MONROE

MONROE COUNTY AGRICULTURAL AND FARMLAND PROTECTION PLAN

Prepared By

Monroe County
Agricultural and Farmland Protection Board

March, 1999

Jack Doyle
County Executive

Dennis A. Pelletier
Chairman, Monroe County
Agricultural and Farmland
Protection Board

COUNTY

By Legislators Reilich, Zinck, Logel, Boyce, Dobson, S. Hanna, and Murray

Intro. No. 96

RESOLUTION NO. 70 OF 1999

CALLING FOR THE ADOPTION OF AN AGRICULTURAL AND FARMLAND PROTECTION PLAN FOR MONROE COUNTY

BE IT RESOLVED BY THE LEGISLATURE OF THE COUNTY OF MONROE, as follows:

WHEREAS, the New York State Department of Agriculture and Markets has made available to the counties of the State, funds for the development of Agricultural Plans intended to identify significant agricultural resources and proposed measures to protect and preserve such resources; and

WHEREAS, the Monroe County Agricultural and Farmland Protection Board held public information meetings on the draft Farmland Protection Plan on December 10, 1998 and solicited comments and has incorporated those comments in the proposed Plan; and

WHEREAS, the Monroe County Farmland Protection Board held a public hearing on the Agricultural and Farmland Protection Plan; and

WHEREAS, the Monroe County Agricultural and Farmland Protection Board has incorporated comments from the public information meetings and the public hearings into the final Agricultural and Farmland Protection Plan; and

WHEREAS, approval of Monroe County's Agricultural and Farmland Protection Plan by the County Legislature, and subsequent approval by the Commissioner of Agriculture and Markets, shall make Monroe County's Agricultural and Farmland Protection Board eligible for state assistance payments for the implementation of approved agricultural protection plans pursuant to Article 25AAA of the New York State Agricultural and Markets Law;

NOW, THEREFORE, BE IT RESOLVED BY THE LEGISLATURE OF THE COUNTY OF MONROE, as follows:

Section 1. That pursuant to Article 25AAA - Agricultural and Farmland Protection Programs of the New York State Agricultural and Markets Law, the County Legislature hereby approves the proposed Agricultural and Farmland Protection Plan for the County of Monroe dated March 9, 1999, and shall submit the approved Plan to the Commissioner of the New York State Department of Agriculture and Markets for final review and approval.

Section 2. This resolution shall take effect in accordance with Section C2-7 of the Monroe County Charter.

Planning and Economic Development Committee; February 22, 1999 - CV: 6-0
File No. 99-0090

ADOPTION: Date: March 9, 1999 Vote: 27-0

ACTION BY THE COUNTY EXECUTIVE

APPROVED: ✓ VETOED: _____

SIGNATURE: _____ DATE: 3/16/99

EFFECTIVE DATE OF RESOLUTION: 3/16/99

STATE OF NEW YORK
DEPARTMENT OF AGRICULTURE AND MARKETS
1 WINNERS CIRCLE
ALBANY, NEW YORK 12235

OFFICE OF THE COMMISSIONER
518 457-4188

April 28, 1999

Jack Doyle
Monroe County Executive
410 County Office Building
Rochester, New York 14614

Dear Mr. Doyle:

I have concluded my review of the Monroe County Agricultural and Farmland Protection Plan which was adopted by the County Legislative Body on March 16, 1999 and submitted to the Department on April 2, 1999. Pursuant to Section 324 of the Agriculture and Markets Law, and consistent with the legislative intent of Article 25-AAA of the Law to promote local initiatives for farmland protection, I approve the plan.

I wish to commend the County Legislative Body and the Agricultural and Farmland Protection Board for their initiatives and efforts in developing the plan. We look forward to working cooperatively with you in furthering the protection and development of farm operations and resources in Monroe County.

Sincerely,

Nathan L. Rudgers
Acting Commissioner

NLR/rcs

cc: Dennis A. Pelletier, Chairman, Monroe County Legislature and AFPB
Dr. Robert King, Monroe County Cooperative Extension
Rocco DiGiovanni, Director, Monroe County Dept. of Planing & Development

MONROE COUNTY
AGRICULTURAL AND FARMLAND PROTECTION PLAN

Prepared By
Monroe County Agricultural and Farmland Protection Board

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Monroe County Agricultural and Farmland Protection Board

Monroe County Legislature:
Honorable. Dennis A. Pelletier, Chairman

Agribusiness:
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Robert Colby, Colby Farms

Mark Greene, Hopkins Farm

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Monroe County Supervisors Association Liaison:
Honorable Jeanne A. Loberg, Supervisor, Town of Mendon

Monroe County Agricultural and Farmland Protection Board
Vision Statement, Adopted September 22, 1994

Strong economically viable Monroe County farm business will encourage adequate land to stay in agriculture. Farmland retention programs in Monroe County should be encouraged; however, landowner equity must be maintained in any farmland retention program. Agriculture and farmland retention activities should be approached in an apolitical context.

The preparation of this plan was funded in part by an Agricultural and Farmland Protection Planning grant awarded by the Department of Agriculture and Markets.

This project was funded in part by the Rural New York Grant Program administered by the New York Planning Federation with support of the J. M. Kaplan Fund, the Joyce Mertz-Gilmore Foundation, and the Botwinick Wolfensohn Foundation.

The preparation of this plan was also funded in part by an appropriation from the Monroe County Legislature and through in-kind staff support from the Monroe County Department of Planning and Development and Cornell Cooperative Extension-Monroe County

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Executive Summary

Monroe County is an urbanizing County located on the south shore of Lake Ontario in upstate New York with a population of 717,780 people. It is the most populated County in the nine County Genesee/Finger Lakes region.

Kodak and Xerox, two Fortune 500 companies, have significant holdings and operations in Monroe County, and Kodak's headquarters is located in the City of Rochester, the County seat. Bausch & Lomb, known world wide for high quality optical equipment, is also headquartered in Rochester. Agriculture is also a major business in Monroe County which may be surprising to some in a County that has such a prestigious manufacturing base.

However, agriculture in Monroe County is on the decline; total farm acreage, harvested cropland, number of farms, and persons whose principal occupation is farming have declined. And the decline is due to a number of factors which include: expanding nonfarm development which leads to pressure for farmland conversion; nonfarm neighbor complaints which place pressure on farmers to alter or cease operations, possibly leading to premature retirement of farmland; inability to produce high value products to remain profitable; increased job opportunities available in the nearby urban community; governmental regulations and taxes; and lack of awareness and appreciation of the economic and environmental value of agriculture.

The issues facing farming in Monroe County aren't unique; farming statewide (and nationally) faces many of these same issues. In recognition of the importance of farming to the State's economy and environment, the State provided for the development of county farmland protection plans in 1992 by enacting Article 25AAA of the Agriculture and Markets Law entitled Agricultural and Farmland Protection Programs. The focus of Article 25AAA is to preserve farmland. The law provides State funding under a matching formula for preparing plans.

The Monroe County Agricultural and Farmland Protection Board, a requirement under State law because the County has agricultural districts, recognizes the key role that agriculture plays daily in the general health and well-being of Monroe County residents. And once our excellent farmland is converted to nonfarm uses, it is lost forever to agricultural production.

In recognition of the importance of local agriculture, in 1995 the Agricultural and Farmland Protection Board applied for and received a $50,000 State grant to prepare a plan. The Monroe County Legislature authorized $25,000 as the County's match, with the balance of the match coming from a $3,000 grant from the New York Planning Federation and in-kind services provided by the Monroe County Department of Planning and Development ($12,000) and Cornell Cooperative Extension-Monroe County ($10,000).

The plan's goals are to preserve farmland and promote the agriculture industry. To provide a background to help achieve the plan's goals, an inventory was completed on past agricultural planning efforts in the County; trends and characteristics of the local agriculture industry;

municipal, State, and Federal regulations related to agricultural land use; financial assistance and economic development programs and their relevance to the needs of agriculture; and cost of community services studies which identify property tax revenues generated by agricultural, residential, and nonresidential development versus the costs municipalities incur to provide public services to these land uses. Also, a survey was conducted of farmland owners to determine their perceptions and attitudes regarding farmland protection policy.

Next, using the Land Evaluation and Site Assessment (LESA) system coupled with economic theory as a template, factors associated with agricultural productivity, development pressure, and retention of land in agriculture were described and analyzed. Data for this analysis were provided by the Monroe County Real Property Tax Services and digital maps were provided by the Monroe County Department of Planning and Development.

Proximity analysis was somewhat inconclusive; however, agricultural lands within one mile of a shopping center appeared to be the most likely to be developed (as measured by property class code conversions). Correlation and regression analysis identified field crop land, agricultural vacant land, and truck crop (vegetable) land as being associated with development. Population and total vacant land were also positively associated with development.

Next, an analysis of soil maps of seven towns suggests that a significant portion (15 percent) of Class I soils, soils that have few limiting factors, are being converted to development. In addition, a significant portion (35 percent) of highly valued Class II soils are also being converted to development. Both the Class I and Class II soils are needed for growing high value agricultural crops and are irreplaceable.

Finally, a conceptual land use conversion model was developed which suggests that agricultural lands are first converted to a vacant land before being developed. Consequently, tracking vacant lands may also be important in identifying agricultural lands under conversion pressure.

Upon completion of these tasks, conclusions were developed which formed the basis for recommendations. The conclusions and recommendations are detailed in chapter 9 of the plan, and are based on the inventory and analysis of data presented in chapters 2 through 8. The following is a summary of the recommendations.

