources should treat aquifers as valuable insurance against possible surface water shortages. Similarly, areas now

in communities that currently depend on surface water supplies, to ensure that groundwater will be available for replacement or supplemental supplies, if needed in the future.

Policy 5.3

Dutchess County encourages the development and strict enforcement of laws governing aboveground and underground chemical and petroleum storage and spill control.

adequately served by particular groundwater sources should safeguard the quality and quantity of untapped water supplies. Without such precautions, population growth, contamination problems, droughts or changes in allocation procedures could leave Dutchess County without adequate supplies of potable water.

One gallon of gasoline can contaminate one million gallons of water under certain conditions. A large percentage of the estimated 130,000 petroleum storage tanks in New York State are more than 25 years old, and may be leaking anywhere from one to 40 or more gallons of material each day. To begin to address this problem, the New York State Department of Environmental Conservation has prepared regulations that require periodic testing of existing tanks. They also govern the design and installation of new tanks. However, these regulations apply only to tanks that hold 1,100 gallons or more. Smaller tanks, which are also likely to develop leaks as they age, are not regulated under the state program. Because of the seriousness of the environmental and health problems that mishandled chemicals and leaking tanks can cause, the county and local governments should insist that applicable state standards be strictly enforced, and that additional controls be developed at local, county or state levels to protect water resources from leaking tanks of all sizes.

Policy 5.4

Dutchess County advocates minimizing the use of road salts that contribute to water pollution, and encourages the use of improved salt storage and spreading practices.

The county and local governments should construct sheds and runoff collection systems for road salt piles to prevent salt from contaminating surface and groundwater supplies. Road deicing techniques that minimize salt use should be used, and steps should be taken to prevent road salt from harming the county's water resources and vegetation. Alternatives to conventional road salting practices should be adopted wherever feasible.

Policy 5.5

Dutchess County encourages landowners to apply and dispose of household, yard and garden chemicals in ways that prevent them from entering groundwater or surface water, and to select the least toxic and persistent chemicals for their use.

Many pesticides, fertilizers and household cleaners contain highly toxic materials. The improper use and disposal of such materials can contaminate groundwater, surface water and soils. The nitrogen component of popular fertilizers poses a particular threat to public health if it leaches into water supply wells. The Cooperative Extension Service or County Health Department can recommend safe application and disposal methods for many commonly used chemicals.

Safe alternatives to landfill disposal of hazardous and toxic materials should be explored and publicized. The use of effective, non-hazardous substitutes for common domestic and agricultural chemicals should be promoted so that pollution sources are eliminated wherever possible.

Policy 5.6

Dutchess County supports research efforts to obtain better information about the quality and quantity of groundwater resources. The county also supports the implementation of a county-wide surface water monitoring system. State efforts to monitor pollution discharges from industrial outfall pipes, sewage treatment plants and smaller treatment systems should be encouraged.

The county has begun collecting and mapping well log data and information about groundwater features. This is the first step in developing a better understanding of groundwater quality and quantity characteristics. Continued efforts should be made to monitor and evaluate the health of the county's aquifers, and to determine appropriate remedial measures for deteriorated areas. If serious contamination or depletion problems are discovered, local and county officials should work actively with any responsible parties, local residents and potential sources of remedial funds to resolve the problems and prevent their recurrence.

Little information has been collected recently about the flow rates or quality of the county's streams and rivers. The scarcity of such data makes it difficult to determine how land use activities in the county's watersheds are affecting surface water resources. Cooperative programs with citizens groups, colleges, government agencies, treatment plant operators and consulting engineers could be used to increase knowledge of pollution sources, quantities, effects and management options. A clearinghouse could be established for water data so that trends can be analyzed and data made available to interested parties.

Policy 5.7

Dutchess County supports efforts to increase public knowledge of water resource characteristics, problems and management alternatives.

Everyone depends on a clean, reliable water supply. Daily activities at home and work influence both the quality and quantity of that supply. Nonetheless, many people lack the basic knowledge of water resources that could help them prevent or solve water problems. Well-thought-out education programs are needed to help citizens participate more effectively in household and community water resource management decisions.

Policy 5.8

Dutchess County advocates the use of cooperative approaches to the study and management of water resource systems that cross political boundaries.

Groundwater and surface water resources form large-scale, complex natural systems whose geographical limits are completely independent of political boundaries. Surface water and groundwater systems relate instead to the watershed boundaries determined by the shape of the land, and to subsurface geological charac-

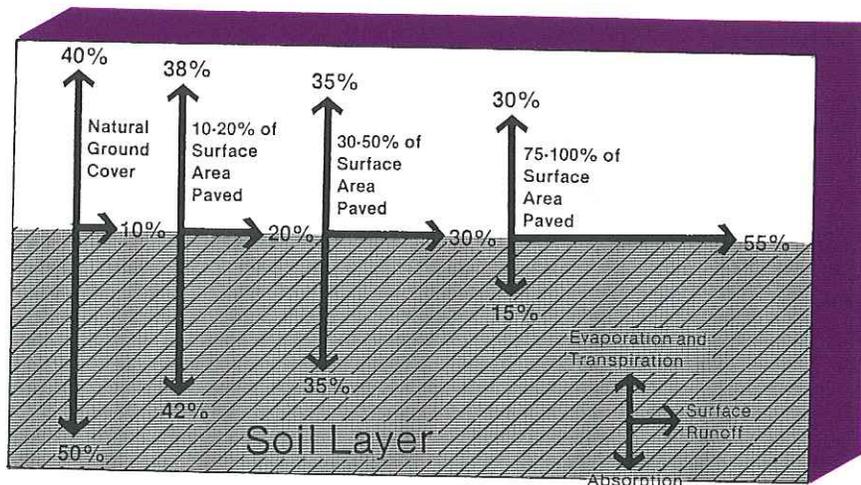
teristics. Local attempts to manage large resources, such as aquifer recharge areas or stream basins, can fail if communities with political jurisdiction over other portions of the managed resource allow it to be abused. Greater joint efforts by all levels of government and all affected communities are needed to ensure that such conflicts do not interfere with good water resources management.

Policy 5.9

Dutchess County advocates the adoption of local measures that prevent increases in stormwater runoff volumes and rates as development occurs, except where such increases will have no adverse environmental impacts.

The amount of runoff leaving an area usually increases dramatically as development intensifies. As drainage basins are developed, the cumulative results of such increases in runoff volume are often more serious flooding of downstream lands, greater demands on culverts, storm sewers, and other drainage system components, and more rapid erosion of stream channels and soils. The conversion of forest and agricultural land to urban and suburban uses also increases the number of water users while decreasing the amount of open land available to absorb, store, and filter surface and groundwater supplies. Careful land use practices play an essential role in minimizing or coping with these impacts on the hydrologic system.

Effect of Paving on Rainfall Absorption, Runoff and Evaporation



Specifically, municipalities are encouraged to permit increases in runoff volumes or rates only when detention basins, infiltration galleries, or other devices needed to limit runoff volumes would aggravate off-site flooding or drainage problems or endanger water qual-

ity. Where these conditions do not exist, new developments, including private sites and state, county and local government facilities, should be designed so that the amount of runoff leaving a developed site is no greater than the amount that left the site before it was developed.

Policy 5.10

Dutchess County encourages local and regional involvement in all issues that affect the Hudson River, and advocates improved protection of the river's quality.

The importance of the Hudson River cannot be over-emphasized. Major changes in weather conditions and in how the river is used can significantly affect the quantity and quality of river water available to county residents. The potential for competition among those who use the Hudson for power plant cooling, drinking water, sewage and industrial waste disposal, transportation, recreation and fish production must be acknowledged. Moreover, the continuing presence of a wide variety of pollutants in the river is cause for concern.

The Hudson is considerably cleaner than it was in the 1960s and early 1970s, before major water pollution control laws were passed. It is known, however, that a variety of toxic materials, including several federal priority pollutants, find their way into the river through permitted discharges. The river sediments also contain concentrations of toxic materials, such as poly-chlorinated biphenyls (PCBs). The presence of toxic substances in discharges and river-bottom sediments fuels a continuing debate about the river's suitability as a drinking water source. It also raises questions about the need for more extensive water and waste treatment systems. All of these issues should continue to be explored.

Policy 5.11

Dutchess County supports efforts to familiarize the public and local officials with wetland values and the importance of effective wetland protection programs.

Historically, wetlands have been regarded as wastelands. Recently, however, wetlands have begun to be recognized for the many benefits they provide. Wetlands cover only 6.4 percent of Dutchess County, yet they play a crucial role in maintaining environmental health.

Wetlands help regulate the quality and quantity of surface and groundwater supplies. They reduce flood hazards by serving as retention basins for surface runoff, and they help maintain water supplies after floodwaters subside. Wetlands also provide critical wildlife habitat and support diverse plant communities. Most of these benefits are lost when wetlands are filled, drained or polluted; such losses can impose significant

economic and environmental costs on society. To safeguard these qualities, it is necessary to encourage greater understanding of freshwater wetlands resources.

Freshwater Wetlands 1984

Area	State-Regulated Wetlands		Total Wetlands	
	Acres	Percent of Area	Acres	Percent of Area
Amenia	1,350	4.9	1,547	5.6
Beekman	458	2.3	756	3.8
Clinton	1,016	4.1	1,516	6.1
Dover	1,835	5.1	2,363	6.6
East Fishkill	3,179	8.6	3,921	10.7
Fishkill	508	2.9	603	3.4
Hyde Park	844	3.6	2,063	8.7
LaGrange	1,684	6.8	2,242	9.0
Milan	613	2.6	1,030	4.4
Northeast	1,460	5.2	1,665	6.0
Pawling	1,360	4.7	1,550	5.4
Pine Plains	1,207	6.1	1,533	7.8
Pleas. Valley	750	3.5	1,204	5.7
Poughkeepsie	315	1.7	787	4.2
Red Hook	911	4.0	2,118	9.4
Rhinebeck	672	2.9	1,323	5.7
Stanford	1,264	3.9	1,798	5.6
Unionvale	925	3.9	1,185	5.0
Wappinger	695	4.1	1,387	8.1
Washington	1,538	4.1	2,303	6.1
C. Beacon	0	0.0	26	0.8
C. Poughkeepsie	13	0.4	54	1.6
COUNTY TOTAL	22,597	4.4	32,974	6.4

Policy 5.12

Dutchess County advocates vigorous enforcement of the New York State Freshwater Wetlands Act by state and, where appropriate, local or county government.

Approximately 70 percent of the county's wetland acreage is regulated under the permit program established by the New York State Freshwater Wetlands Act of 1975. This act applies to wetlands covering 12.4 acres or more, and to smaller wetlands of unusual local importance.

The New York State Department of Environmental Conservation has assumed responsibility for mapping wetlands and implementing the wetlands regulatory program since the act was passed. Because of staff priorities and budget constraints, however, DEC has not always been able to protect the wetlands resource consistently and

comprehensively. Increased support is needed for adequate wetlands management.

The Freshwater Wetlands Act permits local and county governments to assume responsibility for administering the Act after official county maps are completed by DEC. Dutchess County has been recognized as having the technical and administrative ability to take on such responsibility. Developing a county wetlands program may be the preferred means of ensuring that the Freshwater Wetlands Act is fully implemented.

Policy 5.13

Dutchess County advocates the use of monitoring programs and locally adopted wetland regulations to provide comprehensive protection of wetlands not protected under the New York State Freshwater Wetlands Act.

The Freshwater Wetlands Act does not apply to most wetlands smaller than 12.4 acres. As a result, 30 percent of the county's wetland acreage is unprotected under current laws. The importance of wetlands is not measured in size alone. Small wetlands often play important roles in supporting wildlife, moderating floods, filtering surface runoff, maintaining stream flows, and providing open space. To protect such functions, many states regulate the use of wetlands as small as five acres, and numerous local governments have instituted controls over wetlands of one or two acres or more. In Dutchess County, local regulatory measures should reflect the relative environmental value of wetlands so that protective measures are clearly tied to the functions each wetland performs.

Policy 5.14

Dutchess County advocates the protection of wetlands and their buffers from development activities.

Because of their hydrological characteristics and environmental values, wetlands are not appropriate development sites. Wetlands are surrounded by buffers that offer some protection from the impacts of nearby land use activities. Encroachment on these buffers by disruptive land uses can degrade the wetland quality. Therefore, except in cases where the environmental values of a particular wetland are shown to be negligible, wetlands and their buffers should not be developed.

The Freshwater Wetlands Act regulates activities within 100 feet of regulated wetlands to preserve the protective function of the wetland buffer. In some cases, however, 100-foot buffers are not wide enough to protect sensitive wetlands adequately. Therefore, the county encourages the use of land use controls, environmental review procedures and careful site planning to ensure that wetland protection extends far enough beyond the actual wetland boundary to prevent damage to valuable resources. In addition, wetlands should be

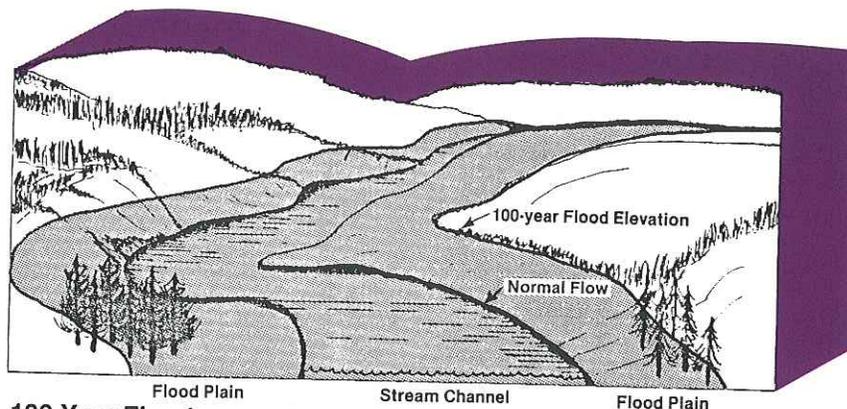
protected through the use of erosion controls and adequate isolation distances between septic fields and wetland boundaries.

Policy 5.15

Dutchess County encourages municipalities to preserve their 100-year floodplains by prohibiting uses that either interfere with the flood-carrying functions of the floodplain, create safety hazards, or increase the risk of property damage. The county also advocates the prevention of filling that will raise flood heights, increase floodwater velocities, or shift floodplain boundaries on nearby or downstream properties.

Several significant floods have struck Dutchess County; the most recent lasted from May 28 to May 30, in 1984, and caused an estimated five million dollars in damage. Future floods of equal or greater magnitude should be expected and prepared for.

The 100-year Floodplain



100-Year Flood

Floodplains that have a one-percent chance of being completely inundated in a given year are called 100-year floodplains. Such floodplains line the river, stream and major tributary valleys of Dutchess County. Maps of most of the 100-year floodplains in the county have been prepared by the Federal Emergency Management Administration and are available in each community. These maps are used to determine federal flood insurance rates and develop local land use controls that satisfy FEMA standards for floodplain use.

Runoff volumes usually increase as land is developed in a watershed. These increases tend to enlarge downstream floodplains and aggravate existing flood problems. Floodplain filling, especially filling of large areas, speeds this process by reducing the volume of water that floodplains can hold. Municipal leaders should be mindful of these long-term interactions between development, floodplain filling and flood problems, and should permit filling within the 100-year floodplain only when no harmful long-term effects will result.

NATURAL RESOURCES

Locating inappropriate structures within floodplains increases the damage that floods can cause as well as the public costs of coping with flood emergencies. Floodplain uses that minimize such damage should be encouraged.

Because of their linear shape, proximity to water, and level terrain, floodplains are ideal sites for bike-ways, bridle paths, hiking and running trails, and cross-country ski trails, as well as for traditional recreational facilities, such as athletic fields and courts. The agricultural value of floodplain soils can be preserved by encouraging their active agricultural use, and by maintaining inactive floodplain farmlands as open or recreational space. The groundwater recharge capability of floodplains should also be protected.

Dutchess County's land resource goal is:

To protect the county's soils, prime and important agricultural lands, steep slopes, and significant natural areas, and to preserve the health and usefulness of the county's forests.

As Dutchess County continues to grow, its land resources will be used with increasing intensity. Use of these resources is expected--and proper. The policies below are intended to guide the county in protecting the heritage of future generations from being damaged by careless land use decisions based on short-sighted goals.

Policy 5.16

Dutchess County supports measures to preserve the county's prime and important agricultural soils.

Both locally and nationally, many of the best agricultural soils, those classified as "prime" or "important" soils by the U.S. Soil Conservation Service, have been lost to development. Those that remain are often under intense development pressure, and in many cases are eroding as a result of poor land management practices. If land uses that can function satisfactorily on less valuable soils are allowed to continue to consume the best soils in Dutchess County, the county's agricultural community will weaken and its ability to respond to future changes in the nation's food production system will be severely impaired. The loss of agricultural open land also threatens one of the most traditional and aesthetically pleasing contributors to the county's high quality of life. Aggressive measures are needed to protect the soil resource.

Dutchess County and its municipalities can encourage the use of prime soils for agricultural and recreational purposes. Public and private land use manage-

ment techniques can be devised that will steer development away from the most potentially productive soils. For example, small-lot zoning can be used in rural community centers to encourage concentrated development, and a combination of large-lot zoning and performance-based mandatory clustering can be used in outlying areas to keep farmland open. At the same time, conservation easements can be used creatively to protect valuable soil resources and open space. In urban or suburban areas where few farms remain, prime and important soils can be used for parklands, nature reserves, water resource management districts and other open space uses that can keep the soil available to meet future needs.

Policy 5.17

Dutchess County encourages local governments to give proper consideration to the development limitations of shallow soils and soils with poor permeability.

Soil permeability rates of less than 0.63 inches per hour and depths to bedrock of less than three feet limit the development capability of many Dutchess County soils. Septic systems in such soils must be very carefully designed to function properly, and often require the addition of large quantities of sand and gravel to create adequate leachfields. The construction of central utilities, roads and buildings in these soils is also expensive. Communities that allow poorly drained, poorly permeable, or rocky areas to be used improperly risk surface and groundwater contamination, erosion, and high maintenance and repair costs.

Because actual soil characteristics can vary greatly over a development site, local governments should require that soil data and a soils map based on the Dutchess County Soil Survey be submitted with requests for subdivision and site plan approval. Field inspections should be used to update and verify this information for projects of particular concern. Developers should also be required to provide information about water tables and drainage conditions. This information is needed for reviewing project proposals, calculating buildable areas and evaluating environmental and economic impacts.

The most environmentally sensitive soils can be preserved by using large-lot zoning and cluster development, requiring central utilities where appropriate, promoting recreational uses, recognizing scenic values, and ensuring that tax policies reflect local environmental and land use policies.

Policy 5.18

Dutchess County encourages the adoption of measures to limit

The Dutchess County Soil and Water Conservation District has recently completed an erosion control manual.

NATURAL RESOURCES

erosion from construction sites, agricultural operations, unpaved roads and shoulders, and other areas where soil is exposed or disturbed.

By referring to or adopting this manual, communities can easily incorporate appropriate erosion control guidelines into their land use regulations. Unlike many other states, New York has chosen to make erosion control a local matter.

The waste of soil resources is a problem of such magnitude that local government action is essential. Soil can erode from construction sites at a rate of 80 or more tons per acre per year. Cropland without conservation practices erodes at an average rate of close to eight tons per year, which is five times the average rate found where conservation techniques are used. Effective local programs are needed to slow the loss of irreplaceable soil resources.

Erosion in Dutchess County Watersheds 1974

Watershed Name	Erosion rate (tons/acre/year)	Watershed size (acres)	Total soil loss tons/year
Croton river	.96	232,699	223,172
Crum Elbow Creek-			
Hudson River	1.01	109,314	110,541
Fishkill Creek	1.30	129,671	168,705
Hunns Lake	1.61	5,681	9,173
Jansen Kill	2.54	145,716	370,258
Tenmile River	1.70	98,071	166,585
Wappinger Creek	0.84	128,329	107,849
Upper Housatonic River	0.51	1,199	616

Policy 5.19

Dutchess County advocates the preservation of steep slopes and ridgelines. Slopes over 25 percent should not be developed. Slopes of 15 to 25 percent should be preserved as open space unless special care is taken to prevent soil erosion, septic failures, slope subsidence and other environmental damage.

Development constraints increase as slope increases. Slopes of 5 to 15 percent generally place moderate limitations on land use. Slopes greater than 15 percent can be considered severe development constraints for three reasons. First, steep slopes shed more surface water at higher velocities than level areas do. These runoff characteristics create erosion problems when the land is disturbed or cleared, stripping the slopes of their soil and adding to the sediment load of downstream waters and drainage facilities. Second, steep slopes tend to be covered by shallow soils which cannot filter septic wastes properly unless extraordinary septic system designs are used. The tendency of the ef-

fluent to flow downslope, combined with the poor filtering capacity of the soil, can produce serious sewage problems.

A third factor limiting the use of steep slopes is cost. Developing and maintaining such areas properly, in ways that limit erosion, provide adequate waste treatment, and preserve natural features, is expensive. Roads, utilities and building construction in rough terrain can require excessive cutting, filling and grading.

Erodible, shallow soils and other limiting factors do not make steep slopes uniformly undevelopable. In many areas, conscientious builders working with well-informed local officials can develop hillsides attractively without significant environmental harm. Such development is likely to be costly, but the damage caused by careless development on such sensitive areas is at least equally costly, and often irreparable.

Policy 5.20

Dutchess County advocates the preservation of the county's scenic resources and significant natural areas.

Dutchess County is endowed with many significant natural areas and scenic resources. Significant natural areas are valued for their environmental importance and beauty. They include unusual geological formations, scenic mountain ridges, steep ravines, caves, hydrological features such as certain rivers, lakes and wetlands, and areas that support threatened or endangered species or unusually diverse plant and animal communities. Scenic resources include panoramic vantage points, road corridors and open space areas that offer particularly good opportunities to see and enjoy the natural features that contribute to the county's visual identity. Examples of resources that have both scenic and natural qualities include the coastal zone along the Hudson River, the Mid-Hudson Shorelands Historic Scenic District in Hyde Park, Rhinebeck and Red Hook, the Appalachian Trail corridor through southeastern Dutchess County, the Great Swamp in Pawling, Thompson Pond and Stissing Mountain in Pine Plains and Stanford, and Mt. Beacon and the Stony Kill Farm and Environmental Education Center in Fishkill.

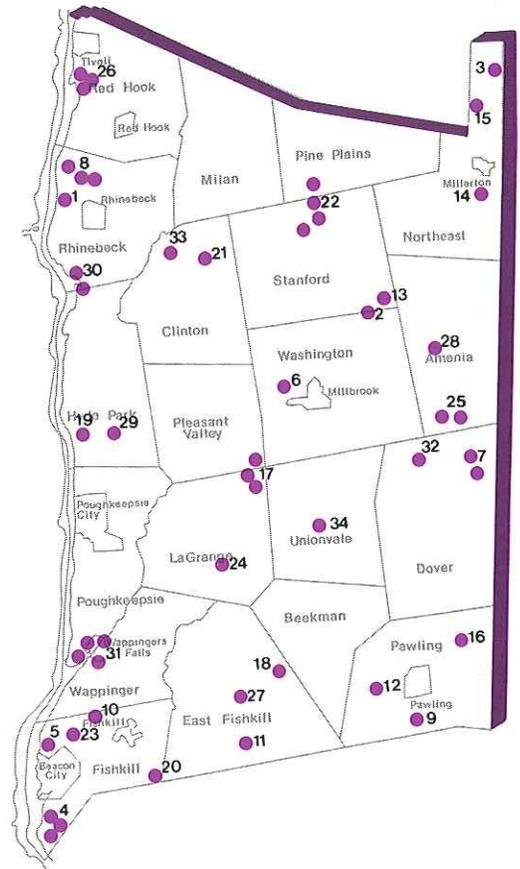
Both significant natural areas and scenic resources enhance environmental health and diversity and the qualities of life in Dutchess County. As development activity continues and more and more of the county's land is taken up for urban and suburban uses, many of these important areas may experience pressures that destroy or degrade their environmental quality. In order to prevent this destruction, the county should recognize

and preserve the benefits that these resources provide. Ongoing efforts to increase public appreciation of scenic and significant areas should be supported.

In addition, the county and local governments should annually review parcels acquired through non-payment of taxes for their open space and environmental value. Parcels worth protecting should be kept in public ownership, or sold with deed restrictions designed to protect their significant features.

Significant Areas

1. Astor Cove
2. Bontecou Lake
3. Brace Mountain
4. Breakneck Ridge, Scofield Ridge, Hell's Hollow and North and South Mount Beacon
5. Brockway Road Woods
6. Cary Arboretum Institute of Ecosystem Studies
7. East and West Mountain Areas
8. Ferncliff Forest, Snyder Swamp, and the Mudderkill Creek
9. The Great Swamp
10. Greenfly Wetland
11. Hosner Mountain
12. Little Whaley Lake
13. Millbrook Meadow
14. Millerton Wetland
15. The Panhandle Wetlands
16. The Pawling Nature Reserve
17. Pond Gut, Rockefeller University Field Research Center and Innistree
18. Reedy Bog
19. Roosevelt Cove and Wetland
20. Sharpe Reservation
21. Silver Lake, Mud Pond, and Long Pond
22. Stissing Mountain, Thompson Pond, Stockbriar Wetlands, and Buttercup Sanctuary
23. Stony Kill Farm and Environmental Education Center
24. Stringham Wetland Complex
25. Swift Pond and Cleaver Swamp
26. Tivoli Bays, Cruger Island, and Montgomery Place Woods
27. Townsend Swamp
28. Turkey Hollow
29. Val-Kill
30. Vandenburg Cove and ridges, Jones Island, and Suckley Cove
31. Wappinger Creek and Lake, Putnam Audubon Sanctuary, and Reese and Bowdoin Parks
32. West Mountain
33. Zipfelberg Bog
34. Clove Valley and Clove Mountain



Policy 5.21

Dutchess County supports efforts to minimize environmental and aesthetic damage caused by the mining of extractable resources.

The extractable sand, gravel and bedrock resources of Dutchess County are economically valuable and play an important role in regional construction and agricultural activities. However, their removal can have significant environmental impacts. To date, most state and local regulation of these impacts has been concerned with mine reclamation activities and operating procedures. While these concerns are appropriate, it should be recognized that mines can also affect some of the county's most productive sand and gravel aquifers.

A balance must be maintained between the long-term use of extractable resources and the preservation of groundwater reservoirs. Particular attention should be paid to the need for groundwater resource inventories in areas that are mined extensively. It is also necessary to ensure that mining operations are buffered so that they do not intrude on the communities in which they are located, and to see that mine sites are reclaimed in ways that enhance the natural or aesthetic environments of those communities.

Policy 5.22

Dutchess County encourages the use of forest management practices that are compatible with forest conservation and enhancement.

Both natural and human activities place forests under stress. Damage caused by fire, drought, disease, insects, wildlife and nuisance plant species is aggravated by misguided resource management and land use practices. Such practices can damage the environment by eroding soil, eliminating plant species and wildlife habitat, and reducing the capacity of forests to assimilate wastes and absorb rainfall. Road salts, agricultural and urban runoff, acid rain, and other air, water and land pollutants can further weaken plant life and disrupt the natural balance that sustains a healthfully diverse and productive forest ecosystem. Thoughtful management is needed to maintain this balance as development alters more and more of the county's landscape.

Sound forestry principles, reflected in the "Best Management Practices for Silviculture" developed for New York State and used by the Department of Environmental Conservation, should be used to keep Dutchess County's forests healthy and productive. Landowners should also take advantage of the professional assistance available from DEC to develop and implement forest management plans that allow forests to be both used and conserved.

Policy 5.23

Dutchess County encourages the protection and recognition of uncommon or especially-sensitive forest resources, such as hemlock groves, forests with particularly large trees, beech woods, and the woodland buffers around water bodies, wetlands and roadways.

Less common forest communities have particular aesthetic and wildlife habitat values. Hemlock stands are usually found near water or in cool, moist areas on glacial till or sandy soils. The young trees are quite sensitive to deer browsing, and they grow slowly. Unusual soils can support patches of distinctive forest vegetation. Black locust is often abundant on disturbed sandy soils; old gravel pits frequently support colonies of quaking aspen. Flowering dogwood is common in clay areas along the Hudson River in northern Dutchess County, where hemlock is scarce. Limestone till soils and outcrops provide habitat for many un-

common species, such as roundleaf dogwood, hackberry and American prickly-ash. Each of these woodland communities contributes to natural diversity and scenic values. The buffers around sensitive resources such as wetlands and surface waters also reduce erosion, runoff, air pollution and noise.

Policy 5.24

Dutchess County encourages the preservation of woodland "greenbelt" corridors through communities, especially along streams, floodplains, wetlands, and other sensitive areas, to provide recreational space, wildlife habitat natural buffers and aquifer protection.

Greenbelts are open space corridors that can serve a variety of functions in shaping communities, protecting their environmental assets, and enhancing their livability and appearance. Floodplains and waterways are ideal greenbelt corridor sites because of their linear shape. Communities should incorporate greenbelt designs in their master plans so that appropriate open spaces can be preserved through conservation easements, reserved as land is developed, or acquired through purchase, donation, or non-payment of taxes.

Policy 5.25

Dutchess County supports the active enforcement of regional air quality protection programs, and state and national efforts to reduce acid rain pollution.

Any significant deterioration in air quality will adversely affect the county's quality of life. Careful scrutiny of industrial, utility, and transportation development proposals that could affect air quality, in addition to rigorous enforcement of existing pollution control programs, can help maintain good air quality throughout the region.

Acid rain is sulfuric or nitric acid formed in the atmosphere by chemical reactions between the airborne by-products of fossil fuel combustion and water. The impact of acid rain on the Hudson Valley is not fully understood. However, acid rain is believed to be responsible for the increasing acidity of surface waters, the declining vitality of forests, the accelerated corrosion of buildings and other structures, and the gradual leaching of minerals and nutrients from soils throughout the Northeast. Dutchess County should cooperate with regional efforts to reduce acid rain production at the source, which is, primarily, the network of power plants in the Midwest, Northeast and Canada that burn oil or coal.

Policy 5.26

Dutchess County advocates the designation of valuable natural resource features as Critical Environmental Areas (CEAs) under the State Environmental Quality Review Act (SEQRA) to help ensure that land use proposals af-

SEQRA provides for the designation of sensitive environmental features, such as important aquifers, wetlands, habitat areas, scenic and historic sites, and landfill sites, as Critical Environmental Areas. CEA designation means that activities affecting these features must undergo some level of public environmental

fecting such features undergo careful environmental reviews.

impact review; it is a way of raising public awareness of natural resource values and improving the quality of development in sensitive areas. In the case of environmental hazards, such as polluted water supplies or waste disposal sites, CEA designation helps protect the public and developers from the harm that inappropriate land use activities could cause.

Policy 5.27

Dutchess County encourages all levels of government to carefully follow the procedures outlined in the State Environmental Quality Review Act for conducting environmental reviews of proposed activities.

All natural resources are affected by development activities. Local governments cannot make informed land use decisions unless they know what environmental impacts to expect, and how these impacts might be altered by changes in the proposed activities. Therefore, those seeking permission to alter land or water uses should be required to provide the basic information needed for an adequate local review.

The State Environmental Quality Review Act and the regulations developed by the New York State Department of Environmental Conservation to implement that act establish specific procedures for ensuring that the environmental impacts of development activities are adequately considered in the decision making process. Failure to follow SEQRA procedures leaves local decisions vulnerable to legal challenges, and often results in unnecessary environmental damage. Therefore, communities should use SEQRA as one instrument for accomplishing natural resource management goals.

Introduction

Water supplies and waste disposal facilities are strong determinants of land use. In the absence of central sewer and water facilities, land use choices are limited by the ability of the soils to assimilate waste and the ability of the aquifers to provide adequate supplies of clean water. In order for these central facilities to be provided efficiently, thus allowing a greater choice in land use, there must be careful planning and implementation. Historically, this has not occurred in Dutchess County, at least on a large scale.

A water district master plan was prepared by the county in 1962 to help coordinate water supply needs. The plan recommended a water district that would serve communities from Red Hook to

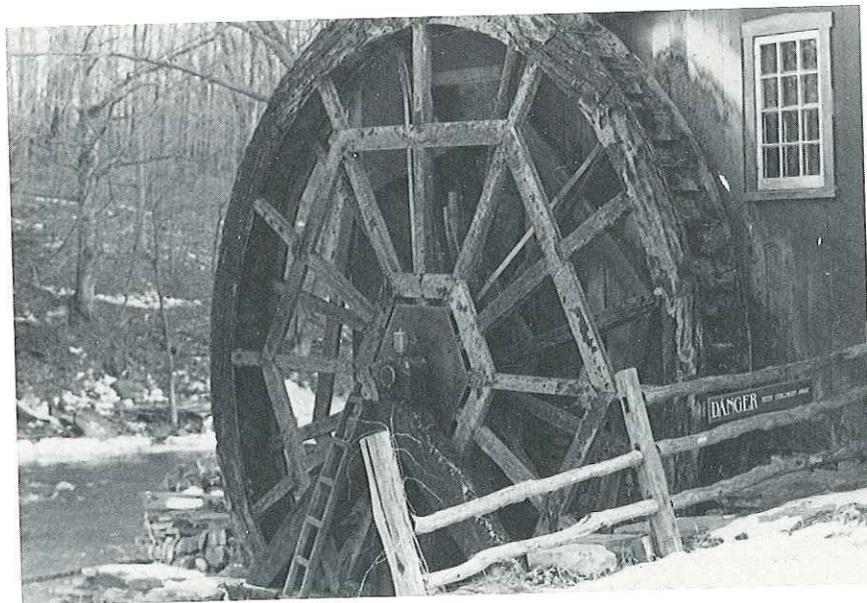
Fishkill and as far east as LaGrange and Pleasant Valley. The plan proposed the purchase of existing systems and estimated a first-phase cost of \$18.2 million to serve about two-thirds of the population. Later modified, the plan never won the support necessary for implementation.

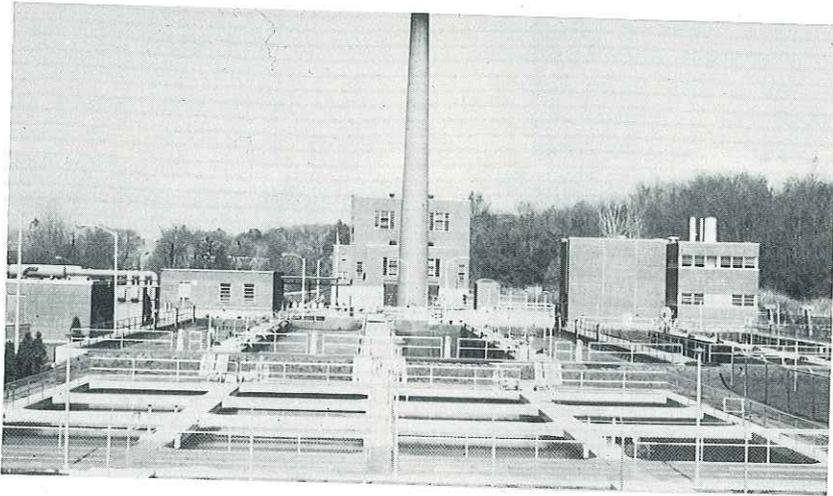
The original County Plan *Concept for Growth*, published in 1965, recognized the need for area-wide public water and sewer systems. The importance of these systems was highlighted with the statement: "The effectuation of the satellite plan is dependent upon the provision of water and sewer on an areawide basis."

In 1970, the Dutchess County Department of Planning completed a report entitled *County Water Service in Dutchess County*. The report noted unplanned dispersal of

land uses in Dutchess County and related this to an unwillingness to provide central water and sewer services. It concluded that the piecemeal approach has left vast areas within southwestern Dutchess County completely without a pure and reliable water supply. By 1979, the proliferation of unrelated and uncoordinated water supply systems had given rise to 161 community water systems.

Central sewer system planning, for the most part, has experienced the same lack of success as implementing areawide sewer plans. There are several municipal sewer systems in Dutchess County. The city of Poughkeepsie owns the largest system, with many areas in the town of Poughkeepsie sharing this facility under contract. The city of Beacon has its own sewage treatment plant, as do the villages of Fishkill, Tivoli, Millbrook, Pawling and Rhinebeck. The village of Wappingers Falls and the town of Poughkeepsie have joined in construction of a centralized sewage treatment plant for Wappingers Falls and southern Poughkeepsie. In addition, there are many community treatment systems, each of which services 25 or more users. A total of 62 public and private community systems now exist in Dutchess County.





Without central facilities, land use choices are limited by the ability of the soils to assimilate waste and the ability of the aquifers to provide a safe and reliable source of water. Studies of the county's soils and water resources have shown that one of the limiting factors to residential development is the ability of the soil to assimilate contaminants so that groundwater is not polluted. Although these studies are still being reviewed, indications are that even those soils best suited to on-site disposal systems may only support two dwelling units per acre. Poorer soils may only be able to support one dwelling unit on three or four acres. Much of the existing development within the county far exceeds these limits. Furthermore, many local zoning ordinances encourage additional residential development that would also exceed advisable limits.

The type of water supply and sewage disposal facilities available are strong determinants of land use density and intensity. Communities have an opportunity through land use control and the provision of central utilities to guide growth and development. If central utilities are not to be provided, then local zoning must reflect the ability of soils to assimilate wastes. If central utilities are to be provided, then it must be through an efficient, cost effective, and equitable system.

Presently, there is little comprehensive planning for centralized water or sewer facilities in Dutchess County. Most residential construction depends upon private wells and on-site waste disposal systems, even in areas that are expected to grow significantly in the near future. Centralized water and sewer facilities should be considered in areas of existing and future high

intensity development because they allow a more compact form of development and help to reduce development costs. The provision of water and sewer services also provides a stimulus to industrial and commercial development. Since water supply and waste disposal problems are expensive to remedy, development of a coordinated system must be considered.

Solid waste, septage and sludge, demolition debris, and toxic wastes are other disposal issues which have far-reaching implications for water resources in Dutchess County. Their potential to threaten groundwater resources goes far beyond the localized impacts of on-site treatment processes. State standards have required appropriate safeguards only in recent years.

Solid waste disposal has been addressed in a coordinated manner in Dutchess County. Twenty-two communities have joined in construction of a resource recovery facility. This facility, administered by the Resource Recovery Management Board, will have state-of-the-art air quality control equipment and the capacity to expand as demand increases. Municipalities not participating in the regional resource recovery facility are relying on landfills, which are becoming increasingly expensive as



new state Department of Environmental Conservation (DEC) rules are enforced. Other waste disposal facilities are also regulated by DEC. Effective environmental protection requires a consistent, comprehensive and firm attack on existing and potential problems. This chapter sets forth policies aimed at ensuring the availability of adequate supplies of clean, reasonably priced water, while minimizing the potential adverse effects of waste disposal.