Achieving the plan's goals of farmland preservation and promotion of the agriculture industry will require the implementation of the recommendations, and it will also require commitment, compromise, and partnership not only on the part of the governmental units and organizations identified in the plan as having an implementation role but also on the part of the entire community.

I. Approve the Plan

The following characteristics document the importance of Monroe County's agriculture industry:

- Ranks in the top 50 counties in the nation in three categories: 38th in pounds of apples (39,909,959 lbs.); 46th in acres in apples (2,197 acres); and 49th in pounds of cherries (1,017,540 lbs.)
- Ranks in the top 100 counties in the nation in eight other categories: 60th in value of agricultural products sold directly to individuals for human consumption ($1,050,000); 61st in acres in cherries (161 acres); 64th in sweet corn acres harvested for sale (3,219 acres); 68th in hundred weight of dry edible beans harvested (85,378 cwt); 75th in value of vegetables, sweet corn, and melons sold ($11,177,000); 77th in acres of cucumbers and pickles harvested for sale (451 acres); 86th in vegetable acres harvested for sale (8,466 acres); and 90th in snap bean acres harvested for sale (654 acres).

- Annual market value of production agriculture products sold of approximately $41.5 million, generating an annual economic impact of close to $128 million. In terms of economic multiplier (three to seven times), agriculture is the largest industry in the County because it results in the largest value added component.

- Almost 3,000 persons are directly employed full-time in agriculture (4,000 with part-time and seasonal employees). But because the industry is dispersed, unlike other types of industry, it lacks recognition as a major employer.

- Agriculture dollars tend to remain in the community and support local businesses in the form of locally purchased goods and services as either inputs (feed, fertilizer, equipment) to the production (farming) sector or as output sector businesses such as food processors and retail outlets.

- 111,654 acres classified in agriculture which is 26 percent of the County's total area.

- Agricultural land provides scenic, pastoral, and historic landscapes; wildlife habitats; and environmental benefits through such measures as soil maintenance and water quality protection.

- Agriculture provides a varied, fresh market food supply convenient to the local population.

If the benefits of agriculture are to be retained and enhanced, then the Monroe County Legislature should consider approving the Monroe County Agricultural and Farmland Protection Plan as a blueprint to be used in retaining farmland and building an

economically strong, local agriculture industry for future generations. The Legislature should also consider making this plan an element of the Monroe County Comprehensive Development Plan.

Approval by the County and by the State's Commisioner of Agriculture and Markets makes the County eligible to receive State funds for plan implementation, and increases the chances to obtain such funds from private and other public sources.

A copy of the plan should also be provided to each municipality: (1) to help them comply with State planning statutes which require municipalities to consider recommendations in county farmland protection plans when preparing or amending municipal comprehensive plans, and (2) to help municipalities meet the State requirement that local farmland protection projects for which a municipality seeks State funding, are consistent with the county's farmland protection plan**.**

II. Create and Fund an Agricultural Program Manager Position

Staff will be required to implement and update the plan. The Monroe County Administration and Legislature should consider creating and funding the senior/management level position of Agricultural Program Manager in the Department of Planning and Development to implement and update the plan on an on-going basis. Duties would include:

- Overall program administration, direct involvement in implementing recommendations of this plan, development and implementation of further recommendations, and maintenance and update of the plan.

- Prepare a comprehensive work program consisting of the recommendations in this plan that identifies priority, implementation responsibility, and implementation cost. Prepare an annual work program that identifies priority of tasks to be done in the coming year. The annual program shall include recommendations of and be approved by the Agricultural and Farmland Protection Board.

- Prepare an annual report on implementation progress for approval by the Agricultural and Farmland Protection Board; upon approval, the Board shall submit the report to the Clerk of the Monroe County Legislature.

- Coordinate with adjacent counties in order to maintain the continuity of farming. Also, coordinate with other counties with farmland protection plans and the New York State Department of Agriculture and Markets (NYSDAM) to share ideas on ways to promote the agriculture industry and preserve farmland.

- Seek grants and private sources of funding to implement recommendations.

- Assist municipalities to implement recommendations; seek their input for projects

to be included in annual work programs; and assist municipalities to obtain grants and private funds to implement farmland protection programs that are consistent with this plan.

- Participate in all tasks listed in the annual work program and report on their status in the annual report.

- Attend all Agricultural and Farmland Protection Board meetings to promote overall coordination and information exchange on agricultural matters.

- Carry out all Planning and Development Department responsibilities related to agriculture such as coordination with NYSDAM and the renewal of agricultural districts.

III. Focus Preservation and Promotion Efforts on Agricultural Districts

The State established the agricultural districts program in the early 1970's to help preserve farmland through such benefits as agricultural assessments on farmland, exempting farmland from sewer and water line extension fees, and requiring consistency of local land use regulations and plans with the agricultural districts program. NYSDAM promotes the formation of districts as a farmland preservation mechanism. Monroe County created five agricultural districts (see Agricultural Districts map at end of Summary) at the request of farmland owners.

While, overall, the agriculture industry has declined in Monroe County, farming has increased in the districts as farmland owners continue to enroll their land in the districts in order to receive district benefits. The districts contain 73 percent (81,507 acres) of Monroe County's agricultural land and much of the land identified as having high to medium viability for farming. Districts also contain 76 percent of all field crop land, 73 percent of all agricultural vacant land, and 63 percent of all truck crop land, and these lands have been identified in this plan as the agricultural lands under the most conversion pressure (see Farmland Under Conversion Pressure map and table on Farmland in Agricultural Districts Under Conversion Pressure by Municipality at end of Summary). Additionally, these lands occupy 86 percent of all farmland in agricultural districts, indicating that the majority of farmland in agricultural districts is under the most conversion pressure. Finally, 80 percent of all property class code changes (property class code changes were used as a proxy for development) occurred in towns with agricultural districts; the second highest number of changes involved single family homes, and the majority of complaints about farming operations come from nearby residents.

The County and the municipalities in which the districts are located continue to promote the districts by supporting continuation of the districts each time they come up for renewal. Thus, there is an existing structure in place that already provides benefits to help farmers stay in farming and which includes the majority of the County's farming

operations. Therefore, consider focusing efforts on the districts to reinforce and enhance this existing protection mechanism and reinforce and enhance the support the districts have received and continue to receive from the State, County, and municipalities.

While emphasis in implementing the following recommendations should be focused on farming in agricultural districts, the recommendations should be extended to viable farming operations that remain outside of districts whenever farmers wish to participate in the program.

IV. Farmland Preservation and Protection

The preservation and protection of an adequate land base is essential to maintaining the County's agricultural industry. To help provide an adequate land base, consideration should be given to implementing the following recommendations:

- Monroe County: continue to renew agricultural districts.

- Monroe County, municipalities, Monroe County Farm Bureau, and Cornell Cooperative Extension: encourage farmland owners to enroll their land in districts at the time of district renewal.

- Monroe County and municipalities: Class I soils and the leading Class II soils are the leading soils for agricultural production and cannot be replaced. Therefore, these soils should be targeted for both protection and profitability efforts when the landowner wishes to participate in such efforts. Also, the owners of farmland outside of districts that contain these soils, should be encouraged to join a district.

- Monroe County: evaluate the continued relevancy of policies in the Monroe County Comprehensive Development Plan related to sewer, water, and highway development in agricultural and rural areas; the need for a process to identify capital improvement project impacts on agriculture so that the impacts can be taken into consideration by the Administration and Legislature when acting on such projects; and evaluate the relevancy of recommendations in past agricultural studies for inclusion in this plan and future work programs.

- Monroe County Department of Planning and Development: through its review of municipal zoning and subdivision proposals, local planning assistance program, assistance on municipal comprehensive planning projects, and annual local land use decision-making training program for local officials, promote agricultural awareness and continue to promote design features which improve compatibility between farm and proposed, nonfarm development**.**

- Municipalities: as required by State Agricultural Districts Law (Article 25AA), Town Law, and Village Law, insure that zoning regulations applying to farming

and agriculture are consistent with Article 25AA.

- Municipalities: as required by Article 25AA, Town Law, and Village Law, insure that municipal comprehensive plans and related policies that apply to agriculture are in conformance with Article 25AA and also take into consideration the recommendations in this plan.

- Municipalities: those currently using farmland preservation techniques such as PDR, conservation easements, cluster development, and comprehensive plans promoting agriculture, should continue to do so.

- Municipalities and Monroe County: evaluate purchase of development rights (PDR) programs. PDR is promoted by NYSDAM which makes funds available to assist with the local purchase of development rights. As part of the evaluation process, seek advice regarding program mechanics, costs, receptivity, and success from communities with PDR programs. If PDR's are found to be generally feasible beyond its current local use, the Agricultural Program Manager could develop a model program that could be used by the County and municipalities. If PDR programs are established, consider placing emphasis on purchasing the development rights on field crop land, vacant agricultural land, and truck crop land, and on other lands containing Class I and the leading Class II soils where owners of these lands which to participate in this program. Conservation easement programs are another option for protecting these lands from nonfarm development.

- Monroe County: prepare a model agricultural zoning district for municipal consideration. The district would be designed to apply to farmland and agricultural operations, would be consistent with Article 25AA and could be accompanied by model definitions and other agriculture-related regulations. Evaluate various agricultural zoning concepts for applicability to Monroe County's agricultural character and, if applicable, include the appropriate concepts in the model.

- Municipalities: in addition to PDR and agricultural zoning, evaluate the potential to use other farmland preservation techniques such as conservation easements and cluster development that are identified in this plan.

- Municipalities: LESA and this plan identify wetlands, floodplains, open space, historic sites, land in conservation easements, and land involved in PDR as features supporting the retention of land in agriculture. When feasible as part of a communitywide development strategy, take this into consideration when zoning land for agricultural use and when identifying land for agricultural use in comprehensive plans to help "round out" areas for agriculture, and help provide a buffer between farm and nonfarm development. Meet with core farmers in the

community to obtain their input on proposals.

- Municipalities: in general, NYSDAM promotes industry as a compatible neighbor with farming. When feasible as part of a communitywide development strategy, zone lands adjacent to agricultural districts for the types of industrial use which are deemed most compatible with farming operations.

- Municipalities and Monroe County: a statistical model has been developed which includes field crop land, agricultural vacant land, truck crop land, orchards and small fruit land, total vacant land, and population, which provides a basis for analysis and description of agricultural lands as they relate to development pressure at the municipal level. Adopt use of the model to help target agricultural lands under development pressure and for general planning purposes.

- Monroe County: develop and implement a process, such as a right to farm (RTF) law, which would permit timely and inexpensive settlement of disputes regarding nonfarm neighbor nuisance complaints about farm operations. Those not resolved locally may be submitted to the Commissioner of Agriculture and Markets for resolution.

- Monroe County Agricultural and Farmland Protection Board: work with the Greater Rochester Association of Realtors to get disclosure notices included in multiple listings.

V. Economic Development/Viability/Marketing

Equally important to preserving an adequate land base is developing, maintaining, and improving the economic viability of farming, for farming will cease when it is not economically viable. Therefore, consideration should be given to implementing the following recommendations:

- Taxes are a significant operating cost and reduce profitability, and are a major concern of farmers.
    - The Monroe County Farm Bureau, New York Farm Bureau, and American Farm Bureau Federation have worked to revise tax laws that adversely impact agriculture. These organizations should be encouraged to:
        - Continue efforts that have been initiated to revise estate, gift, and capital gains taxes;
        - Seek support for changes from other sectors of the economy affected by these taxes;
        - Recommend to the State that it extend the Farmer's School Tax Credit to property owners who rent land to farmers;

    - Urge the State to continue to seek ways to more equitably finance public school education;
    - Seek other revisions in taxes from Federal, State, and local taxing jurisdictions; and
    - Seek support for tax revisions from the County Legislature, Town Supervisors Association, and Association of Village Mayors.

  - Monroe County: continue the policy, which has been in effect for the past seven years, of not increasing property taxes.

- Fire, fire protection, and ambulance districts: use agricultural assessment values when assessing land in agricultural production for district improvements.

- Monroe County, Genesee/Finger Lakes Regional Planning Council, and Empire State Development: broaden existing economic development programs, or establish new ones**,** to address the specific needs of agriculture.

- Encourage private sector initiatives and market analysis which would help the agriculture industry expand to meet the food supply demands of the local population and encourage the purchase of local products.

- Monroe County and municipalities: support efforts to insure an adequate labor supply, including improvements to the Federal Guest Worker Program, and, if feasible, the development of local programs to help increase the supply of trained local labor.

- Encourage NYSDAM to develop a methodology to evaluate costs of community services that includes economic multiplier effects generated by the major land use categories used in these studies -- agricultural, residential, commercial, and industrial development.

- Municipalities containing agricultural districts, other major farming areas, and comprehensive plans promoting agriculture: evaluate the benefits of undertaking cost of community service studies using the methodology incorporating economic multiplier effects, and use the results to assist in land use planning.

- NYSDAM: assess the effectiveness of the existing benefits of Article 25AA and evaluate the following suggestions as amendments to the law: eliminate acreage and income requirements so that all farms are eligible for agricultural assessments; require a one-time (versus annual) application for agricultural assessments unless the amount of land under assessment changes; and develop more precise definitions of what's considered support land to ensure consistent application of agricultural assessment benefits from municipality to municipality.

- Cornell Cooperative Extension-Monroe County: assist Cornell Cooperative Extension-Genesee County in developing a "buy local" labeling program and campaign that will apply to Western New York counties.

- Monroe County: agri-tourism ventures appear to be most successful on farms near urban and suburban consumers. Therefore, evaluate implementing an agri-tourism program in Monroe County. Seek advice from other counties with agri-tourism programs, Cornell faculty which teach the "Enterprise and Personal Entrepreneurship" program, and the Greater Rochester Visitor's Association. Also, coordinate with the Resource Conservation and Development Council and Seaway Trail, Inc.

- Cornell Cooperative Extension-Monroe County: work with the agricultural community to increase the profit per acre and the overall economic viability of both the vegetable and fruit industry as well as increase the potential for niche markets.

- Cornell Cooperative Extension-Monroe County: with assistance from the Monroe County Department of Planning and Development's Economic Development Division, complete the marketing feasibility study for the greenhouse specialist position and create and fill the position by April 1, 1999.

- Cornell Cooperative Extension-Monroe County and Monroe County Farm Bureau: take the lead to establish economic and educational programs encouraging the conversion of field crop and agricultural vacant lands to nurseries, orchards, small fruit, vegetable operations, and organic farming, in order to reduce the opportunity costs of these lands for development and keep these lands in farming.

- Agricultural Program Manager: coordinate farmland protection planning and other agriculture-related activities with the Monroe County Soil and Water Conservation District, the Monroe County Water Quality Coordinating Committee, the Natural Resources Conservation Service, and the Farm Service Agency.

- Monroe County Soil and Water Conservation District: continue to provide technical support to the agricultural community on how to maintain viable agricultural enterprises and preparation of agricultural land assessments for farmland owners.

VI. Education

Education is a major component in farmland preservation and promotion, and is needed

in many areas to help promote a viable agriculture industry. Agriculture would benefit from having the general community become more aware of its benefits and of the implications if farming were to cease being a way of life in Monroe County. Each farm is a business and farmers are business people, and like many business people they need professional advice on how to maintain and expand their viable businesses. More classroom education is needed so that young people become aware of agriculture's importance and possibly be stimulated to consider it as a career. And it would be beneficial for municipalities that contain agricultural districts, other major farming areas, and which promote agriculture in their comprehensive plans to inform community residents about the efforts they have undertaken and are undertaking to maintain and promote agriculture. To assist in providing the necessary education, consider implementing the following recommendations:

- The Monroe County Farm Bureau and Cornell Cooperative Extension were identified in the farmland owner survey as the organizations to provide education. Therefore, establish and/or continue the following educational programs:

    - Agricultural awareness - to inform officials and the public of the benefits of the industry and the implications resulting from the loss of the industry.

    - Promote coalitions between the environmental and farm communities.

    - Compatible highway development - to inform highway officials of the importance of roads to farming operations, and to develop coordination on such matters as access to farm fields, drainage, and participation in design of proposed highway improvements in farming areas.

    - Good neighbor relations - to advise farmers on what they can do to promote better relations with their nonfarm neighbors in an effort to reduce nonfarm neighbor complaints.

    - Farmland preservation techniques - to create a better understanding amongst municipal officials and farmers of the various techniques available to preserve and protect farmland (ideally, offered prior to initiating agricultural zoning, PDR and other preservation programs). Include representatives of such organizations as the American Farmland Trust, Genesee Land Trust, Mendon Foundation and others to explain the role non-profits can play in farmland preservation.

    - Agricultural districts and agricultural assessment programs - to make farmers more aware of the benefits of and differences between the programs.

    - Estate and business planning for farmers.

- Economic development - economic development agencies would explain existing and proposed programs to farmers, and Cornell Cooperative Extension-Monroe County could explain programs to convert field crop and vacant agricultural land to other crops to increase opportunity costs in farming.

- Cornell Cooperative Extension-Monroe County: expand agriculture in the classroom programming and education for youth. Coordinate programming with the agricultural literacy curriculum being developed as a statewide pilot program for middle school students by the Cayuga Nature Center in Ithaca and the New York Sustainable Agriculture Working Group in Rochester. Provide more in-depth programming conducted by the regional agricultural teams. Continue to participate on the regional agricultural teams to provide technical assistance and education for farmers. Continue to provide advice on other agriculture-related matters such as notice of intent reviews, zoning, road construction, water quality, and education for elected and appointed officials on agricultural matters.

- Cornell University: provide more in-depth research in the commodity areas addressed by the University and its agricultural research stations.

- Monroe County Soil and Water Conservation District: continue to support programs such as Conservation Reserve Program, Wetland Reserve Program, Wildlife Habitat Improvement Program, and Agricultural Environmental Management and continue to provide technical and support services to farmers and farmland owners regarding contouring, grading, grass waterways, stormwater management, and ways to minimize soil erosion and nonpoint source pollution to waterways. Continue to provide education programs to both the urban and rural youth of the County on resource conservation and management.

- Municipalities containing agricultural districts, other major farming areas, and with comprehensive plans promoting agriculture:

  - Inform community residents of municipal efforts to preserve and promote farmland, and “package” efforts into a coordinated, pro-active program;

  - In conjunction with Monroe County, promote public awareness of agriculture by placing signs at town boundaries indicating, for example, “An Agriculture-Friendly Community”; and

  - Encourage assessors to attend educational and training programs related to assessment and classification of agricultural land.

- New York State, Monroe County, municipalities, and Monroe County Farm Bureau: support efforts to develop training opportunities for assessors to improve understanding of agriculture-related assessment practices.