Goal, Policies and Rationale

The water supply and waste disposal goal is:

To ensure adequate long-term supplies of clean, reasonably priced water and environmentally sound disposal of wastes.

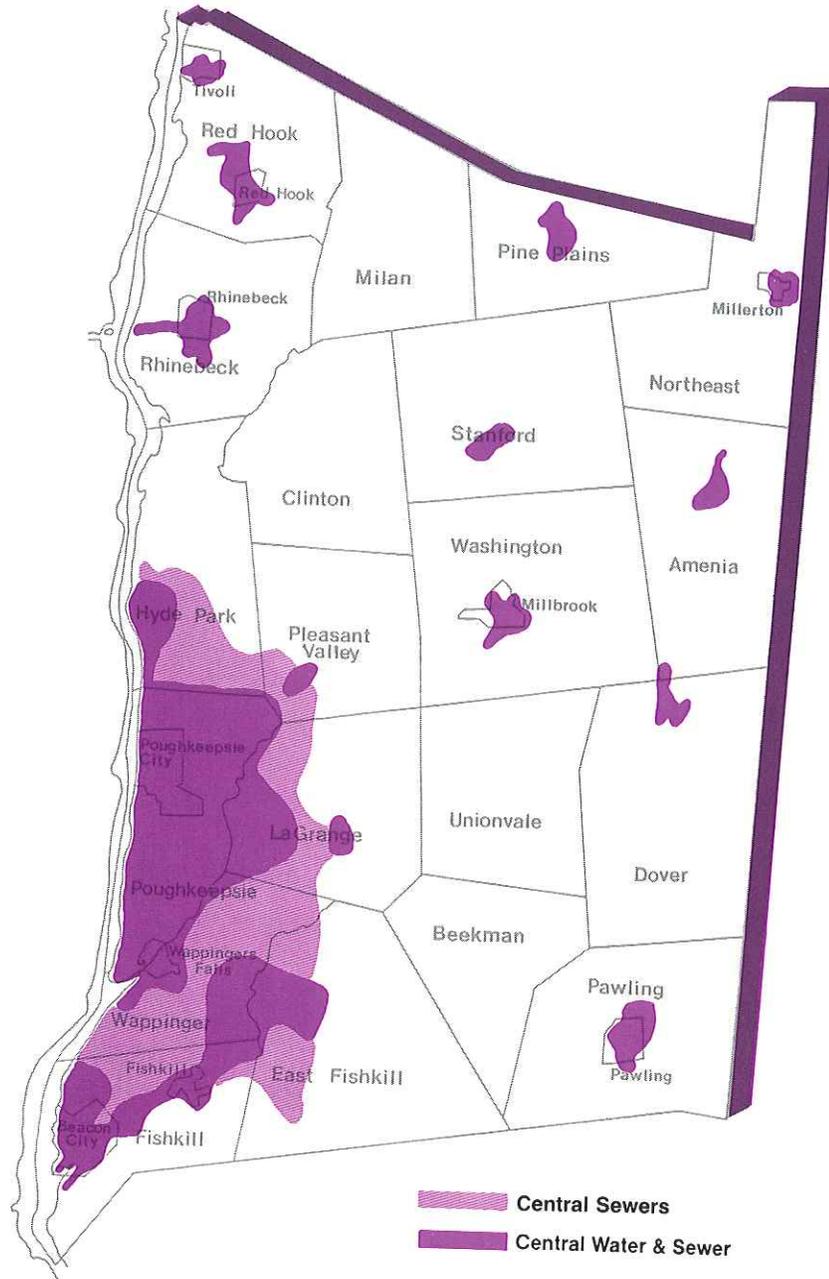
Adequate supplies of clean, reasonably priced water and the proper treatment/disposal of wastes are related. Improper treatment/disposal of wastes increases the cost and jeopardizes the quality of water supplies. Without adequate supplies of clean water at reasonable prices, opportunities for future development are curtailed.

Policy 6.1

Dutchess County supports inter-municipal water and sewerage system development, on a watershed basis, within the areas which are depicted on the County Plan Map for community uses and suburban uses. Central water and sewerage development outside this area should be designed to meet the needs of existing community centers and to accommodate the growth of these centers as included on the County Plan Map.

The Dutchess County Plan shows an area of urban and suburban development within the lower reaches of the Fishkill Creek, Sprout Creek, Wappinger Creek and Hudson River drainage basins. These drainage basins should be planning boundaries for the provision of water and sewer services. Densities within these areas are sufficient now--or they will be in the future--to support central utility development. Municipalities within these areas should consider requiring central water and sewer lines or funds to be put in escrow to provide central utility services which are timed in accordance with comprehensive utility service plans as a condition of approval for development. Providing

Planned Water & Sewer Service Areas



"dry" lines now will reduce community expenses in the future when the natural systems will no longer be able to support the intensity of development and central utilities will be required. Outside these areas (except in community centers which supply central utilities and other utility service areas designated in active areawide municipal central utilities plans), densities should be limited, allowing the safe use of on-site waste disposal and water supply systems. These

densities should be calculated based upon the ability of the soils to dilute and assimilate wastes as well as the capacity of the aquifers to provide adequate supplies of clean water without negatively impacting surrounding water tables.

Policy 6.2

Dutchess County encourages development in those areas supported by central water and sewer services, commensurate with the compatibility of existing land uses and the capacity of roads and other services to accommodate the development.

The economic viability of central utilities is dependent upon high volume or high customer densities since more users result in lower per unit costs. Encouraging the concentration of development within defined utility service areas helps to make existing and future central sewer and water services more economical. Public policy can actually stimulate growth in desirable areas if utilities are actively used to promote growth. A concentrated land use pattern is also beneficial because it prevents the waste of land, encourages the retention of open space, and is more easily serviced by the community.

Many areas in the county are zoned for densities higher than the land can support unless central utilities are provided. Septage pollution and over use of groundwater can result, leading to costly problems for future decision makers and residents.

Policy 6.3

Dutchess County advocates the preparation of a water supply and sewage disposal plan of action, based upon a commitment by local officials, which provides for realistic financial and institutional measures to ensure implementation.

A definitive water supply and sewage disposal plan helps to prevent development from occurring in a haphazard fashion. Unplanned growth leads to higher development costs, localized water quality and supply problems, and a land use pattern that is expensive to service and less desirable to live in. For an intercommunity plan to succeed, all parties must participate in the planning process and support the results. Methods and costs of developing and protecting available supplies cannot be identified without better information and a commitment to manage our water resources. The Dutchess County Planning and Health departments have begun a well log monitoring program. Without this type of management, water quality and quantity are increasingly vulnerable.

Policy 6.4

Dutchess County supports efforts to examine the need for central sewer services in areas of existing concentrated development.

There are many areas in Dutchess County which have concentrated development but do not have a centralized sewer system. These areas include the villages of Red Hook and Millerton, and the hamlets of Hyde Park, Rhinecliff, Dover Plains, Amenia, Pine Plains, Pleasant Valley and Freedom Plains. Most of these areas act as "central places," providing retail and service

opportunities for local residents. While this plan supports the continuing growth and development of these centers, such action is advisable only to the extent that soils can safely absorb additional septic system demands.

Policy 6.5

Dutchess County encourages the use of simple, cost-effective waste treatment facilities to remedy potential sanitary waste disposal problems in areas of concentrated development.

Sanitary surveys, conducted within suspected water quality problem areas, involve a blending of interview information (detected odors, septic pumping frequencies, existence of cesspools, etc.) and sampling data (surface water surveys, well samples and contamination complaints). If a potential public health problem is found upon the conduct of such surveys, a management and financing system should be devised to correct the problem. Solutions involve the development of innovative waste treatment facilities, often nothing more elaborate than a well-sited group septic system. State and federal assistance might be made available for documented problem areas.

Policy 6.6

Dutchess County supports inter-municipal cooperation in managing wastewater treatment problems within the lower Wappinger and Casperkill Creek drainage basins (towns of Poughkeepsie, Wappinger and LaGrange, and the village of Wappingers Falls).

The lower Wappinger and Casperkill Creek Basins are extensively developed and growing. A comprehensive wastewater treatment plan was developed to service this area, which includes Wappinger, Wappingers Falls, the town of Poughkeepsie and a portion of LaGrange. LaGrange and Wappinger decided not to be part of a centralized system. As a result, a 1.4 million gallons per day treatment facility is now being built to serve a limited area in the town of Poughkeepsie and the village of Wappingers Falls. Possible expansion of this proposed system should be considered to serve a larger portion of the two drainage basins.

Policy 6.7

Dutchess County supports inter-municipal cooperation in the development of areawide sewer facilities within the Sprout-Fishkill Creek Drainage Basin.

Intermunicipal cooperation and planning among the village of Fishkill, the city of Beacon and towns of Fishkill and East Fishkill will be needed to effect the construction of an areawide sewerage system to serve the core area within the Fishkill Drainage Basin. This might entail further use and possible expansion of the Beacon Wastewater Treatment Plant.

Policy 6.8

Dutchess County supports uniform design, construction and maintenance standards for all community water supply and wastewater systems.

When subdivisions experience problems with their utilities, the residents appeal to municipalities for support. Remedial actions are costly. Many older subdivisions, in particular, suffer from water systems with insufficient design and inadequate maintenance.

WATER SUPPLY & WASTE DISPOSAL

While the County Health Department inspects the installation of new systems, there is no method being used to ensure adequate maintenance. The development and implementation of uniform design, construction and maintenance standards should ensure the optimal operation of all systems.

Policy 6.9

Dutchess County supports education and other programs to conserve its water resources.

Reducing demands on water resources helps to minimize water supply and treatment needs as well as economic and environmental costs. Each gallon of water saved is one less gallon to treat and pump. It is one more gallon available in times of drought and for new development. There are a variety of inexpensive methods that can be used to conserve water resources. These include using special shower heads and more efficient toilets, properly maintaining distribution systems, and changing habits by not "over watering" lawns or letting faucets run.

Policy 6.10

Dutchess County advocates the reasonable expansion of the Poughkeepsie Water Supply System to serve adjoining areas within Hyde Park, Pleasant Valley and LaGrange.

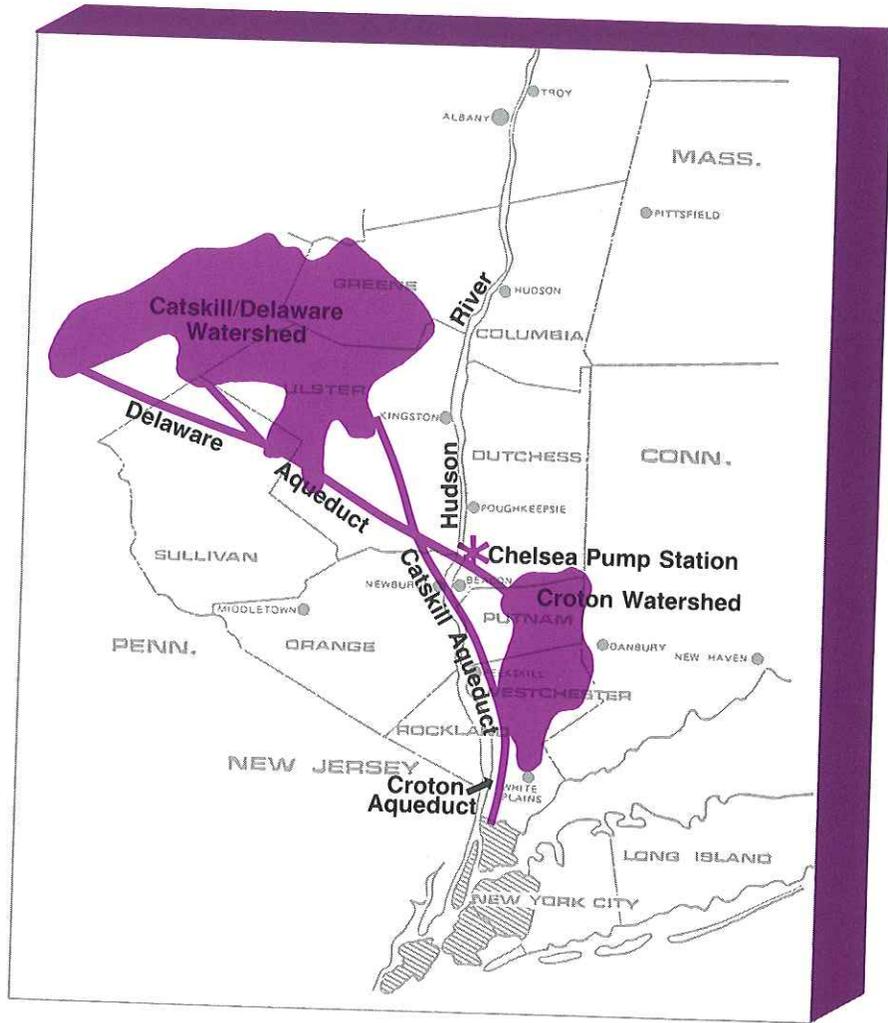
The city of Poughkeepsie supplies an average of 10.6 million gallons of water to city and town residents each day. As long as the Hudson River is a viable source of water, there is potential for further expansion beyond the existing service boundaries. Any expansion must consider the long term availability of Hudson River water or an alternative source, especially in periods of low flow. Any expansion must also entail an equitable financing arrangement and supporting land use policies in neighboring communities. Expansion can help promote public health, permit a more efficient land use pattern, and represent cost savings over individual solutions.

Policy 6.11

Dutchess County supports the development of a water budget for the Hudson River.

Recently there have been several major proposed projects which would use Hudson River water. These include the United States Corps of Engineers' high flow flood skimming project, the development of major electric generators along the river and the upgrading of the Chelsea Tap for use by New York City residents. Increased demand from communities north of the county will also impact the migration of the salt front and future supplies for Dutchess and Ulster counties. Since there is no agreed upon water budget for the Hudson River, the availability of Hudson River water for future county use is in question. A budget can provide a basis for equitable, long-term distribution of this essential water supply resource.

Regional Water Supply Demands on the Hudson River



Policy 6.12

Dutchess County supports the consideration of areawide water systems in northwestern Dutchess County.

Water shortages have occurred in Red Hook, Tivoli and Staatsburg. Hyde Park is uncertain about the extent of its long-term supplies, especially in the face of current growth pressures. Rhinebeck is served from a Hudson River tap at Rhinecliff. Areawide water supply systems, perhaps using the Hudson River as a source and serving one or more municipalities, would provide assurance that long-term water supply needs would be met in a growing economy. Such systems should be designed with an extension policy that encourages desired growth patterns.

Policy 6.13

Dutchess County supports the use of the Maybrook right-of-way for routing central water, sewer and other utility sources.

The Maybrook corridor offers an exceptional opportunity to coordinate utility, highway and land use planning. Certain adjacent land areas could be intensively used, provided that utilities are available to nearby property owners.

Policy 6.14

Dutchess County encourages the regular maintenance and pumping of septic systems and the replacement of poorly designed or inadequate systems.

Portions of Dutchess County contain small lots and old septic systems or cesspools. Odors often signal problems in such areas. Municipalities should identify such areas for concentrated educational programs. While a three-year septic pumping cycle is recommended as a standard operating procedure, extraordinary measures may be necessary for problem areas. In residential areas, one of the threats to groundwater quality is the nitrate-nitrogen discharged into leachfields. The federal safe drinking water limit for nitrate-nitrogen in potable water is 10 milligrams per liter. Concentrations in septic tanks usually range from 30 to 70 milligrams per liter. In soils capable of treating septic wastes, one-half of this amount is eliminated before the wastes reach the water table. The remainder may enter the groundwater supply without being treated and must be diluted to bring its concentration down to safe levels. Residential overcrowding can prevent adequate dilution, causing serious health problems by contaminating groundwater supplies. This situation is of critical concern in areas where domestic water is supplied by individual wells tapping local groundwater supplies.

Policy 6.15

Dutchess County supports the strict enforcement of state standards for sludge and septage disposal.

Septage refers to the solids that build up in septic tanks. Sludge is the residual left from the treated wastes. Sludge is periodically removed from municipal and community wastewater treatment facilities and from some industrial processing operations. Contaminants in sludge are very concentrated compared to unprocessed waste or solid waste. Some sludges and septic solids can be spread on the land, even on agricultural fields. This process has to be monitored carefully to prevent build-up of heavy metals and other pollutants. Sludge and septage disposal can also occur in specially designed lagoons.

Septage wastes are usually discharged into municipal wastewater treatment facilities if haulers are within a radius of 15-20 miles. Rural area disposal necessitates the use of lagoons or disposal pits. These should meet state standards to ensure protection of water quality.

Dutchess has a very limited number of sludge and septic disposal sites. Many of these sites have very limited life expectancies, while others have actually been ordered to close. This means that a long term disposal plan must be developed and implemented, or the county will soon face a crisis.

Policy 6.16

Dutchess County supports the provision of available sites to dispose of demolition debris.

Commercial building and renovation programs often require removal of older structures. While such structural debris is relatively clean--consisting of wood, concrete, wallboard, nails and the like--opportunities for disposal are limited. Demolition debris is often treated as a hazardous waste. Finding a suitable site can cause expensive delays. Safe disposal practices and available sites are needed in an economy that is expanding.

Policy 6.17

Dutchess County supports strict enforcement of state standards for the operation of sanitary landfills. When landfills cannot meet these standards, alternative disposal methods must be used.

New York's landfill standards are established to protect surface water and groundwater from contamination, and to control vermin. Older landfills were commonly located in areas that were poorly suited for waste disposal. Frequently, they were over surface aquifers or wetlands near or adjacent to streams. Older landfills were not designed to divert or treat leachate. State standards are designed to prohibit poorly sited, poorly engineered and poorly maintained landfills. Unfortunately, Dutchess County has many active landfills which do not meet state permit requirements. Since the problem of landfill leachate persists for many years beyond retirement of the site, carelessly sited and carelessly maintained landfills represent a long-term threat to water quality.

Policy 6.18

Dutchess County supports conscientious enforcement of the State Pollution Discharge Elimination System (SPDES) to maintain and restore the quality of our water resources.

If properly administered, the SPDES program has the potential to accomplish the goals of clean water. This permit system has already helped to improve water quality in the Hudson River. Since Dutchess County uses the Hudson as a primary water supply source, and since there are so many upstream users of the Hudson River, the economy and health of Dutchess are dependent upon effective enforcement of water quality regulations.

Policy 6.19

Dutchess County supports continuing efforts by the state and federal governments to assess the threats to groundwater and surface water quality posed by the numerous suspected hazardous waste sites in the county, and urges officials to work cooperatively to clean up or contain harmful sites as quickly as possible.

The Department of Environmental Conservation maintains a list of suspected hazardous waste sites and is in the process of evaluating the risks, if any, presented by each site. Communities should become fully aware of these sites and establish land use regulations that prevent inappropriate land uses on and within the potential areas of influence of sites that contain hazardous materials.

Policy 6.20

Dutchess County encourages the recycling of waste materials.

Recycling of solid and other wastes offers many potential benefits, including total waste reduction, energy savings, conservation of resources, creation of jobs and cost reduction for waste disposal. Separation of recycleable material at the waste source helps to maximize all of these benefits. The county and its municipalities need to ensure that recycling is an integral part of any solid waste management plan.

Policy 6.21

Dutchess County supports the protection of all surface and groundwater resources regardless of present usage.

The county is blessed with abundant water resources. Some are intensively used and depended upon, while others are not utilized. The city of Poughkeepsie water system supplies large quantities of Hudson River water over a broad area, making the use of the groundwater in the Poughkeepsie area unusual. Despite the fact that the groundwater is not extensively used, it should be protected in order to provide a possible backup to existing supplies.

Policy 6.22

Dutchess County supports efforts to formulate contingency plans to handle water supply and pollution emergencies.

We are dependent upon water supplies to carry out our most basic activities. When the quantity or quality of water available to us is threatened through drought or pollution, our lives are in turn threatened. It is critical that practical contingency plans be in place in the event of a water emergency.

Policy 6.23

Dutchess County supports the development and implementation of measures to protect drinking water sources, such as sole source aquifer designation, watershed rules and regulations, well field protection regulations and critical environmental area designations.

Potable water is a very valuable commodity. Unfortunately, we often don't appreciate it until we lose it. The development and use of water source protection measures can be much less expensive in the long run than trying to clean up a polluted supply.

Policy 6.24

Dutchess County supports the use of drainage retention techniques that provide for aquifer recharge.

Groundwater is continually replaced through percolation of precipitation into the earth. As we seal more of the earth's surface through development of impervious surfaces (roofs, roads, parking lots), more precipitation will run off and less will be available for aquifer recharge. Unless specific measures are designed into development projects to retain runoff (through the use of retention basins, subsurface absorption galleries, drywells, etc.), water tables may drop and water supplies can be threatened.

Introduction

Land uses in Dutchess County are constantly changing and evolving. Farms in many rural areas are being subdivided into residential lots; commercial sites along many roads and in developed centers are changing ownership and use; and, new roads are being constructed. By far the greatest impetus for change in the county has been the increase in the population during the last 25 years. Between 1960 and 1980, the population increased by almost 40 percent. During the same period, the net increase in New York State was less than five percent. Between 1970 and 1980, the population of the state declined by nearly four percent, while Dutchess grew by more than 10 percent. Population growth will continue to be one of the major forces of change within the county as more people discover what Dutchess has to offer.

Despite the large population increase, in 1980 approximately three-quarters of the land (393,000 acres) in Dutchess County was in agriculture, wetlands, forests and inactive uses. The remaining 117,000 acres in the county are considered "developed land" and are devoted to residential, commercial, industrial, extractive, recreational, transportation and communication, and public and semi-public uses. Residential uses account for slightly less than 50 percent of the developed land or 55,200 acres. Other major uses include recreation uses (23%) and public and semi-public uses (19%). Approximately four percent of the developed land is in commercial uses, while industrial and extractive uses account for five percent, and transportation and communication uses consume 1.5 percent. Although the majority of the county remains open, more land is coming under pressure for development

as new job opportunities become available, as more people move into the area, and as additional support facilities are established in the county.

Several major trends have influenced land use decisions during the past 40 years. The widespread availability of the automobile and the construction of a suitable road network enabled people to move away from population centers to suburban and rural areas. This expansion accelerated after World War II. At the regional level, the result of this suburban expansion was the movement of people, jobs and shopping facilities from metropolitan areas such as New York City, Newark, Jersey City, Yonkers and White Plains to the suburbs in New Jersey, Long Island and the Hudson Valley. In Dutchess County, the trend toward suburbanization has been characterized by the concentration of residential, commercial and industrial uses in the southwestern core outside of the traditional urban centers of Poughkeepsie and Beacon. In the past 15 years, U.S. Route 9 between Poughkeepsie and Fishkill has become a center of commercial activity, and several major industrial employers have constructed self-contained industrial campuses outside of downtown locations. The result of these changes has been the emergence of



LAND USE

a low-intensity land use pattern that is often referred to as suburban sprawl. Sprawl is characterized by the separation of residential, commercial, industrial and cultural activities, the increased dependence on the automobile as the dominant means of transportation, and the conversion of large quantities of land from agricultural and open space uses to residential, commercial and industrial uses.

Another trend in Dutchess County is the move to the rural communities. The populations of towns such as Beekman, Clinton and Union Vale have more than doubled in the two decades between 1960 and 1980. Many people prefer to live in a rural community even if it means a longer commute to work. The availability of a good regional transportation network has brought Dutchess County within commuting distance of Albany, Westchester County and New York City. The expansion of employment opportunities in Kingston and Danbury, Connecticut has contributed to the growth of communities in the northwestern and southeastern sectors of the county. It is estimated that approximately 1,800 acres of forest and agricultural land are converted for "developed" uses each year in the county. As with suburban sprawl, the increase of residential

uses in areas that are removed from both the major employers and the commercial centers in the county has perpetuated the use of the automobile, increased the costs of transporting people and goods, threatened the viability of agriculture, and contributed to localized problems of water shortages and groundwater pollution.

Another trend that is related to an automobile-dependent society is the increased amount of strip development along the major transportation arteries. This linear development includes the proliferation of commercial uses along routes 9, 9G, 22, 44 and 55, along with a significant increase in the number of single-family homes strung along major state and county highways in all areas of the county. Between 1965 and 1985, the commercial strip along Route 9 between the city of Poughkeepsie and Interstate 84 has become firmly established. Other commercial strips are beginning to appear in communities such as Hyde Park, Pawling and Rhinebeck. Residential strips have also become common throughout the county as land along existing roads has been subdivided and sold for individual homes. This type of development has created conflicts between local traffic and through-traffic along the

roads. The proliferation of commercial and residential strips has reduced the ability of some major roadways to handle traffic. This reduction in carrying capacity has caused safety problems, contributed to the increase in traffic congestion, and created the need for costly repairs and improvements along many of the roads in the county.

The trends discussed have contributed to an overall pattern of development in Dutchess County that is increasingly fragmented and haphazard. Land use decisions are frequently made with inadequate consideration of the effect that they will have on neighboring communities or the county as a whole. The result has been the emergence of a development pattern which, if unchecked, will continue to consume large areas of land, threaten the county's natural resources, increase the cost of providing services and facilities, decrease the efficiency of the transportation network, and conflict with agricultural activities in the county.

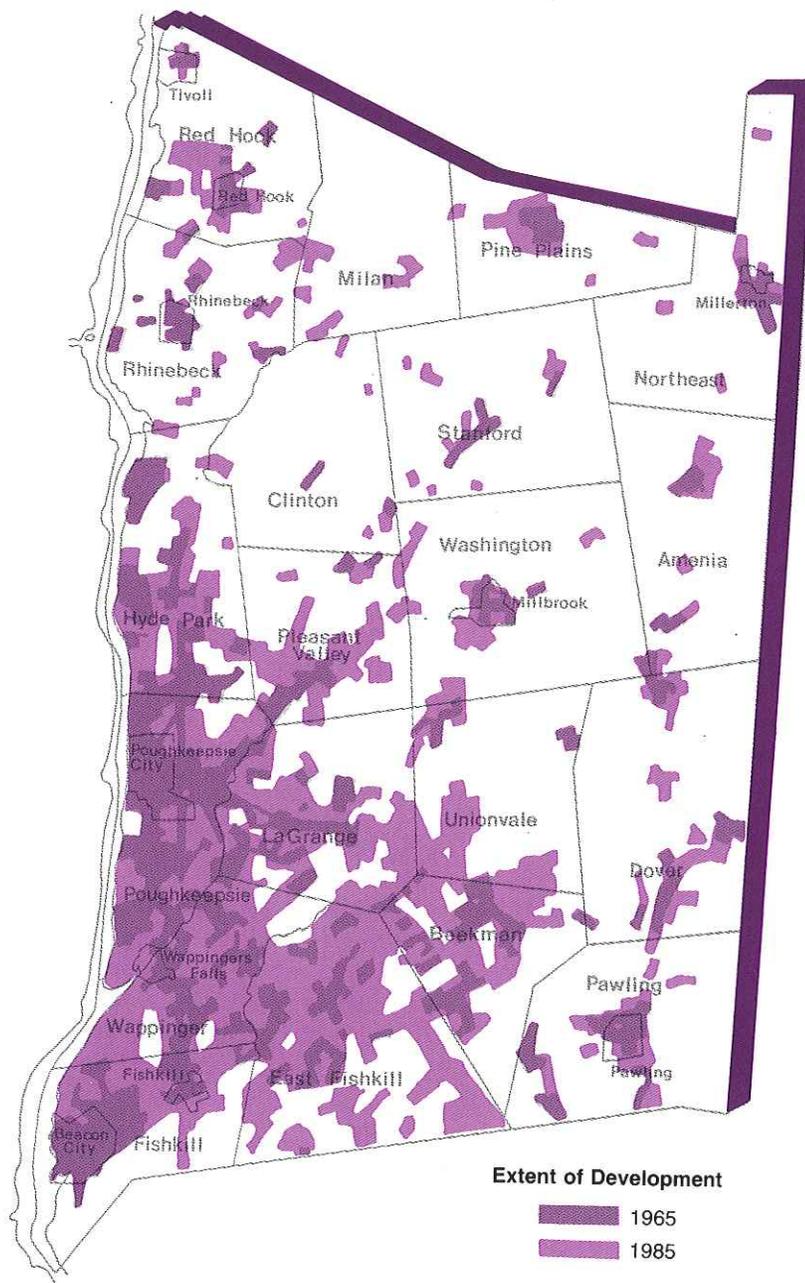
The goal and policies presented in this chapter are intended to support the existing community centers within the county, which range from the urban centers of Poughkeepsie and Beacon to town, village and hamlet centers found throughout the county.

Goal, Policies and Rationales

Dutchess County's land use goal is:

To promote a land use pattern that strengthens existing centers, protects important natural resources, maintains an efficient transportation network, provides for economical services and facilities, fosters an orderly pattern of growth and development, and helps each community protect its community values and maintain its distinct identity.

Growth Pattern



The following land use policies suggest that future development in Dutchess County be concentrated close to the established centers. This concentration of development, combined with careful open space and transportation planning, is intended to promote a land use pattern which will enable the county and its municipalities to provide their residents with an exceptional quality of life.

Policy 7.1

Dutchess County supports the city of Poughkeepsie as the regional center for the Mid-Hudson Valley.

The city of Poughkeepsie serves as a major governmental, financial, educational and cultural center not only for the county but for the entire Mid-Hudson region. Poughkeepsie provides a diversity of services to the surrounding residential communities. Long-term growth and prosperity of the county as a whole is dependent on the vigor and well-being of its largest center. In Poughkeepsie, the regional center, the county plan recommends that efforts be undertaken to promote:

- revitalization of the downtown areas, particularly the Main Mall.
- maintenance and enhancement of existing residential neighborhoods.
- expansion and use of the railroad station and surrounding areas.
- redevelopment of, and increased recreational access to, the waterfront areas.
- enhancement and continuation of the educational and cultural activities.
- adoption and enforcement of strict standards for site design and building construction.

Policy 7.2

Dutchess County encourages the continued development of Beacon as an important center providing a broad range of services in the southern part of the county.

The city of Beacon is an important center that serves as the focus for many activities within the southern portion of the county. Beacon is also the location of many governmental offices. The recommendations of this plan for Beacon are:

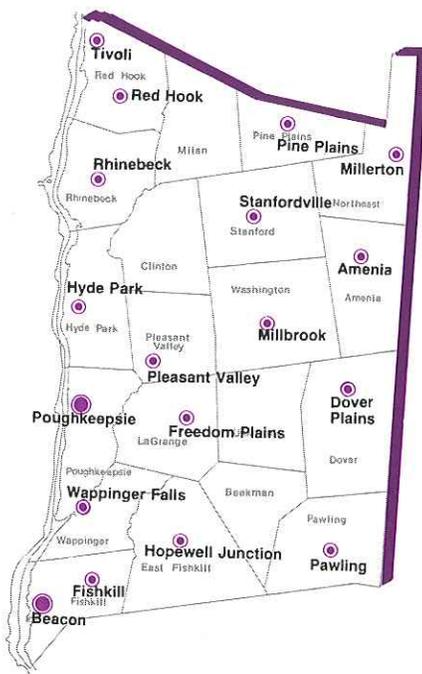
- protection of residential areas from incompatible development.
- renovation of the railroad station and the immediate vicinity.
- redevelopment and protection of the riverfront area.
- revitalization and strengthening of the downtown area.
- adoption and enforcement of strict standards for site and architectural design and building construction.
- expansion of the economic base.

Policy 7.3

Dutchess County encourages the maintenance and strengthening of the traditional community centers within the county.

The county plan identifies 18 community centers in Dutchess County. Eight of these are incorporated villages (Fishkill, Millbrook, Millerton, Pawling, Red Hook, Rhinebeck, Tivoli and Wappingers Falls) and eight are unincorporated hamlets (Amenia, Dover Plains, Freedom Plains, Hopewell Junction, Hyde Park, Pine Plains, Pleasant Valley and Stanfordville).

Community Centers



These community centers provide some of the best living environments in the county. Most exhibit concentrated land use patterns, and many contain sidewalks, public utility systems, well-developed parks and a comfortable relationship between residential and non-residential uses. The community centers should be treated as focal points of development and activity within the county. To accomplish this, the county recommends:

- location of community facilities within the centers where feasible.
- maintenance of the traditional housing stock.
- maintenance of high quality water and sewer facilities.
- encouragement of new residential and non-residential development.
- maintenance of attractive and functional downtown areas.
- provision of attractive parking areas.
- effective administration and enforcement of local land use regulations.
- adoption and enforcement of strict standards for site design, building construction and signage.
- maintenance of post offices.

Policy 7.4

Dutchess County encourages the recognition and maintenance of suburban activity areas in the county.

Suburban activity areas are located within the Community Use and Suburban Use classifications in the southwestern core. As development has increased within the county, many of these centers have grown from small crossroad communities to mixed use areas that contain a variety of commercial, professional and service uses. East Park, Manchester Bridge, Myers Corners and Red Oaks Mill are examples of suburban activity areas. Within these areas, the county recommends:

- adoption and enforcement of local land use regulations designed to centralize development.
- adoption and enforcement of strict standards for architectural design, landscaping and signage.
- provision of adequate parking.
- use of combined advertising and other devices to create identity.

- provision and maintenance of borders to create well-defined centers.
- provision of a range of activities and services.

Policy 7.5

Dutchess County supports the reinforcement of rural hamlet centers.

There are several hamlets in Dutchess County that serve as centers of residential and limited commercial uses. Some of the more prominent hamlets are Clinton Corners, Mabbetsville, Poughquag, Salt Point, Staatsburg, Verbank, Wassaic and Wingdale. Many of these rural hamlets have community water systems, but are unlikely to have central sewer systems in the near future. Within the hamlet centers, the county recommends:

- the adoption and enforcement of local land use regulations that are designed to preserve the community character.
- development densities based on the capacity of the soils to handle on-site waste disposal.
- maintenance of small commercial uses which are designed to serve local needs.
- preservation of rural post offices.

Policy 7.6

Dutchess County advocates the preparation and conscientious use of local master plans, and the establishment of land use regulations that are designed to carry out the objectives of the master plan.

Because most land use decisions are made at the local level, it is important that communities in Dutchess County use their master plans and land use regulations to ensure that future development takes place in a manner consistent with both municipal and county goals. Local governments should ensure that existing land use regulations are used effectively; and they should develop and implement appropriate innovative techniques. Appropriate methods of regulating land use depend on local problems and opportunities. The following land management techniques should be considered to augment or replace traditional subdivision and zoning regulations:

- cluster development
- planned unit development
- overlay zones
- floating zones
- conservation and scenic easements
- transfer of development rights
- local historic districts
- local agricultural districts
- improved performance standards
- sign regulations
- incentives, such as density bonuses
- Coastal Zone Management Program
- Scenic Roads Program.

Policy 7.7

Dutchess County encourages communities to base changes in zoning ordinances and maps on changes in local objectives and master plan updates, rather than on the pressure of individual development proposals.

Land use regulations can be flexible. Good land use administration is reflected when zoning amendments are made by the Municipal Board. Extensive use of the board of appeals for use variances usually reflects poor or outdated local regulations. Zoning changes made as a result of an applicant's pressure nearly always have an important impact on the community. Local officials are charged to take the "long view" in defense of the public interest and fulfill their responsibility by adopting workable, anticipatory regulations.

Policy 7.8

Dutchess County encourages the use of professional planning and engineering assistance in all municipalities.

Several communities in Dutchess County have hired professional planners and engineers on a part-time or full-time basis to attend meetings, evaluate site plans and advise the boards on procedural matters. Part-time service is relatively inexpensive and allows the local boards to be more professional and punctual in carrying out their responsibilities. Professional planners help to clarify issues and build confidence among appointed planning board members. Planners can also help to remind board members of how daily decisions affect the long-term appearance and function of the community.

Policy 7.9

Dutchess County supports the meaningful use of the State Environmental Quality Review Act (SEQRA) in the review of all development proposals. Municipalities should clearly outline the conditions for review in their local plans and regulations.

SEQRA is a state-mandated process for protecting New York residents from development that could cause public harm if environmental, economic and safety issues are not resolved. SEQRA allows local authorities to request developers, at their own expense, to examine environmental impacts and recommend ameliorative action. Too often this technique has been ignored in a well-meaning attempt by local officials to encourage development. SEQRA provides a bridge between private initiative and public acceptance. Large or controversial developments which receive SEQRA scrutiny are more likely to be long-term credits to the community and more positive influences on the tax base than developments which leave important questions unanswered.

Policy 7.10

Dutchess County encourages the preservation and protection of the economic health of the agri-business community and the prime and important agricultural soils.

Dutchess County has lost a significant portion of its prime and important soils to development. There has also been a significant decline in both the number of farms and the amount of land devoted to agricultural use in the county over the past 60 years. In 1925, approximately 63 percent of the county acreage (352,020 acres) was classified as farmland. By 1982, only 137,963 acres, or 27 percent, were in farmland.

Although the amount of land in agriculture seems to have stabilized in recent years, the agricultural economy continues to fluctuate. In Dutchess County, agricultural operations are influenced by federal and state farming policies, development trends, market forces and local land use regulations. There must be a coordinated effort to protect the prime and important soils, which are irreplaceable, and preserve the integrity of the agricultural communities within the county. There are a variety of methods available:

- mandated cluster development provisions.
- utility systems that help to encourage development in community centers.
- performance standards for non-agricultural uses.
- conservation easements.
- transfer of development rights.
- differential tax assessments.
- agricultural districts.
- participation in the Land Evaluation and Site Assessment (LESA) Program.

Policy 7.11

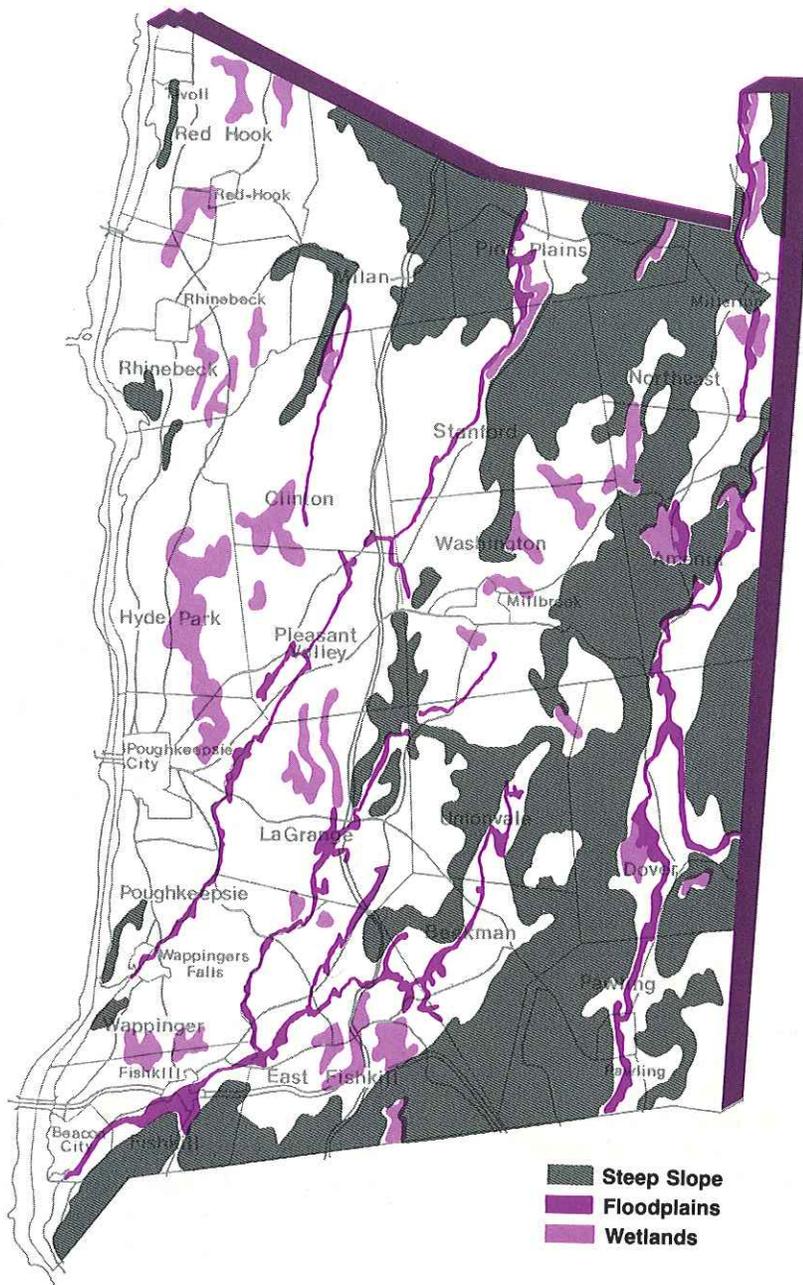
Dutchess County encourages the provision of open space areas and greenbelt corridors as a fundamental land use that is carefully planned as part of the land use pattern.

Traditionally, permanent open space provided people with passive recreational opportunities such as places to be in a unique natural setting or areas where outstanding vistas could be viewed. More recently, permanent open space has been viewed as a necessary element of community design; areas that must remain open in order to preserve or manage sensitive environmental resources. Too often, open space is viewed simply as land that is not yet developed. Open space areas can be used as scenic resources and passive recreation areas; they can also be used to provide waterway access, to preserve wetlands, floodplains and steeply sloped areas, to protect wildlife habitats and important agricultural resources, to promote community identity, and to help buffer conflicting land uses.

Deliberately planned greenbelts can be used to maintain distinction between communities which otherwise might merge together. The following methods should be considered to help maintain green areas:

- cluster development.
- steep slope protection regulations.
- floodplain and wetland regulations.
- agricultural zoning.
- agricultural districting.
- open space easements and acquisition.
- groundwater recharge zone protection.

Natural Limitations



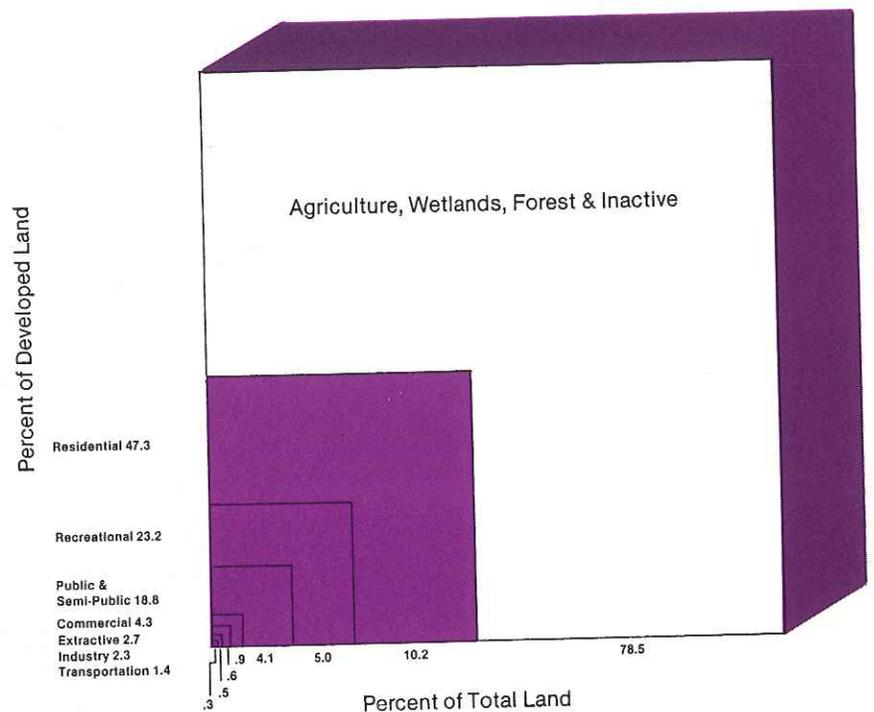
Policy 7.12

Dutchess County supports residential development in rural areas provided that it does not consume prime agricultural soils, conflict with viable agricultural operations, reduce the carrying capacity and safety of state and county roads, or threaten natural resources.

Many people prefer rural areas for residential living. Yet the proliferation of one- and two-acre lots can adversely affect existing agricultural operations and threaten the rural nature of a community. In rural areas, residential clustering can be used to preserve the open space character of a community, while at the same time protecting important resources, such as soils, steep slopes, wetlands and aquifer recharge

areas. Rural residential uses should be designed and located with an informed respect for site limitations and opportunities.

Extent of Developed Land 1976



Policy 7.13

Dutchess County discourages the subdivision of prime and important agricultural soils and large forested tracts into lots which preclude the future use for agriculture and forestry.

In some areas, particularly where land costs are relatively low, there is a market for five- to ten-acre lots that are sold as mini-farms. Studies show that, despite owner intentions, intermediate-sized parcels cause a waste of land, and in many cases are subdivided further. Effective forestry and farming operations require 10 or more acres. Most residential land owners actively use less than an acre, while the remainder goes fallow or remains unmanaged. Once the land is subdivided, future use of the land for agriculture or forestry is forever precluded by the ownership pattern. To ensure the protection of agriculture and forest resources, rural communities should establish minimum lot sizes that would permit continued use for farming and forestry. An alternative would be to encourage the use of clustering to establish residential uses on smaller lots, with the remaining land commonly owned in a size that would allow continued farming or forestry activity, and in a way that allows common access to natural resources such as stream banks, hilltops or wetlands.

Policy 7.14

Dutchess County supports limiting commercial and residential strip development that result in multiple access points along state and county roads and on those local roads used as thoroughfares.

The various land use and zoning policies of municipalities influence the efficiency of the transportation system. Frequently, local governments are pressured to locate commercial development in strips along major transportation routes. Locating inappropriate commercial uses in this manner along these transportation corridors increases the number of access points (driveways and intersections), decreases the level of service of the roadway, creates a conflict between local and through traffic, and competes with established commercial centers.

A related problem is the establishment of residential strips in rural and suburban areas of the county. As with commercial strips the establishment of residential lots with individual driveways contributes to the conflict between local and through traffic, decreases the level of service along the road, and inhibits the development of land which does not have direct access to a major roadway.

Local communities should help maintain the capacity of those roads used for through traffic by:

- creating deeper roadside zones to encourage centers of development and discourage strips.
- encouraging development within or adjacent to existing centers;
- adopting performance standards for the development of appropriate highway commercial uses;
- requiring the use of shared drives and parking lots.
- constructing marginal access or service roads.
- limiting access points to dedicated residential and commercial roads.
- requiring larger setbacks in the event that road improvements are necessary.

Policy 7.15

Dutchess County supports the establishment of specialized commercial areas that are designed to provide interest and variety in the county.

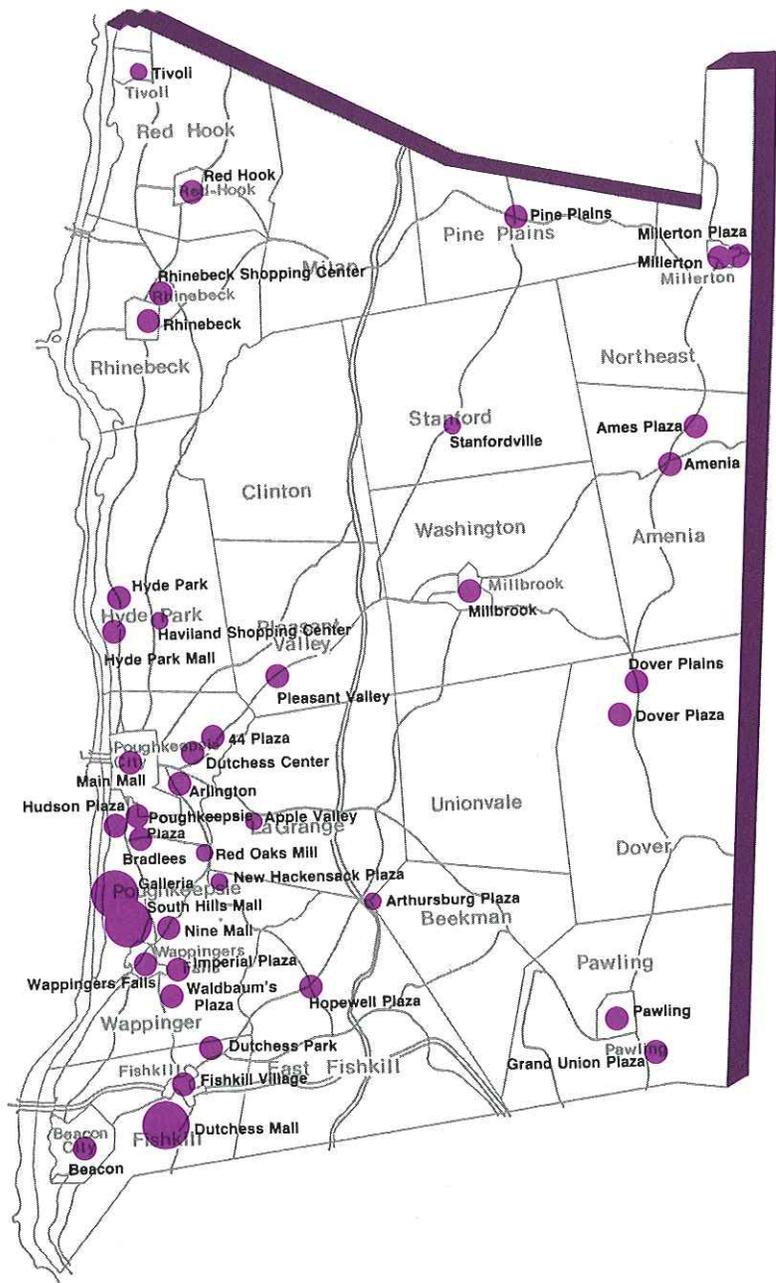
There are several areas in Dutchess County where small-scale, specialized commercial districts could be established or created. Farmers markets, craft villages, outdoor dining areas and cafes, and the reuse of the historic buildings can generate interest and excitement in a community. Such areas of interest are appreciated by both tourists and residents, and they contribute to community diversity and pride. The waterfront areas in Poughkeepsie and Beacon, the Poughkeepsie Main Mall, and many of the villages and hamlets in the county are potential sites for the development of integrated commercial districts.

Policy 7.16

Dutchess County supports the development of regional shopping centers within, or adjacent to, community centers on routes which have sufficient long-term capacity to meet competing traffic demands, in locations where adjacent land uses are compatible, in areas that are easily accessible to residents, and in accordance with local and county plans and policies.

Large regional shopping centers--those with 400,000 square feet or more of retail floor area--have a tremendous effect on local and regional traffic patterns and land uses. Adjacent roads can become overloaded and congested, creating the need for expensive road widenings and repairs, installation of new lights, and the addition of turning lanes. Local

Commercial Centers



officials must carefully evaluate the impact of proposed shopping centers and be prepared to defend the public interest by insisting on developments which are reasonably sized, integrated into the existing land use pattern, and built with the highest standards of site planning.

Policy 7.17

Dutchess County supports the development of neighborhood shopping areas that are functionally and aesthetically related to surrounding residential areas.

Many small shopping centers can be approached only from the highway. Even residents living within a few hundred feet are compelled to use their cars when they patronize the centers. Many small centers or convenience stores display standardized franchise architecture or site designs that lack visual interest, good landscaping and other beneficial design features. Small shopping centers should be developed in a manner that permits pedestrian and automobile access.

Policy 7.18

Dutchess County supports the establishment of appropriate office research, industrial campus, and corporate park uses within the I-84 corridor.

Industrial and office research uses which require access to the interstate transportation network should be located close to Interstate-84. The development of these facilities should be sensitive to existing natural resource constraints, such as floodplains, wetlands, rock outcrops, and vegetation. Large-scale industrial and office research uses along the corridor should be served by central sewer and water facilities, should have access to the existing road system, and should be oriented in such a way as to minimize the impact on visual resources.

Policy 7.19

Dutchess County supports the development of attractive industrial and office park sites.

Dutchess County has a strong and growing economy. Many industrial and office sites in the county offer little in the way of architectural merit or landscaping. The public and private sectors must work cooperatively to ensure that the development of new industrial and office sites are attractive and functional.

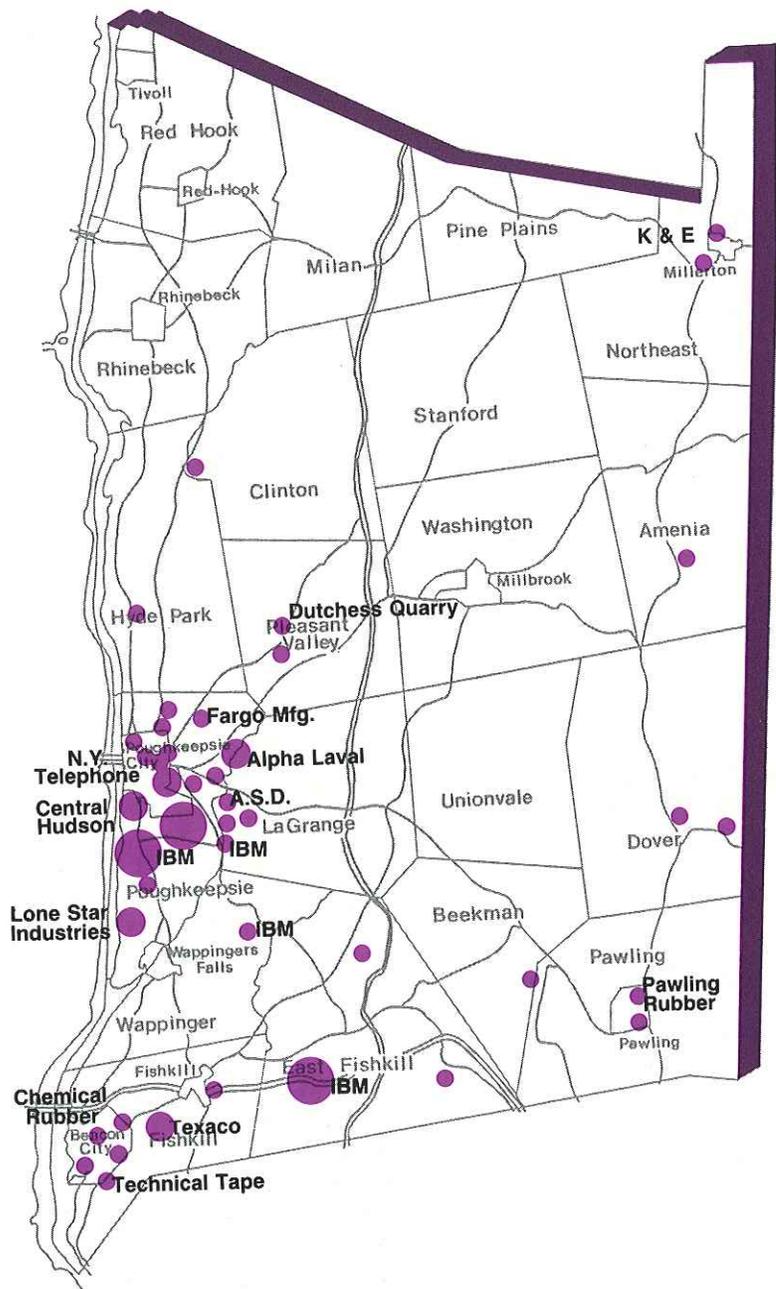
Policy 7.20

Dutchess County encourages the location of industrial, office and research facilities within or adjacent to community centers in locations with adequate services, utilities and transportation facilities.

Prime industrial sites are very limited in Dutchess County. Many potential sites have been used for other, unrelated purposes. If Dutchess County is to diversify its economic base by attracting new and desirable industries, suitable sites must be identified and protected from incompatible development. Industrial uses should be located in areas that have access to one or more highways, that have good soil characteristics, and that are served by adequate sewer, water and energy

facilities. Master plans and zoning ordinances should be used to reserve the best industrial locations in the county. Potential industrial locations include sites within the area served by the Tri-Municipal Sewer Agency (Wappingers Falls and Poughkeepsie), the areas along Route 22, south of Pawling, and land along the Maybrook Railroad right-of-way.

Major Industries



Introduction

Transportation is a service that enables people and goods to move from one place to another. The transportation system in Dutchess County includes automobiles and the highway network, private and public bus systems, railroads, private planes, commuter and charter air service, trucks, waterborne transportation, bicycles and pedestrian walkways. These components of the transportation system are used to reach working and shopping places and leisure time activities, as well as to ship freight. The transportation system must be designed to serve the various physical, social and economic needs and goals of a community as well as the needs and goals of individuals who live and work in the community.

Transportation is not only a means for moving people and goods; it is a strong determinant of the physical form of our landscape. It is a key influence in the shaping of our urban, suburban and rural areas. This is evident when historic trends are analyzed. The compact central cities of the 19th century and early 20th century declined, while suburban and rural areas developed with the growth of automobile usage. The evolving land use pattern in Dutchess County, and much of the country, is being shaped by the automobile.

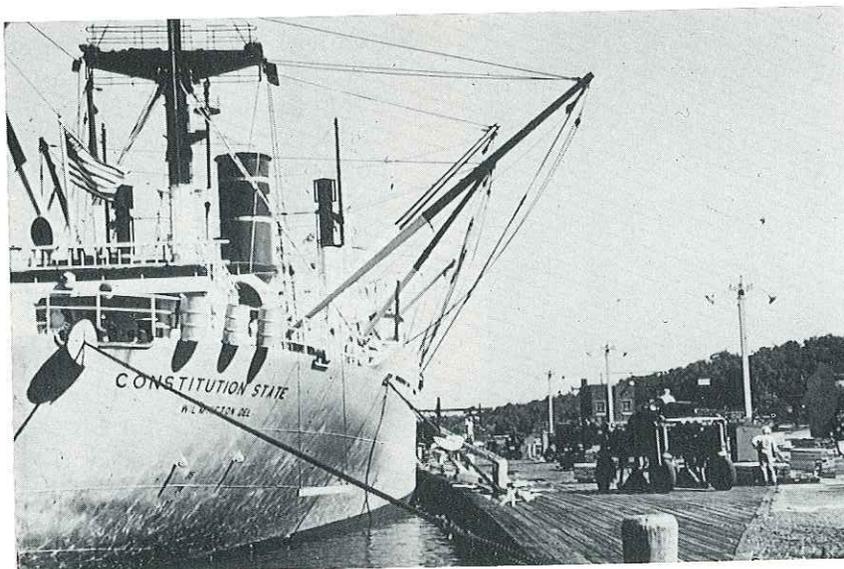
Development patterns structured by the automobile have spread shopping, work, recreation and residential opportunities so far apart that individuals spend much of their time traveling between the different parts of their lives. Any "improvement"

of the transportation system demands a re-examination of the function of transportation and its relationship to other activities within the community.

The transportation network should be designed to recognize the functional interrelationship between movement systems and the way we develop our land. The transportation network can become a creative tool to serve and guide the form of the community in conjunction with community goals, plans and values. This concept of the transportation network as a creative tool can be accomplished by relating the means and type of transport to the function that is served, by designating an appropriately sized transportation facility to fit the scale of service areas, and by creating a hierarchy of transportation modes.

The transportation network in Dutchess County has evolved gradually over the county's 300-year existence. Water transport was the primary means of transportation in the early history of the area. Today, the automobile has made the highway the primary means of personal and business transport.

Road mileage within Dutchess County totals 2,208 miles. Jurisdiction for these roads is



TRANSPORTATION

divided among the state, the county and 30 towns, cities and villages. Approximately 1,500 miles are the maintenance responsibility of towns, cities and villages.

Interstate 84, which traverses southern Dutchess County in an east-west direction, connects Dutchess with New England, Pennsylvania and points west. The Taconic State Parkway, a scenic north-south road through the middle of the county, provides connections to New York City to the south, and upstate New York to the north. U.S. Route 9, in western Dutchess, and NYS Route 22, in the eastern part of the county, are the main north-south roads which complement the Taconic State Parkway. The major east-west roads include NYS Route 52 in southern Dutchess, and NYS Route 199, which crosses the northern part of the county. U.S. Route 44 and NYS Route 55 traverse the county in a radial pattern. Route 44 proceeds from Poughkeepsie to the northeastern section of the county; Route 55 proceeds from Poughkeepsie to southeastern Dutchess in the Harlem Valley. Additional state roadways and a network of county roads assist in connecting the diverse areas of Dutchess County.

Three bridges cross the Hudson River in Dutchess County. These bridges

provide for regional travel as well as opportunities to shop and journey to work. The Newburgh-Beacon Bridge is part of the Interstate 84 system in southern Dutchess. The Mid-Hudson Bridge, located at Poughkeepsie, has experienced significant increases in traffic volumes; it is currently the focus of a study to evaluate future needs. The Kingston-Rhinecliff Bridge crosses the Hudson between northern Dutchess and Ulster counties.

Metro-North Commuter Railroad, a subsidiary of the Metropolitan Transportation Authority, provides passenger service along the Hudson and Harlem rail lines in Dutchess County. The Harlem line provides passenger service between Dover Plains and points south. On the Hudson rail line, Metro-North provides passenger service between Poughkeepsie and New York City.



Amtrak, the nationwide rail passenger line, provides service along the Hudson line with stops at Rhinecliff and Poughkeepsie. Amtrak provides county residents with a link to the national rail service network.

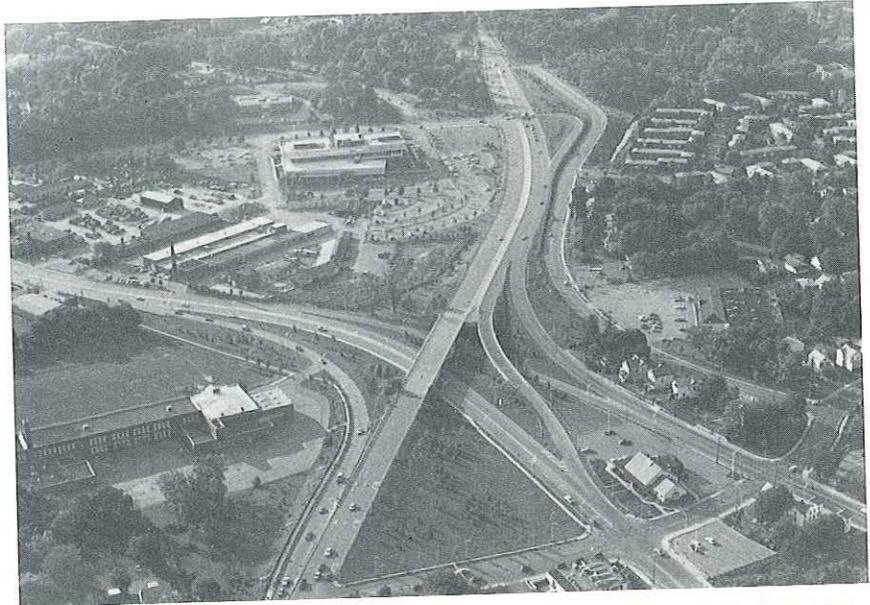
Bus service is provided in the city of Poughkeepsie by the city's bus system and in other areas of the county by the Dutchess County LOOP System. Private bus operators also provide service for residents, including commuter bus service to New York City. The Dutchess County Dial-A-Ride System provides bus service for the elderly and handicapped in seven municipalities.

The main airport in the county is the Dutchess County Airport in the town of Wappinger. Several commuter airlines provide service from this airport to major points throughout the northeast. Stormville Airport is a general aviation airport located in the south-central part of the county. Additional airports in Dutchess County are the Old Rhinebeck Airport, the Sky Acres Airport in Unionvale and Sky Park Airport in Red Hook. Stewart Airport, located in Orange County near the intersection of Interstate 84 and the New York State Thruway, is an important regional airport serving the Mid-Hudson Valley.

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The transportation system that has been briefly described is being tested by the growth of the county and the Mid-Hudson Valley region. This transportation system faces inherent dilemmas:

- ① the road network is used to facilitate land development as well as move traffic;
- ② the transportation system is under the jurisdiction of a number of agencies;
- ③ the radial road network pattern is being used to serve an evolving land use pattern that is not well served by a radial road network;
- ④ there is a continuing reliance on the automobile for travel;
- ⑤ the demands for transportation system improvements to



serve a growing county are being made in an era of fiscal austerity; and, ⑥ there are potential conflicts between the need for transportation improvements and the con-

cern over environmental issues and maintaining the quality of life. These are some of the primary transportation issues that the county faces as it moves toward the 21st century.

Goals, Policies and Rationale

The transportation goal is:

To maintain and enhance the existing transportation system, to encourage alternative means of transportation, to maintain a coordinated, effective, efficient and comprehensive public transportation system, and to ensure that future improvements are a positive force in shaping the physical, social and economic environments.

Policy 8.1

Dutchess County promotes a transportation network that strengthens existing community centers and fosters an orderly pattern of growth.

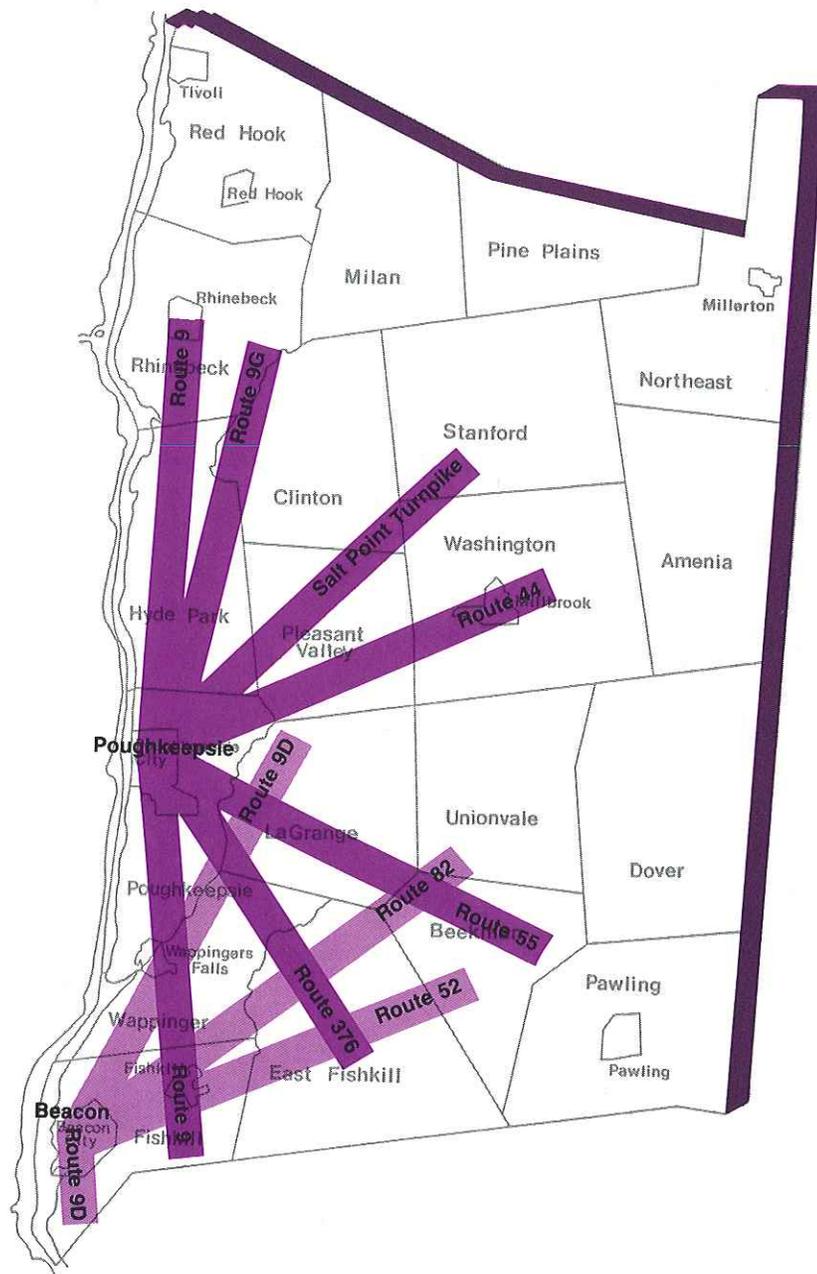
Existing centers in Dutchess County are the cities of Poughkeepsie and Beacon, eight villages and several hamlets. These areas have concentrations of population, commerce, employment and services. Traveling to and from these centers to take advantage of the opportunities that are offered is important to residents as well as visitors.

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Transportation has played a role in the development of these centers. In Dutchess County, a radial road network spreads out from Poughkeepsie. Beacon has a similar pattern of connecting roads, although to a lesser extent than Poughkeepsie. The villages and hamlets are generally located along major roads.

Transportation plans must relate to land use density patterns, especially the concentration of activities in existing centers. Similarly, the existing transporta-

Radial Road Pattern



tion system must be reviewed when new density patterns are established. Commercial districts, office industrial complexes and residential areas cannot function properly unless they relate to each other and facilitate the movement of goods and people. The movement of freight within the county is important to the overall functioning of the local economy. A comprehensive planning process can provide the framework for compatible development. An evaluation of all elements in the planning process can provide a transportation system that will accommodate future growth as well as today's community needs.

Policy 8.2

Dutchess County supports the maintenance and improvement of existing transportation surfaces and structures.

Our existing transportation capital facilities--roads, rails, airport runways and taxiways and buses--represent an enormous financial investment. Scant fiscal resources mandate that we concentrate finances on efforts to optimize the use of these facilities. This can be accomplished by improving the capacity of existing roads. Because of construction and maintenance costs, new roads should be constructed only where necessary to meet community goals. A comprehensive, ongoing maintenance program should be implemented for all roads. Highway safety features, including signs, signals and guardrails, should be maintained and upgraded as needed. An infrastructure inventory on the conditions of existing roadways should be maintained and used as a management tool to plan improvement projects.

Policy 8.3

Dutchess County supports the establishment of transportation system management techniques to conserve energy, improve air quality and preserve the traffic volume capacities of existing transportation systems.

Transportation system management techniques are methods of reducing the demand on the highway network. These techniques include the provision of park and ride facilities, the promotion of ridesharing, the encouragement of paratransit services and similar actions that prolong the life and maximize the effectiveness of the existing transportation system.

Employers can play an important role in the development and implementation of strategies to reduce the demand on the highway network. Employers can offer incentives to their employees for the use of public transportation and carpooling. Some employers subsidize part of an employee's bus or rail fare; others purchase vans for their employees to operate for carpooling. Employers can also mitigate traffic congestion through the use of flexible working time schedules for employees. The advantages to employers include less congestion for employee commuting and the possibility of reducing on-site parking requirements.

Policy 8.4

Dutchess County supports the use of public-private partnerships and collaboration in the planning, design and financing of highway improvements.

The private and public sectors share responsibility for development-related transportation improvements. The planning of transportation improvements requires cooperation between the two sectors so that long-term decisions can benefit both sectors. Cooperative design decisions should be made to maintain and improve traffic capacities while providing access for development along roadways. The financing of transportation improvements must also be approached as a cooperative venture; especially as private development and redevelopment increases the burden on the transportation system. Through these cooperative efforts, imaginative solutions to the traffic problems created by community growth can be identified and implemented.

Policy 8.5

Dutchess County encourages comprehensive transportation planning at all levels of government; this process should include the development of specific policies and plans.

Transportation has traditionally been a responsibility of all levels of government. Over the past few decades, efforts to improve coordination and planning for transportation among federal, state and local agencies have been increasing. The current era of fiscal limitations makes an integrated planning process a vital part of today's decision making processes. A cooperative transportation planning process will maximize the effectiveness of the efforts of each participant in the process. The Poughkeepsie-Dutchess County Metropolitan Planning Organization provides a forum for local, state and federal governments to cooperatively plan and implement coordinated transportation strategies.

Policy 8.6

Dutchess County supports the improvement and maintenance of the capacity of state and county roads by limiting the development of commercial and residential strips along those roads.

The land use and zoning policies of various municipalities strongly influence the efficiency of the transportation system. The location of inappropriate commercial uses along major transportation corridors increases the number of access points (driveways and intersections), decreases the level of service of the roadway, creates a conflict between local and through traffic and competes with the established commercial centers. Development of this kind should be discouraged in favor of established community centers and integrated, well-planned and well-balanced corridor development.

Community development techniques can be used to regulate road frontage and limit access to major thoroughfares. These techniques can minimize traffic operation conflicts.

Policy 8.7

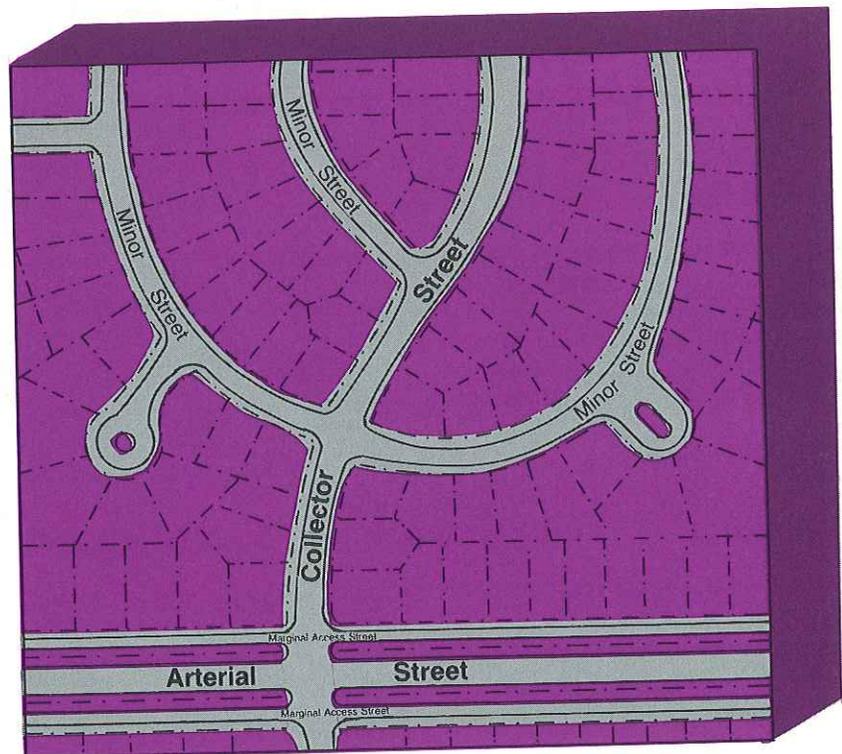
Dutchess County supports improvements to existing roadways in accordance with the following principles:

- Improvements should be related to community goals and policies and existing land use;
- Improvements should be designed to maintain and enhance traffic volume capacities;
- Development along the roadway should be concentrated at village and hamlet centers and at specific areas of concentrated land use activity;
- The use of service roads should be encouraged;
- Improvements should be landscaped to enhance the visual environment of the roadway corridor;
- The provision of bikeways should be an integral part of any transportation improvement.

Transportation planning must take into consideration the objectives of roadway users, as well as general community objectives. Dutchess County encourages new roads and major road improvements only where land use goals and objectives are met and where such projects are economically and environmentally sound. Transportation improvements should be related to existing centers, community facilities, major employers and tourism activities.

Roadways serve different functions, depending on their location, size and use. Some roads are intended to carry through traffic, while others serve as local roads which primarily provide access to adjacent properties. Roads can serve a connector function, connecting community centers or linking local roads to through roads. Community plans and policies for transportation and land use should define and support the functions of specific roads. Improvements to roadways which enhance traffic flow should be combined with efforts to plan development along the road in a way that will maintain future traffic flows.

Road Types



Road corridors are a vital part of our landscape; they are frequently combined with utilities and walkways. Bicycle use on the roadway can be encouraged and facilitated by paving shoulders, increasing the width of the lane pavement or providing a bikeway that is separate from the road pavement. Roadway improvements should be planned and accomplished in a comprehensive manner; consideration should be given to bicycle use, pedestrian use, drainage and aesthetics.

The well-planned roadway will have concentrations of development at specific centers and areas of free-flowing traffic between these centers. A coordinated pattern of land use and transportation can minimize turning movement conflicts, improve access to centers and prolong the life of roadway improvements.

A service road is an auxiliary road located parallel to a major road. The service road provides access to abutting properties and adjacent areas. Service roads preserve the capacity and safety of the main highway by controlling access at designated points. The service road provides safer, more efficient access to residential and non-residential development located along the main road. This is accomplished by segregating local traffic and frequent turning movements from higher speed through traffic.

Transportation facilities are a major element of our landscape, occupying a significant amount of land in a community. In a growing area such as Dutchess County, proposed new roads and roadway improvements are continuing issues. Appropriate landscaping of roadways can maintain the character of our communities as growth occurs.

Policy 8.8

Dutchess County supports studies of specific areas that are subject to traffic congestion. The recommendations of such analyses should take into consideration community goals and policies and the existing transportation network.

Policy 8.9

Dutchess County supports the availability of transportation for all people; the provision of access for the handicapped should be an integral part of the transportation system.

The diverse nature of development within the county and the fact that Dutchess is a growing area frequently results in local traffic problems at specific intersections along a stretch of road or in city, village or hamlet centers. After an analysis of the relevant problems and opportunities, measures to relieve traffic congestion should be undertaken where feasible.