- Monroe County in cooperation with Cornell Cooperation Extension-Monroe County: consider expanding educational opportunities at the county-owned Springdale Farm as the County's agricultural education center. Provide family and school programs to promote the importance of agriculture, to educate about agricultural practices, and where our food supply comes from. The facility could also provide information and encourage interest in agricultural careers. At a minimum, the agriculture education display materials at the facility should be updated and expanded.

VII. DataBase Maintenance and Development

A comprehensive baseline database has been established for agricultural planning and programming purposes by the County's Planning and Development Department with assistance from Cornell Cooperative Extension-Monroe County. For example, the database includes: number, location, acreage, and type (commodity) of agricultural parcels by town; location and acreage of farmland in agricultural districts by town that is under conversion pressure; land value per acre of farmland by town; the location and acreage of parcels under conservation and farming easements by town; the location and acreage of land in PDR by town; the number, type, and location of property class code changes by town. Prior to this, no such database existed at the County or municipal level which combined this information. Now that it has been established, it is important that this database be maintained, and that information on certain variables used in the analysis be collected and tracked over time to determine their relationship to future farmland protection efforts as well as to provide information for general planning purposes. Therefore, consideration should be given to carrying out the following recommendations:

- Monroe County: maintain, update on a periodic basis, and augment the database that has been established for agricultural planning purposes. Annually, "Agricultural Data Update" reports should be provided to municipalities to assist with planning and policy decision-making at the municipal level.

- Monroe County: continue to use the Real Property Services database as part of the data base for agricultural planning purposes at the County and municipal level because it contains many of the characteristics of parcels that are related to agriculture and it is a uniform, automated database which is periodically updated.

- Monroe County: LESA, combined with economic theory, provides a template to describe agriculture and identify agricultural lands under conversion pressure. Therefore, continue to use this template to assist with planning, taxes, and economic issues related to agriculture at the County and municipal levels.

- Monroe County: proximity analyses indicated that farmland within one mile of shopping centers (shopping centers were used as a proxy for urban development) may be under disproportionate conversion pressure. The analyses indicated that farmland near industrial operations, areas served by sanitary sewer, and arterial roads (cited in LESA as a potential factor) and expressway interchanges is not under disproportionate conversion pressure, meaning that development is just as likely to occur in other areas as it is to occur within or adjacent to these features. These conclusions are based on one year's data. Therefore, data for each of these variables should be tracked for a period of years to verify the findings and determine the data's usefulness to future agricultural planning efforts.

- Monroe County: preliminary analysis indicates that assessed value and average median family income per municipality may be important variables in determining the type of development that is likely to occur. These conclusions are based on one year's data. Therefore, continue to collect data on these variables for a period of years to conduct time series analysis to determine the data's usefulness to future agricultural planning efforts.

- Monroe County: there was no significant association between the perceived quality of school districts and the level of development as measured by the number of property class code changes (property class code changes were used as a proxy for development), nor between the perceived quality of a school district and the number of new single family homes constructed in each district. Thus, the perceived quality of a school district is not a significant indicator for measuring development pressure. These conclusions are based on one year's data. Therefore, continue collecting data on these items for a period of years to conduct time series analyses to verify these findings and determine its usefulness to future agricultural planning efforts.

- Monroe County: complete the digitization of the soils maps for Monroe County in order to be able to complete the analysis of agricultural lands being converted to development for use in future agricultural planning efforts.

- Monroe County: the Towns of Chili, Henrietta, Perinton, and Wheatland were the only towns in which agricultural parcels changed from one type of agriculture to another, from agriculture to vacant land, or from vacant land to agriculture. Consider studying these towns to find out why this occurs and determine the usefulness of the findings to future agricultural planning efforts.

- Monroe County: preliminary findings suggest that there is a sequence occurring where agricultural land converts to vacant land then to development. This conclusion is based on one year's data. Therefore, this phenomenon should be tracked for a period of years to conduct time series analysis to see if this the case,

then determine its usefulness to future agricultural planning efforts.

- Monroe County: collect and analyze 1997 Assessor's Annual Reports prepared by municipal assessors because these reports indicate what parcels were subdivided in 1997 along with the property class code of the "parent" parcel as well as the codes of the new parcels, and will help identify where land went out of agriculture and for what type of use. In subsequent years, obtain RPS files which contain this data before the files are updated at the end of the calendar year as updating the files removes the parent parcel class codes. Determine the usefulness of this information for future agricultural planning efforts.

Farmland In Agricultural Districts Under Conversion Pressure
By Municipality

Municipality	Field Crop Parcel Count	Field Crop Acreage	Vacant Ag. Land Parcel Count	Vacant Ag. Land Acreage	Truck Crop Parcel Count	Truck Crop Acreage
Brighton	0	0	0	0	0	0
Chili	23	1,961.98	33	2,054.34	0	0
Clarkson	11	1,041.15	4	208.77	14	1,406.53
Gates	0	0	0	0	0	0
Greece	1	36.48	1	5.70	2	48.13
Hamlin	71	5,762.75	76	4,646.72	0	0
Henrietta	37	2,088.58	0	0	0	0
Irondequoit	0	0	0	0	0	0
Mendon	35	2,380.88	81	4,189.76	0	0
Ogden	36	1,804.03	95	4,555.20	0	0
Parma	33	2,226.56	8	367.49	1	49.92
Penfield	42	1,939.52	25	1,191.30	2	88.96
Perinton	2	63.23	7	434.30	0	0
Pittsford	27	1,317.82	2	94.79	1	48.58
Riga	40	2,734.21	130	7,725.50	0	0
Rush	31	3,107.33	46	2,680.64	1	67.39
Sweden	23	1,784.96	6	490.82	5	540.54
Webster	13	759.23	5	295.62	0	0
Wheatland	78	7,615.23	48	2,663.30	0	0
Totals	503	36,623.94	567	31,604.25	26	2,250.05

Chapter 1
The Need for an Agricultural and Farmland Protection Plan

Monroe County is a metropolitan County located on the south shore of Lake Ontario in upstate New York (Map 1). Based on the most current population estimates, Monroe County has a population of 717,780 (U.S. Bureau of Census, 1998), making it the ninth largest County in New York State.

Rochester, the County Seat and the only city in the County, has an estimated population of 228,859 people (Genesee/Finger Lakes Regional Planning Council, 1997) . The Rochester Metropolitan Statistical Area has a population of 1,086,082, (U. S. Bureau of the Census, 1998), making it the fourth largest Metropolitan Statistical Area in the State. Eastman Kodak and Xerox, both Fortune 500 companies, have significant holdings and operations in Monroe County and Rochester, and Kodak's headquarters is located in Rochester. Additionally, Bausch & Lomb, known worldwide for quality optical equipment, is also headquartered in Rochester.

Agriculture is also a major industry in Monroe County, which may be surprising as one might not expect agriculture to have a significant presence in a community which contains such world renown companies as Kodak, Xerox, and Bausch & Lomb, and which is also part of one of the largest metropolitan regions in the State. Yet, based on July, 1997 New York State Office of Real Property Services' real property service (RPS) data, maintained by the Monroe County Real Property Tax Services (RPTS), 111,654 acres are classified as agricultural land which is about 26 percent of the County's 424,454 acres.

And, as is true in many of the other urban centers of the State, agriculture in Monroe County is under pressure from expanding nonfarm development (Stashenko, 1993). Expanding nonfarm development has resulted in a trend of farms being either converted to nonfarm development or being prematurely retired from production. And while population growth has slowed in Monroe County, it is projected to continue to increase at a modest rate, mostly in the rural communities (Genesee/Finger Lakes Regional Planning Council, 1997) and, therefore, farmland will continue to be under conversion pressure.

There are other factors which also contribute to the decline of the agriculture industry. They include: nonfarm neighbor complaints which place pressure on farmers to alter or cease operations, possibly leading to premature retirement of farmland; inability to produce high value products in order to remain profitable; increased (competing) job opportunities in the nearby urban community; governmental regulations and taxes; and lack of awareness and appreciation of the economic and environmental value of agriculture.

Why Preserve and Promote Agriculture

There are several important reasons to attempt to reverse this decline and preserve and promote the County's agriculture industry. First Monroe County possesses productive soils, moderate

Map 1 - Monroe County, NY

climate, a modern highway system, and a large, nearby population base which provides a potentially large market for fresh produce. These attributes make Monroe County an area highly desirable for farming and farm markets.

Agriculture is a major source of employment. The size of the work force and the value of income related to agriculture varies somewhat depending on one's definition. According to the 1990 Census, 2,834 persons were directly employed in agriculture (U.S. Bureau of the Census, 1993). This figure rises to 4,000 employees when part-time and seasonal employment is included. [1] But because the industry is dispersed, as opposed to other traditional types of industry, agriculture is not recognized as a major employer (New York State Advisory Council on Agriculture, 1997). Yet, as a total number of employees, agriculture employs as many people as do many other businesses and industries in Monroe County.

Agriculture makes a significant economic contribution to the local economy. The annual market value of production agriculture products sold is approximately $41.5 million (U.S. Bureau of the Census, 1994a) which generates an annual economic impact to the County of about $128 million (R. N. King, Cornell Cooperative Extension-Monroe County, personal communication, April, 1998). In terms of economic multiplier, agriculture is the largest industry in the County because it has the largest value added component (R. N. King, Cornell Cooperative Extension-Monroe County, personal communication, April, 1998.)