People who are physically disabled, mentally handicapped, young, frail or of low income are often unable to easily use the transportation system. Special efforts are necessary to accommodate the travel needs of these individuals so that they can participate in all aspects of community life. This includes the oppor-

TRANSPORTATION

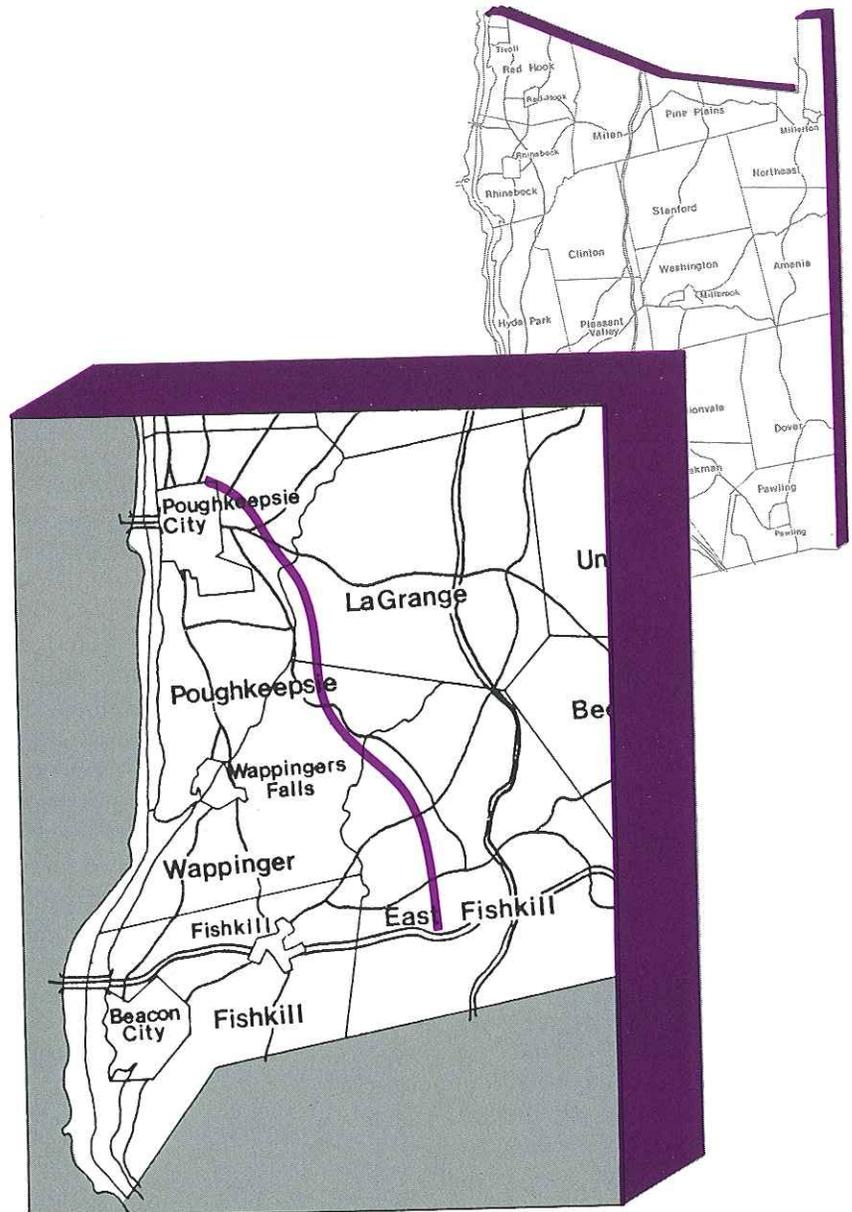
tunity for bus and rail travel, appropriately curbed sidewalks and the maintenance of off-street parking spaces for the handicapped.

Policy 8.10

Dutchess County supports the use of the former Maybrook Rail Line as a transportation corridor.

Dutchess County has purchased the former Maybrook Rail Line between Poughkeepsie and Hopewell Junction. This line is within Dutchess County's urbanized area. The potential exists for a multi-use corridor along this line. A comprehensive study should evaluate the poten-

Maybrook Corridor



tial use for a roadway, a bikeway, a sewer/water utility corridor, trails and other uses. Opportunities for well-planned industrial and office parks and medium density residential land uses must be examined as an integral part of any corridor improvement project. Such opportunities must be considered in terms of central utility development as well as roadway construction. Development of this corridor and the areas adjacent to it are key planning opportunities for the county. Comprehensive planning and development are essential to bring out the full multi-use potential of this corridor.

Policy 8.11

Dutchess County supports improvements to Route 55 between Burnett Boulevard and the vicinity of Noxon Road.

The Route 55 corridor in the towns of Poughkeepsie and LaGrange has been subject to increasing traffic volumes over the past few years. Both residential and non-residential development have taken place in areas adjacent to this corridor and have added to the traffic load. The road also serves as a major access way to the city of Poughkeepsie; it is used by commuters from areas south and east of the city. Improvements along Route 55 should relate to existing land use and the potential for a future tie-in with the Maybrook transportation corridor. Any improvements should be related to community efforts to concentrate land use activity and discourage a strip pattern of development. The service road concept should be used along this corridor, wherever possible, to maintain traffic volume capacities and avoid a proliferation of turning movements. The service road can provide access to local land uses so that the traffic volume capacity of the primary road is maintained.

Policy 8.12

Dutchess County supports the maintenance of Route 9 as a major through road in accordance with the following principles:

- The traffic volume capacity of Route 9 should be preserved by community planning and zoning actions that concentrate land use development, limit access to Route 9, require the use of service roads, use appropriate site planning, eliminate distracting signs, combine small parcels, and employ other mechanisms;

Route 9 is the main north-south highway in western Dutchess County. It was part of the original Albany Post Road and, as such, has always been the most heavily developed road in the county. The section of Route 9 south of Poughkeepsie serves the urbanized area of the county. North of Poughkeepsie, the Route 9 corridor is developed as far as central Hyde Park. Between central Hyde Park and Columbia County, Route 9 serves hamlets and villages and areas of strip commercial development, but is generally undeveloped.

The development of Route 9 in an unplanned and uncoordinated manner has resulted in a proliferation of access points, stop lights and traffic problems. Heavy strip commercial activity conflicts with the need to serve through traffic. The pattern of development along Route 9 has, in part, duplicated the Main Street

TRANSPORTATION

- Development should be focused in and adjacent to community and hamlet centers; continued strip patterns of development should be limited;
- Transportation funding should support community goals;
- Actions by the land owners to help improve roadway corridors and to provide incentives for use of mass transit should be encouraged;
- Remedial actions should be taken to improve the traffic capacity and aesthetics, including, where feasible, landscaped medians and buffers;
- In underdeveloped areas along the road, preventive measures should be taken through comprehensive planning and zoning to minimize future transportation improvement costs.

Policy 8.13

Dutchess County supports improvements to Route 22 and the development of the Route 22 corridor in accordance with the following principles:

- Improvements should be related to community goals and policies and existing land use;
- Improvements and corridor development should be designed to maintain and enhance traffic volume capacities, including the use of the service road concept;
- Corridor development should be concentrated at village and hamlet centers;
- Improvements/developments should be landscaped to reflect and enhance the visual environment of the roadway corridor.

type of traffic and development mix; a mix which has had disastrous consequences for traffic. This pattern is characterized by slower moving traffic, increased turning movement conflicts, and an unpleasant motoring experience. Well-planned corridor development and strengthened community centers can be used to prevent this gradual erosion of the function of Route 9 as a major through road. Remedial actions should be undertaken in developed areas, while preventive measures should be taken as development activity takes place along the open stretches of Route 9. New institutional arrangements, perhaps in the form of a Route 9 improvement committee, will be a prerequisite to achieving a coordinated planning and remedial effort.

State Route 22 is the major north-south road in the Harlem Valley. It serves both as a road for local travel and a through road connecting communities to interstate roads north and south of the area. The road also acts as a road for travel through the area.

Traffic volumes along the road range from less than 2,000 near the Columbia County line to more than 10,000 in the town of Pawling. Traffic has increased substantially over the past 10 years on this primarily two-lane road.

Land use in the Route 22 corridor ranges from agriculture to industrial and includes institutions, hamlet and village centers and some strips of commercial development. For the most part, Route 22 is not heavily developed. This provides the opportunity for preventive measures as development occurs in the communities served by this road. Roadway improvements should be planned and accomplished in a comprehensive manner; consideration should be given to bicycle use, pedestrian use, drainage and aesthetics. A planned roadway corridor will have concentrations of development at specific centers and areas of free-flowing traffic between centers.

Policy 8.14

Dutchess County supports in-depth evaluations of the traffic demands on Hudson River bridge crossings. Such studies should explore non-structural and structural alternatives for coping with excess traffic; any new crossings should respect the existing land use pattern and the capacity of the transportation network.

In a growing area, bridges are frequently the point at which traffic problems first appear. The Newburgh-Beacon Bridge has two spans to handle traffic on Interstate 84. The Kingston-Rhinecliff Bridge is a two-lane span connecting northern Dutchess with Ulster County. The Mid-Hudson Bridge at Poughkeepsie is a two-lane structure that has recently been converted to a three-lane configuration during the commuter rush hours.

The Mid-Hudson Bridge has been experiencing constant increases in traffic volumes--about four to five percent annually. Transportation system management alternatives should be evaluated to decrease future traffic demand. Alternatives to be explored should include park and ride facilities, commuter bus service, ridesharing, flex time proposals, differential fare structures and similar techniques designed to decrease the actual number of vehicles that cross the bridge, especially during peak hours for commuters.

Policy 8.15

Dutchess County encourages the development of appropriate land use and zoning regulations in areas adjacent to the Dutchess County Airport and other airports in the county.

The Dutchess County Airport occupies an important role in the transportation system of the county. The airport is used for business and personal purposes. To continue its role in the area economy, the airport must be surrounded by development which is compatible in terms of land use and structure height. Communities and the private sector must cooperate to ensure that airports and surrounding neighborhoods are compatible. The development of incompatible uses around airports should be prevented to avoid potential conflicts. Local development regulations should be reviewed for conformity with the recommendations on area development in the Airport Master Plan.

Airports



Policy 8.16

Dutchess County promotes the recognition of scenic roads and supports efforts to identify and protect such visual resources.

The Taconic State Parkway, which traverses the center of the county, was designed and constructed as a scenic and recreational road. The scenic roads program for the Hudson River Valley had identified a number of scenic roads in the western part of the county. The purpose of the scenic roads program is to assist in protecting, preserving and enhancing the scenic resources of the Hudson Valley and to raise a sense of awareness and appreciation of these resources on the part of residents and visitors. The program recognizes that roads are an important cultural feature in the landscape.

In addition to these designated scenic roads, a variety of roads throughout Dutchess County have scenic qualities that should be preserved. From the Harlem Valley in the eastern part of the county to the areas along the Hudson River, the county has a number of roads with unique scenic qualities. As development and transportation improvements occur, the scenic qualities of these roads should be retained. Decisions on the retention of the scenic nature of roadways must take into account traffic service and safety considerations. The value of preserving scenic roads goes beyond aesthetics and can often benefit a community's efforts to expand economic opportunities particularly tourist promotion programs.

Policy 8.17

Dutchess County promotes the development of roadway corridors and entrances to communities in an attractive manner that complements the overall character of the community and preserves scenic vistas.

The design of transportation facilities should enhance the appearance of a community. The quality of communities is often judged by the quality of the roadway corridor. A reputation for quality, in either the community or an area within the community, will often encourage businesses to establish themselves in that area. Entrances to communities are important focal points that can immediately set an image of the community in people's minds.

The retention of the scenic, historic and cultural character of neighborhoods and communities is an important part of the development process. All too frequently, roadway corridors detract from the appearance of our communities. In some areas, it appears that municipalities, through development-related decisions, are competing to see which areas can have the worst visual environments. Roadway corridors should be developed so that adverse visual impacts are minimized and the existing qualities of the community are retained and enhanced.

Policy 8.18

Dutchess County supports the elimination of billboards, the elimination of flashing and revolving signs/lights and the provision of quality signs which reflect community pride.

Signs reflect a community's pride, viability and sense of aesthetics. Most communities in Dutchess County regulate signs to create a more attractive visual environment. An overload of signs and messages on signs diverts motorists' attention and conveys more information than can be absorbed by someone in a moving car.

Signs should be used to identify a use rather than to advertise. Billboards, defined as signs not located on the lot or building containing the business or activity referred to by the sign, are a visual blight on the landscape and should be prohibited. Existing billboards should be gradually phased out.

Signs form an important part of the roadway corridor; they should harmonize with buildings, the neighborhood, the natural landscape and other signs. Road reconstruction and improvement projects which change the character of the roadway corridor should evaluate the impact of new/relocated signs on the visual character of the area. Signs, public and private, should be planned in relation to highway design, function and speed.

Policy 8.19

Dutchess County supports the development of facilities that encourage the use of bicycles for business and recreational travel, including the development of bikeways along major roadways as part of future highway improvement projects.

The construction of new roads and the rehabilitation of existing roads provide an opportunity to encourage and facilitate bicycle travel. Several alternatives are available in the design of bikeways: 1) streets can be designed so that the pavement width is sufficient to provide for a lane of bicycle traffic; 2) separate bikeways can be constructed parallel to, but separate from, roadways; 3) recreational bikeways can be constructed independently of the road network. Bicycles are a frequently overlooked form of transportation, but they can provide a substitute for automobile use for short-to-medium distance trips. The development and implementation of comprehensive bikeway plans is encouraged.

Policy 8.20

Dutchess County supports the provision of pedestrian access among adjacent land uses of a similar or complimentary nature.

Walking is a basic form of transportation that is often ignored in the site design process. While much of the present transportation system and land use pattern, which discourage walking, cannot easily be modified, the sensitive design of future development can bring about beneficial changes. Pedestrian access should be considered in all site plans. Pedestrian access is especially important in areas planned for large developments or in areas close to community focal

points. Close attention must be paid not only to the pedestrian walkway but to the provision of a desirable pedestrian environment as well.

Policy 8.21

Dutchess County supports the elimination of at-grade crossings on the Taconic State Parkway; the construction of new bridge structures should be sensitive to the scenic qualities of the parkway.

The problem of at-grade crossings along the Taconic State Parkway is a continuing concern. The conflict between the local road network and the regional character of traffic on the parkway creates problems in the form of accidents and near accidents at the crossings. Efforts have been made to gradually eliminate these at-grade crossings. As bridges are constructed to replace grade level crossings, nearby grade crossings should be eliminated and traffic should be funnelled to grade-separated crossings. The Taconic State Parkway is noted for its scenic beauty, sensitive siting with respect to landforms, design and natural construction materials. Any new construction along the Taconic should complement the unique qualities of this roadway corridor.

Policy 8.22

Dutchess County supports the provision of adequate off-street parking spaces for new development or redevelopment.

On-street parking can interfere with the traffic volume capacity of the roadway. New projects should be required to provide a sufficient number of readily accessible off-street spaces to accommodate the demand generated by the proposed uses.

In areas with existing on-street parking, alternatives should be explored in the development approval process to mitigate future on-street parking demands. The capacity saved through such techniques can often eliminate the need for major capital improvements to improve traffic capacity.

Policy 8.23

Dutchess County supports off-street parking standards that are an aesthetic and ecological asset to the community and that complement land use development and the transportation system.

Parking areas occupy a considerable amount of land; usually the amount of coverage for parking is far greater than the land area set aside for the building that the parking serves. Because of their impacts, parking areas must relate to community goals and standards for drainage, landscaping and pedestrian and vehicular access. Community standards for the size of parking spaces should relate to the size of the vehicles on the roads; frequently, municipalities will find that they can revise parking requirements adopted in the era of larger cars. Employers can reduce their parking requirements by providing designated spaces for smaller cars; such provisions can be included in municipal zoning codes.

Policy 8.24

Dutchess County supports the appropriate development and use of the transportation system to facilitate tourism-related activities.

The Hudson River was originally a transportation artery; although not extensively used for travel at this time, the river can be utilized for tourism. The scenic quality of the river viewshed and current community efforts to revitalize river landings can support efforts for water-related tourism.

Roadways and corridor development can either facilitate or detract from tourism promotion efforts. Access to historic sites and other attractions should be facilitated by roadway design and appropriate development adjacent to tourist sites. The aesthetics of the roadway corridor should complement the quality of the site and provide tourists with an experience which they want to repeat.

Policy 8.25

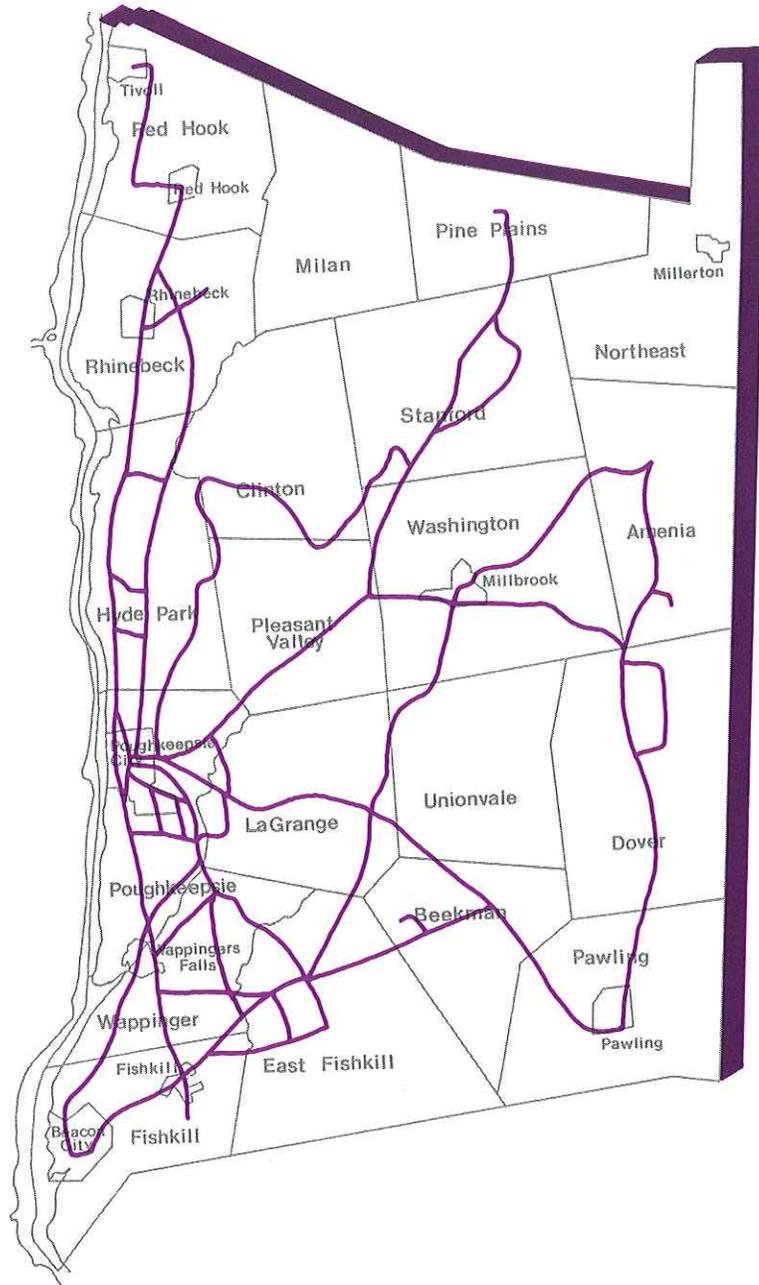
Dutchess County supports the maintenance and expansion of public transportation opportunities.

Public transportation serves an important role in reducing pollution and congestion on highways by providing a choice of means of transport to jobs, shopping and other activities. Public transportation is particularly important to those groups that may have no alternative. These groups include the poor, the elderly, the handicapped and those who do not have access to an automobile.

In Dutchess County, public bus service is provided by the public, private and not-for-profit sectors. Bus service is available in 27 of the county's 30 municipalities. Commuter routes serve areas that can support this type of service. Rail passenger service is provided along the Harlem Line in eastern Dutchess and the Hudson Line which services those communities in the Hudson River corridor.

An increased awareness of the alternatives to the private automobile is a key element in the success of a public transportation system. Bus routes can be developed in coordination with major employers in the county. The public transportation system can also support county economic development efforts through coordination with tourism promotion activities. Promotional and informational efforts to encourage the use of public transportation can include public educational and marketing efforts. Transportation officials should work with high school and college personnel to foster student use of public transportation. Off-street parking spaces should be available near transit routes to facilitate the use of public transportation. As demand and funding permit, the expansion of public transportation service within the county should be explored.

Loop Bus System



Policy 8.26

Dutchess County supports the continuation of federal and state operating and capital assistance for public transportation, including airport facilities.

The financing of new and replacement equipment and facilities is essential to a mass transportation system. If adequate provisions are not made for transportation equipment and facilities on an ongoing basis, deterioration will set in. This deterioration affects the quality of life of residents and the economic development potential of the area. Since transit systems are shared by a variety of users, financial

support for transportation capital equipment must reflect that diversity. The equitable distribution of service costs among users and supporting government agencies is an integral element of transportation financial planning. Funding must be adequate to provide the amount and quality of transportation that meets community needs.

Policy 8.27

Dutchess County supports a choice of transportation modes for residents traveling outside the county, including bus and rail service.

Bus and rail systems not only increase the quality of life for Dutchess residents, but they provide a means of access to the county for tourism- and business-related trips. The rail line along the Hudson River corridor between New York City and Albany is an important asset that links the county to regional and national rail networks. The commuter rail service between Dutchess County and New York City should be improved to encourage greater use.

Policy 8.28

Dutchess County encourages the coordination of public, private and not-for-profit transportation services to avoid unnecessary duplication.

The city of Poughkeepsie and Dutchess County each operates a bus system in Dutchess County. In addition to these systems, private operators and not-for-profit systems also provide bus service within the county and to points outside of Dutchess. The coordination of these services with each other, and with rail and air transportation providers, is essential to avoid duplication and to provide citizens with a well-balanced, comprehensive system of public transportation. Coordination can include route planning, dispatching, maintenance and cooperation to ensure the maximum use of available funds.

Policy 8.29

Dutchess County supports public acquisition of the abandoned Harlem rail line corridor.

A major section of the Harlem rail line in Dutchess and Columbia counties has been abandoned and the tracks removed. All or portions of this corridor could serve an important role in the area for other uses such as a recreational trail or a potential transportation corridor. It is a rare circumstance to have a linear right-of-way that connects several communities. The Harlem Valley corridor is scenic and potentially functional. Retention of the corridor could be important to the economic future of the Harlem Valley.

Policy 8.30

Dutchess County supports the retention and improvement of existing rail service in Dutchess County along the Harlem and Hudson lines.

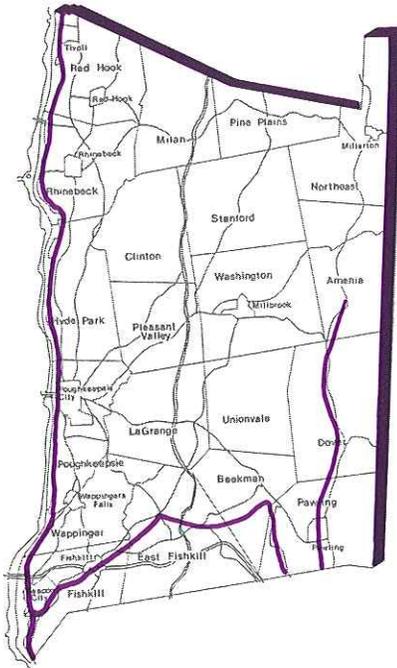
Metro-North provides passenger rail service as far north as Poughkeepsie on the Hudson line and as far north as Dover Plains on the Harlem line. This service should be retained and improved to provide travel opportunities for Dutchess County residents.

Policy 8.31

Dutchess County supports continued Metropolitan Transportation Authority service in the county, based on an equitable funding formula.

The Metropolitan Transportation Authority provides service along the Hudson and Harlem rail lines, offering commuter service to New York City. The quality of service on both of these lines should be upgraded, especially in view of the financing provided to the MTA by the county. Dutchess County currently pays a disproportionate share of the taxes which help to support the MTA.

Railroads



Policy 8.32

Dutchess County encourages cooperation with adjacent counties to evaluate the feasibility of inter-county bus service.

The employment opportunities available in the county attract residents of other counties; this pattern places a burden on the transportation network. Encouraging the use of public transportation will alleviate some highway congestion and improve traffic conditions during peak commuter travel periods. Dutchess residents also cross county borders for certain services; these trips must be analyzed to determine the feasibility of public transportation.

Policy 8.33

Dutchess County supports the elimination of at-grade crossings along the railroad lines serving the county.

Grade level rail crossings should be eliminated because of the dangers involved to cars and trains. The gradual development of a high speed rail service along the Hudson River line will increase the problems caused by grade level road-rail crossings.

Introduction

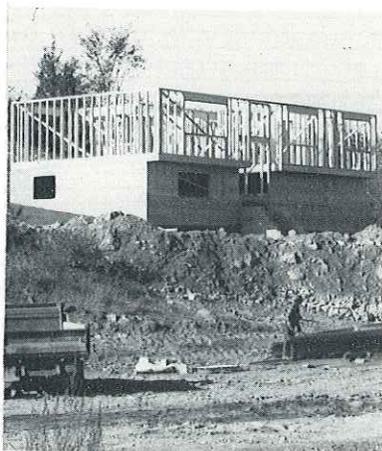
Housing furnishes people with shelter, provides a setting for daily activities, and forms the nucleus of community living. Housing results from a chain of events that includes efforts by the construction industry and specialized financial institutions, governmental programs of mortgage subsidies and insurance, and the turnover of houses as people move to new residences.

Through the end of this century, Dutchess County faces the greatest demand for housing in its history. At the same time, changing population characteristics are contributing to a change in the type of housing desired. The increasing number of single- and two-person households leads to an increasing demand for smaller housing units. Working parents find it burdensome to live in housing that is far from community services, as is usually the case in suburban development.



The economy has a major impact on the affordability of housing. In turn, housing units and availability are major determinants of a healthy economy. High development costs, coupled with a tight market, contribute to a situation in which housing and associated costs rise faster than income. As a result, home ownership for first-time buyers is difficult. Some young householders are discovering that they cannot afford to live in the communities in which they were raised.

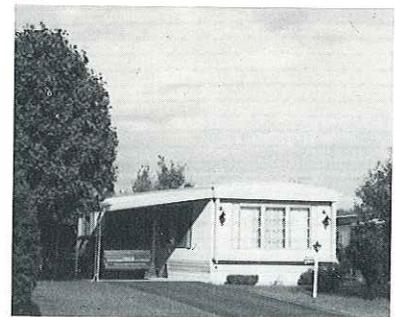
Rising housing costs affect current residents. Many homeowners are discovering that housing design and construction, based on an era of inexpensive fuel, now contribute to excessive heating and maintenance costs. Elderly homeowners find themselves financially burdened by the maintenance of large homes, but their opportunities for moving to a smaller house or apartment are limited.



In Dutchess County, rental rates have been increasing rapidly, causing considerable difficulty to those with low and fixed incomes. There is a growing demand for enactment of measures to ensure the availability of affordable rental units.

Affordable housing is an essential ingredient of regional economic development. Efforts to attract new employees in response to industrial and commercial expansion are made more difficult due to the lack of housing alternatives. Also, discrimination against minorities and families with children occurs more frequently in a tight housing market.

High housing costs limit the accessibility by low-income households to decent, safe and sanitary housing. Adequate low-cost housing is difficult to provide, if not impossible, without public assistance. In Dutchess County, the need for affordable housing surpasses the available resources. The demand for emergency housing is also growing.



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A substantial amount of federal housing assistance is provided through shelter payments for welfare recipients. In Dutchess County, as elsewhere, there is little effort to ensure that this money is used for decent and safe housing because of limited staff and other resources.

Rising costs of new construction and a renewed interest in the preservation of older structures have contributed to an increase in the rehabilitation of existing housing and the conversion of non-residential structures. This trend in central communities sometimes results in the displacement of existing residents who are often of lower income and consequently less able to afford a move.

Another trend in response to the changing market includes an increased interest in condominiums and cooperatives. How-



ever, when these options bring about the conversion of existing rental units, the availability of housing alternatives for those of limited income and for those who want to continue as renters is correspondingly reduced.

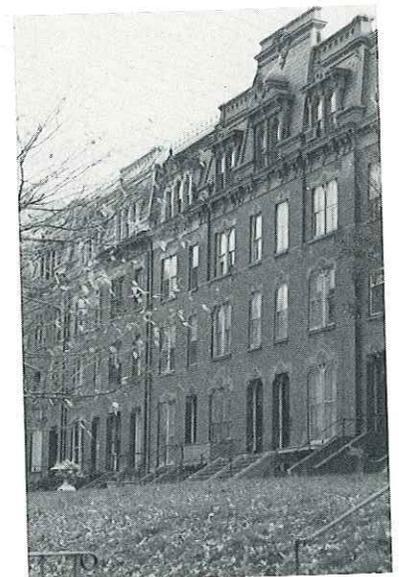
There has also been a problem of arbitrary eviction of mobile home owners in mobile home parks. This can jeopardize the viability of this traditionally affordable housing alternative.

The provision of housing that is properly located and adequate for habitation is often hindered by various economic, social, political and technical factors. Obstacles to fulfillment of Dutchess County's housing goal include:

- Lack of understanding of how municipal regulations such as site development specifications and large lot requirements can affect housing costs.



- Lack of incentives for developers to create affordable housing.
- Tendency of communities to seek industrial and commercial tax ratables without providing for the housing needed to support such activities.
- Lack of experience on the part of developers and communities with new development methods.
- Resistance in suburban and rural areas to multiple residences, small lots for single-family dwellings, cluster development and subsidized housing.
- Lack of knowledge in public and private sectors regarding the available housing supply.



HOUSING

- Inflationary pressures within the various housing markets.
- Lack of adequate building codes in suburban and rural areas, and slowness of compliance where codes exist.
- Lack of public transportation between places of work and residences for low- and moderate-income groups.
- Municipal resistance to tax abatement for publicly subsidized housing.
- Citizen resistance to mobile homes due to the absence of well-planned mobile home parks and misinformation regarding occupant characteristics.
- Weak land use control enforcement capability.
- Unclear and time-consuming procedures for processing development requests in some municipalities.
- Excessive costs for utilities, transportation and other housing-related services in low-density housing developments.
- Opportunities not being fully realized for energy conservation in new construction.
- Lack of good construction quality, often due to the tight housing market.
- Inflexibility of existing building codes to accommodate improved materials or methods, especially those resulting in conservation of energy or materials.

Goal, Policies and Rationales

Dutchess County's housing problem has many facets. Accordingly, resolution of the problem will not result from a single solution. Many approaches must be used. Effective responses to the challenges posed by the changing housing market will only be developed and executed through the collaborative efforts of industrial representatives, local officials, bankers, consumers and others.

The housing goal as stated below sets a context for collaborative efforts. The related policies are specifically relevant to the role Dutchess County government can take in meeting its goal. The policies do not exhaust the possibilities for appropriate action that could be undertaken by other entities.

Dutchess County's housing goal is as follows:

To provide housing alternatives for all residents which ensure quality in construction and environment, variety, affordability and accessibility.

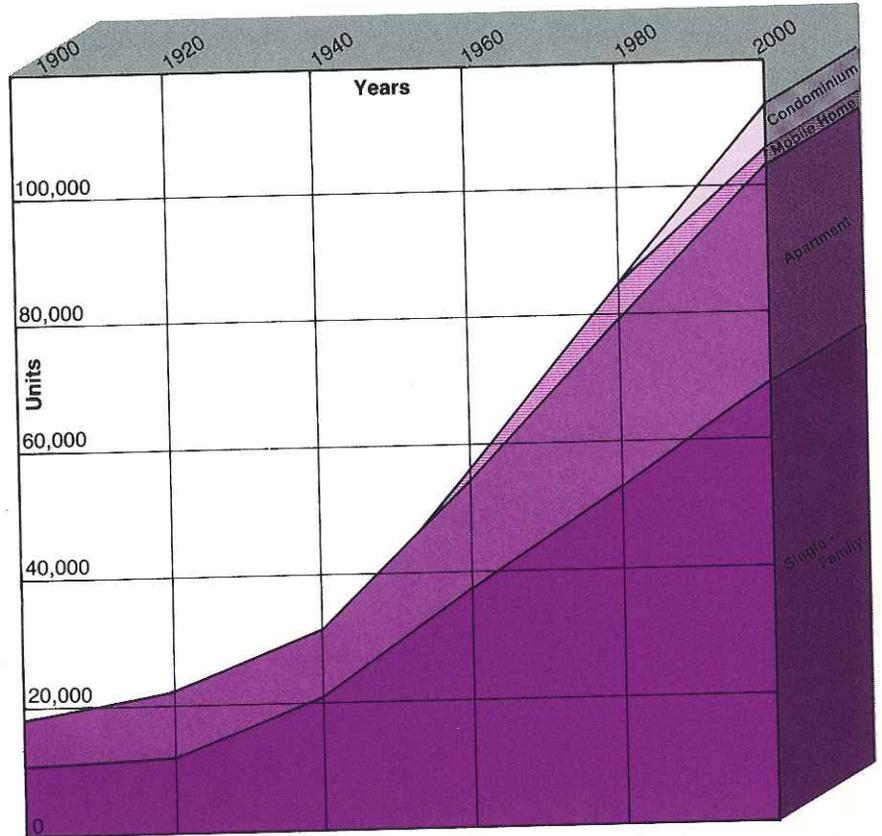
Policy 9.1

Dutchess County encourages the provision of a wide range of housing opportunities as an essential element to balanced community growth and a prerequisite to economic development.

As housing costs increase, and as demand continuously challenges the supply, businesses and agencies concerned with economic development must give attention to the availability of housing in order for growth and development to continue. Dutchess County real estate and rental costs have appreciated rapidly in recent years.

Also, the availability of apartments and other forms of "affordable" housing is low while vacancies in many communities are statistically non-existent. This has a dampening effect on attracting potential employers and employees to Dutchess County.

Growth of Housing By Type



Policy 9.2

Dutchess County supports close private-and public-sector cooperation to identify ways in which housing needs can be met in a timely and affordable manner.

The free market has historically responded to housing demand with a wide variety of options that were available to all but those at the lowest income levels. In the past decade, however, rising costs of money, materials, land and labor have affected all aspects of the housing industry to the point where new housing is very expensive and is consequently affordable only to those with high incomes.

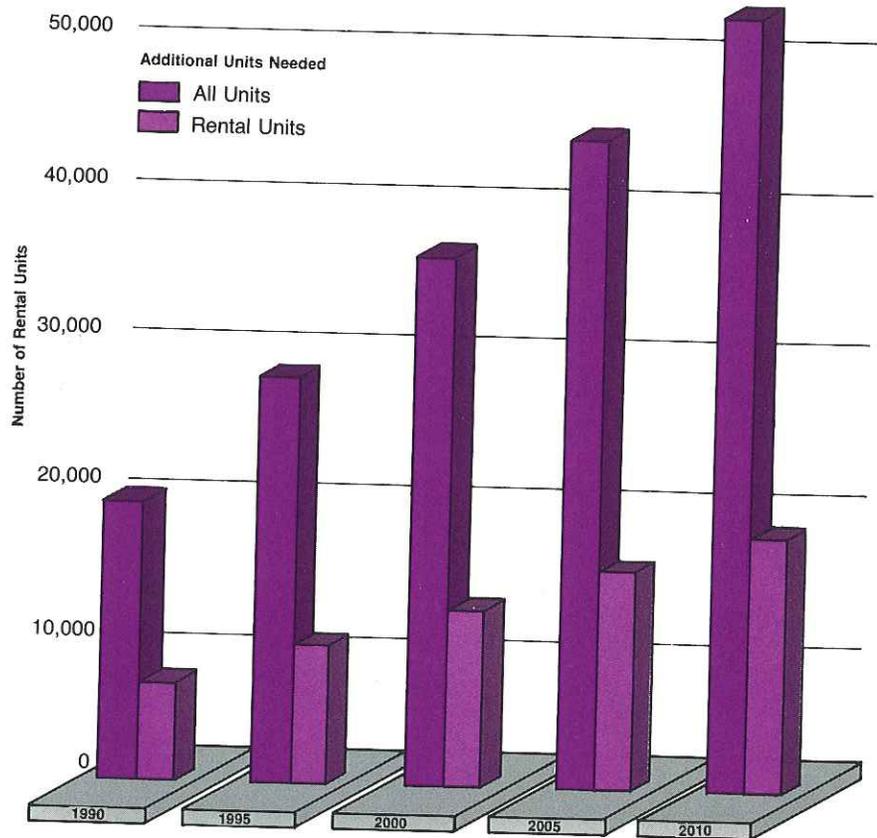
To overcome these constraints, and to ensure adequate housing for all residents, it will be necessary for the public sector to become involved through education, technical assistance and financing. Emphasis must be placed on defining the strengths and assets of both the private and public sectors to ensure the success of cooperative efforts in developing affordable housing.

Policy 9.3

Dutchess County encourages an expansion of the rental housing stock throughout the county.

A tight rental market, in which demand exceeds supply, contributes to high rents. A sufficient expansion in supply so that it is adequate in relation to demand will give people choices as to where they can live. It will also help to minimize those rent increases that are due to excess demand. Low vacancy rates make it difficult for people to find rental housing; as a consequence, they have few options when faced with rent increases. Once municipalities are aware of the importance of encouraging the development of rental housing, they can work closely with the county to provide for the increased rental housing that is needed.

Rental Unit Needs



Policy 9.4

Dutchess County encourages the expansion of housing alternatives for the elderly.

The traditional single-family residence is not always the best housing option for the elderly. There should be a variety of housing alternatives available to meet the needs of the elderly. These alternatives include congregate housing, rent-subsidized housing, shared

housing and granny flats, i.e., removable units that can be located next to single family residences.

Policy 9.5

Dutchess County supports conservation strategies in older downtown areas to protect the existing housing stock from decline.

As housing ages, the need for repair and rehabilitation increases. The lack of maintenance of even one house can set in motion a deterioration process that affects a whole neighborhood. Conversely, modest rehabilitation and maintenance efforts can reverse the deterioration of the housing stock and overall character of a neighborhood. In light of the need for affordable housing in Dutchess County, it is important to reverse this deterioration process and, in so doing, preserve the existing housing stock.

Policy 9.6

Dutchess County supports infill housing within central communities.

Vacant and underutilized parcels within central communities are an important resource in efforts to develop affordable housing. These parcels are often already serviced with water, sewer, electricity, and roads. Infill housing, which is the development of new housing on scattered, vacant sites in a built-up area, can help increase a local tax base, improve the efficiency and cost-effectiveness of central service delivery, and minimize the pressures for development in rural and suburban areas that lack housing-related services.