A statewide Cornell study (Jack, Bills, and Boisvert, 1996) has documented the economic impact of agriculture and established economic multipliers for total income and employment.[2] When looking at total income economic multipliers for production agriculture, agricultural manufacturing, and other economic sectors such as construction and nonfood manufacturing, the agricultural sectors had the seven highest multipliers. When employment was used, agricultural manufacturing had the seven highest multipliers, with production agriculture comparing favorably to the other economic sector categories. "These dual findings imply that a direct increase in income or employment in the agricultural sector will lead to a larger total income and employment creation within the local economy than would a corresponding increase in nonagricultural sectors" (Jack et al., 1996, p. 3).

[1] Part time and seasonal employment in agriculture consists of the following: other principal occupation, 238; labor working less than 150 days, 1,166 (1992 Census of Agriculture, 1994) (working less than 150 days is considered part time employment , personal communication, Delos Whitman, NYS Dept. of Labor, 5/12/98).

[2] Total income economic multiplier. "Reports the change in the sum of employee compensation, proprietary income from self-employment, and other property income be $1 of direct increase in regional income or payrolls." Employment economic multiplier: "Account (s) for the total change in full-time equivalent (FTE) jobs associated with the direct creation of an initial job to produce output going into final demand." (Jack, Bills, and Boisvert, 1996, p. 2)

Further economic justification to preserve and promote agriculture is that the major portion of agriculture-generated dollars stay in the community when compared to other industries, meaning that enhanced production in the agricultural sector produces "relatively large secondary and tertiary benefits for industries and businesses linked to farm and food production" (Jack et al., 1996, p. 3). Agriculture-related dollars stay in the community in the form of locally purchased goods and services as either inputs to the production sector such as feed, seed and fertilizer dealers; implement and equipment dealers; lending institutions; insurance companies; veterinarians; accountants and attorneys; and on-farm employment; or in the form of output sector businesses such as food processors and a whole host of retailing operations. Thus, production agriculture helps significantly to support local businesses and keep dollars in the local economy.

Agriculture and farming also provide quality of life attributes and intrinsic value to the community. Farming provides diversity in the way land is used by providing scenic, pastoral, and historic landscapes. Farming provides the opportunity to stop at a roadside farm stand and buy fresh produce or to pick fruit at a u-pick operation. Festivals geared around harvest time, and activities such as Farm Days and farm tours provide the opportunity to celebrate harvests and learn about farming. Farms also provide habitat for wildlife, and environmental benefits through such measures as soil maintenance and water quality protection.

Ironically, however, some of the conditions that are favorable to farming in Monroe County also work against it. For example the qualities of lands that make them good for farming (well drained, flat, and clear) are also qualities that make them attractive for development. Also, the large, nearby population base which provides a large market for fresh produce, is expanding outward from the urbanized area, exerting pressure on farmland to convert to nonfarm development.

Additionally, agricultural price supports, which have been in place since the 1960's, are scheduled to be phased out by 2002 under the Federal Agricultural Improvement and Reform Act of 1996 (FAIR). The deregulation may mean that farmers may grow a greater diversity of crops but will be subject to variable market conditions more so than when receiving price supports. The loss of price supports likely will require better management on the part of farmers in order to make a profit. Adjustments could result in more land being taken out of production.

If the trend of a continuing decline in farmland is not addressed, the economic benefits, the availability of a local, fresh food supply at reasonable prices, the quality of life values and, indeed, a way of life itself, will eventually be lost.

State Promotion of Agriculture

The State has long recognized the importance of agriculture to both the State and its localities as evidenced by the directive in the State constitution which calls for the "Legislature to provide for the protection of agricultural lands" (New York State Department of Agriculture and Markets, 1997, p. 10). In response to this directive, in 1971, the State Legislature passed Article 25AA of

the New York State Agriculture and Markets Law, entitled "Agricultural Districts". This article permits county legislative bodies to establish agricultural districts "for the protection and enhancement of (the State's) agricultural land as a viable segment of the local and State economies and as an economic and environmental resource of major importance" (New York State Department of Agriculture and Markets, 1997, p. 10). The legislation also requires county legislative bodies to create county agricultural and farmland protection boards in counties containing agricultural districts, and specifies board membership. Since, as noted later in this plan, the County established agricultural districts, the County Legislature also created the Monroe County Agricultural and Farmland Protection Board (AFPB) in order to comply with Article 25AA.

In 1992, the State Legislature passed Article 25AAA of the Agriculture and Markets Law, entitled "Agricultural and Farmland Protection Programs." According to the article's statement of legislative findings and intent, "...agricultural lands are irreplaceable State assets...to maintain the economic viability , and the environmental and landscape preservation values associated with agriculture, the State must explore ways to sustain the State's valuable farm economy and the land base associated with it" (New York State Department of Agriculture and Markets, 1992, p. 2). To help address this statement of findings and intent, Article 25AAA authorizes county agricultural and farmland protection boards to prepare agricultural and farmland protection plans, sets forth the guidelines for the preparation of plans, and establishes a matching grant program to help fund the development of such plans.

County Initiative to Promote Agriculture

In recognition of the importance of agriculture to Monroe County, the AFPB undertook the preparation of this plan. The Monroe County Legislature appropriated $25,000 to be used as matching funds to support an application to the New York State Department of Agriculture and Markets for a $50,000 grant to assist with plan preparation. In addition to the State grant, the AFPB received a $3,000 grant from the Rural New York Grant Program, administered by the New York Planning Federation. These funds along with in-kind services provided by the Monroe County Department of Planning and Development ($12,000) and Cornell Cooperative Extension-Monroe County ($10,000), provided the resources necessary to prepare this plan.

Plan Goals

The statement of legislative findings and intent in Article 25AAA focuses on finding ways to preserve the land base associated with agriculture. The AFPB has concluded that improving the economic viability of the agriculture industry is also important. The two are interrelated. Ways need to be found to preserve farmland in conjunction with maintaining and improving the economic viability of farming operations. Therefore, quite simply, the goals of this plan are:

- Preserve farmland
- Promote the agriculture industry

In order to help achieve these goals, the following tasks, as listed in the grant work program, were undertaken: identify existing farmland preservation efforts; analyze data from secondary sources (Census of Agriculture, RPS database, etc.) to identify trends in the local agricultural industry; inventory and analyze land use regulations related to agriculture and techniques to preserve and promote agriculture; identify economic development programs and lending policies related to agriculture; identify municipal revenues and costs associated with agriculture, residential and non-residential land use; survey farmers and agricultural landowners regarding their attitudes and perceptions concerning farming and farmland protection policy; and identify farmland most in need of protection.

Presentation of Findings

During the 1970's and 1980's, several County and regional-level agricultural planning studies were conducted that pertained to Monroe County. Chapter 2 presents a summary of the results of these studies.

Chapter 3 presents trends in agriculture in Monroe County from the turn of the century to 1992, along with trends that are taking place in the County's agricultural districts.

Chapter 4 presents the results of a review of municipal land use regulations and plans that apply to agriculture in Monroe County. The chapter also includes a summary of prominent land use techniques that can be used to help preserve and protect farmland, and a summary of various State and Federal regulations related to agricultural land use.

Chapter 5 contains an inventory of economic development programs and how they relate to the needs of farmers.

Chapter 6 deals with cost of community services. The general perception is that municipalities receive more revenue in the form of taxes from farming operations than it costs municipalities to provide municipal services to farms. This chapter presents the findings of several current studies on the subject.

Chapter 7 presents the results of a 1996 survey of farmers and agricultural landowners regarding their attitudes and perceptions on farmland protection policy. The survey was conducted as part of the data gathering phase of this plan.

Chapter 8 presents the results of descriptive and statistical analyses of agriculture using the Land Evaluation and Site Assessment (LESA) system and economic theory as the methodology for identifying factors associated with conversion pressure, factors which support retention of agriculture, and farmland under conversion pressure. The chapter also includes a descriptive analysis that identifies soils being converted to nonfarm use and the frequency of conversion, and a conceptual land use model that identifies possible trends regarding farmland.

Chapter 9 presents the conclusions and recommendations for preserving farmland and promoting

the agriculture industry based on the data and findings in chapters 2 through 8.

Chapter 10 contains a response to the elements that must be part of farmland protection plans as required by Section 324 of Article 25AAA of the State's Agriculture and Markets Law.

Chapter 2
Past Agricultural Planning Efforts

Over the last 27 years, several agricultural planning programs at the County and regional level have been undertaken concerning Monroe County's agricultural industry. Those programs provide a basis for the preparation of this plan. In this context then, this chapter provides a summary of the highlights of those programs.

Planning in the 1970's

Economic Viability of Farm Areas

Linton and Conklin (1972), from Cornell University, identified the economic viability of farm areas in Monroe County. The report entitled "Economic Viability of Farm Areas in Monroe County" identified land areas capable of supporting "viable farming provided urban penetration does not preclude this activity," (Linton and Conklin, 1972, p. 3) and classified the areas as high and medium viability (see Map 2). Farms were appraised in the field using such factors as soils, climate, topography, farm buildings and farm businesses, trends in farming, farm methods, markets for farm products, and alternative opportunities available for the land, labor, and capital now in farming (Linton and Conklin, 1972).

Farmland Decline

About the same time Linton and Conklin did their work, a three phase project was initiated by the Monroe County Planning Council to examine the problem of farmland decline as related to urban expansion. The first phase examined the quality of soils in the County for farming in order to provide information which could be used in developing public policies to allocate land to farming and, by implication, to other land uses (Monroe County Planning Council and Monroe County Soil Conservation Service, 1971).