Policy 9.7

Dutchess County encourages municipalities to establish goals for meeting a share of the county's low-and moderate-income housing needs.

Some municipalities have zoning and land use control policies that contribute to higher housing costs. As a consequence, many people who are locally employed cannot afford to live there. These persons must bear the additional transportation costs necessitated by their need for affordable housing. Communities should actively encourage moderate-cost, well-built housing. Particular attention should be given to alternatives to conventional single-family lots.

Policy 9.8

Dutchess County encourages the establishment of a non-profit housing trust to provide funds for development of affordable housing.

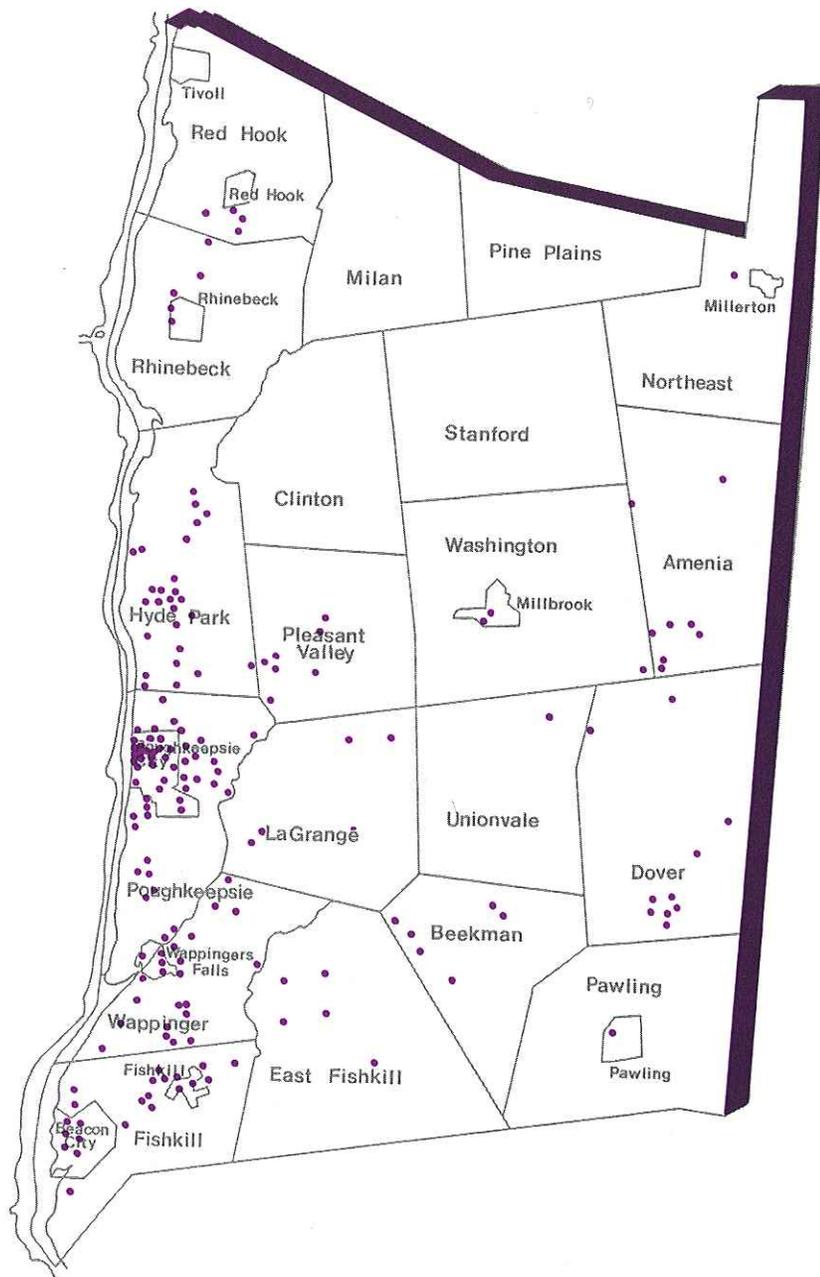
Non-profit organizations involved in housing often need seed funds to cover such costs as options, architectural analyses and financial packaging. A housing trust would enable these entities to operate more effectively. Trust funds may also be used as an incentive for private developers in creating affordable housing. These funds could be used either for low-interest revolving loans or for grants. Potential funding sources for this trust include foundations, corporations, federal and state grants and personal contributions.

Policy 9.9

Dutchess County encourages innovation in housing style, site location and the mixture of different housing types.

Modular and panel construction, planned unit developments that provide for diverse but compatible uses, and housing concepts such as congregate housing for the elderly are well tested ideas that need to be used to improve the visual, economic and social qualities of local neighborhoods.

Multi-Family Complexes & Mobile Home Parks



Policy 9.10

Dutchess County encourages municipalities to locate new housing within easy access to services and employment.

The cost of transportation on top of high housing costs can impose serious financial burdens on many households. A better integration of housing, services and employment will decrease the pressure on the transportation system and improve the quality of life. It also helps to protect the rural environment of Dutchess County.

Policy 9.11

Dutchess County promotes the use of the best available energy conservation measures in new housing construction, renovations and site design.

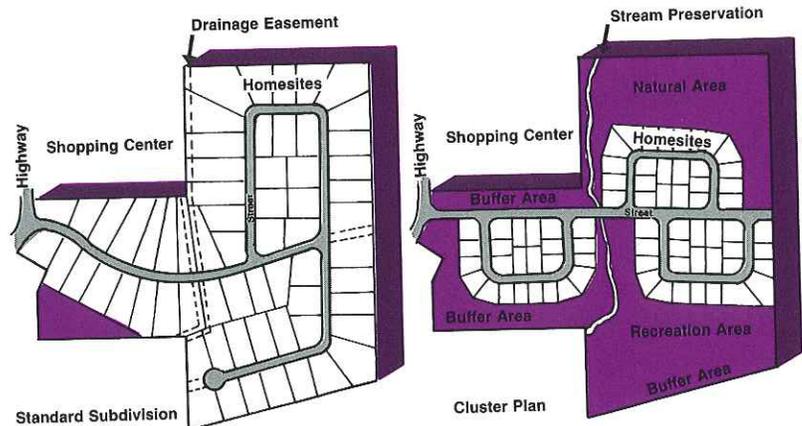
Fuel costs can dramatically affect the cost of housing. Energy conservation can effectively expand discretionary income levels by reducing the amount of money that residents pay for fuel. Unfortunately, many developers and consumers are unaware of energy saving options that are available. Passive solar options and good insulation are among the most common and cost-effective energy saving methods. Many local officials are also unaware of the role they can play to ensure the development of energy-conservative housing. Local education and land use regulation can foster improved conservation practices.

Policy 9.12

Dutchess County promotes the development of cluster housing that is properly designed, regulated and implemented.

Cluster housing can reduce the cost of housing, improve community living and, at the same time, ensure quality development that is compatible with the natural constraints of the land.

Cluster Subdivision



Policy 9.13

Dutchess County encourages the use of adequate standards for the conversion of large, older single-family residences and non-residential buildings into multi-family residences, with particular attention given to maintaining the historical integrity of the architecture.

Conversion is an important way of increasing the stock of affordable housing, maintaining the architectural continuity of a community, and retaining and expanding the local tax base. Conversion from single- to multi-family residences can have an adverse effect on communities if it is not properly done so as to minimize the negative impacts of parking, poorly defined entrances, modifications to the architecture, and changes in the level of maintenance.

Policy 9.14

Dutchess County supports the development of standards to facilitate local review and regulation of condominium conversions and new construction.

Condominiums represent a relatively new housing alternative in Dutchess County. Many municipalities are uncertain about how this type of housing should be regulated in order to protect both the owners of the condominium units and the community-at-large. Particular attention has to be given to the impact of conversions on existing tenants who are often displaced because they cannot afford to buy a condominium or they choose not to do so.

Policy 9.15

Dutchess County encourages the development of well-designed mobile home parks and subdivisions.

Many of the negative attitudes toward mobile homes are a result of familiarity with so many poorly designed and unattractive parks. The development of better living environments for new mobile home parks will help to change public attitudes toward the acceptability of this housing type. Well-designed mobile home parks are common in some parts of the United States. Local performance standards, such as landscaping and buffer requirements, can help to ensure that high quality parks are developed.

Policy 9.16

Dutchess County promotes the provision of accessory apartments within single-family houses, based on locally developed standards.

The cost of the traditional single-family residence makes this housing option too expensive for many households. The income from accessory apartments, however, may make home ownership practical for more people. This concept is useful not only for young homeowners but for the elderly and "empty nesters" whose house sizes exceed their needs. Since accessory apartments can often be created at a much lower cost than multi-family units in apartment complexes, the rental rates can be correspondingly lower.

In allowing accessory apartments, municipalities must ensure the adequacy of sewage and water systems.

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Attention must also be given to parking provisions and the visual impact of any alterations necessary to create this housing alternative.

Policy 9.17

Dutchess County supports state legislation to protect the rights of mobile home owners.

Under current law, mobile home owners renting lots in mobile home parks have little protection against eviction, rental rate increases and arbitrary park rules. Since many mobile homes are not moveable once they are located on a lot, and since there are few lots available in Dutchess County parks, mobile home owners stand to suffer serious financial losses if problems develop with landlords. State legislation will help to define the rights of mobile home owners.

Policy 9.18

Dutchess County promotes the provision of additional handicapped accessible housing units.

Concern for accessibility is becoming increasingly important, especially as the population ages. Since retrofitting housing units can be a prohibitive expense, many persons go without taking care of essential convenience and safety requirements, such as modifying the height of cabinets so they are within reach of a person confined to a wheelchair. Since many handicapped persons are of low and moderate income, finding adequate shelter is exceedingly difficult. Incorporating a concern for accessibility in the design of both rental and owner-occupied housing will help expand the alternatives available to handicapped persons and reduce the ultimate costs of conversion.

The notion of accessible transportation must also be tied to the housing needs of handicapped persons.

Policy 9.19

Dutchess County advocates housing design that is visually compatible with its environment.

The maintenance of a high quality living environment in Dutchess County requires attention to the visual environment. Traditional communities such as cities, villages and hamlets, are attractive in part because of the architectural fabric. While having elements of diversity, the architecture is at the same time integrated in such a way as to be pleasing. New construction designed without attention to its setting can destroy the visual integrity of a community. Inappropriate modifications to older buildings that have historical character can have a similar impact.

The need for attention to architectural detail must not be limited to higher density settings. The typical tract house on a one-acre lot in what was formerly a cornfield or pasture can destroy the traditional atmosphere of any rural community. The use of natural

colors and materials, the placement of housing against tree lines and the creative clustering of units are measures that can be taken so that development does not seem out of place.

Policy 9.20

Dutchess County advocates the full and effective use of federal and state resources to help increase the supply of affordable housing and meet related policies in this plan.

In many instances, the use of public resources is necessary in order to create affordable housing. In the past, opposition to publicly assisted housing has precluded the use of such resources in most of Dutchess County. However, many municipal officials recognize the need to expand the supply of affordable housing and are willing to adapt available public programs to meet local needs. Such programs are often technically complex, thus the county may need to provide assistance in applying for these programs.

Particular attention must be given to increasing the availability of federal and state rental subsidies in order to minimize the impact of rising rental rates.

Policy 9.21

Dutchess County promotes the continued use of federal and state financial assistance for rehabilitation of owner-occupied and rental housing units.

The rising costs of housing maintenance mean that many people must defer necessary repairs. Over time, deterioration becomes severe and, in consequence, is increasingly more expensive to reverse. The process of housing decay can have negative impacts on neighborhoods as investors and owner-occupants become less inclined to put money into rehabilitation.

Federal programs, such as the community development block grant program and the rental rehabilitation program, are important resources for facilitating the rehabilitation of housing, thus ensuring the provision of quality housing and minimizing the potentially negative impacts of deteriorating housing on neighborhoods.

Policy 9.22

Dutchess County supports cooperative public and private efforts in meeting the need for emergency housing.

The need for emergency shelter has grown as the cost of housing has increased. Until the development of Gannett House, the county had few options for providing emergency shelter other than placement in local motels. This option is less than satisfactory as most motels do not want to serve such clients, the costs are high, and it is difficult to provide the supportive environment necessary to facilitate the search for permanent housing.

Gannett House is an emergency shelter that has been developed as the result of public and private

cooperation. Support for such efforts should be maintained to ensure the continuation of the shelter services. As need continues to grow beyond the capacity of Gannett House, it will be necessary to support cooperative efforts to provide emergency shelter in different parts of the county.

Policy 9.23

Dutchess County discourages the use of public funds to subsidize substandard housing.

Public assistance recipients receive payments for housing. Since the payments are not very high, recipients generally find that their only option is substandard housing.

Through the selective withholding of shelter payments to landlords, the enforcement of building codes, and the provision of resources, the rehabilitation of substandard units can be facilitated.

Policy 9.24

Dutchess County supports equal housing opportunities for all persons.

Housing is a basic human need. Discrimination on the basis of race, sex, color, religion, or national origin is unlawful and can result in the denial of decent, safe and sanitary housing. An awareness of equal housing rights is as important for those involved in the construction, financing and sale or rental of housing as it is for home owners and renters.

Introduction

Community facilities are important components of the county, adding immeasurably to the quality of life. Some services are necessities--fire fighting, for example--while others are highly desirable for cultural or educational enrichment.

Community facilities are sometimes called "public facilities" to denote that they are owned by the public (or municipality) and are operated for the benefit of the community (public). However, community facilities are somewhat broader in scope than public facilities, including not only those items owned by the public but also those owned and operated by private enterprise for the benefit of the community, such as hospitals or libraries.

The demand for more and varied community facilities and services increases as the population grows. Old facilities become outmoded, and living standards and public expectations rise. While the demand and need continue for traditional community facilities, such as water or sewer, the demand for other services, such as health clinics or libraries, is increased by a more expectant public.

With increasing demands being placed upon public budgets, intelligent

planning of facilities is becoming essential. Planners and planning agencies are expected to help determine needs, priorities and standards for a wide range of community facilities.

This chapter sets forth policy recommendations for three categories of community facilities: emergency services, governmental services and cultural services. Policies dealing with water supply and waste disposal are dealt with separately in another chapter.

Emergency services provide such things as fire, police and medical assistance. These services are characterized by the life-threatening nature of the need, and they involve such considerations as availability and quality of equipment, response times, professional expertise and level of service.



Presently, there are four general hospitals in Dutchess County, and one Veterans Administration facility, with a total of 1,031 beds. Additionally, there are 1,474 beds in 10 skilled nursing and health-related facilities. There are also two major state psychiatric facilities and one state developmental center.

Fire, rescue and police services are available throughout the county. There are 37 fire departments as well as specialized departments at Castle Point Veterans Hospital, Dutchess County Airport and some industrial sites. These various departments are housed in approximately 70 stations and substations, and they operate about 250 vehicles, of which 50 are classified as ambulance or rescue. It is important to recognize that the mutual aid program, where departments provide back up coverage for each other, and the County Fire Training Center, are integral parts of the overall system.

Police protection is provided by various levels of government, ranging from the Federal Bureau of Investigation at the federal level to the local town and village police officers and constables. Other agencies include the New York State Police, with Troop K headquarters at

COMMUNITY FACILITIES

Washington Hollow and substations in Dover Plains, Fishkill, and Rhinebeck; the Dutchess County Sheriff, with headquarters in Poughkeepsie and substations in Amenia, Milan, Rhinebeck, and Wappinger; and numerous local police departments. These local agencies range from full-time departments in the cities to part-time constables in some of the rural towns. Virtually every local government has its own law enforcement agency.

Federal, state, county and local governments own hundreds of buildings and thousands of acres of land in Dutchess County. These facilities include national historic sites, post offices, prisons, parks, psychiatric centers, garages and buildings used for the general conduct of government. A community facility, such as an elementary school, post office or town hall, can help establish a sense of place or community for an area and serve as a focal point for area residents.

Dutchess County government, including Dutchess Community College, owns or leases well over one million square feet of floor space and owns almost 2,000 acres of land. Services include recreation, courts, highway maintenance and construction, health, mental health, education, nutri-

tion and many other functions of county government.

There are also many educational facilities. Dutchess County has five colleges, 13 non-public high schools, 28 non-public junior high schools and elementary schools, and 14 public districts that include 71 schools. These facilities are an extremely important part of the social, cultural and economic environment.

With the exception of the colleges and some of the non-public schools, most educational facilities do not exceed capacity. A decline in the number of school-age children and building construction programs during the 1960s and early 1970s, consistent with the New York State Education Department Master Plan, have provided excess classroom space. Thus, construction of new school facilities will not be needed in most areas of the county in the 1980s. However, the population will continue to grow, especially in the southwestern portion of the county in the Arlington, Wappinger and Spackenkill districts. The rapid growth in these areas, and the projected increase in school-age children in the next decade, may create a need for new school buildings. If this happens, it will present an opportunity to locate facilities that

could create or reinforce a community identity.



Cultural facilities are found in many areas of the county, and they include museums, libraries, civic centers and indoor sports facilities. These services and facilities support our intellectual and psychological growth.

Within Dutchess County, there are 23 libraries available for public use that contain approximately 380,000 volumes. Additionally, each of the almost 100 public and private schools has a library, and the five colleges jointly have approximately one million volumes.

Many social and cultural activities that have broad regional appeal are centered in and around Poughkeepsie. These activities include concerts, plays, ballets, exhibits, symphonies, lectures and sporting events that occur at various colleges and museums, as well as the Mid-Hudson Civic Center and the Bardavon 1869 Opera House.

Goals, Policies and Rationale

Dutchess County's community facilities goal is:

To promote the maintenance, enhancement and development of community facilities and services that meet the needs of as many people as practicable in the most cost-effective way.

Community facilities and services in Dutchess County cover a wide variety of functions. It is important to the county's growth and prosperity that services, such as education, police and fire protection, and road maintenance be preserved or improved in order to enhance the quality of life. At the same time, sound fiscal controls should be exercised to keep costs within reasonable limits. Facilities, services and utilities should be provided if they meet acceptable development standards and reinforce the other goals of this plan.

Policy 10.1

Dutchess County supports a close working relationship with local and regional health systems agencies to promote the exchange of information and ideas at the formal and informal levels, including participation in board meetings and review of site-specific proposals.

Traditionally, a working relationship between local planning agencies and health planning agencies has not been developed extensively. The health planning field is complex and requires a level of expertise not normally available in a local planning agency. Health planners deal with systems of health care that frequently cover large regional areas, a multitude of facilities, patterns of care, and technical advances that may not be available in all facilities. However, it is important for local planning agencies to work cooperatively with health planners through the exchange of data and review of development proposals. There is a need to discuss issues such as population characteristics, land use proposals, transportation networks and capital improvement plans and programs. It is also valuable to discuss zoning patterns and site-specific conditions when health facilities are proposed, especially since these facilities often affect a given neighborhood or community.

Policy 10.2

Dutchess County encourages the distribution of nutrition information and health education services to develop healthful lifestyles and to prevent, to the fullest extent possible, illness and disability.

Health education is of critical importance to both the healthy and the sick, because people can be taught to reduce harmful or risk-provoking behaviors and select appropriate services for the treatment of health problems.

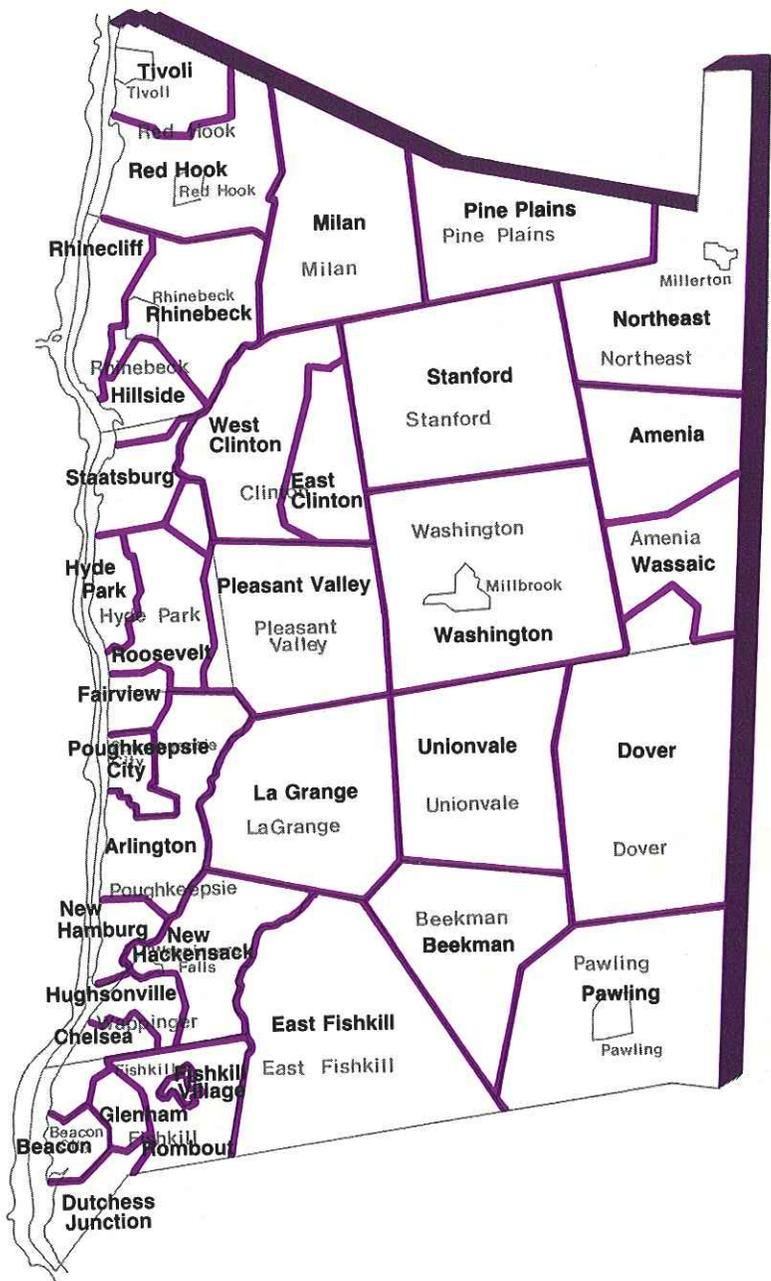
Nutrition is also of critical concern because the quality and quantity of food that a person eats builds and maintains good health. Several nutrition programs currently exist in the county. However, these programs may not be sufficiently available nor accessible to all who need them. Nutrition education and counseling are also important and must supplement food programs.

Policy 10.3

Dutchess County encourages local fire districts to evaluate land use and socio-economic data when considering location choices for new or enlarged facilities.

With the commitment of thousands of volunteer and professional fire fighters and emergency medical technicians to serve and protect the health, safety and welfare of all county residents, it becomes extremely important to locate fire stations where they can provide the best fire and ambulance service. In Dutchess County, fire stations are part of a broad system of protection that relates to land use, population distribution and capital improvement programs.

Fire Districts



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Well-established fire protection criteria, which are available through agencies such as the Insurance Service Organization, must be used in conjunction with information regarding development patterns, population projections, traffic flow and such location impediments as waterways, bridges, freeways, large open spaces and railroads, when considering the closing or opening of facilities.

Policy 10.4

Dutchess County supports the provision of training assistance to local fire departments and promotes educational programs.

The Dutchess County Fire Bureau has a wide range of educational material, including films, slides, books and pamphlets that can be used by schools, civic groups and fire departments. These materials cover topics such as arson, smoke detectors, wood stoves, general safety procedures and cardio-pulmonary resuscitation. The use of these materials and services by emergency personnel and the general public is encouraged. Additionally, the Bureau has special facilities and services that are used by local departments for training.

Policy 10.5

Dutchess County promotes cooperative relationships among law enforcement agencies from all levels of government and jurisdictions to foster the exchange of data and enhance educational programs.

Police protection, like fire protection, has generally accepted standards of coverage that are developed by criminal justice planners with organizations such as the FBI, the state Division of Criminal Justice Service and professional law enforcement associations. However, since law enforcement protection is provided by several levels of government, i.e., federal, state, county and local, it is more difficult to determine appropriate standards for each level.

Communication, coordination and the exchange of data are extremely important. Population, land use and socio-economic data, as well as information about development patterns, must be forwarded to law enforcement agencies. This will assist in evaluating service areas and appropriate levels of coverage. Additionally, there must be an exchange of data about traffic accidents and vehicular flow in order to identify problem areas and make recommendations for corrective action. The exchange of data and enactment of cooperative ties will greatly aid in accomplishing the aims of educational programs dealing with such things as occupant restraint, driving-while-intoxicated and bicycle safety.

Policy 10.6

Dutchess County supports the joint use of community facilities and services by various gov-

Multiple use of public facilities should be encouraged where this action does not interfere with the facility's primary use or negatively affect surrounding areas. The maximum usage of public facilities, con-

COMMUNITY FACILITIES

ernmental units to promote efficiency in use and to avoid duplication and overbuilding.

sistent with their proper functioning and adequate maintenance should be encouraged. Joint or dual uses have the advantages of public conveniences, potentially less construction and maintenance costs, better use of parking and perhaps better energy efficiency. In addition to the joint use of facilities, the county also encourages the joint use of certain services such as purchasing and computer operations. Both the town and the city of Poughkeepsie offer special opportunities for combining services, expanding upon existing agreements for library services and water and sewer services.

Policy 10.7

Dutchess County encourages the placement of buildings used for the general conduct of government in centralized locations to strengthen communities and neighborhoods and discourage sprawl.

Municipal facilities may influence the pattern and timing of development. The construction, or in some cases improved maintenance, of certain facilities can influence and stimulate private development.

Since investments in community facilities can be large, it is imperative that government carefully consider the long-term economic, environmental and social impacts of each project. A facility can help to reinforce an existing community center or be the catalyst for new growth. Thus, the impact on land use planning and community identity can be great.

The location of facilities must be accessible, thus, near the center of transportation and business activities. There must be adequate parking facilities, compatible land uses, development costs analyses, and a conscious effort not to develop in a way that would interfere with the functioning of the central business area.

Site and building conditions must provide adequate space for expansion and parking. These needs relate to space requirements and population characteristics and projections. Moreover, it is important that the site design be done well. The building is a statement about the community--it should reflect the character of the locale, setting an example for other development.

Policy 10.8

Dutchess County encourages the development of community facilities with direct access to major transportation routes in community centers, suburban activity areas and rural hamlet centers.

Facilities requiring high levels of accessibility should be located along state or county highways. These roads are generally designed for higher volumes of traffic and intended to move people and goods more directly and quickly than local streets. Public facilities with many employees or which require a large number of visits from citizens should be made as accessible as possible. Thus, municipal buildings and

libraries should be in the central business area, while high schools and junior high schools should have access to main thoroughfares. Additionally, state and county roads have a much greater likelihood of being serviced by public transportation, thereby providing access to a much greater portion of the population, especially those without private vehicles.

Policy 10.9

Dutchess County promotes the use of capital programming.

Decisions regarding community facilities must consider both the amount and timing of finances as well as needs, space requirements, location, and site and building conditions. Major purchases require careful thought and planning and a substantial outlay of funds. For local officials, major purchases or investments are designed to help meet new service demands. They may include streets, playgrounds, police and fire stations, water or sewer systems, highway equipment, fire trucks, parks and cultural centers.

Because funds are limited, choices must be made as to which, among a range of desirable items, are affordable in terms of anticipated benefits and costs. Deciding which purchases are most important is a difficult but essential task. This systematic planning, scheduling and financing of improvements is known as capital programming, and is one way to aid in the management of government.

Policy 10.10

Dutchess County encourages the use of public schools as focal points of community life and a way of fostering community identity.

Schools provide educational opportunities for a wide range of residents, also acting as centers of employment and community activity. They provide settings for plays, concerts and athletic events. They are major contributors to the quality of life and economic vitality of the county.

Schools can help create community identity and act as a major focal point for a neighborhood, village, or, in the case of a central high school, small region. Compatibility with adjacent land uses is important, as is development on sites that have good access to the transportation system and public utilities, such as water and sewer.

Libraries are an important component of community facilities. An expanding population that, in general, has more free time and higher educational achievement is making greater use of these facilities. With this increase of activity, locational criteria are becoming important components of library planning. Information about population characteristics, such as age, ed-

education levels, occupations and social conditions, are important in the library planning process.

Policy 10.11

Dutchess County encourages the development or expansion of facilities such as libraries and post offices in community centers, suburban activity areas and rural hamlet centers where pedestrians have access.

Libraries and post offices provide services to people; therefore, they need to be accessible. Many of the criteria that determine commercial locations also apply to libraries and post offices. Central locations are important and a business district or shopping center may offer desirable sites. Both pedestrian access and vehicular traffic are important. Providing for pedestrians means that libraries and post offices should be located in areas of mixed land uses that encourage pedestrian movements among sites. This is preferable to a single use, automobile-dependent location.

The socio-economic characteristics of the county indicate that we have a high library use population. However, in evaluating the recommended standard of three volumes per capita, there are some areas of the county that may need to increase their resources.

Libraries and post offices need to be accessible and, in an ideal situation, should contribute to the strength of a community center and its quality of life.

Policy 10.12

Dutchess County encourages the development and enhancement of the Poughkeepsie urban area as a regional cultural center.

The Poughkeepsie area is a focal point for many social, recreational and cultural activities that have a broad regional appeal. These activities are centered in and around the city at facilities such as the Mid-Hudson Civic Center, the Bardavon 1869 Opera House, Vassar College, Marist College, and various museums and historic sites. The cultural atmosphere that exists in this area tends to be more cosmopolitan than that normally found in an urban area the size of Poughkeepsie. This atmosphere, which contributes to the quality of life and which is reflective of a growing population, high educational levels, a large number of professional people, and the economic strength of the area, is a positive force in the continuing development of the city and the county.

Policy 10.13

Dutchess County encourages the development of a coordinated and cost-effective, long-term health care management system to maintain the independence of individuals in the least restrictive setting.

Long-term health care encompasses a range of services and providers that meet the health care needs, personal care needs, and social needs of individuals who need some assistance in caring for themselves.

The principal purpose of a long-term care management system is to intervene in order to identify those

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dependent persons who have a potential for being maintained in the community and to assist in ensuring the provision of the most appropriate services for the individual. A long-term care management system is a practical resource to the families, to the individual, to the hospitals, and to the various service providers in the acquisition of appropriate care.

The impact of a long-term care management system is anticipated to be two-fold: first, enhanced quality of life for those individuals who can be maintained in the community rather than being placed in a residential care facility; and second, a slowing in the growth rate of Medicaid and related costs.

Introduction

Recreational areas are places where people can participate in activities which strengthen and renew their spirits and add to their sense of well-being. Frequently, these areas offer opportunities for playing organized games, such as baseball or tennis, but they also can include individual activities, such as cycling and jogging. Although the full range of recreation includes indoor activities, the primary concerns for community planning are outdoor activities and the space needed for them.

In Dutchess County, recreational facilities are provided by several levels of government, along with special districts, such as school and fire districts, and in some cases local service organizations, such as Lions or Rotary clubs. The federal government operates three national historic sites and a major hiking trail,

totaling 4,255 acres. All of the sites--the Franklin Delano Roosevelt Home and Library, the Vanderbilt Mansion, and Eleanor Roosevelt's Val-Kill--are located in the town of Hyde Park. The Appalachian Trail segment in Dutchess is part of a national system which runs from Maine to Georgia. Although designed to serve as national facilities, these areas provide county residents with an enriched recreation and open space experience.

New York State owns and operates 7,809 acres of recreational areas in Dutchess County. Those areas offering active, highly organized facilities, such as swimming and golf, are administered by the Taconic State Park Commission. They occupy 3,390 acres, or 43 percent of all state recreational land in the county. State multi-use areas, which offer more passive recreational experiences, such as camping and wildlife study, occupy 2,951 acres

and are administered by the Division of Forests and Lands of the New York State Department of Environmental Conservation. Five of these areas are scattered throughout the rural eastern and northern portions of the county. Recently, the state acquired the Tivoli Bays Unique Area, a 1,468-acre area suitable for passive recreational use. This area, located along the Hudson River in the town of Red Hook, is administered by the Division of Wildlife Management. Although these multi-use and unique areas offer some active recreational experiences, they also contribute significantly to the county's supply of permanent open space.

State active recreational areas offer park users a wide range of activities. In addition to picnic areas, play areas and ballfields, many state parks have facilities for hiking, cross-country skiing, fishing, boating, golf and swimming. These facilities, however, have been designed and developed to serve a regional population that extends far beyond the county's boundaries. With a few exceptions, state recreational areas have been sited along major traffic corridors like Route 9, the Taconic State Parkway and Route 22. These facilities, therefore, are readily accessible to the entire region that they are in-





tended to serve. State passive recreational areas are not developed with extensive facilities. They are intended to be used in their natural states for such activities as hunting, snowmobiling and cross-country skiing.

County residents presently use state recreational facilities for daylong outings and to enjoy special recreational activities that are not available elsewhere. It is important to realize that, as urbanization continues, these facilities will be expected to handle an increased number of people from outside Dutchess, from the New York Metropolitan area and the Mid-Hudson region. As this occurs, their significance as suppliers of county recreation will diminish, although their importance as open space will increase.

Dutchess County owns three recreational areas that total 1,034 acres. These are: Wilcox Park in the town of Milan; Fallkill Park in the towns of Hyde Park and Poughkeepsie; and, Bowdoin Park, also in the town of Poughkeepsie. About 40 percent of the county's recreational acreage lies within the urbanizing southwestern quadrant, where 75 percent of the county's population resides. In comparison, Wilcox Park, which accounts for about 60 percent of the county's total recreational acreage, effectively serves several northern towns and villages with a combined population of more than 45,000, 20 percent of the county's population. Residents of the southeastern and south central portions of the county are essentially without convenient county park facilities.

National, state and county facilities are designed for the use of people from many communities or regions. Recreational facilities established by local municipalities are intended for the use of the residents of those cities, towns and villages. In Dutchess, local government has provided about 2,700 acres of recreational space. Approximately 50 percent of that acreage is located in the

southwestern corner of the county. The character of this core area's recreational system varies greatly and has been influenced by the degree of suburbanization and the differing methods of acquiring recreational lands. Many local systems can best be described as unbalanced and having heavy emphasis on one type of facility at the expense of others. Some have a wealth of neighborhood parks and no large, comprehensive community facility; others have well-developed community recreational centers, but no neighborhood facilities. The city of Poughkeepsie has been more successful than any other community in achieving a balanced recreational system.

For purposes of this analysis, open space is defined as "public, semi-public or private areas where little or no active recreational development has taken place, which have been permanently preserved, and which provide some level of public recreational benefit." It provides a passive recreational function, a place in which to be alone or view a natural setting. Recently, open space has also been recognized for its importance in shaping growth, protecting critical natural resources, enhancing community appearance, and improving the social climate of a community.

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Unlike recreational demands, open space needs cannot be determined by applying acreage standards to a community's population. Local open space needs should reflect community goals and physical characteristics. These are best defined by analyzing the location and amount of floodprone areas, wetlands, steep slopes and other valued resources that exist within the community, and by determining residents' attitudes toward the future character of their community.

A ride through Dutchess County would lead the casual observer to conclude that much of the county's landscape is devoted to open space. A report on land use, prepared by the Dutchess County Department of Planning in the late 1970s, confirmed that



conclusion. At that time, only 22 percent of the county's land area was devoted to residential, commercial, industrial, recreational and similar uses. However, our rural landscape is disappearing rapidly, particularly in the county's southwestern corner. Vacant land and agricultural uses are giving way to highways, housing developments, stores and industrial plants. The open appearance of Dutchess is not a permanent condition; as development occurs, open space will disappear. This transition from an open rural atmosphere to a developed landscape will be most striking in southern Dutchess. The most recent study of open space revealed that only 533 acres of publicly owned permanent open space were located in the group of communities that form the county's growth area.

Dutchess County and the Mid-Hudson region face an era of continued growth. Anticipated growth within the county will tax a

local and county recreational system that already suffers from inadequate space and facilities. As growth occurs, opportunities to locate recreational facilities near home sites will diminish. Regional growth will place additional pressures on state and national facilities within Dutchess. These pressures will reduce the value of those facilities as providers of quality recreation for county residents.

The same growth process that will limit options for the siting of recreational areas will result in the loss of the open space and agricultural uses that contribute to the rural character of the county. Growth pressure can, however, be reshaped to be an effective tool for providing recreational facilities and preserving permanent open space. County, state and local governments must be catalysts in this process. In order for this to succeed, the development community must also play an active role.

Goals, Policies and Rationales

Dutchess County aims to improve the supply of appropriately located, high-quality recreational facilities by working toward the following goal:

To meet the recreational needs of all of the county's residents in a way that fulfills community goals, maximizes accessibility, and minimizes public costs.

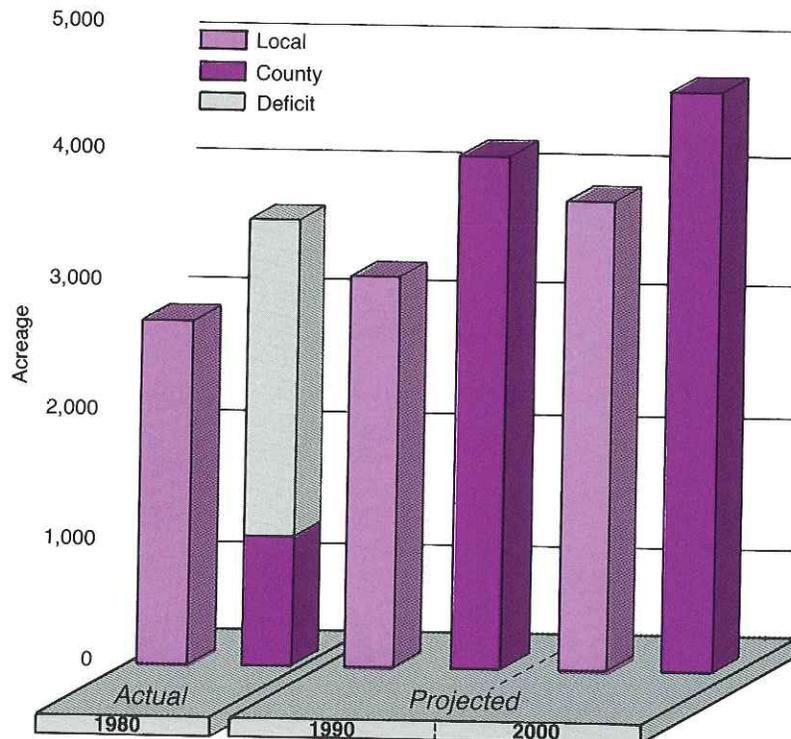
In order to reach this goal, the following policies have been adopted:

Policy 11.1

Dutchess County encourages the development and implementation of county and municipal recreation plans that include provisions for the systematic acquisition and development of park lands based on the growth and distribution of population.