The second phase provided a foundation for developing policies on farmland use in the County (Monroe County Planning Council, 1971). The report acknowledged that Linton's and Conklin's study was underway and when completed, would be of considerable assistance in designating areas of the County where farming might be retained. The report included the results of a farmer survey conducted to help determine the issues being faced by the farming community.

The survey indicated that property taxes were the major concern among farmers. Difficulty in obtaining labor, difficulty in finding markets, and land use conflicts with nonfarm neighbors were also identified as concerns. Respondents indicated support for various measures to preserve farmland including preferential tax assessments, agricultural easements, public utility planning (to keep utilities out of farming areas so as not to attract development), and agricultural zoning (Monroe County Planning Council, 1971).

Map 2 - Important Farmlands Map, 1972

The third phase examined the problem of farmland decline in more detail. The report concluded that the principle cause of the decline in farming was urban expansion (Monroe County Planning Council, 1972). The urban expansion experienced in the County was largely due to a 46 percent increase in population between 1950 and 1970, from 487,632 people to 711,917 people (Shupe, Steins, and Pandit, 1987). The report listed the following problems urban expansion causes for farmers. As communities develop, property taxes tend to rise to pay for the services demanded by the new residents. The rise in taxes on farmland increase the farmer's operating costs and reduce profit margins. At times, farmland is sold to help pay taxes, taking the land out of production, often forever. As development moves closer to farmland, land prices for farmland increase to the point that farmers cannot economically justify a rate of return on such an investment. In addition, conflicts arise with nonfarm neighbors. Competition for labor increases due to employment opportunities created by urban expansion. Farmers may speculate that they, too, will be able to sell their land for development and because of this, they make no further capital investments and take land out of production. The report concluded that the problems created by urban expansion were a major contributor to the retirement of 121,000 acres of farmland, and none of this land had yet been developed for urban uses.

The final report entitled "Farm Land Use Policy" (Monroe County Department of Planning, 1973), put forth several policies for adoption by the County (and towns for that matter) that were designed to keep land in farming in Monroe County.

The policies were based on the premise that, excluding personal location preferences, there was already enough land available to accommodate the County's projected 1,000,000 population by 1995-2000 without the need to take anymore farmland out of production. The report recommended that the policies be implemented as a "package" in order to have the best chance to succeed.

The policies were not intended to prohibit all development in farming areas. Rather they were intended to prevent the type of nonfarm development that creates impacts on farming that are associated with urban expansion. Finally, by preserving farmland areas, the policies would also have the effect of promoting a more concentrated pattern of urban development in other areas. A concentrated development pattern is less costly to serve with roads, utilities and other services demanded by urban development which in turn helps to keep down per capita costs, such as property taxes, to pay for these services (Monroe County Department of Planning, 1973).

The policies were:

- Location Policy. Delineates the area of high viability based on Linton's and Conklin's work as the area where farming should be maintained during the next few decades, and where the other policies in the report should be applied in order to promote agriculture.
- Agricultural District Policy. Recommends that the County create and review agricultural districts, and that preference be given to establishing districts in high viability areas versus encouraging preferential assessments outside the districts. It was a desired goal for districts to offer preferential assessments and provisions to help to reduce pressures from urban expansion such as restrictions on assessing farmland for sewer and water line

costs. Large, contiguous districts were recommended to help promote the mass of land necessary to maintain and encourage farming. Districts should also include nonfarm uses because these frequently occur in farmed areas. To exclude them may result in small, fragmented, and ineffective districts which may not discourage urban development in such areas.

- Zoning Policy. Recommends a model agricultural zoning district for adoption by municipalities which limits permitted uses to farming, sale of agricultural products grown on premises, kennels, and one single family home, and permits uses such as churches, public utility structures, and open recreation uses by conditional use permit, and requires a 20 acre minimum lot size to discourage higher densities of development. The purpose of the agricultural zoning district would be to promote farming and farm investment until such time land is needed for urban development (versus speculation). At such time, the land should be rezoned to permit urban development.
- Transportation Policy. Recommends a series of corridors in which high capacity transportation facilities should be concentrated. These corridors were outside of the viable farming areas and were to be the areas of urban/suburban development. The policy also recommends keeping the level of accessibility to agriculture areas relatively low in an attempt to minimize development pressure.
- Highway Frontage Policy. Recommends discouraging the parceling of frontage lots along major highways which tends to be incompatible with farming activities.
- Sewer and Water Servicing Policy. Keeps new sewer and water facilities out of areas to be maintained for farming except where there is a current need for the services due to public health or safety reasons. These services may significantly increase the pressures of urban development on farmland and should be provided in the corridor areas, areas recommended for extension of existing urban development, and in areas not suited for farming.
- Taxation Policy. Recommends evaluating the shift of school taxes, and other taxes which support local government, from the property tax to the income tax in recognition of the fact that farmers pay a disproportionately large share of local taxes in relation to their incomes and to the cost of municipal services they receive. Also, State law requires property to be assessed at its market value versus its present use value. Despite this, present use assessments prevail on much of the farmland in urbanizing areas because of the burden market value assessments could place on farmland and because it is difficult to determine market value of farmland in urbanizing areas such as Monroe County. Therefore, the report recommends that use value assessments (i.e., agricultural assessment values) consistent with the agricultural districts law be applied to the area shown in Map 2, along with the rest of the policies, in order to help bring the market value of farmland closer to its use value. Lastly, local assessors were urged to recognize that a large amount of farmland is rented and that prevailing rental rates could be obtained by farmers if assessors assessed this land at its current use value for farming.
- Educational Policy. Calls for the Monroe County Department of Planning to: (1) develop a cooperative educational effort with Cornell Cooperative Extension-Monroe County to collect and interpret information regarding the land development market, that is where will development occur, what is the real demand for farmland for urban purposes in the

area of urban influence, and (2) get this information out to farmers and others to help remove the uncertainty in the land development market. In doing so, it may help to encourage the continuation of farming in areas not immediately under pressure for urban development.

These reports did not receive legislative approval. However, the policy on agricultural districts was implemented and there are now five agricultural districts in the County (see chapter 3). These districts help to implement the location policy in that they cover a large percentage of the area classified by Linton and Conklin (1972) as having high agricultural viability.

Additionally, the Department of Planning promoted the zoning and highway frontage policies through reports on municipal zoning and subdivision matters required by Sections 239-m & -n of the NYS General Municipal Law and the County Charter, through the Department's local planning assistance program which helps municipalities with day-to-day planning matters, and through the Department's liaison role on municipal comprehensive planning programs. The Department's role was (and remains) advisory. Municipalities have land use authority in New York State; thus, the final decision to implement the zoning and highway frontage policies was up to each municipality. One town adopted 20 acre zoning in its agricultural area (the area has since been rezoned to Agriculture Conservation with five acre minimum lot sizes for homes and ten acres for farms, and Planned Residential Development), and from time to time, a municipality required compliance with the highway frontage policy.

In summary, with the exception of the location and agricultural districts policies, little or no progress was made on implementing the other policies.

Comprehensive Plan

Another County comprehensive planning initiative took place in the latter 1970's. This program consisted of the preparation of seven individual elements: Economic Development, Environment, Housing, Land Use, County Parks, Transportation, and Wastewater Management. Together, the elements made up the Monroe County Comprehensive Development Plan. Each element was individually adopted by the Monroe County Legislature and is still in effect today (the economic development and housing elements have since been replaced by the County's economic development and community development programs, respectively).

Each element contains goals and objectives followed by policies and implementation actions to guide County and other government actions to achieve the goals and objectives. The Land Use Element identified Development Areas, and Farmland and Rural Nonfarm Areas through 2000 (Monroe County Department of Planning, 1979a). The development pattern (Map 3) was based on a population projection that was scaled back from the 1,000,000 in the Farm Land Use Policy Report to 863,500 by 2000 because projections since 1970 indicated a slowing down of population growth. Many of the goals, policies and implementation actions, such as the continuation and expansion of agricultural districts, were the same as those in the Farm Land Use Policy report. The goals, objectives, policies, and implementation actions related to farming

Map 3 - General Development Plan

are:

Goal:
Meet the need for urban development in a way that will protect farmland and the environmentally sensitive areas identified in the Environment Element.

Objective:
Discourage development in areas proposed to remain in farming and rural uses on the General Development Plan map.

Policies:

- The Monroe County Legislature should support the continuation of existing agricultural districts and the establishment of new agricultural districts in farmland areas.
- Monroe County development review agencies should, within legal limits, recommend disapproval or modification of subdivision proposals, zoning actions, or other development proposals which will compromise the objectives of protecting farmland in farmland areas and maintaining the rural character of rural nonfarm areas.
- The County Capital Improvement Program should not provide for County investments which would encourage development to the detriment of farmland areas and rural nonfarm areas.
- The extension of Pure Waters interceptors (the County's public sewer service program) should not be authorized by the Monroe County Legislature in farmland areas and in rural nonfarm areas unless such facilities are urgently needed to serve development which already exists in order to protect public health and safety, and unless alternative solutions such as forming sanitary maintenance districts are infeasible or impractical. The same policy applies to waterline extensions by the Monroe County Water Authority (excluding the need for alternative solutions).
- Major transportation improvements, defined as highway facilities on new alignments or as highway reconstructions which result in the addition of two or more traffic lanes, should not be authorized by the Monroe County Legislature in farmland areas unless such improvements are essential to serving major development outside these areas.
- The Department of Planning and the Environmental Management Council should assist the municipalities to bring into effect large lot zoning in farmland and rural nonfarm areas.

Implementation Actions:
County legislature

- Authorize the continuation of existing agricultural districts and the establishment of new districts.
- Not authorize the extension of Pure Waters interceptors or waterline extensions in farmland areas or in rural nonfarm areas unless they are urgently needed to protect public health and safety and unless other alternatives are infeasible or impractical.
- Not authorize major transportation improvements in farmland areas unless they are essential to serving development outside these areas.

County Agency Actions

- Within legal limits, disapprove or modify development that is not in keeping with maintaining farmland or rural character.
- Assist municipalities in adopting regulations to limit development in farmland and rural areas.

Municipal Actions

- Revise zoning and other regulations to protect rural and farmland areas.

Status of Policy Implementation. Since the Land Use Element was formally adopted, it's appropriate to go into some detail regarding policy implementation.

Consistent with the Element's policy on agricultural districts, agricultural districts continued to be renewed and expanded. No new districts have been created because there have been no requests from property owners to create additional districts. Rather, persons interested in district membership join an existing district when it comes up for renewal.

Regarding the policy to disapprove or modify development proposals that adversely impact farming, as noted earlier, the Planning Department's role on zoning and subdivision matters is advisory. Thus, after an initial attempt to deny a development proposal that met municipal code requirements even though it adversely impacted farming, it was concluded that the Department and other development review agencies that act in an advisory capacity, have very little authority to recommend disapproval or modification in such instances. Other development review agencies such as the County Health Department which does have approval authority, operate under laws which limit their responsibility to specific actions such as the review and approval of private sewage disposal systems. They are without any authority to disapprove or even recommend disapproval of development proposals other than for reasons directly related to their responsibilities.

Through its advisory role, the Planning Department provides comments and recommendations on ways to protect and promote farming through reports on municipal zoning and subdivision matters. For example, reports recommend that proposed nonfarm development place landscape buffers between the proposed development and farm fields to lessen the impact of agricultural operations on the nonfarm development; recommend clustering (described in chapter 4) of

nonfarm development so as to keep it as far as possible from actively farmed areas; recommend that drainage patterns related to farmland either not be disturbed, or be restored if disturbed; and if the proposed development is upstream of farmland, the reports recommend that detention facilities be provided so as to maintain pre-development drainage flows through farming areas.

The Department also makes the same types of recommendations and promotes low density development in agricultural areas through the Department's local planning assistance program and through the Department's liaison role to municipalities on comprehensive planning programs. Again, the Department's role is an advisory one to the municipalities.

Concerning the policy on County capital improvements, a project description is provided by the County agency sponsoring the project before it is placed in the Capital Improvement Program. However, the description does not currently address any potential impacts on agriculture.

With regard to the policy on sewers, a brief description of the history of the Pure Waters system is relevant to this discussion. The Pure Waters program was initiated in the late 1960's to achieve two objectives. The first was to restore and preserve the County's water resources; the second was to provide sewage facilities that would permit continued economic development. To accomplish this, Pure Waters developed a regional collection system which took municipal sewage treatment facilities off-line that could not effectively and efficiently treat the additional sewage created by the additional population growth, and transported the sewage to regional treatment plants where it could be properly and efficiently treated (Monroe County Department of Planning, 1979b). Many of the municipal treatment facilities were located in villages in farming and rural areas and, thus, the interceptor system was constructed into and through rural and farming areas in order to reach these facilities. Overall, the system has capacity to serve more than 1,000,000 people.

However, by the time the Land Use Element was adopted, much of the Pure Waters sewer system had been constructed or was under construction or contract. Similarly, waterlines had been planned and constructed throughout much of the County by the Monroe County Water Authority by the time the Land Use Element was adopted. Thus, the policies came after much of the current Pure Waters and Water Authority systems were already in place or for which a commitment had already been made.

Additionally, no process exists to evaluate sewer and water projects which are before the County Legislature for action in terms of the project's consistency with these policies. And, although these projects typically appear first in the County's Capital Improvement Program before reaching the Legislature for individual approval, and the Capital Improvement Program is also approved by the Legislature, as noted earlier, the project description does not currently involve impacts on agriculture.

Currently, the only level of review the Planning Department is typically involved in concerning proposed Pure Waters sewers and Monroe County Water Authority waterlines relative to impacts on agriculture is as a member of the AFPB when it conducts Notice of Intent (NOI) reviews (described in chapter 3). However, NOI reviews are coordinated with the Department of Agriculture and Markets, not the County Legislature.

The limitation that applies to the evaluation of sewer and water projects before the Legislature for approval, also applies to the highway projects. However, when highway widenings take place in rural areas, generally, they benefit farmers by providing more road surface on which to move more modern, larger farm equipment (water lines may also benefit farmers which conduct certain types of farming operations or use irrigation). Additionally, many of the other County highway projects that have taken place in farmland and rural nonfarming areas have been culvert replacements and bridge widenings, both of which provide benefits to farmers because they improve drainage and, again, provide wider, stronger bridges that can accommodate modern farm equipment.

The final policy called for the Department and the Environmental Management Council to help municipalities adopt large lot zoning in farming and rural areas. The policy assumed that municipalities would request assistance to develop zoning supportive of farmland. There were few if any such requests. Additionally, the Department stopped promoting the large lot zoning proposal of the early 1970's because there was insufficient evidence to indicate it helped to preserve farmland.

As with earlier proposals, the only policy regarding agriculture that has been fully implemented is the one concerning agricultural districts.

Planning in the 1980's

LESA

In 1984, a committee was formed to implement the Land Evaluation and Site Assessment (LESA) system for the purpose of identifying and ranking farmland for protection from urban development. LESA was developed in 1981 by the Soil Conservation Service (now the Natural Resources Conservation Service) to rate the suitability of land for a variety of uses such as agriculture, forestry, range, and riparian area protection (Pease and Coughlin, 1996). LESA takes into account soil factors (LE) and site assessment factors (SA) such as parcel size, adjacent land use, geographic setting, proximity to roads and to sewer and water lines, and ecological values.

The committee consisted of several local farmers and representatives of the Monroe County Soil and Water Conservation District, the Natural Resources Conservation Service, and Cornell Cooperative Extension-Monroe County. However, following attempts to implement LESA, committee members indicated that the model gave contrary results to the Committee’s expectations. In addition, the logistics associated with LESA were thought to be extraordinary.

As a result, the attempt was abandoned (Tom Nally, Cornell Cooperative Extension-Seneca and Ontario Counties, personal communication, March, 1998).

Agricultural Element of the Comprehensive Plan

In the mid-1980's, work began on a policy element entitled "Agriculture and Food Industry, Draft Plan Element with Policy Options" (Monroe County Department of Planning, 1988). The element was to be part of the County's adopted comprehensive development plan and would deal exclusively with agriculture. The report set out a broad range of goals concerning Monroe County's role in the future of the County's agriculture/food industry. Examples include:

- Land in agricultural use districts should be retained for agricultural production.
- Public and non-public institutions in Monroe County will give preference to locally produced commodities in meeting their food purchasing needs.
- Establish a County-Town process to prepare a prioritized (weighted) classification of farm land to be retained.
- The Agricultural District Advisory Committee (now the AFPB) should serve as the forum and focal point for all agricultural issues, to comment on County proposals and governmental actions related to agriculture, and to generate ideas relative to agricultural protection.
- Provide assistance to towns promoting agricultural zoning and transfer of development rights (TDR) programs; help administer these programs.
- Study and recommend a purchase of development rights (PDR) program for Monroe County based on the PDR programs of Suffolk County and others.

The report was never finalized for adoption as part of the comprehensive plan. However, again, County actions are consistent with the proposed policy to retain land in agricultural districts for agricultural production and, the AFPB has become a focal point on many agricultural issues and is preparing this agricultural protection plan. None of the other proposed policies mentioned here have been implemented.

Regional Approach to Agricultural Planning

The next effort to address agriculture-related matters was a multi-phased project called the "Genesee/Finger Lakes Regional Agricultural Strategy Plan and Feasibility Analysis." "The major goal of this project is to identify and help initiate as many economic development activities as possible to enhance the agriculture/agribusiness sector." (Brown, S.I. and Associates, The Winters Group, and Center for Governmental Research, Inc., 1989, p. 1). This project covered the nine counties of the Genesee/Finger Lakes region.

The report was preceded by a survey of agribusinesses in 1988 and was followed by two reports, the second of which identified four areas to focus efforts on based on recommendations from the project's advisory committee and a group of agriculture/agribusiness leaders from the region The four areas were: (1) marketing - develop a regional marketing program to promote the consumption of regional products; (2) public awareness - develop a program to improve public

perception and awareness of agriculture's importance to the region's economy; (3) agricultural land retention - work with local, County, and State governments to develop programs which preserve viable farming operations and agribusinesses; and (4) education and labor - promote programs in agricultural education which focus on continuing education and career development (Brown, S.I. and Associates, 1990).

The reports were not adopted by Monroe County.

Agriculture 2000

Finally, one other study was completed during the 1980's that made recommendations concerning the future of the statewide agricultural industry and, thus, applied to Monroe County. That study, called "New York Agriculture 2000," was completed by the Rural Development Task Force at the direction of the Governor because "long term planning is as essential to agriculture as to any other industry" (New York Agriculture 2000, p.1).

Academic and industry experts in agriculture, aquatic products, and forestry were assembled to review past experience, analyze current issues, and develop recommendations to promote the growth and development of their respective fields into the twenty-first century and make the industry more competitive on a national and international scale. A series of papers were written and reviewed in a series of conferences, and revised again to ultimately form the Agriculture 2000 report.