Although every community in Dutchess County has a comprehensive master plan that includes a recreation component, most do not have recreation plans that identify specific parcels or locations that should be reserved for recreational uses. Local planning boards, therefore, are without guides for recreational decision making when specific land development proposals are being reviewed. The first step in increasing the supply of well-located recreational areas is to develop a recreation plan. Specific plans will enable planning

Recreation Acreage Needs 1980 - 2000



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boards to identify those proposals that involve future recreation sites, modify development proposals appropriately and acquire needed sites. Further, recreation plans could offer imaginative techniques for improving the design of certain development projects while filling these recreational needs.

Policy 11.2

Dutchess County encourages the use of capital improvement programming as a means of acquiring and developing recreational areas.

As land value increases in Dutchess, the cost of purchasing recreation sites will rise correspondingly. Once land has been set aside for recreational purposes, a community faces the additional cost of improving the sites with recreational facilities, such as community pools, play apparatus, ball fields, water systems and sanitary facilities. These costs are often far in excess of the site's original purchase price.

If added to a single year's municipal budget, facilities acquisition and development costs can result in drastic increases in these budgets and local tax rates. The local response has been to cut these costs from budgets and reduce or eliminate recreation projects before they reach the budgeting phase. Capital improvement programming, a budgeting technique that spreads costs over a period of several years, can reduce the impact of these recreation projects on an annual budget. These reductions can lead to the funding of needed projects and the improvement of the community's recreational system.

Policy 11.3

Dutchess County encourages the use of innovative development techniques, such as planned unit development, conservation easements and cluster subdivision, to provide recreational areas and facilities at minimal public cost.

National Recreation and Park Association standards for municipal park acquisition and development recommend that 10 acres of park land be set aside for each 1,000 community residents. Using this standard, communities like the town of East Fishkill, with an estimated 1985 population of 21,470, should provide approximately 215 acres of municipal recreational space. At current land costs in East Fishkill, the price tag for acquiring that much space would be prohibitive. Even keeping up with the annual increase in population would be financially taxing if all recreational space were purchased.

As an alternative, each town, city or village could encourage the use of conservation easements, cluster subdivisions, planned unit developments, private tax-deductible donations of land and other techniques that eliminate or reduce the cost of providing recreational areas. Many of these techniques can also help reduce development costs. The use of the planned unit development technique can result in acquiring fully developed recreational space.

Policy 11.4

Dutchess County supports the acquisition and development of a fourth county park to serve the residents of south central Dutchess.

Analysis of existing county park land leads to the conclusion that a large segment of the county's population is not adequately served by the county park system. Northern Dutchess is well served by Wilcox Park in the town of Milan. Southwestern Dutchess is covered by the county's most recent purchase, Bowdoin Park. Southeastern Dutchess, however, is not served by a conveniently located county park.

County Parks



Policy 11.5

Dutchess County encourages its cities, towns and villages to use local subdivision regulations to acquire recreational areas that are consistent with local plans or to require subdividers to contribute to special recreational acquisition and development funds in lieu of acquiring land.

New York State law allows local governments to require, as a condition of approval, the reservation of up to 10 percent of a residential subdivision for use as a recreational area to serve those living in the development. For smaller subdivisions or those where a community plan does not show a recreational use, the community may require a cash payment in lieu of taking land. Funds received in this manner must be used for recreation land acquisition or development that benefits residents of that subdivision. This technique can be used effectively to minimize the public cost of acquiring and developing recreational facilities. Its link to the subdivision approval also provides for the expansion of a community's recreational system as the community grows and demand increases. In order for such a system to be effective, however, the fees subdividers are charged in lieu of providing parkland must reflect the actual costs of acquiring and developing such areas.

Policy 11.6

Dutchess County encourages the siting and design of recreational facilities in a manner that maximizes their accessibility to all income groups, the elderly, and the handicapped.

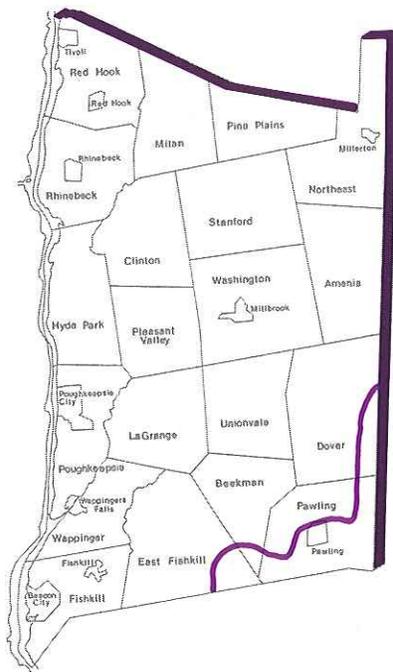
With few exceptions, notably the cities of Poughkeepsie and Beacon, the current recreational system in Dutchess County does not recognize the special needs of the underprivileged, the elderly, and the handicapped. County parks are in remote locations not served by public transportation and are, therefore, inaccessible to the disadvantaged. Recreational facilities, such as bathhouses and restrooms, are designed for those who can walk; these designs discourage use by the handicapped. Facilities offered at most local recreational areas cater to the young. Each of these special groups has recreational needs and the desire to be part of mainstream activities within their community. The location and design of recreational facilities can play a significant role in meeting these needs and integrating everyone into the social fabric of the county.

Policy 11.7

Dutchess County encourages the development of recreational trail systems throughout the county.

The Appalachian Trail is a federally owned trail system running from Georgia to Maine. Dutchess County is fortunate to have a segment of that trail within its boundaries. That segment enters Dutchess at Hortontown near the southern end of the town of East Fishkill. It runs northeastern through East Fishkill, Beekman, Pawling and Dover, entering the town of Kent in Connecticut at a point just north of Dog Tail Road.

Appalachian Trail



Dutchess, however, is not well endowed with hiking trails; most lie entirely within existing open space or recreational areas. Trails are used for a variety of activities, including nature study, hiking, access to significant scenic views, and cross country skiing. Often, similar activities take place on private property. As development continues, many trails and hiking opportunities on private land will be lost. This development process, however, can bring with it a number of opportunities for providing trails for linear recreational activities.

Policy 11.8

Dutchess County encourages the expanded use of recreational areas that are associated with community facilities, including well fields, schools, fire stations and town halls, as a means of increasing the supply of local recreational space, eliminating duplication and maximizing the use of publicly financed facilities.

Schools and the outdoor recreational facilities often associated with them are a potential source of community recreational space. A recent inventory of school sites conducted as part of a comprehensive survey of recreational areas showed that more than 330 acres of land were devoted to recreational uses at these sites. That amount represented approximately 14 percent of all local publicly owned recreational space. The cost of purchasing an equal amount of space at current land values would be prohibitive, if it were not available to local users. In addition, the prevailing philosophy of government requires the provision of more services with less resources. This philosophy dictates that all community facilities be used to the greatest extent possible.

Policy 11.9

Dutchess County supports the use of power transmission, sewer and water line rights-of-way for linear recreational activities, such as hiking, cross-country skiing and snowmobiling.

A major regional power transmission corridor traverses the county in a north-south direction. Numerous smaller corridors feed power to local communities and provide ties to the regional system. At least one proposal to expand the regional power transmission network has been approved. Although there are only a few water mains and sewer trunk lines that are not within street rights-of-way, several plans and proposals call for the location of such utilities on cross-country rights-of-way. These long, narrow corridors provide excellent opportunities for specialized recreational activities, such as hiking trails or pedestrian links, between housing developments and parks, when these activities are authorized and regulated by community recreation commissions.

The value of power transmission corridors as sources of recreational activities has been increased by the availability of funds for the development of facilities within these rights-of-way. The New York State Public Services Commission now requires utility companies to set aside recreation development funds for use by local government on a matching basis when power lines are established or renovated. These funds can be used to develop linear community recreation facilities within the power transmission corridor or to develop municipal sites adjacent to these corridors.

Policy 11.10

Dutchess County encourages the annual review of county land holdings so that parcels having

Each year, Dutchess County receives title to a number of parcels of land due to default in payment of real estate taxes. Often, parcels are abandoned because

public recreational potential or open space significance can be identified and retained.

they are in floodprone, wetland or mountainous areas. Many parcels have potential for public use, such as new recreational or open space areas or additions to existing facilities. Prior to public auction, each parcel could be located and reviewed by county and local recreational groups to determine whether it has recreational potential or if it involves a unique natural resource worthy of preservation. In this way recreational space can be transferred from the county to local recreation commissions without a significant outlay of public funds.

Policy 11.11

Dutchess County encourages the location of new recreational areas where they will also contribute to the preservation of open space, historic sites, or unique natural resources such as the Hudson River shorelands, streams and wetlands.

Few uses are as adaptable to varied terrain and environmental conditions as recreation. It is ideally suited to floodprone areas, wetland buffer areas and soils that are subject to seasonal high water tables. Recreational areas can also benefit from the visual qualities of steep slopes, such as the hillsides of the Hudson Highlands. Locating recreation areas within or adjacent to these environmentally sensitive areas also preserves those resources and preempts their development for less desirable or environmentally detrimental uses.

The preservation or resource management aspects of recreational area siting can also be used to preserve cultural resources such as local historic sites. Many of these resources have been identified in local coastal zone management plans, historic resource inventories, scenic road studies and waterfront management plans, such as the Mid-Hudson Historic Shorelands Scenic District Management Plan. Including a historic landmark within a park site not only preserves an element of the landmark's historic context or surroundings, it also can provide an adaptive reuse for appropriate structures.

Policy 11.12

Dutchess County encourages the location of recreational facilities in areas that promote public access to the county's significant inland water bodies and the Hudson River.

Unlike Putnam County, to the south, Dutchess County is not well endowed with large lakes and reservoirs. However, there are nearly 100 named lakes and ponds in Dutchess, the largest of which is Whaley Lake in the town of Pawling. In addition to the Hudson River, the county contains 800 miles of interior streams.

There is a mutually supportive relationship between recreational activities and water resources. The existence of water enhances the recreational experience and, conversely, recreational areas can help safeguard and maintain water quality and maximize public access. At present, numerous state, county and municipal

recreational facilities, and many open space areas include significant water bodies within their boundaries. Realizing the attraction of water, many of these lakes and ponds have been created artificially. Such areas include Wilcox Park in Milan and Edward R. Murrow Park in the town of Pawling. As the county's recreational system develops, priority should be given to acquiring those sites that contain significant water resources.

Policy 11.13

Dutchess County supports land use plans and regulations that preserve the historic and scenic character of areas adjacent to existing national historic sites, state and county parks, and the Appalachian Trail.

Dutchess County is endowed with three national historic sites and a segment of the Appalachian Trail. These areas have not yet been threatened by the encroachment of inappropriate land uses that could reduce their value as nationally significant sites. Dutchess County is growing, and its growth will continue for the foreseeable future. Inevitably, development pressures will threaten to change their context or surroundings. Such changes not only affect our historic and recreational resources, they also affect the local economies that are based in part on the tourism generated by these sites.

Policy 11.14

Dutchess County encourages the expansion of the state park system and recreation programming within the Mid-Hudson region.

An efficient recreational system is composed of several levels of recreational facilities, each designed and developed to fill a specific recreational need. As population grows, both within Dutchess and in the surrounding region, local and state recreational facilities should be expanded to meet new demands. Expansion of areas and facilities alone cannot completely fill regional recreational needs. The third component of recreational systems, programming, must also be expanded.

Policy 11.15

Dutchess County encourages the use of National Park and Recreation Association standards for evaluating existing recreational systems and planning for their expansion and development.

Although the overall effectiveness of a recreational system depends on the acreage developed in recreational uses, the types and extent of facilities developed, and the diversity of programs offered, the most significant component for land use planning is the acreage in recreational uses. As with water use and traffic generation, recreational space requirements can be directly related to population and population growth. Most often, recreational space standards are expressed in numbers of acres per 1,000 population. Such standards have been at the center of controversy since 1914, when Charles Downing Lay, the landscape architect for New York State, estimated that 12.5 percent of New York City's total land area should be devoted to parks.

Since then, research has been conducted by the National Recreation and Parks Association that has resulted in the creation of widely accepted standards for recreational space needs based on population.

Policy 11.16

Dutchess County encourages the development of bikeways in close proximity to major roadways as part of state and county highway improvement projects and in accordance with comprehensive bikeway plans.

In recent years, bicycling has become a popular means of transportation and a source of recreation for residents of Dutchess County. Unfortunately, while the popularity of cycling has grown, traffic volumes on most state and county roads have also grown. This increase in traffic has discouraged some cyclists and reduced highway safety for others. The core of the problem lies in the lack of adequate space dedicated to bicycle use along well-traveled roadways. The inclusion of shoulders or pathways for bicycle use in road improvement projects could significantly improve opportunities for safe cycling in the county. Opportunities can also be expanded in providing bikeways within residential areas during the subdivision and site plan review process.

If communities in Dutchess County are going to provide the passive recreational benefits offered in open space areas and preserve elements of the county's pastoral atmosphere, an effective open space acquisition and preservation program is essential. Dutchess County's open space goal is:

To preserve an interconnected system of permanent open space that protects significant cultural, scenic and natural features and provides physical separations between adjacent communities within urban and suburban areas and to maintain the open, forested and agricultural atmosphere in rural communities.

Policy 11.17

Dutchess County promotes the preservation of permanent open space in urban and suburban areas of the county by encouraging the use of innovative development techniques, such as cluster subdivision, planned unit development, transfer of development rights, and conservation easements.

People in urban and suburban environments appreciate the value of open space. Open space provides relief from often monotonous patterns of development and forms separations between communities that help to maintain a sense of community identity. Permanent open space in the growth centers of Dutchess County is disappearing at an alarmingly rapid rate. Each year, 1,800 acres of forest and agricultural land in the county are converted to homesites, apartment complexes, shopping centers and industrial parks. Growth, however, can support open space preservation if imaginative development techniques are used. Streams, ponds, wetlands, significant tree stands and other valued open space features can be incorporated as permanent open space in a cluster plan that accommodates the need for housing. Similarly, these natural and cultural features can be permanently preserved as part of a

planned unit development plan that provides for the expansion of a community's industrial base and employment centers. Through the effective use of these techniques, economic development and environmental preservation can go hand in hand. Indeed, a pleasant living environment which balances intensive land uses with permanent open space can be a significant stimulus to the county's growth and economic development.

Policy 11.18

Dutchess County encourages the maintenance of open space as a technique for preserving unique ecological features, such as floodplains, wetlands, steep slopes and major aquifers.

A review of the natural resource inventory of Dutchess County reveals that the county is blessed with many unique environmental features, such as mountains, wetlands, streams and floodplains. Each of these features presents both a problem and an opportunity for community decision makers. If these areas are developed inappropriately with homesites, commercial sites or industrial buildings, they will be destroyed. The destruction of such resources is often accompanied by problems such as increased flooding, erosion and sedimentation of drainage facilities. This process most often results in the need for expensive public works projects designed to "fix" these problems. It always results in the loss of valued community open space.

Policy 11.19

Dutchess County encourages the creation of open space buffers between communities in order to maintain a sense of community identity.

As development proceeds, particularly in urban and suburban communities, the landscape can be covered with subdivision after subdivision without regard for community boundaries. The resultant pattern makes one community undistinguishable from its neighbor and destroys the sense of community identity and place that many county residents value. Open space and land uses, such as college campuses and cemeteries, have an open space character which can serve to buffer and separate communities from their neighbors. They can contribute to the openness of the county while fostering a sense of community identity if they are located at the periphery of a community.

Policy 11.20

Dutchess County encourages the creation of public open spaces and plazas within urban communities as part of their re-development efforts.

Open space is often thought of as a term that is only relevant to suburban, rural or regional planning, and not within the urban content. In fact, highly organized public open spaces within urban areas help to enhance the urban experience and make heavily built-up areas more livable. Urban redevelopment projects, such as downtown office and governmental buildings, provide unique opportunities to fit plazas and other public open spaces into existing urban settings.

Policy 11.21

Dutchess County encourages the preservation of open space in rural areas by promoting:

- agricultural districting and local zoning, which support agricultural uses;
- land uses that have an open space character, such as club hunts and nurseries;
- the use of conservation-open space easements;
- resource-based economic development, such as environmentally sound, visually attractive forest resource development;
- acquisition of significant open space resources by public, semi-public and private open space preservation groups; and
- the use of innovative development techniques, such as cluster subdivision and transfer of development rights.

Policy 11.22

Dutchess County encourages the preservation of significant scenic resources, such as the Hudson Highlands, Stissing Mountain, the Hudson River Shorelands, and Tivoli Bays.

A community values survey completed in the mid-1960s revealed that a vast majority of county residents value the rural agricultural atmosphere of the county. Since then, similar surveys have been taken within the county's cities, towns and villages. Each has confirmed the findings of the earlier survey. Residents appreciate our rural qualities and wish to preserve them while accommodating growth. Unfortunately, the pattern, location and extent of development has resulted in an erosion of this highly valued rural atmosphere. Much agricultural land has gone out of production; some has been developed into homesites, shopping centers and industrial plants. A number of techniques for accommodating growth while preserving the rural landscape are available to local decision makers. These include clustered residential developments and economic development schemes that are based on rural land resources. The latter includes lumber production, tree farms and processed forest products, such as furniture and fuel wood.

In addition to the many unique natural resources the county is blessed with, it also has numerous scenic resources, many of which take advantage of Hudson River views. These resources are important elements of the county's and region's image and are among the driving forces behind the growth of tourism in the Hudson Valley. This activity is a valuable economic resource and one that depends on a scenic resource we can either manage wisely or destroy. Management strategies such as those detailed in the Management Plan for the Mid-Hudson Historic Shorelands Scenic District can be applied to many of the county's scenic resources, particularly those adjacent to the river.

Introduction

Historic resources include the tangible assets of our heritage--buildings, neighborhoods, roads, landscapes, open spaces, parks, artifacts and archeological remains. Written and oral records of Dutchess County's 300-year history are also an integral part of our historic resources. Cultural resources, including the arts, educational institutions and libraries, provide a variety of experiences that affect our lives. The arts represent a broad range of activities that include the performing arts, visual arts, media arts and folk arts, as well as the crafts.

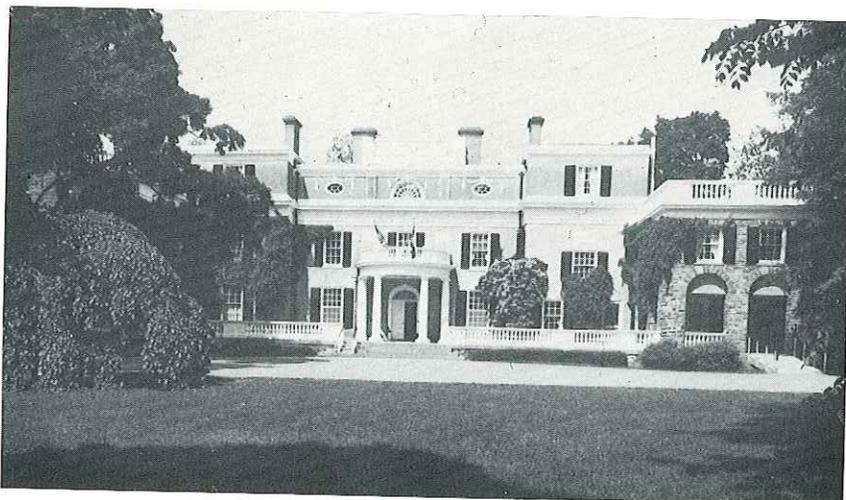
Our historic and cultural resources contribute to the character and individuality of our community by providing a sense of identity and a sense of place. We benefit from the visually interesting and diverse environments that are provided.

Dutchess County's historic and cultural richness is the result of three factors: the county's location, its people, and the events that take place within its boundaries. The county's location along the Hudson River attracted early settlements which initially contributed to the area's heritage. The contributions of people--wealthy and poor--are evident today in the grand and not-so-grand architecture that provides us with a sense of history. The American Revolution, the Industrial Revolution and other movements have impacted and been impacted by events in Dutchess County.

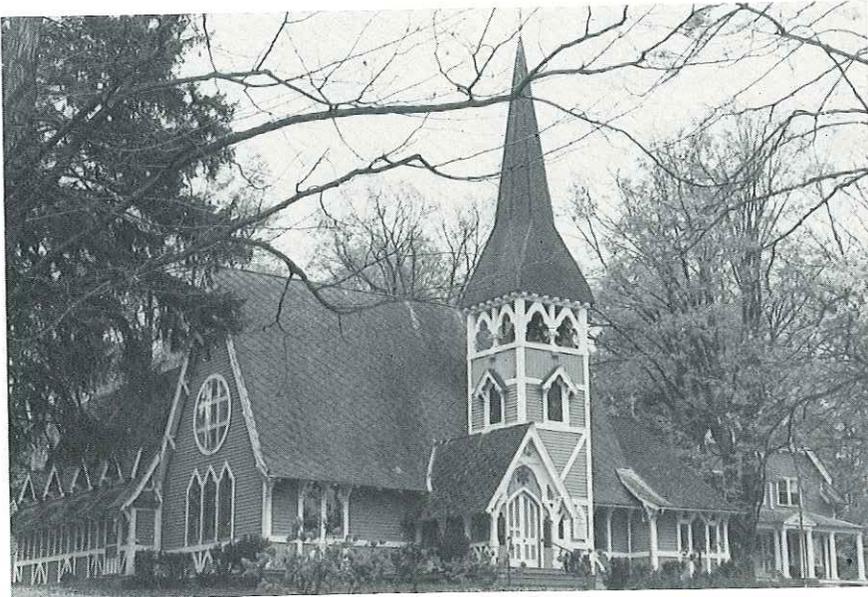
The Hudson River attracted Indians to settle in various spots throughout the county for their summer and winter encampments. The Dutch were the first Europeans to explore and settle the county. They were followed by the English and, later, settlers from

various countries. During the American Revolution, a key supply depot and an encampment were located in the Fishkill area, and Poughkeepsie served as the capital of New York State for several years. After the revolution, agriculture flourished as settlement of the county spread inland from the river. In the 19th century, industry came to the county. Industrial development included mills, breweries and other manufacturing enterprises. The river was a center for commerce and shipping during this period. The advent of a railroad system gave impetus to the county's development. The 20th century brought road construction, suburbs and high technology to complement the continuing agricultural base.

The diversity of historic resources within the county is evident by the properties included in the National Register. Listings include the Tioronda Bridge (Beacon), the Evangelical Lutheran Church of St. Peter (Rhinebeck), the Collingswood Opera House, now known as the Bardavon 1869 Opera House (Poughkeepsie), the Vassar Home for Aged Men and the Vassar Brothers Institute which comprise the Cunneen-Hackett Cultural Center (Poughkeepsie), and the Poughkeepsie Railroad Station, among many others. Numerous historic



HISTORIC & CULTURAL RESOURCES



districts are located in the cities and villages in the western part of the county. In addition to these historic districts, the Sixteen Mile District includes land in three towns and one village along the bank of the Hudson River. This District includes estates, some of which are now in public ownership, that reflect a wealthy lifestyle that once dominated this stretch of land along the Hudson River.

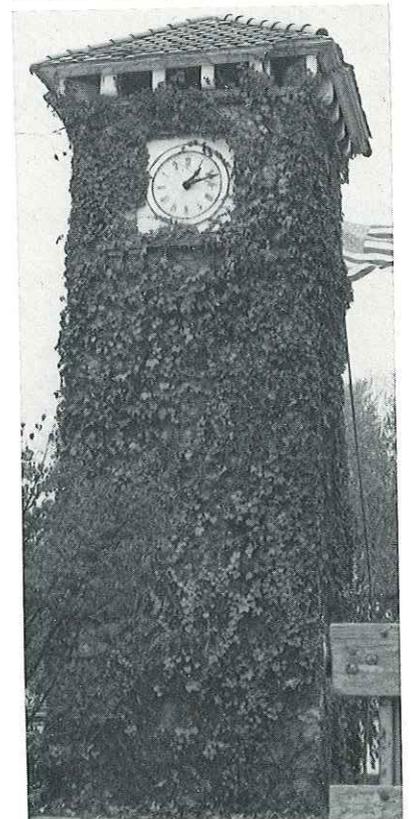
Dutchess County structures represent a variety of architectural periods and styles. The Van Wyck-Wharton House in Fishkill is a typical rural Dutch frame dwelling of the 18th century. The French Gothic school of architecture is represented by the Church of the Holy Comforter, located in the city of Poughkeepsie.

Excellent examples of 18th century rural stone

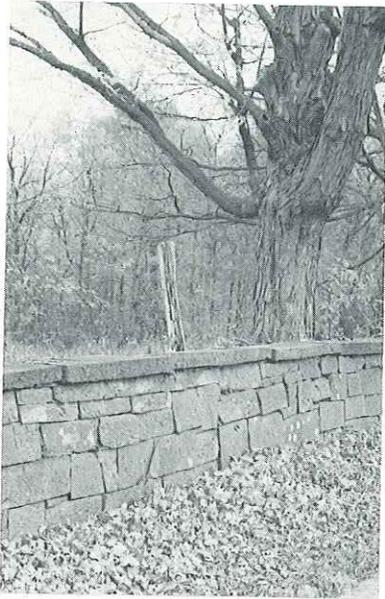
dwellings are the William Stoutenburgh and Bergh-Stoutenburgh Houses in Hyde Park. Contrasted with these stone dwellings are the Queen Anne Victorian style Italian Center in Poughkeepsie and the Hudson River Gothic architecture of the Delamater House in Rhinebeck. The Howland Library in Beacon was designed by Richard Morris Hunt, a prominent architect of the late 1800s. The Howland Library is representative of the eclectic tastes of the 1870s and is contemporary with the cottages that Hunt designed in Newport, Rhode Island.

The term "adaptive reuse" applies to the reuse of historic structures for current functions. Several historic structures are used as museums, such as the Glebe House in Poughkeepsie, but others have been converted to a variety of uses. The former Vassar

Brothers Home for Aged Men is now part of the Cunneen-Hackett Cultural Center and contains office, exhibit and meeting space for community organizations. The Bergh-Stoutenburgh House on Route 9 in Hyde Park, formerly a private residence, is now used for retail commercial purposes. The old Poughkeepsie City Hall, the oldest remaining public building in Dutchess County, is now used for cultural exhibits and productions. The Bardavon 1869 Opera House is still a theater and the Main Building at Vassar College is still an important part of an educational complex. Many structures, such as churches and private residences, maintain their original uses.



HISTORIC & CULTURAL RESOURCES



The restoration or rehabilitation of older buildings and sites has provided residents with a renewed sense of pride in their communities as well as a sense of continuity with past generations. This feeling of pride and awareness encourages re-

sidents to remain in cities and villages and improve their neighborhoods. Historic preservation has provided an alternative to the throw-away economy; it is being discovered that older structures can frequently be rehabilitated and adapted to new uses at a lower cost than new construction.

Cultural and educational resources are important to our economy but they are also vital to the quality of life of individuals. Economically, these resources provide jobs for a variety of occupations. They also serve as an attraction by bringing people into the area for performances or exhibitions.

Our cultural resources enhance the quality of our lives by providing us

with experiences that are not otherwise available. These experiences broaden our background and insight into our past as well as our present. Such experiences can not only help us appreciate more types of cultural activities, but also provide opportunities for personal and social growth.

The preservation and cultivation of our historic and cultural resources can make a significant contribution toward maintaining a sense of community identity in the face of population growth, new development and technological change. In a growing county such as Dutchess, a sense of history and continuity is an important part of our life experience.

Goal, Policies and Rationale

Dutchess County's goal for historic and cultural resources is:

To promote the historic and cultural heritage of Dutchess County and to preserve significant artifacts, records, landscapes, structures and sites.

Policy 12.1

Dutchess County encourages the preservation and adaptive reuse of historic properties.

Historic preservation has evolved from a focus on monuments and architectural triumphs to a concern with the "everyday-type" design and construction that was used in each generation. The concept of preservation has now broadened to include all facets of daily life in the past. An understanding of the way people worked, lived, shopped, traveled and played is essential to an understanding of our physical and cultural development.

With the focus of preservation broadening to include the total fabric of society, preservation efforts have incorporated urban design features such as street patterns, landscapes, housing types, transportation modes and open spaces.

The historic and cultural foundations of our communities provide us with a sense of orientation and identity. These elements of our environment have a special character in that they provide tangible links to our past. Older structures, neighborhoods, landscapes and archeological sites provide a visible record of our community's beginnings. Industrial architecture and archeology, for instance, provide a record of past economic activity; this information gives us an insight into the development of settlement patterns in a hamlet or larger community. This record frequently provides us with an understanding of today's community structure; it is an essential data base for planners and decision makers.

Nationwide, there are countless projects which have successfully adapted older buildings for contemporary commercial, residential and industrial uses. Adaptive reuse has been effectively used to stem the decline of commercial and residential areas and encourage redevelopment. The rehabilitation of historic buildings can also be a means of providing for the housing needs of the county. Poughkeepsie's Union Street Historic District, for example, has been revitalized for residential use.

Policy 12.2

Dutchess County supports the identification of all historic sites and the development of historic place inventories.

The preservation, restoration or rehabilitation of older structures and neighborhoods can mean savings in energy, raw materials and project construction time, but other development considerations are also present. Numerous historic sites in Dutchess County have been identified through a cooperative effort among local agencies, such as the Dutchess County Landmarks Association, property owners, municipal governments and the state historic preservation agency. The county is conducting a survey of historic sites on an ongoing basis.

Information obtained from historic or cultural resource surveys can be used to define policies that preserve irreplaceable resources and allow for continued physical development and economic growth. By identifying the historical, cultural, aesthetic and visual relationships that define the community character, such surveys provide input for community planning decisions. An ongoing process of collecting and evaluating infor-

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mation about historic and cultural resources should be an integral part of planning activities. This can lead to an increased awareness in the public, private and non-profit sectors of the value of the built environment and the need for preservation efforts.

Communities should evaluate historic register nominations of areas and structures with a common theme, such as farms, estate areas, landscape units or cultural buildings and areas.

Policy 12.3

Dutchess County supports the development of criteria to determine the value of our historic resources.

The variety of our historic resources can provide a problem for community decision makers. The relative value of each of these resources must be carefully considered. Historic resources differ in qualities--in some cases the building is the most valuable component of an historic site, while in others, the landscaping may be a significant factor or the location may be important because of an event that took place. Development of criteria to evaluate historic resources makes decision making easier with regard to these properties.

The publication of inventories of significant historic places, along with recommendations for preservation, provide the community of developers with information as to the constraints and opportunities they may face in undertaking projects in or near an historic site. Standards have been established for national and state recognition of historic sites; these standards could be used as a starting point for evaluation. The criteria could also include an analysis of what is valuable about a particular resource, and could assist in the development of priorities for preservation and rehabilitation efforts in our communities. This information can assist decision makers on the relative merits of individual development proposals for a specific resource.

This criteria can also be used as a basis for local legislation to protect irreplaceable historic resources. The development of mechanisms to protect significant resources through zoning and other techniques should be explored. The adoption of locally administered historic districts is encouraged for areas which retain most of their traditional design qualities.

Policy 12.4

Dutchess County encourages a stronger role for historic and cul-

Decisions on land use and development are made by various agencies at the county, town, city and village

tural resources in planning and development decision making processes. Historic and cultural organizations at the local, state and national level should be actively involved in the planning process.

levels. These decisions can have a major impact on our historic and cultural resources. It is vital that information about these resources become part of the planning and decision making processes. The state environmental quality review process and the critical environmental area program can be used as well. Early and continuing involvement in decision making is essential to an effective resolution of conflict in matters of historic and cultural significance. Involvement in this instance means a combination of elements ranging from education of the public and elected officials to active participation from historic and cultural organizations.

Policy 12.5

Dutchess County supports the use of stone walls, historic and natural landscape units and other natural landmarks to define community, neighborhood, and lot boundaries and as a means of providing continuity with our historic and cultural heritage.

The visual environment of an area provides an insight into what residents think of their community; it reflects the goals and policies of community development. Natural landmarks and landscapes are assets to the heritage and visual environment of a community. As such, they should be used in site planning to enhance specific developments, as well as the overall character of the community. Compatible architectural and site plan designs in or adjacent to areas or sites of documented architectural or historic significance are encouraged.

Policy 12.6

Dutchess County supports the sensitive design of new or rehabilitated facilities in areas immediately adjacent to structures and landscapes of recognized historical or architectural significance.

New construction in areas with historic and cultural sites can either complement or ignore existing conditions. Similarly, the rehabilitation of existing structures can destroy the inherent historic value of the building if not handled in a sensitive manner.

Policy 12.7

Dutchess County supports use of the County's historic and cultural heritage as a means for promoting economic growth including development of tourism.

The wealth of Dutchess County's historic and cultural resources provides a natural link to commercial development, including tourism. This county is in proximity to a large market for tours and related activities. Tourism-related activities include civic events, performing arts functions and local art collections.

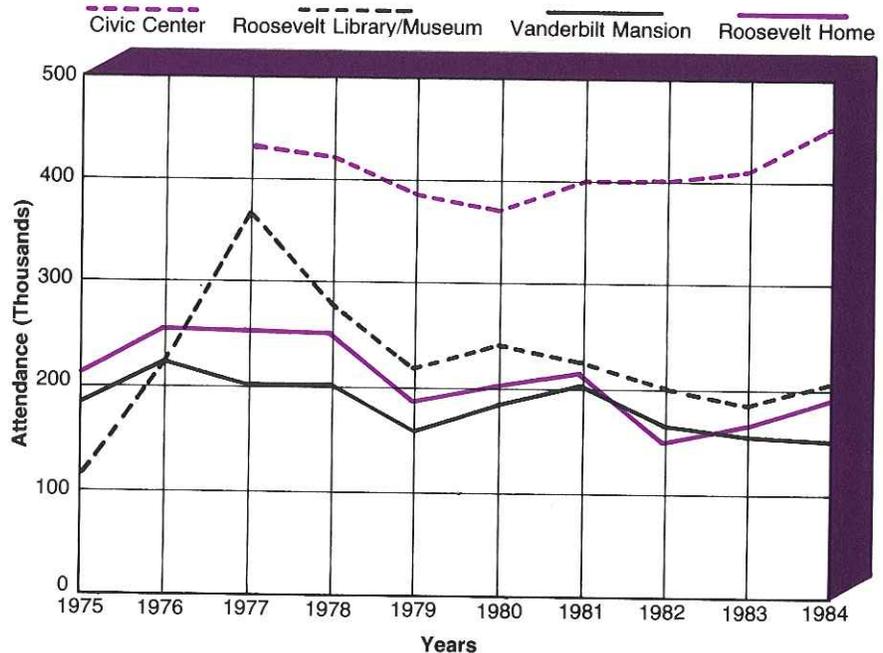
While the potential for tourism as an economic development program is present, a way must be found to tie together the historic and cultural entities which are dispersed throughout the county.

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The potential of the non-profit sector of the economy is often overlooked and underestimated. The economic impacts of this growing sector of the economy include attracting visitors, new residents and new commercial businesses. County non-profit organizations, such as historical societies, museums and performing arts groups, can develop activities that complement tourism related development. The private and governmental sectors can include local non-profit groups as active partners in their tourism-related activities. History and culture also contribute to the private sector of the economy as many artists and historians operate commercial businesses.

Promotional efforts can take a variety of forms. Regional endeavors that promote the historic and cultural resources of the county should be supported. Historic themes can be used in murals, exhibits, photographs and other displays in private and public buildings that are frequented by the public.

Attendance at Selected Attractions 1975-1984



Policy 12.8

Dutchess County encourages driving and walking tours of historic and cultural resources.

Over the years, various municipalities have developed walking tours of their historic and cultural sites. Historical societies, the tourism promotion agency and county government have developed driving tours of the county. Local waterfront programs and plans developed under the New York State Coastal Zone Management Pro-

gram can also be important vehicles for driving and walking tours. Such driving and walking tours encourage tourism and provide a valuable experience for residents of the county. Cooperative efforts must be implemented so that the public, private and non-profit sectors can appropriately accommodate those who use the driving and walking tours. Care should be taken that tourism development efforts enhance and not destroy the quality of the environment that we value.

Policy 12.9

Dutchess County encourages research into this area's historic and cultural heritage.

The wealth of historical documents and materials in the county represents a significant resource. The information in these records can be used by residents and visitors for educational and recreational purposes. Documents and materials are found in a variety of places in the county, including libraries, tax records, historical societies, private collections, church minutes and business ledgers. While the rich heritage that exists within the county is reflected in these records, there is no overall inventory. Public, non-profit and private interests must cooperate to facilitate the use of historic documents and materials.

Policy 12.10

Dutchess County encourages public access to public and historic records and the development of records management programs for historic records and documents.

Currently, some historic documents are accessible and some are not. Libraries are an important resource for local history research. The Dutchess County Historical Society provides a library and a collection of historical documents at the Clinton House in the city of Poughkeepsie. A number of municipal records, however, are not accessible to the public. Public officials and organizations involved in historic research must begin to sort out their roles and functions with regard to public records. The capabilities of various agencies must be understood so that coordination of inventories and access can be facilitated. Support services for research must be available so that individuals ranging from school children to scholars can carry out their research projects.

Policy 12.11

Dutchess County supports cooperation between historic and cultural organizations to facilitate the development of complementary activities. The use of forums for historic and cultural groups to explore policy issues and problems and opportunities of common concern is encouraged. Where feasible,

The historic and cultural organizations in the county represent a diversity of interests, including arts, crafts, history, and preservation. Since there are issues which affect all such agencies and groups, efforts must be made to develop complementary programs that meet the diverse needs of a community.

Non-profit groups, and the activities sponsored by them, contribute significantly to the quality of life in the county. In addition, groups associated with

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Dutchess County encourages the use of historic sites for cultural activities.

artistic, educational and historic enterprises enhance the county's visibility. The challenge is to help preserve the quality of life and the historic and cultural experiences that are available to residents and visitors while the county grows in population and economic activity. To accomplish this, non-profit groups must explore areas of common interest and cooperate in the provision of services.

Policy 12.12

Dutchess County encourages the development of educational programs to promote awareness of local historic and cultural resources.

Educational programs can enhance school curriculums, broaden residents' knowledge of county heritage and attract visitors. Educational efforts can include exhibits, workshops, tours and the development of resource materials. The implementation of oral history projects can also be a significant contribution. Libraries can cooperate with local historians and historical societies to enhance their collections of local history and culture and, thereby, facilitate local research.

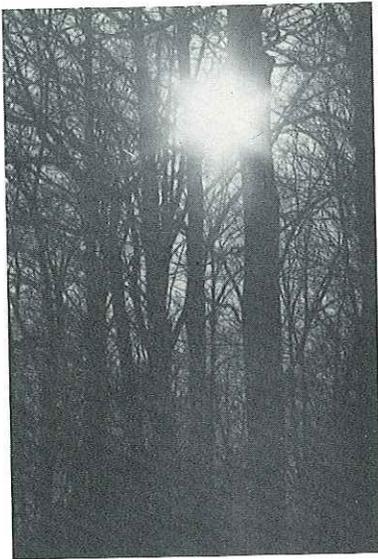
Policy 12.13

Dutchess County encourages the conservation of significant artifacts and archival materials.

During the three centuries of this county's history, a great volume of historic materials has been produced. There is a need to identify these materials and develop a system to facilitate retrieval in a timely manner. The identification and storage of artifacts is an essential part of an ongoing effort to identify and preserve those historic materials that are important to the development of the county and its people.

Introduction

Energy is described in physics as the ability to do work. It is a necessity for life to exist. Whether we talk about moving molecules or mountains, working or playing, energy is needed.



The earth receives its energy from the sun in the form of light. This energy is converted and stored on earth, thus enabling life to continue even when the sun's light is not directly available. People have developed the ability to use many different forms of stored and direct energy. As this ability has developed, we have become dependent on the availability of large quantities of low cost energy to carry out our daily activities.

Dutchess County, like the rest of the Northeast, is dependent on large quantities of imported energy. This use of and

dependency on imported energy has its costs. Large quantities of money leave the local economy when we purchase fuels from outside the county. This means money which would normally support local jobs and programs is lost. Imported energy is also subject to supply interruptions and uncontrolled price fluctuations which can drastically affect many of our lives.

Energy needs are pervasive throughout our activities and, therefore, the costs, availability, and forms of the energy we use have important implications for all other elements in this plan. Examples of these implications, and these relationships to other elements, are illustrated as follows:

- Demography - The number, age and distribution of a population affects energy consumption.
- Regional Perspective - The county is dependent on regional networks to supply its energy. Transmission lines carry energy through the county to other locations. A new generation facility, proposed for a site in Red Hook, would supply regional needs.
- Economics - The cost of energy influences the cost of raw

materials, production, transportation and sale of all goods and services. Energy savings help give a competitive edge over other locations. Since so much discretionary income is spent on energy, energy demands have a strong impact on the overall economy.

- Community Values - Energy affects the social structure of a community by influencing the physical (size of homes, yards, types of housing, mix of land use) and economic structures (cost of living, types of industries) of the community.
- Parks, Open Space and Recreation - Energy influences the location, operation and maintenance of parks, open space and recreation facilities, as well as the types of activities that occur.
- Land Use - Energy influences the way land is used, the spatial arrangement of man-made features, and the distribution of land use. Most striking is the influence of the automobile on land use, a recent phenomenon based on the existence of relatively inexpensive fuel sources and the

notion that the supplies are inexhaustible. Energy also influences the ability to build, service and maintain our built environment.

- Natural Resources - Energy affects the cost of maintaining environmental quality, as well as the cost of utilizing natural resources.
- Site Planning - Energy influences the ability to alter site features. Intelligent use of site features, such as maximizing the beneficial use of the sun, can influence the energy efficiency of a facility and thus reduce the cost of operation.
- Transportation - Long distance transportation is almost totally dependent on petroleum. In rural Dutchess County, there are some opportunities to save energy by using public transportation. Biking, car pooling and walking are other ways to save energy. More compact development makes all transportation alternatives more economical.
- Community Facilities - The location of community facilities influences the energy that must be expended to use them. The quantity of solid waste is influenced by relatively cheap production costs in a disposal oriented society. Resource recovery methods can convert some solid waste into energy.
- Housing - The location, type, size and quality of construction influences the amount of energy necessary to service and maintain housing. Well-insulated buildings save thousands of dollars annually.
- Public Utilities - Public utilities often require substantial amounts of energy for construction, maintenance and operation. Utility costs can be reduced through good site design and wise planning. This relates to the advantages of compact housing patterns which allow for more efficient construction, maintenance and use of public utility systems.
- Historic and Cultural Resources - Energy costs influence decisions to preserve and rehabilitate historic structures. Hamlets and village centers demonstrate a compact land use pattern, which reflects the inter-

dependency that was valued in pre-automobile times. This pattern valued proximity since the energy and time demands for regular long-distance travel were too great for most families.

Energy use can be divided into four sectors: residential, commercial, industrial, and transportation. Each sector uses energy in different quantities, for different purposes, and from different fuels. In New York, the sector using the largest percentage of energy is the transportation sector--37 percent. Within this sector, the automobile expends a little more than one-half of the energy. Air transportation is the next highest user at 17.3 percent, with highway freight consuming 14.5 percent of the energy. Since more than one-half of the energy used in this sector is for automobile transportation, there are many opportunities (e.g., car pooling, van pooling, better designed communities, and bus routing) to save energy.

The residential sector is the second largest consumer of energy, using approximately 27 percent of the total. Of the energy used in this sector, 61.9 percent is devoted to space heating, 19.6 percent to water heating, and 5.1 percent

to cooking. Remaining uses consume about 4.0 percent of the total. Efficiency improvements in space and water heating offer potential for great energy savings.

The commercial sector is the third largest sector of energy users in New York, comprising approximately 19 percent of the energy use total. Within this sector, the two largest users are space heating--63.6 percent and lighting--11.8 percent. The smallest sector within New York is the industrial sector, using approximately 17 percent of the total. Industrial employment is about 30 percent higher in Dutchess County than the state as a whole, so energy consumption is also likely to be higher than the 17 percent state average. Industrial usage is often specialized, depending on the type of industry. Office-related industries will use a large percentage of energy for space heating. Agriculture also consumes significant quantities of energy for driving field machinery and refrigeration for milk and produce storage.

More than 95 percent of the energy used in Dutchess County is derived from fossil fuels produced outside of the County. Dependence on outside fuel sources also means most locally expended energy dollars

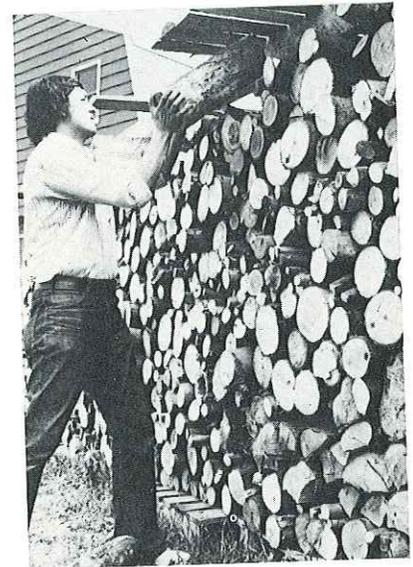
leave the county, the region, the state and the country.

Statewide, petroleum is the major fuel used, providing 53.4 percent of the primary energy consumed. Natural gas makes up 22.2 percent of the primary energy consumed, while coal is the third largest, comprising 7.8 percent of the total. Dutchess County is even more dependent upon petroleum because natural gas serves a limited area and Central Hudson Gas and Electric Corporation, which provides most of the electricity used in the county, generates electricity almost exclusively with oil.

The location of major electric facilities is regulated by the state through the Public Service Commission and the New York State Energy Office Master Plan. Local municipalities cannot influence the siting of major facilities within their jurisdiction except through the legal processes governed by these agencies. This makes participation in these proceedings critical for all county communities that are potentially affected by proposed facility changes.

Dutchess County has more than 250,000 acres of woodland capable of producing enough wood to heat 25,000 homes without negatively affecting tim-

ber production. The 1980 census revealed 301 homes were heated with wood as the primary fuel. The number of new chimneys, wood stoves and woodpiles around the county indicates many more homes use wood as a secondary heat source. The technology to burn wood cleanly, safely, and efficiently exists and is continually being improved. Catalytic burners, automated feeding systems, and other improvements are making wood a practical alternative to nonrenewable fuels.



Direct use of solar energy has the greatest potential to replace the fuels now in use. Passive solar options can be built into all new housing for relatively little additional cost (usually less than 10 percent). Presently, passive and active solar water heaters and space heaters are cost-effective in Dutchess County. Advances in solar electricity

may soon bring the cost to a level that is competitive with conventional electric supplies.



Dutchess County produces approximately 490 tons of garbage per day. This garbage has the energy equivalent of 32,900 gallons of fuel oil. All this energy is presently being discarded in landfills. The county is in the process of developing a plant to convert much of this discarded energy into steam to be used for industrial processes, space heating and the generation of electricity.

The county has numerous creeks and streams which, in its history, have provided energy to run many different mills. The creeks still flow but most of the mills are no longer functioning. A small number of the most viable hydropower sites have been refurbished in

recent years. The potential exists for further use of this resource.

Farming is a large segment of the overall county economy. Organic materials from farm operations (manure and plant waste) offer a potential for energy generation. Methane gas production and direct burning of waste plant matter are two methods of using these potential energy-producing materials.

Effective use of wind power depends upon sufficient average wind velocity. Some areas within the county have average velocities that are high enough to operate wind-powered equipment. Since wind characteristics are very site-specific, detailed data need to be collected to reveal the potential for wind power on specific sites in the county.



Conservation primarily involves making efficiency improvements in energy use, but it can also involve making changes in attitudes and habits regarding the use of energy. Conservation has become the major focus of energy policy in the past several years, mainly because there are few drawbacks to sound conservation strategies.

Conservation represents the least expensive, fastest, most environmentally benign, and most economically beneficial means of reducing our dependence on imported, nonrenewable energy supplies. Estimates place conservation costs at one-tenth to one-half the cost of adding an equivalent unit of energy from a new source. Once implemented, conservation actions continue to have positive impacts on the social, economic and natural environment. By reducing the cost of



energy and the flow of dollars outside of our region, more money is available locally to stimulate new jobs and business opportunities. The implementation of conservation strategies (insulating homes, installing more efficient equipment, etc.) has the added benefit of creating jobs itself.

Some European nations enjoy comparable stan-

dards of living while using up to 50 percent less energy per person than the United States. More efficient usage and less wasteful practices will save energy in almost all segments of our society. Higher energy prices and the implementation of private and governmental programs have promoted conservation in greater proportions than many observers thought

possible. New York's conservation performance, in fact, has exceeded that of the nation. Greater energy savings are achievable with a continued commitment to conservation. Despite advantages, good conservation principles are still being ignored in much of the new construction and site planning in Dutchess County.

Goal, Policies and Rationale

Dutchess County's energy goal is:

To promote conservation and the efficient use of existing energy supplies while encouraging the development and use of less polluting, less costly, and locally produced renewable energy resources.

Some feel that market forces alone can bring about conservation. Certainly, the underlying incentive to change is economic--the rising cost of energy. However, the public sector also has a role: to provide technical information for making sound energy choices; to provide incentives to make needed capital available at reasonable costs; and to remove institutional barriers. Public involvement enables conservation and renewable energy strategies to be expedited, allowing economic and social benefits to occur much sooner than without involvement. The benefits of conservation, efficiency improvements, and the use of renewable energy resources are so pervasive that all levels and segments of society should encourage their continued implementation.

Policy 13.1

Dutchess County encourages energy-efficient land use patterns, site designs and building construction.

Despite rising energy costs, much of the new development in the county ignores basic energy conservation principals. Public utilities and services can service compact development more efficiently than scattered development. High-density/intensity land uses are continually proposed in areas remote from services, thus increasing transportation and other service costs. Site planners and builders often ignore common sense consideration of solar access, orientation for maximum solar gain for winter and shading for summer. Building construction should use state building code requirements

as minimum energy efficiency standards. Where possible, these standards should be exceeded, particularly in public buildings which can be used to demonstrate the benefits of quality construction for efficiency. Many persons responsible for new buildings do not consider energy efficiency in design and construction. Good design will incorporate energy saving opportunities, such as: passive solar heating, natural and structural shading, natural lighting, earth sheltering, wind buffering and adequate insulation. Energy-efficient development can usually be accomplished with little or no additional costs. Future cost savings will more than cover the small increases in design and construction costs that may be incurred.

Policy 13.2

Dutchess County encourages the development and improved management of local energy resources, recognizing the benefits of developing a diversity of local renewable energy resources.

Developing our local energy resources (wood, refuse, solar, hydro, wind and biofuels) will allow the county to reduce its dependence on parties outside of county control, while providing local jobs and keeping more dollars in the local economy. Development of energy supplies from a diversity of renewable resources offers greater stability and opportunities for greater success. It is important to ensure the proper use and management of local resources to avoid environmental degradation and economic hardship. The use of fuel wood is an example of a local resource that needs careful management to prevent the degradation of our forests through poor harvesting practices, our air through inefficient combustion, and our homes through the unsafe utilization of burning equipment.

Policy 13.3

Dutchess County endorses efforts to monitor electric rates, usage and needs in the county, the region and the state, and to use this information as a basis to participate in regulatory processes which determine the need for, the environmental compatibility of, and the cost of new electric generation and transmission facilities.

In order to intelligently participate in the regulatory processes which determine the cost of, need for, and construction of new generation and transmission facilities, the county must know its own electrical needs and understand the needs of others. The county's close proximity to major electric load centers, relatively low population density, access to the Hudson River, excellent air quality, and strong connections with the electric transmission grid, make it a desirable location for major coal or nuclear electric generation and transmission facilities. The county should participate in all proceedings affecting the location of these facilities and the cost of electric service in the region.

Policy 13.4

Dutchess County advocates working with our electric companies and other local interested

Electric generation and transmission facilities have major impacts on the environment. The county should work to ensure that these impacts are mitigated wher-

parties if the need for electrical capacity within our region is established to ensure that new capacity is developed in an economical and environmentally sensitive fashion.

Policy 13.5

Dutchess County opposes efforts to locate major electric generation facilities within the county which do not primarily serve Dutchess County and the immediate region.

ever possible, and that all alternatives are seriously considered, especially ones related to conservation, efficiency improvements and load management techniques. New facilities are not the only means of meeting future electric needs.

The county recognizes its responsibility to help utilities serving the county meet local and regional electric needs. The county should not have to bear the social, economic and environmental costs of large-scale generation for other regions of the state or for utilities which do not primarily service the county. Current technology allows generation facilities to be constructed near major population-load centers without unacceptable environmental, social and economic consequences. Siting such facilities near these road centers may also reduce energy losses that occur in long distance transmission thereby contributing to energy conservation efforts.

Policy 13.6

Dutchess County should encourage the development of small-scale electric generation facilities fueled by renewable resources to serve local needs.

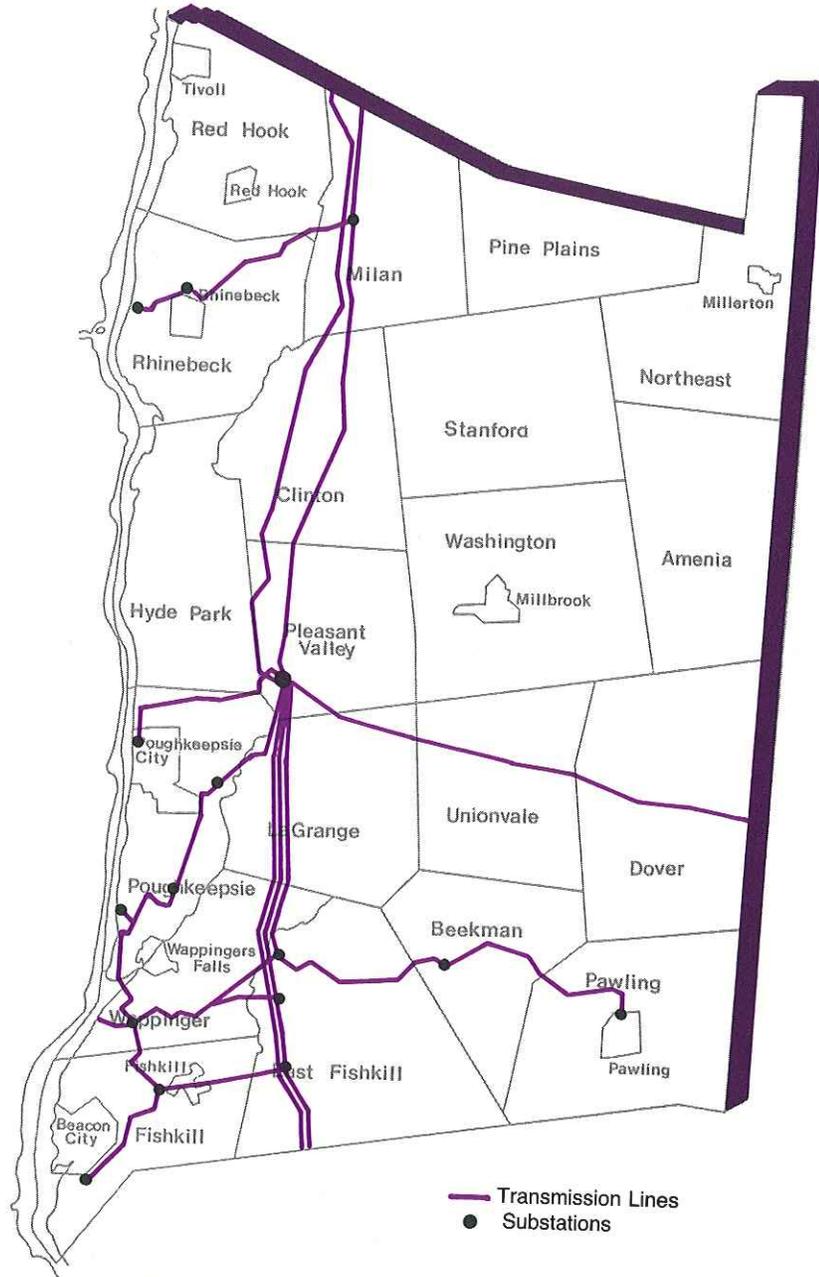
A system of small-scale generators fueled by renewable resources and serving local needs would give the county a greater independence from uncontrollable outside influences. Small-scale generation of electricity can utilize many different types of fuel (hydropower, wood, refuse, wind, solar, biofuels and conventional fossil fuel). Using locally available fuels would keep more dollars in the local economy and produce more local jobs. The supply of local fuels for these small-scale generators would be more controllable by the county. A diversity of fuels provides a more stable system. Properly sited, well-designed small-scale generators have smaller impacts on the environment and, therefore, have the ability to be integrated with other land uses which can potentially benefit by using waste heat or common facilities.

Policy 13.7

Dutchess County encourages transmission line corridor planning that is sensitive to area scenic values, respects environmental limitations, and allows public participation.

Transmission line corridors are never popular because they necessitate a change in the landscape. The impact of this change should be minimized through careful planning, design and construction. Route planning must consider scenic impacts and environmental limitations, as well as public opinion. Selective clearing, careful construction, and sensitive tower design can help minimize the adverse impacts associated with transmission lines.

Major Powerlines and Substations



Introduction

Hundreds of individual land use decisions are made in Dutchess County each year. Sometimes, these involve small changes -- a person plants a tree or installs a divider fence. Other times, they involve the physical alteration of many acres of land. Large commercial and industrial structures, attendant parking lots, multifamily housing and major subdivisions provide the most noticeable changes in the landscape.

Years of change transform a community. Farm land in Wappinger gives way to subdivisions; Route 9 gradually loses its restful roadside views; Millbrook buries wires and plants trees to improve its downtown appearance; gutted buildings in Wappingers Falls are renovated for multifamily housing.



Consistently good site design requires public pride and confidence as expressed in well-written and fairly administered land use regulations. Persistence and patient attention to detail by both private and public sector individuals will eventually result in an improved visual environment. Therefore, a county master plan cannot ignore the land use change process that is so gradual and decentralized. Any reasonable implementation program must be geared toward improvements in local land use decision making as it affects the quality of local site planning.

The Dutchess County Plan recognizes that site planning and the overall quality of development in the county are inexorably linked, and that there is a positive relationship between a pleasing visual environment and a healthy long-term economic environment. The plan



only advocates development that is respectful of the natural environment.

Dutchess County reviews site plans according to provisions outlined in General Municipal Law. However, it expects local units of government to shoulder the responsibility for preventing careless and precipitous decisions. The county recognizes that most communities need guidance in order to promote high quality site planning.

The public interest is best served by thorough review of site plans. Most municipalities in Dutchess County have site plan review regulations, but some boards do not feel competent to judge site plans, many of which are professionally prepared. Both regulations and the overall review procedure must be improved.

Policies in this chapter identify many issues that should be addressed in local site planning procedures. The chapter is divided into six areas of concern. The first area is general, including basic policies which outline the general concepts of site planning and pertinent procedural issues. It includes policies for recognizing limitations and opportunities in the natural environment, for enhancing the appearance of roadside developments, for achieving compatibility among land uses,

and for using procedures established under state law to uphold the public interest in major site plan questions.

The remaining policy sections deal with landscaping, signs, parking, access, drainage and residential subdivisions. The policies are based on the belief that much existing site planning is inadequate, causing problems of poor appearance, inconvenience, and lack of safety in certain parts of the county.

This master plan emphasizes the theme of quality. The site plan policies are intended to provide a direction toward consistent attention to detail and high quality designs. The policies suggest that site plans must consider the advantages and constraints that are inherent in each site. Good landscaping is as essential as providing sufficient surface areas for parked automobiles. Neighboring land uses must be fully considered in the site development process.

Goal, Policies and Rationale

Dutchess County's site planning goal is:

To achieve consistently high-quality site planning in Dutchess County in order to promote beauty, order and harmony, to ensure compatibility with surrounding land uses, and to provide a visual and natural environment that will encourage economic stability and growth.

Policy 14.1

Dutchess County supports formal and comprehensive training of local officials who are appointed to administer local land management practices.

Land use decision making requires an understanding of land use law, state-enabling legislation, local ordinances, master plan recommendations, environmental protection measures, site planning guidelines, real estate practices, design, local housing needs and community values. Nevertheless, lay people frequently accept appointment to a planning board or zoning board of appeals and never seek the opportunity to become better educated in the many areas of concern. A certification process should be developed to provide at least an introductory look at local responsibilities in land use management. Short courses by the Dutchess County Planning Federation, planning futures workshops and other specialized sessions can augment the basic training seminars.

Policy 14.2

Dutchess County encourages the local adoption of site plan review standards which require the identification of significant natural features, the assessment of the consequences of land use decisions on each of those features, and a site plan design response that results in plans that effectively address those consequences.

The natural environment presents both constraints and opportunities for development. The science of identifying and analyzing the developmental potential of a site has become considerably refined in recent years. Decisions which respect environmental characteristics are those which yield the surest long-term economic benefit and ones which will avoid unanticipated expenses to the public sector.

Policy 14.3

Dutchess County promotes rural land site planning that calls for the retention of prime and important soils for agricultural production.

The Dutchess County Soil and Water Conservation District and the U.S. Soil Conservation Service have identified the best agricultural soils in Dutchess County. These soils, particularly in open fields of substantial size, are a scarce and vitally important resource. Development need not occur on the county's best soils. Mandatory lot cluster provisions should be considered locally as a way to steer development from the best farm lands.

Policy 14.4

Dutchess County supports site designs which complement neighboring land uses, emphasizing functional connections whenever possible.

Too often, sites are planned without regard to how they tie to existing or future neighborhoods. While linkages are sometimes difficult, particularly in auto-oriented strip development, harmony and unity must be emphasized through good landscaping and planned efforts to incorporate pedestrian and vehicular connections to neighboring developments.

Policy 14.5

Dutchess County supports efforts to improve the appearance of existing strip commercial areas.

Existing linear commercial developments contain many thriving businesses. These areas are heavily used, often providing the dominant image of a community. Visitors sometimes gain no other impression of a municipality than the one they receive from seeing this strip business pattern. Strip commercial areas should not conform to lower standards than those expected in other parts of a community. Uniformly high standards reflect a community that is aware of its image, confident about its future, and evenhanded in application of its regulations. Some existing strip developments are unsightly, developed in a day when local regulations were non-existent or not sufficient to regulate road-oriented commercial land uses. Remedial design efforts are essential in order to achieve some co-

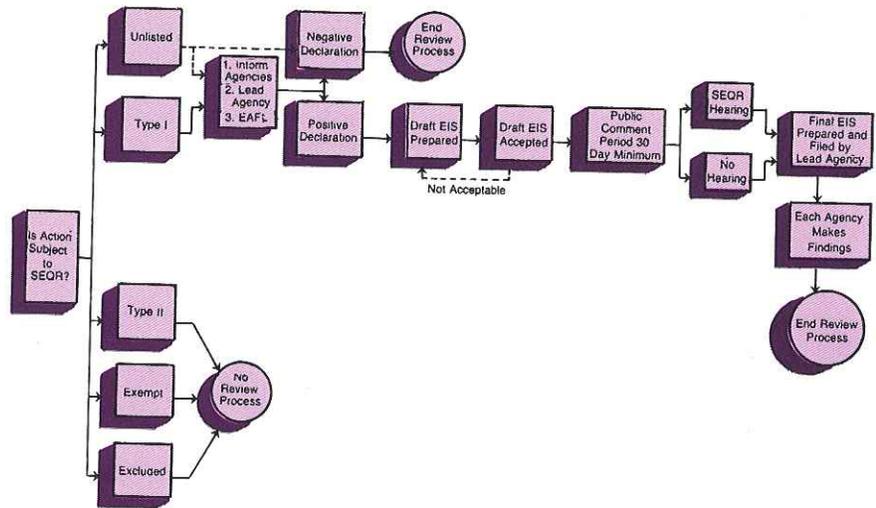
herence and unity of design in these areas. When site plan revisions are requested, municipalities can work to upgrade problem areas in the existing site plans.

Policy 14.6

Dutchess County supports the conscientious use of the State Environmental Quality Review Act (SEQRA) to gain a full understanding of economic and environmental issues and to make potential concerns open to public involvement and comment.

The SEQRA sets forth a comprehensive review procedure, with the level of review conditioned to various magnitudes of problems. Forms, including checklists, are available to facilitate the screening and review process. The SEQRA process can protect municipalities in that local review boards can fully explore implications and long-term impacts of development and answer all questions of public interest before making decisions concerning that development.

The Basic SEQR Process



Policy 14.7

Dutchess County advocates site plan review practices which encourage high standards of design for areas with proposed roadside development.

While this plan discourages uncontrolled strip commercial development, it supports local regulations that encourage high quality, highway-oriented uses in close proximity to existing centers. The public sector has increased design responsibilities in areas where there are many individual owners sharing frontage on a long commercial strip. It is important to uphold standards which ensure good landscaping, drainage and patterns of access. In former years, downtown areas were developed with common standards for setbacks, building heights and utility requirements. While buildings did not always look alike, a downtown scale emerged. Malls, condominiums and other planned developments also adhere to common design themes,

deliberately unifying the built environment. In a strip setting, common design practices are equally important. For this to happen, local regulatory practices must be developed so that development patterns conform to the community desire to foster an attractive and economically sound environment.

Policy 14.8

Dutchess County advocates use of scoping sessions as a preliminary step in the environmental impact evaluation process.

Projects with potentially large impacts often result in a requirement to complete an environmental impact report. An impact report can be costly and time consuming for some projects. The scoping session affords an opportunity for developers to understand public concerns and the thinking behind them. The scoping session provides clarification of intent and reduces the chances for misunderstandings later in the process, when considerable money has already been spent. The scoping sessions also give the public an opportunity to express concerns that may be addressed in an environmental impact statement.

Policy 14.9

Dutchess County advocates submission of architectural renderings as an integral part of the site plan review process.

Building and landscape design go hand in hand. One cannot fully appreciate the quality of a site plan, especially its aesthetic quality, without considering its relationship to the proposed architecture. There are both aesthetic and functional reasons for buildings and their environs to be planned together. Landscaping can redeem the appearance of an inexpensive, yet functional building. Transitional areas - between inside and outside spaces - can be created to bring some of the natural environment into a reception area or work setting. Buildings can be grouped around a courtyard or square to create a sense of intimacy and restfulness.

Policy 14.10

Dutchess County advocates the development and use of local guidelines and incentives to achieve high architectural quality in new multi-family and non-residential construction.

Buildings should be compatible with their surroundings. Some buildings are radically inconsistent in appearance and form with the prevailing character of surroundings. This can be avoided if attention is paid to the compatibility of such features as materials, colors, forms and setbacks. Often, "stock" buildings, designed for business needs without regard for the site, are imposed on a site, rather than tailored to the site's particular strengths and weaknesses. Such practices can be discouraged through a variety of methods that include regulatory techniques, educational efforts, voluntary business efforts and public incentives.

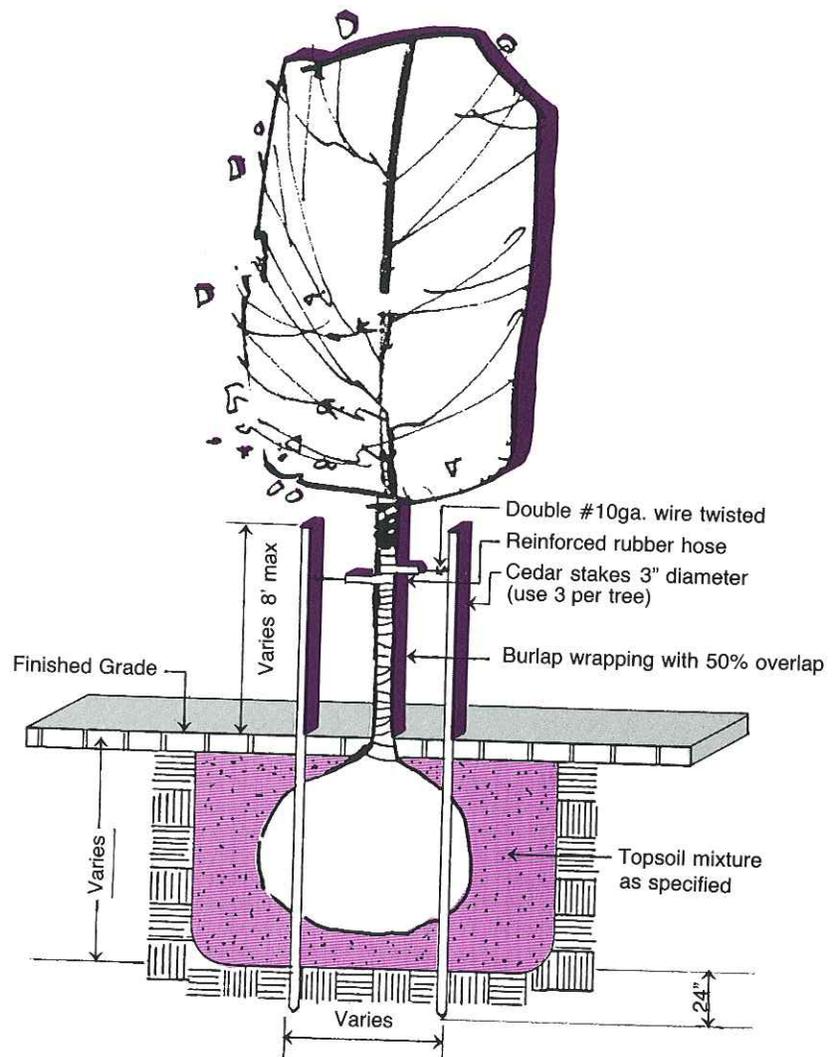
Policy 14.11

Dutchess County endorses the development and implementation of locally administered tree maintenance, planting, and protection policies and supports attention to tree planting, retention and maintenance practices in the site plan review process.

Trees provide visual diversity in an urban landscape. They give welcome shade as well as general relief in areas which are extensively paved. Trees soften and accent the sharp definition of buildings and provide visual continuity among land uses. Residential and commercial areas, where deliberate and coordinated tree planting has occurred, assume a special quality. They also provide a sense of integrity in subdivisions and other planned developments.

If trees are treated as an afterthought in site designs, they may not survive. Frequently, trees are planted too close to buildings in an attempt to meet

Tree Planting Cross Section



minimum municipal landscape requirements. Poorly chosen species or poorly sited trees can die from winter road salting practices, excess shade or solar exposure, temperature extremes, or frost damage. Site regrading often alters localized drainage to the extent that trees suffer from too little or too much water. Not infrequently, trees are planted too close together, causing needless expense and maintenance problems. Trees which are planted as a monoculture can be susceptible to diseases. These problems can be prevented if care is taken to avoid them during the site planning process.

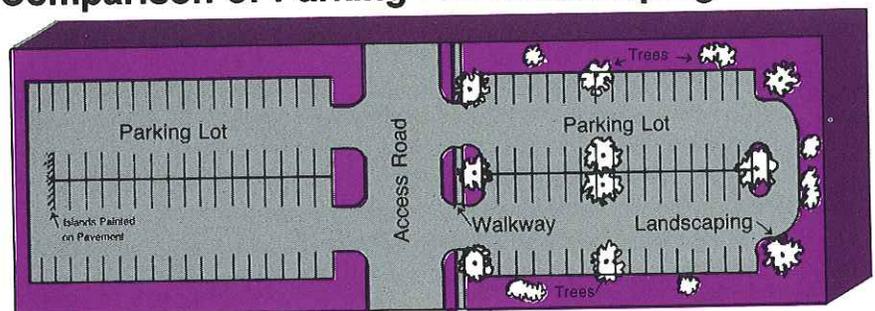
Policy 14.12

Dutchess County supports parking lot site plans that give adequate area to landscaping within designated parking lot areas, including the use of landscape islands to interrupt the expanse of parking surface and delineate parking areas within a parking lot.

By enforcing landscaping standards, communities help ensure that growth does not occur at the expense of an attractive environment. A minimum percentage of area devoted to landscaping is one way to ensure that sufficient attention is paid to landscaping in the site preparation process. Concrete islands, curbing and other non-vegetative areas should not be included in the percentage. Eight percent of the surface area of a parking lot should be considered as a minimum landscaped area.

Shopping centers and other uses which require extensive parking typically devote about five acres of parking for every acre of retail space. This amount demonstrates the enormous visual impact that parking lots can have on the environment. Parking lots should be more than utilitarian. Lots are as permanent and visually important as the buildings they serve. High quality landscaping helps integrate parking areas with the overall surroundings. Too often, local standards have focused on providing the minimum number of parking spaces and not on the quality of the site design. Quality of landscaping is difficult to remedy after development has occurred, because landscaping improvements must then compete with available parking area, and because project financing methods have already been established.

Comparison of Parking Lot Landscaping



Policy 14.13

Dutchess County encourages the use of vegetated buffer areas in site plans to create visual distinction and provide transition to neighboring land uses.

Buffer strips are increasingly used as required elements in site plan design. They provide a kind of spatial guarantee against land use conflicts, especially in areas of land use transition. They also filter dust, reduce wind velocities, dampen noise levels, moderate temperatures, control erosion, trap sediment, and slow runoff. Some communities enforce minimum width requirements, similar to setback requirements, which are common zoning provisions. Buffers should be shaped and sized according to the purpose they are to achieve. A relatively narrow berm may be ideal for separating a parking area from a highway, while a wider wooded area might be better to separate an office parking lot from nearby residential areas.

Policy 14.14

Dutchess County encourages the use of a wide variety of materials and themes in landscaping designs, including the use of existing trees, the protection of surface drainageways, the use of natural seasonal colors, the retention of rock ledges, and the use of design themes such as stone walls and ledges.

Often, crushed stone and juniper bushes are overused in site designs. Grass is a high maintenance item which may not be particularly useful for a play area or yard in many non-residential settings. Too often, fences are used as a cheap substitute for more careful landscaping. Care must be taken for a site to be attractive and meet the intent of local landscaping regulations. The use of existing features helps minimize environmental damage and disruption caused by development.

Policy 14.15

Dutchess County supports the use of vegetation to moderate the influence of wind, sun, precipitation and noise.

Trees and shrubs can reduce wind velocities up to 50 percent. Shaded areas provide necessary transition between the hot summer environment and an interior air-conditioned atmosphere. It is wise to locate buildings and create landscapes with wind buffering and shade in mind. Building entrance design can help reduce negative impacts from the wind and sun. Building design should also consider tree cover to reduce glare and excessive cooling costs during summer months.

Policy 14.16

Dutchess County supports site plan review of street and lot orientation so that passive solar architecture can be formally considered.

All structures can benefit from passive solar features. These can be added to structures as well as incorporated into initial designs. However, a good southerly exposure is essential for any solar option to work effectively. On small lots, solar access can be an issue. Some ordinances guarantee the right to a winter sun angle by regulating the distance and height of adjacent buildings.

Policy 14.17

Dutchess County supports provisions to guarantee safe sight distances along thoroughfares in the county.

As roadside development continues, there are increasing conflicts between through-traffic and the demand for local access to sites. Curb cuts that are made without regard to safe braking distances cause such conflicts and are particularly dangerous. The American Association of State Highway Officials (AASHO) has established safe sight distances based on speed limits. At 55 mph, 400 feet is considered the minimum safe distance, while 200 feet is considered safe in a 25 mph zone. Sight distances are also conditioned by building setbacks, landscaping and sign location. Local regulations should require optimum site distance provisions.

Policy 14.18

Dutchess County supports measures to reduce the quantity of curb cuts along arterial and collector roads in Dutchess County.

Shared driveways and limited access points along extended frontages help maintain the long-term capacity of a roadway. Interconnections between shopping centers and other major traffic generators, which enable users to move from site to site without traveling on major roads, help reduce traffic flow and turning movements on public thoroughfares. Feeder roads and marginal access roads can provide for transitional traffic that is between heavy through-traffic and more congested parking situations. They separate the driver who is searching for a local destination from one whose destination is more distant. They can also provide a kind of design unity among the properties that share access along them. These techniques must be used consistently to protect the long-term capacity of roadways.

Policy 14.19

Dutchess County supports site plans that provide for pedestrian, bicycle and bus access, in addition to automobile-oriented requirements.

Current design standards are weighted in favor of accommodating automobile traffic. In some more developed parts of Dutchess County, an automobile orientation is being imposed on an urban fabric that was designed for pedestrian and transit traffic. In other areas, site design is auto-dependent to the extent that even neighboring land uses cannot receive access without using an automobile. A balanced and integrated access system should be part of every site design.

Policy 14.20

Dutchess County supports the classification of streets and highways according to current and future function and the development of access standards keyed to these functions.

There is a hierarchy of roadways--arterials, collectors and local streets. There also must be a hierarchy in the planning of access points to roadside land users. There should be sufficient length on access roads, for example, to prevent the back up of traffic on main

thoroughfares. Local communities can guard against such traffic conflicts through the site plan review process.

Policy 14.21

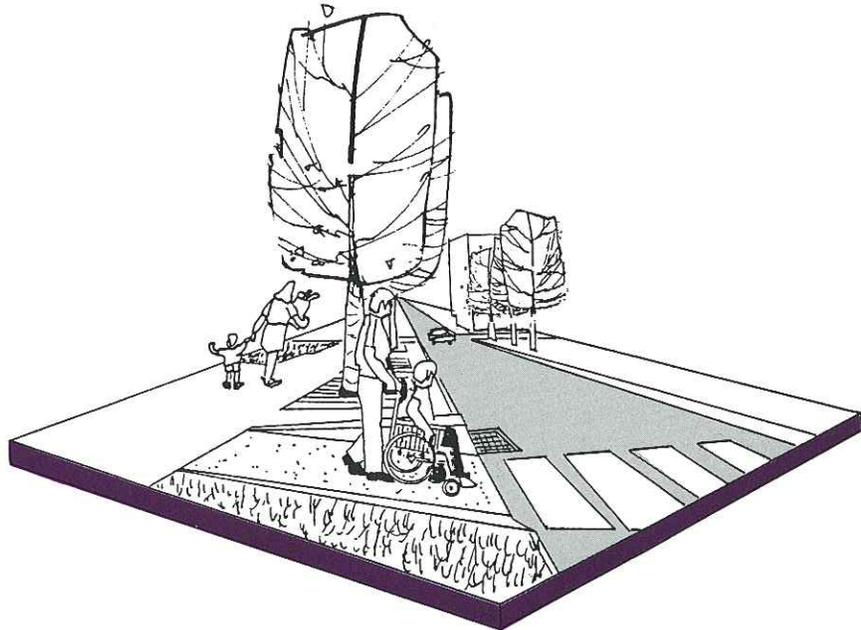
Dutchess County advocates the development of standards to control the location of drive-in facilities.

Banks, fast-food restaurants and other enterprises often rely on the use of drive-in facilities. These should be located so as to protect pedestrian convenience and access, to avoid a back up of traffic on public thoroughfares, to prevent potential nuisance from exhaust fumes, and to respect the prevailing scale, setback standards and architecture of neighboring development.

Policy 14.22

Dutchess County supports the accessibility of sites and buildings to all persons.

Handicapped Access Ramp



A variety of methods can be used to guarantee that new sites and buildings are fully accessible to all patrons. Ramps, doors widths and curb cuts are among the most commonly understood ways to gain sufficient accessibility. It is most cost-effective to consider accessibility as an integral part of the site design process. Accessibility should no longer be an afterthought in the site planning process. Yet, accessibility continues to be disregarded or given cursory attention in the current building inspection and site plan review process. Impetus from the Federal Rehabilitation Act of 1973, and new federal design guidelines prepared by the General Services

Administration (National Register, August, 1984, Vol.49, No. 153), point to increased respect for persons with special needs. The New York Uniform Building Code also requires that parking lots, walkways, ramps, entryways and interiors be designed to meet the needs of all people with special accessibility requirements.

Policy 14.23

Dutchess County supports local efforts to relate the content, size and setback of signs to the design capacity of adjacent roadways.

The density of letters or text on a sign limits one's capacity to comprehend and appreciate the message. A cluttered sign, one that addresses "what, where and how," as well as "who," is often confusing and unsightly. Furthermore, it cannot be read by many motorists at highway speeds. Confusion is compounded in strip commercial developments where signs can become the dominant roadside theme.

Policy 14.24

Dutchess County supports local requirements for signage plans as an integral part of the site plan review process.

Frequently, site plans do not address the location and design of signs. Signs affect the roadside landscape and traffic safety in profound ways. As with architecture, they have the capacity to unify or disrupt a setting. They are meant to reach out to the public; therefore, the public should determine the extent to which this reaching out is appropriate. Local review bodies can represent the public interest by incorporating design standards into the site plan review process.

Policy 14.25

Dutchess County supports road sign regulations that provide incentives for design excellence.

Signs need not be considered a blight on the landscape. By careful attention to design, size, location, density, and blend with surrounding landscapes, signs can provide interest in the environment and help unify commercial corridors. By providing incentives, such as extra size bonuses, local communities can make a positive contribution toward achieving attractive signs.

Policy 14.26

Dutchess County encourages the local development and approval of sign format standards that address the special needs of a community.

Historic areas, hamlets, or other special areas may prefer to have a unique sign format as a unifying design theme. Similarly, shopping centers benefit from consistent sign formats. Sign standards can vary within a community, as well as among communities. However, communities should not overlook the benefits of sign uniformity and consistency. Route marking, destination signs, regulatory signs, emergency notification, and other signs with essential information for the motorist should be simple and standardized.

Policy 14.27

Dutchess County supports strict limitations on off-premise signs.

Off-premise signs are often large, competing for attention among signs of more localized concern. Large, garish, brightly lit, message-laden signs are common ways to attract attention. These degrade an area's appearance. Small directional signs can be used to assist motorists in locating facilities and establishments that are not on major road maps. These show a respect for the immediate environment and the motorists who have a variety of ways to learn about activities and retail opportunities.

Policy 14.28

Dutchess County encourages the regulation of temporary signage.

Portable, interiorly lighted signs are commonly used to supplement more permanent advertising. Typically mounted on trailers, these rented signs are left in parking lots and along road rights-of-way to advertise special events, sales and merchandise. Such signs cannot harmonize with their surroundings. They emphasize the negative aspects of many commercial locations in Dutchess County, which feature their parking lots, rather than high quality landscaping and careful sign design.

Policy 14.29

Dutchess County promotes the use of single, free-standing signs to identify the location of commercial malls, office parks and other specialized activity centers. The use of individual business signs is promoted only at individual places of business.

Shopping centers and office or industrial parks lend themselves to common themes and uniform designs. Yet, many of these areas reflect a level of design chaos, wherein businesses vary color, size and shapes of their signs. Chain stores and franchises are particularly resistant to conformance with local design standards. Single, well-designed entrance signs, coupled with discreet, attractive signs for individual businesses, contribute to a tasteful and pleasing commercial environment. Entrance or principal mall signs which list individual businesses should be prohibited. Individuality in design is important and should be encouraged, but in a way that reflects harmony. This requires cooperation, adherence to common standards and, generally, professional design assistance.

Policy 14.30

Dutchess County encourages the location of parking lots behind buildings in urban areas, hamlets and village centers, wherever practicable.

The traditional settlement areas in Dutchess County have buildings with short front yard setbacks. As the demand for parking has increased, the streets, back areas and vacant lots have been adapted for this purpose. Whenever practicable, this pattern should be respected to provide both visual and functional harmony with the existing development.

Policy 14.31

Dutchess County encourages the adoption of standards that limit the extent of impervious surface area in site plans.

While well-documented standards for restaurants, theaters, retail spaces and other uses are used to ensure adequate parking for new proposed land uses, minimal attention has been paid to blending parking facilities into the environment, or to creating an environment that is, in itself, pleasing. By limiting the percentage of any site that may be covered by a building or parking lot, the community is expressing a value that the overall environmental quality need not be sacrificed in the process of change and development. Limiting the amount of raw land that can be covered by a development is one way to ensure that attention is being paid to natural site amenities.

Policy 14.32

Dutchess County supports parking site plans that are designed for ease of snowplowing and snow storage without sacrificing other county parking policies.

Site design for parking lots is complicated in areas that receive significant snowfall each year. Landscape islands, curbing and hammerheads can cause difficulty for snowplows. Care must be given to accommodate winter maintenance needs, while communities also seek to achieve high aesthetic standards. Attention to landscaping can have the secondary benefit of providing sufficient area for snow storage.

Policy 14.33

Dutchess County encourages the use of lighting in parking lots which is of a scale that can be appreciated by pedestrians and which does not interfere with adjacent property uses.

Tall light poles have been used to broadcast light over large expanses of asphalt and acres of undifferentiated surface area. This method of lighting reflects a functional attitude toward the provision of parking. The county plan encourages development of a parking landscape, and it endorses lighting that is at a human scale. Human scale means that the lighting can be appreciated by a pedestrian who experiences the light and fixture as part of the immediate environment. Lighting which is at a human scale and intended to complement the overall site design will add interest and quality to heavy use areas in Dutchess County. It will also reduce unwanted glare on neighboring properties.

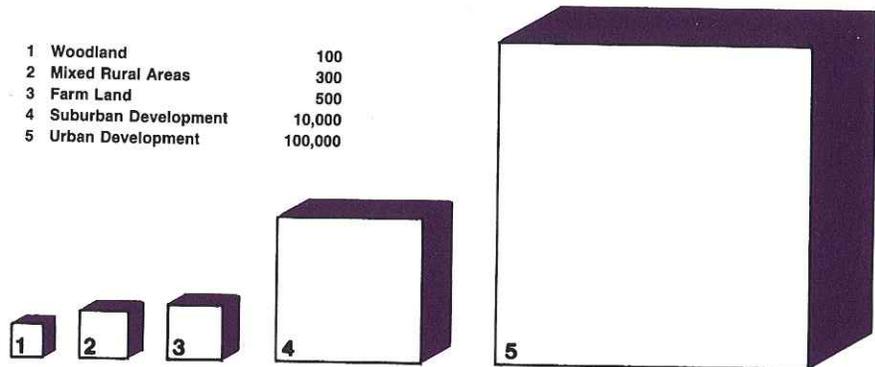
Policy 14.34

Dutchess County supports the implementation of specific erosion control measures in site plans as outlined in the "Dutchess County Erosion and Sedimentation Control Manual."

The Dutchess County Soil and Water Conservation District has recently completed a manual on controlling erosion and sedimentation. The District and the United States Department of Agriculture Soil Conservation Service both have the technical capacity to recommend ways to minimize the negative impact of erosion and sedimentation. Currently, their standards and expertise are often disregarded because local communities fail to consider erosion issues in the site planning process.

Soil erosion and sedimentation results in clogged storm drains, extra street cleaning, increased lot maintenance costs and loss of topsoil for revegetation. These practices can be eliminated by careful attention to inexpensive, well-tested preventive practices.

Sediment Volume - Tons Per Square Mile Per Year



Policy 14.35

Dutchess County supports the limitation of stormwater runoff from all commercial, high-density residential, industrial and office park areas so that natural runoff characteristics can be maintained.

Development results in dramatic increases in impervious surface areas. Parking lots and rooftops are designed to shed water rapidly. This increases the quantity and rate of runoff into receiving waters. The increase in runoff is a cumulative process, so that the natural drainage network becomes taxed as development progresses. Changes in the rate and quantity of runoff cause downstream areas to become more prone to flooding. Additionally, the quality of stormwater runoff can be a problem as rainfall washes oil, pet litter and other pollutants into the receiving waters. Filtration mechanisms and traps are often necessary to prevent the infiltration of unwanted lubricants and other compounds into ground or receiving waters. Standard engineering practices include designing sites with absorption pits, retention basins and swales to detain stormwater in a way that discharges the water at a rate and volume similar to what occurred before the development took place. This is an effective method of flood control and can reduce the "first flush" effect of contaminants after a rainfall. In some situations, stormwater retention also helps recharge aquifers.

Policy 14.36

Dutchess County recommends the consideration of local drainage fees for projects which do not provide sufficient on-site retention capacity.

In instances where development cannot provide sufficient on-site retention to meet the county objective of maintaining pre-development runoff rates and quantities, provisions can be made for private entities

to share in the expense of transporting water off the site. The public interest may be served by relaxing on-site retention requirements, provided there is a mechanism for ensuring that runoff is discharged into common drainage facilities in a coordinated manner. The administrative and engineering burden represents a public expense, unless it is supported as part of the cost to develop.

Policy 14.37

Dutchess County encourages the siting of residential buildings on lots that front on low-volume roads that are specifically designed for residential access.

Dutchess County has many county and state roads that are lined with residences, despite large and growing traffic volumes. Once such a pattern exists, it is expensive and often impossible to correct. Residential values are compromised because of noise and safety problems. Traffic is slowed because of excessive turning movements. Problems of residential strip development are similar to commercial strip development in that they often occur before the traffic implications are fully anticipated. The demand for strip residential development comes from those who want to avoid the expense of providing new roads.

Policy 14.38

Dutchess County supports subdivision road widths that are appropriate to the scale of the development.

Interior subdivision roads, ones not designed or planned to become collectors, are often constructed with excessive widths. Many of the county's most attractive neighborhoods are laid out along narrow roadways. This practice saves land and expense and helps create an intimate sense of space.

Policy 14.39

Dutchess County encourages a comprehensive and systematic examination of open space and recreational requirements as an integral part of all residential subdivision planning.

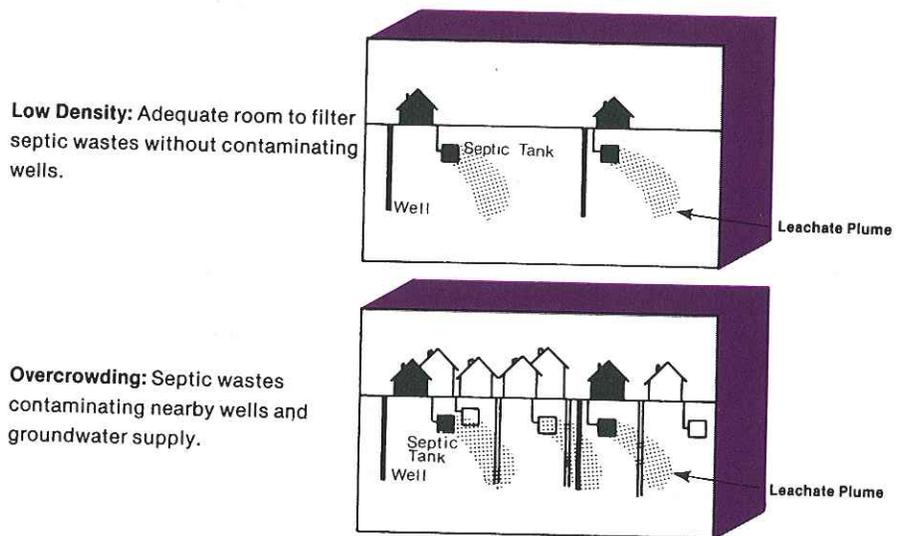
Communities try to enforce recreation standards as percentages of the total development. Ten percent is a common recreational requirement. For larger subdivisions, this 10 percent may be put into a playground and buffer areas. In small subdivisions, cash is often requested in lieu of land dedication. An open space system, in contrast, must consider the protection of existing wetlands and drainage networks, pedestrian access to playgrounds or passive recreational areas, the protection of primary site assets, such as views or mature trees, and many other factors. The systematic approach implies site designs which go beyond the typical lot by lot approach to site planning. It requires that site planners identify and assess a site's natural limitations and unique characteristics and prescribe a system of land uses that recognize site limitations and capitalize on the assets.

Policy 14.40

Dutchess County supports minimum lot sizes that are sufficient to ensure long-term protection of groundwater resources.

The Dutchess County Department of Planning has conducted studies designed to define the relationship between soil characteristics and their capacity to accommodate the type of residential development that requires on-lot sewerage disposal systems to handle sanitary waste and individual wells for water supply. Those studies have been reviewed by representatives of the county's engineering community and by the United States Geologic Survey. When acceptable density standards are implemented, they will provide communities with the ability to regulate the density of residential development in a manner which protects groundwater resource quality and does not exceed a site's natural carrying capacity.

Effects of Overcrowding on Groundwater Quality



Policy 14.41

Dutchess County encourages local governments to require the submission of relevant soil, floodplain, wetlands, slope and hydrogeological data with applications for subdivisions and site plan approval, zoning changes and variances. Soil types and boundaries should be shown on all site plans and subdivision plats.

All natural resources are affected by development activities. Local governments cannot make informed land use decisions unless they know what environmental impacts to expect, and how these impacts might be altered by changes in the proposed activities. Therefore, those seeking permission to alter land or water uses should be required to provide the basic information needed for an adequate local review.

The State Environmental Quality Review Act, and the regulations developed by the New York State Department of Environmental Conservation to implement that act, establish specific procedures for ensuring that the environmental impacts of development activities are

adequately considered in the decision making process. Failure to follow SEQRA procedures leaves local decisions vulnerable to legal challenges, and often results in unnecessary environmental damage. Therefore, communities should use SEQRA as one instrument in accomplishing natural resource management goals.

Policy 14.42

Dutchess County endorses high standards of architecture, site design and maintenance for public buildings and facilities owned by all levels of government.

The public sector should provide a good example for development. Too often, public buildings are cheaply constructed, inadequately landscaped, and poorly maintained. This is unfortunate because the buildings are frequently in prominent locations, housing services that will be required into the indefinite future. Public buildings and facilities are a measure of community pride. Just as older town halls and libraries typically reflect community pride, so should new structures and facilities. If good appearance is recognized as an important value at the outset of a public construction project, this value can often be achieved with little or no additional cost.

Policy 14.43

Dutchess County supports efforts to prevent excessive noise in residential areas and other areas where quiet is important to the vicinity.

Noise from public and internal road systems, truck engines, industrial operations and cooling systems should be considered in the site planning process. Sites should be sufficiently sized to ameliorate excessive noise levels at boundaries. Noise levels can be predicted and measured. Acceptable decibel levels should be researched and established as conditions in situations where the potential for conflict exists.

Policy 14.44

Dutchess County promotes residential site planning that supports personal interaction.

Community living is possible in different landscapes and with varying densities and land use patterns. The following characteristics foster community living even in low density areas:

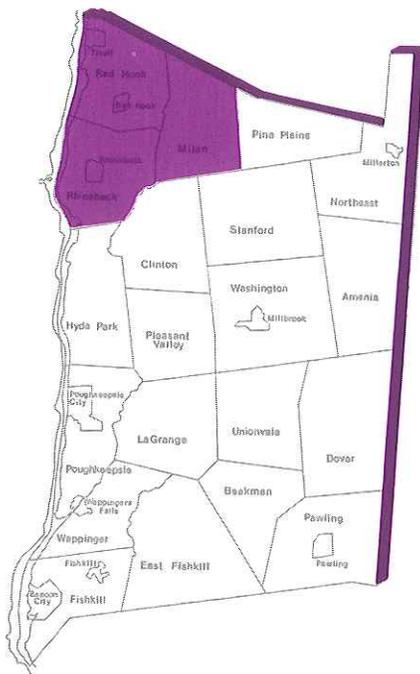
- residential structures that front on deliberately planned and scaled residential streets;
- front setbacks that are not excessive;
- sidewalks;
- community facilities such as pathways, swimming facilities and tennis courts;
- residential design that separates parked automobiles from outdoor activity areas;
- courtyards or buildings that frame activity areas;
- shared values implicit in high quality architecture, access to good views, clean air, and so forth; and,

- owner associations, common open space ownership, or other shared responsibilities.

Suburban living often makes community living subservient to automobile access. This is particularly difficult for families with children. Many advantages of community living can be designed into developments with as few as 15 or 20 units.

If this plan is to be effective, it must have the support of the individual communities that have the authority and responsibilities for land use regulations and decision making. The information and recommendations contained herein are intended to show how plan policies can be translated into each regulation and action. They are illustrative of the plan policies and not all inclusive or comprehensive.

Northwest Sector



Background

Northwestern Dutchess consists of riverside estates, orchards, quiet rural roads, and attractive villages. This sector has a regional hospital in the village of Rhinebeck, tourism-related businesses, Bard College, the Unification Seminary, active farms and, some light manufacturing. Its growth has been primarily due to its role as a bedroom community with many of its residents commuting to the south and west. The rate of growth in the northwest sector has been rapid. Between 1960 and 1980, the village of Rhinebeck grew by 20 percent, the town of Rhinebeck by 48 percent, the town of Red Hook by 36 percent and Milan by 66 percent.

Development pressure has continued in the 1980s. Of all the communities in this sector, Rhinebeck's growth is most noticeable. AMTRAK service to New York City, combined with the special appeal of the village historic district and the Beekman Arms, has stimulated the real estate market in Rhinebeck.

The Taconic State Parkway provides convenient access to much of the northwest sector. All communities in this sector are influenced by the close commuting range to Kingston, where IBM has expanded. In addition, many people endure a 20-30 minute commute to the Poughkeepsie area in order to enjoy the more rural environment of northern Dutchess County. In recent years, some of the growth in northern Dutchess has resulted from an influx of southern Dutchess residents who have become dissatisfied with the extent and quality of development farther south.

People who migrate north in search of the rural way are particularly aware of the area's beauty and peaceful atmosphere. This environment cannot be taken for granted. Local communities must promote growth patterns which permit change without sacrificing the environmental assets of northwestern Dutchess County.

Planned Response

Many issues face northwestern Dutchess County. Public access to the Hudson River should be improved. The negative impact of a large power generating facility must be avoided. Long-term planning for solid waste and septage disposal is necessary. Water supply issues, particularly those in the Red Hook and Tivoli areas, must be resolved.

The tidal wetlands of the Tivoli Bays are a rare resource which demand protective measures. Agricultural land, particularly in Red Hook, is threatened. The village is surrounded by some of the best farmland in Dutchess County. This land is also highly developable and undergoing heavy development pressures. Mandatory cluster development and purchase of development rights are two methods to encourage retention of good farmland without curtailing growth. All local land use ordinances must be reviewed and when necessary, modified in ways that protect the rural environment. Incentives to create wide roadside buffers are useful for the scenic roads, including Route 9 north of Rhinebeck. Scenic roads should be designated so that local ordinances can be tailored to provide for special protection measures.

Community centers should be preserved and strengthened. Milan can consider the potential for creating a community center in the vicinity of the town hall. The village of Red Hook and Tivoli should continue to promote community improvements. All communities should pay attention to details such as the quality of signage.

The village of Red Hook is encouraged to develop as a center. The village should investigate the need for a centralized sewer system to accommodate present and future development.

Recently, Bulls Head Road was improved by creating an overpass at the Taconic Parkway. Efforts should be made to eliminate further conflict points along the Taconic, either by road closings or additional overpasses.

Economic development is an important theme for the northwest sector. The local economy has two modestly sized industries. Communities attract outsiders, but offer little to retain the local youth. Farming, resource-based industries, tourism, second home development and small service businesses offer potential for creating future jobs.

Northeast Sector



limited. The artificial governmental restraint on production, designed for milk surplus areas, has limited the capacity of local farmers to make a reasonable return on their investment.

The farm economy is further threatened by the high value of land and the subsequent inability of most people to afford the purchase of farms for agricultural production. Consequently, families without interested children must find buyers who want to hold the land for an investment, for horse farms, for leisure settings, or for development.

Background

Northeastern Dutchess County is an attractive mosaic of farms, woodlots, rugged highland areas and historic settlements. The landscape is expressive, as evidenced in the conservation cropping methods which accentuate landforms and appeal to the eye with alternating hues of brown, amber and green.

Agriculture is still an economic mainstay in the northeast sector. Dairy farms, the predominant type of farming, are currently threatened by governmental programs which discourage production. The northeast sector farmers sell much of their milk in the Connecticut marketplace, where supplies are

The northeast sector is least influenced by Poughkeepsie. This is reflected in newspaper subscriptions, hospital use, and shopping patterns. The local economy is comparatively isolated. In addition to farming, there are small manufacturing sites, sand and gravel operations, and scattered tourism facilities.

In 1981, the Penn Central shut down rail service to Millerton. At that time, the train hauled approximately 400 freight cars annually on the Harlem Line. The railroad tracks have been torn up north of Dover. At present, the future of the rail right-of-way is undetermined. With careful planning, this corridor holds the po-

tential for providing economic opportunity in the future.

Planned Response

The northeast sector is a prime area for deliberate economic planning. While it doesn't receive the prevailing economic attention of southwestern Dutchess County, its favorable access from Route 22 and its superior natural environment will stimulate interest in future years.

It is important that residents and local officials do not succumb to an uncritical "it's our turn" attitude. The desired type and extent of future growth should be expressed in local policies and regulations. The northeastern portion of the county can still prohibit the willy nilly growth patterns that often plague areas which have grown rapidly.

Many preventive measures are necessary. For example, local regulatory practices must curtail both residential and commercial strip development. Good planning along Route 22 is essential. Increased traffic will create more opportunities for accidents. It will also stimulate the demand for a reckless roadside land use pattern that could reduce the route to an eastern version of Route 9, with its constant interruptions, its increasingly

commercial personality, and the trend toward domination over the rural landscape. Good site plan regulations are necessary to maintain a high aesthetic standard in the four municipalities. New performance standards are needed to protect wetlands, aquifers, steep slopes, views and prime agricultural lands. Local regulations should include standards to ensure high quality site planning, because this quality will encourage the long-term economic growth that is desired by residents in the Harlem Valley. Reclamation of sand and gravel mines are also important in protecting the landscape. Land use decision making could be improved by increased use of professionals to prepare plans and review projects.

There is a need for creativity. Emerging revitalization efforts in Millerton, Amenia, and Pine Plains should be expanded. Efforts to limit strip development will also serve to protect the viability of traditional hamlets and villages. New measures are needed to counter the threatened loss of agricultural lands. A promising approach involves a new kind of farm planning, one which sees that agriculture and development coexist. Development can cluster on the hillsides and in the woodlots, while fer-

tile fields are protected through easements and leaseback arrangements. Combining development with protection is a promising concept that is just beginning to be attempted in Dutchess County. The Dutchess Land Conservancy has been established to assist landowners and communities in implementing agricultural land protection measures.

Public investment must be considered. The long-term sewer and parking needs of Millerton should be considered as the village examines its future. Public purchase of the abandoned rail corridor should be considered as a stimulant to the local economy. The capacity of tourism to strengthen the local economy must be explored. The public sector can also assist in supplying affordable housing both through investment in housing projects and through enlightened regulatory practices. Finally, areawide solid waste and septage disposal solutions are needed.

It would be beneficial for local officials in the northeast sector to explore intermunicipal problems and to identify commonly held local values in some organized fashion. They will benefit from mutual understanding and support. For example, if Northeast wants to encourage

tourism, it would benefit from successful attempts by Amenia and Dover to control land use along the Route 22 corridor. Localities can benefit from a coordinated approach to attracting tourists. To be effective, tourism promotion must be based upon protection of the landscape. There is also potential for sharing of municipal services among municipalities.

Because the northeast sector has a quiet economy, the temptation is to take whatever comes along. If long-term economic growth is a prime objective, an entirely opposite approach will be necessary. The local governments must move deliberately, exercising a great deal of discretion. The delicately balanced and beautiful environment can provide the backdrop for a stronger local economy. Accordingly, agriculture, which is a productive way of maintaining open space, vistas, clean air and other values, should be central to any community or valleywide land use planning program. Maintaining the historical integrity of the existing hamlets will provide a backdrop for tourist-related activity while continuing to provide a high quality environment in which to live. The economy and population base of the northeast sector can diversify and grow with-

out spoiling the landscape or compromising the environment. Clearly stated local goals and well-conceived regulatory practices are a prerequisite to achieving an optimum balance between environmental and economic concerns.

Southeast Sector



Background

The local economy in the southeast sector is diversified. It relies upon sand and gravel operations, small industries, state institutions, a private school and foundation, small logging operations, and agriculture. Farming has declined in importance, but there is growing interest in horse farms and there are some remaining dairy and vegetable operations.

Increasingly, the southeast sector is becoming a bedroom community. This is because of its convenient location with respect to Danbury, IBM-East Fishkill, and points south. The town of Pawling population grew by 40 percent between 1960 and 1980. In 1985, more than 600 building units were in the approval process. Land values are increasing rapidly, corresponding to the impressive demand for land.

The New York Department of Transportation is responding to the increased activity in the southeast sector by planning to upgrade Route 22 to four lanes from I-84 to Route 55. This change will make the southeast sector even more attractive for development.

Development occurs primarily along the Route 22 axis which traverses a narrow valley floor. The village of Pawling, Wingdale, and Dover Plains are all in close proximity to the state highway. However, new residential developments are beginning to extend out from the Route 22 corridor, in an attempt to capture rural site amenities. The Quaker Hill area east of the town of Pawling is well known for its estates which take advantage of beautiful views, mature shade trees, gently rolling land, and large fields that are cut out from forested land.

The southeast sector includes many rugged and beautiful natural areas. A section of the Appalachian Trail traverses some of these areas. This sector of rugged beauty also includes several lakes which offer opportunities for recreational uses.

The southeast sector is undergoing dramatic changes. In the next several years, the character of local communities will become more suburban. There will be increasing pressures on water resources, the road network, recreational resources and other facilities. Development in Beekman, Unionvale, and East Fishkill will result in a closer tie to the land use pattern of southwestern Dutchess County.

Planned Response

It is important for the southeast sector to maintain its distinctiveness. Most residents still place a high value on maintaining a slower paced, rural environment. This will not be possible without deliberate and effective planning.

The rugged terrain in this sector is an important land use determinant. It tends to guide development into the narrow valley corridor adjacent to Route 22. This means that local regulations must

pay specific attention to problems associated with strip development. Performance standards must be developed to help maintain views, protect and eliminate the opportunity for unattractive and poorly sited roadside development. Service roads are needed to protect the carrying capacity of state and county roads.

There are strong pressures to develop upland areas for single-family residential sites. Erosion control, minimum lot size standards based on soils conditions and slopes, water resource protection measures, and strict road grading and surfacing requirements are needed to prevent environmental degradation. Environmental corridors must also be recognized and protected to provide buffers between development, to provide wildlife habitats, and to help protect water and air quality. Communities must guard against premature development. Subdivisions in remote areas can create considerable public expense if existing roads need to be upgraded and services extended.

Some of the sector's sand and gravel operations are located in highly visible areas. State and local regulations should be fully enforced to ensure high quality restoration and screening. Restoration plans should consider the potential for

productive long-term use of the property including tree farming, agriculture, recreation and residential uses.

There is a wide variety in the quality of housing types within the southeast sector. Dover has a high percentage of mobile homes, which indicates that there is a strong demand for affordable housing. Efforts should be made to ensure that all housing be sited properly in well-planned subdivisions. Some areas could benefit from specific efforts to upgrade the appearance of properties through landscaping and improved signage. New developments should be required to meet the highest standards of site planning. This is as important for modestly priced housing as it is for the more expensive estate homes. Pressures for higher density development will continue to occur along the Route 22 corridor and will be a vital component of the overall community image. Higher density housing should be related to existing community centers to take advantage of existing services and provide an opportunity to develop or upgrade community facilities and utilities.

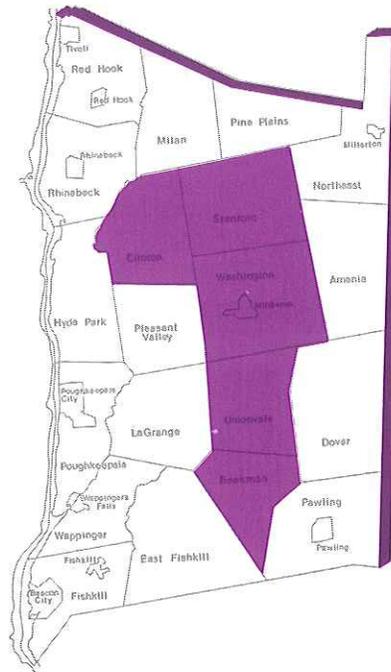
Waste disposal is an issue throughout the Harlem Valley. There have been discussions about locating a resource

recovery facility in the vicinity of the Harlem Valley Psychiatric Center. This may be a preferred alternative to the Poughkeepsie facility due to shorter hauling distances. Safe septage disposal issues also must be resolved.

The town of Pawling has responded to the dramatic growth pressure by using professional planning and engineering consulting services. This allows for more careful, informed, and efficient decision making. Planning assistance has helped to improve the quality of development in Pawling so that the town should continue to benefit from a strong tax base.

Anticipated change in the southeast sector promises to be extensive in the foreseeable future. As the local economy grows, it will be important for services and community facilities to expand to meet increased demand. The quality of development determines the long-term benefit that expected growth will have on development in Pawling and Dover. High quality land use regulation and zoning ordinance administration are a prerequisite to assuring consistently high quality development.

Mid-County Sector



Background

The rolling landscape in central Dutchess is picturesque. Residential development is typically surrounded by open fields and forests. Higher elevations offer sites with breathtaking views of surrounding countryside. Accommodating residential growth while maintaining rural qualities like these views will be the major challenge to the mid-county sector.

The mid-county area is accessible to the rest of Dutchess County and the New York metropolitan area via the Taconic Parkway. Real estate ads routinely advertise proximity to the Taconic when touting new developments.

The greatest development pressure is in the Town of Beekman, but every community is experiencing growth pressures. Recent development is apparent even along the most rural roads.

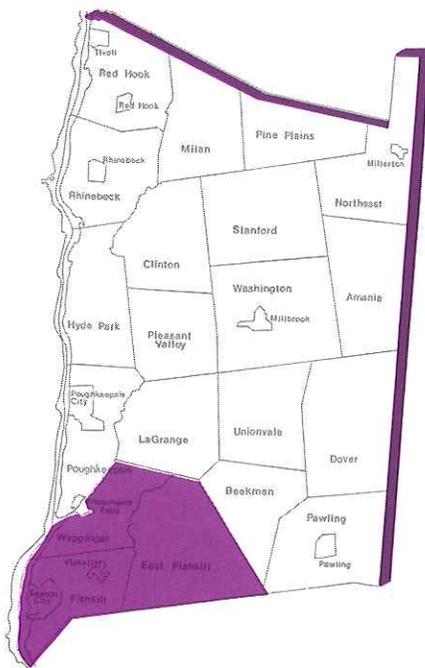
The census shows that Millbrook's population declined during the 1970s, due mostly to the closing of Bennett College. The campus is currently being converted into a condominium project. A second condominium project is nearing completion and other developments are being planned.

Millbrook is a very attractive, well-developed village center providing a variety of retail and service functions. Additional commercial centers are likely to emerge in Poughquag, Verbank, Stanfordville, Bangal, and Clinton Corners, primarily to service a local marketplace.

Most residents in this sector prefer rural living. Many areas are blessed with a rather stable land use pattern. Horse farms are helping to guarantee good views, maintenance of fields and peaceful surroundings. But other areas are open to profound change, especially in the southern locations. The Roosevelt farm, recently sold for development in Poughquag, symbolizes this process of change.

elicit cooperation and to coordinate activity. Present zoning allows the overdevelopment of Route 9. If every parcel were developed to allowable limits on South Road, its capacity would be severely exceeded. A system to relate building and road capacity based on a "fair share" formula, and the establishment of a transfer of development rights program would help protect the capacity of South Road while encouraging an improved quality of development.

Southwest Sector



Background

The southwest sector is the rapid growth area of Dutchess County. In 1980, Wappinger, Wappingers Falls,

Fishkill, East Fishkill and Beacon had a combined population of 79,020. This is projected to increase to 108,000 by 2000.

There are several municipal sewer systems in southwestern Dutchess County. The village of Fishkill has a small system which also serves a limited portion of the town. Wappingers Falls is participating with Poughkeepsie in the construction of the "Tri-Municipal" System. The town of Wappinger elected not to participate in this effort, even though it continues to experience growth in close proximity to the service area. Beacon's system has considerable excess capacity but there are prospects for an enlarged service district.

Southwest Dutchess County also has a multiplicity of small community water systems. This has resulted in some sub-standard construction and ongoing maintenance problems.

The prevailing retail area in southwestern Dutchess is along Route 9, especially in Wappingers Falls, where it is a continuation of the shopping areas to the north. The local retail importance of Beacon and Wappingers Falls has been overshadowed by the development of shopping centers and highway businesses, particularly

those in the Route 9 corridor. A shopping center on the southwest quadrant of I-84 and Route 9 has, however, struggled to maintain viability in the commercial marketplace.

Strip development occurs in emerging as well as advanced stages. In addition to Route 9, Routes 52 and 82 are susceptible to this process. These are principal commutation routes which provide a dominant image for the municipalities.

Because Beacon is bordered by the river and Mt. Beacon, its land resources are limited and has had difficulty in sustaining its role as a commercial and employment center. Residential areas in the southwest sector are situated more with respect to the road network than to proximity to central areas. The entire sector is in close commuting range to IBM - East Fishkill. Increasingly, southwestern Dutchess supplies housing for people who commute to work south of Dutchess County.

Planned Response

Coordinated water and sewer service development is needed in the Fishkill and Sprout Creek basins. Southwestern Dutchess County's ability to sustain healthy growth while providing a quality environment will be

APPENDIX

severely limited without development of centralized utilities.

In spite of rapid growth, southwestern Dutchess includes many valuable natural and scenic areas. County and local regulations should guarantee reasonable protection of floodplains, wetlands, aquifers, steep slopes and scenic views. Highland areas in the south of the sector provide a scenic backdrop to developed residential areas. These areas should continue to be effectively protected from inappropriate development.

Central business districts existing within Beacon, Wappinger Falls, Hopewell Junction, and Fishkill need to be revitalized. Beacon and Wappingers Falls have begun important efforts toward rehabilitation. Hopewell Junction is another area that could benefit from a vigorous and planned improvement program. For these efforts to be successful, a core of interested people must organize themselves to achieve definite goals.

Hopewell Junction can benefit from the planned road improvements to the Maybrook Corridor. A redevelopment planning process will enable local interest to take maximum advantage of the new highway. With coordinated development,

Hopewell Junction should become more important, both visually and functionally.

The Taconic is a busy commuting route. At-grade crossings should be eliminated to avoid traffic conflicts. The village of Fishkill continues to have problems with traffic congestion. Elimination of truck traffic may provide sufficient relief.

Strip development must be strictly controlled in southwestern Dutchess. Roadside development should be subjected to strict performance standards that help to protect the restful qualities and maintain the vegetative character that still prevails in much of the sector.

Well planned subdivisions do not happen automatically. Local communities should make sure that their regulations establish high developmental standards. Cluster subdivisions are an attractive option, provided that standards are set to assure quality.

By the year 2000, the southwest sector will be substantially developed. It can be a relatively undifferentiated area of suburban houses. This has been the recent trend. It also can take advantage of its assets - the beautiful views, the open spaces, the hamlets,

villages and city. The county plan calls for countering the trend. Local commitment to quality, improved regulations, and effective intermunicipal relationships are a prerequisite to achieving the best land use pattern for southwestern Dutchess County.

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CORRECTIONS

- Page 134 — The map of county parks illustrating Policy 11.4 should also include Fallkill Park located at the south end of the town of Hyde Park. Although it is still a county park, Fallkill has been closed to the public for several years due to water quality problems in the lake and Fallkill Creek.
- Page 141 — The second bullet of Policy 11.21 should read . . . “land uses that have an open space character, such as *hunt clubs* and nurseries.”
- Page 157 — The last sentence of the rationale following Policy 13.5 should read . . . “Siting such facilities near these *load* centers may also reduce energy loss . . .”

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