The report covered a wide range of topics including economic environment for agriculture and the food system; economic environment for the distribution of food; farmland, land use, labor, and capital; aquatic products; economic opportunities in dairy, field crops, forestry, fruit, livestock, ornamentals, poultry, vegetables, potatoes, and dry beans; acid rain; biotechnology; and nutrition.

Some of the significant, overall recommendations include:

- The Department of Agriculture and Markets should expand its role in policy analysis and economic development.
- The State should build on its advantages to promote agriculture which include proximity to large, affluent consumer markets, skilled management and workforce, and high capacity in education and research.
- Consider selective use of tax-free bonds to stimulate specific growth industries in agriculture.
- The State should pursue tax relief for farmers, especially property taxes on farmland.

Action has been taken on some of the recommendations, for example, tax relief for farmers (see chapter 7). The report itself, though, has not been formally updated since it was written. However, the New York State Advisory Council on Agriculture's report (1997) on the vision for New York's agriculture is considered the most current work on the status of agriculture as it identifies current problems and suggests actions to address the problems (Robert Somers, Ph.D.,

New York State Department of Agriculture and Markets, personal communication, November, 1998).

Chapter Summary

Areas of high and medium economic viability for farming were identified in Monroe County based on such factors as soils, climate, topography, farm products, and alternative opportunities available for the land, labor, and capital now in farming.

Several studies concerning agriculture in Monroe County were completed during the 1970's and 1980's that contained numerous recommendations to preserve and promote the various sectors of the agriculture industry. However, some studies only got as far as the working draft stage and others were completed but did not receive formal recognition or were not implemented. Only the elements of the Monroe County Comprehensive Development Plan received formal adoption.

The only policy in the various reports prepared by Monroe County that has been fully implemented is agricultural districts. The districts cover much of the area identified as having high and medium viability for farming. Also, although not an official policy, progress has been made on making the AFPB a focal point on agricultural issues. With regard to the remaining policies, success in implementation has been limited or nonexistent.

There is no process in place that provides for the evaluation of impacts to agriculture caused by sewer, water, highway, and other projects slated for County Legislature action so that the Legislature could take the impacts into consideration during its project approval process. Also, the review of projects that takes place prior to their placement in the County Capital Improvement Program does not address potential impacts to agriculture.

The Planning and Development Department makes recommendations on municipal subdivision and zoning matters that are intended to help protect and promote farming. The Department also promotes these concepts as part of its local planning assistance program. Municipalities have authority over land use in New York State. Thus, the decision to implement the recommendations is up to each individual municipality.

Based on the results of a 1971 farmer survey, taxes were the major concern of farmers. Also of concern were obtaining labor, finding markets, and land use conflicts with nonfarm neighbors. Farmers supported preferential tax assessments, agricultural easements, public utility planning (keep utilities out of farming areas to reduce nonfarm development potential), and agricultural zoning as ways to preserve farming.

An attempt was made to implement LESA but was abandoned because committee members indicated that the model gave contrary results to what committee members expected. In addition, it was also indicated that the logistics associated with implementing LESA were prohibitive.

Implication

As noted in chapter 1, the County's current population is 717,780. Additionally, the County's growth rate is projected to be a modest one percent for each ten year period to 2030 (Genesee/Finger Lakes Regional Planning Council, 1997), bringing the County's population to 747,612 people.

This projection for 2030 is far below the 1,000,000 projection used in the Farm Land Use Policy report and the 863,500 projection used as a basis for the land use pattern in the Land Use Element (Map 3), both of which were to be reached between 1990-2000. So with less population growth than expected, one might anticipate that, even with the limited success to date in implementing policies, there might be little pressure to convert farmland in the areas identified for farmland use in the Land Use Element. Yet, we continue to lose farmland. And, our population is projected to grow (although at a modest rate), most of which is projected to occur in the rural communities (see chapter 3). Thus, what has been done to date to protect farmland has not been sufficient. The challenge is to find effective ways to retain our agricultural industry.

Chapter 3
Agricultural Characteristics and Trends in Monroe County

This chapter presents the major characteristics and trends in Monroe County's agriculture industry. Agricultural regions of Monroe County are described followed by a description of the input, production, and output sectors. Overall agricultural industry trends for the County are presented, followed by a discussion regarding the County's agricultural districts.

Monroe County possesses highly productive soils -- over 60 percent are classified as prime and unique soils for farming -- and a favorable climate moderated by Lake Ontario. A large, nearby population base provides a viable market for fresh food. A modern highway system helps farmers get products to markets, and residents to farm product outlets (such as farm markets). As noted in chapter 1, 111,654 acres are classified agricultural, generating approximately $41.5 million in sales which results in a total economic impact to the County of approximately $128 million. And, agriculture-related employment in Monroe County is near 3,000 full-time employees (4,000 when part-time and seasonal workers are included).

Agricultural Regions

Portions of two of New York's major agricultural regions include Monroe County. They are the Central Plain and the Erie-Ontario Lake Plain (Linton and Conklin, 1972).

Central Plain

The Central Plain region covers the southern half of the County along with the broad midsection of western New York. "Agricultural resources here are among the most responsive in the State and support a wide variety of crops and livestock farming" (Linton and Conklin, 1972, p. 3). Dairy and field cash crops dominate the area.

Major portions of the Towns of Chili, Henrietta, Mendon, Riga, Rush and Wheatland have excellent agricultural resources, with one of the State's most outstanding farming areas being located along the Genesee River (Linton and Conklin, 1972). On the east side of the County, the region extends into the Towns of Penfield, Perinton, and Webster, and on the west, into the Towns of Clarkson, Ogden, Parma, and Sweden.

Erie-Ontario Lake Plain

The Erie-Ontario Lake Plain region extends from eastern Wayne County to the western tip of the State, and includes the northern half of Monroe County. Level ground, moderate climate, and well drained soils provide conditions which tend to favor intensive fruit and vegetable farming. Dairy and cash crops are also important operations in this region (Linton and Conklin, 1972). Most of the Towns of Hamlin and Parma, and portions of Clarkson, Greece, and Webster possess viable farm areas in this region. Concentrations of fruit farms are found along the lake behind

shore development in northern Parma near the Village of Hilton, and along Ridge Road.

Input, Production, and Output Sectors

The input, production, and output sectors are heavily dependent on one another. The input and output sector businesses mentioned here are primarily ones located in Monroe County although it is important to keep in mind that the economic viability of both depend not only on the production sector in Monroe County but on that which operates beyond County boundaries.

Input Sector

The input sector consists of the businesses that provide goods and services -- such as seed, fertilizer, equipment -- needed by farmers to produce agricultural products. The following are the most prominent businesses and agencies serving Monroe County that provide resources to the production sector. These include: Agway stores; Harris Seed; Monroe Tractor; Saxby Implement Corp.; Monsanto Chemical; Rhom Haas Chemical; T. J. Zornow, Inc.; Higbie Farm Supply; Genesee Lime; insurance brokers; approximately 125 veterinarians; approximately five trucking companies (trucking companies also haul products as part of the output sector); truck and auto dealers and parts supply suppliers; lumber yards and hardware dealers; power suppliers and fuel distributors; lending institutions; electrical, heating, and plumbing contractors; crop consultants; aerial applicators, Cornell Cooperative Extension; Geneva Experiment Station; horticulture sales and service businesses such as landscape, lawn care, arborists and other grounds maintenance services; Soil and Water Conservation District; USDA Farm Service Agency; and Natural Resources Conservation Service (Agriculture in Monroe County, 1998).

Production Sector

The production sector consists of the farmers and farm operations that produce agricultural products. The production sector of Monroe County's agricultural industry is impressive. Table 1 shows that the production sector is highly ranked nationally when compared to other counties in the United States. Monroe County ranks in the top 50 counties in the nation in three categories and in the top 100 counties in eight other categories (U.S. Bureau of the Census, 1994b).

The main products sold in Monroe County are vegetables, dairy products, nursery and greenhouse stock, fruits, and corn. As indicated in Table 1, Monroe County ranks nationally in various categories related to vegetables, corn, and fruits. Vegetable production is the number one commodity in Monroe County, and Monroe County is the fifth largest producer of vegetables in the New York (Ebenhack, 1997a). As a result of this concentration on vegetables, Monroe County also leads the Genesee/Finger Lakes Region in irrigated acreage with 1,379 acres on 75 farms (U.S. Bureau of the Census, 1994a).

Table 1
National Ranking for Monroe County Products

Product	1992	National Rank	1987	National Rank
Value of Agricultural Products Sold Directly to individuals for Human Consumption - 1992	$1,050,000	60		
Value of Vegetables, Sweet Corn and Melons Sold	$11,177,000	75	$10,623,000	62
Dry Edible Beans Harvested, Excluding Dry Limas: Hundred weight	85,378	68	123,958	53
Vegetables Harvested for Sale: Acres	8,466	86	11,052	62
Snap Beans Harvested for Sale: Acres	654	90	1,173	60
Cucumbers & Pickles Harvested for Sale: Acres	451	77	483	74
Sweet Corn Harvested for Sale: Acres	3,219	64	5,071	87
Apples: Pounds : Acres	39,909,959 2,197	38 46	42,955,353 3,025	33 35
Cherries: Pounds : Acres	1,017,540 161	49 61	1,623,372 322	42 47

Source: U.S. Bureau of the Census. (1994b).

Dairy products are the second most important agricultural commodity in Monroe County (Ebenhack, 1997a). In 1992, there were 57 farms containing 4,648 milk cows (U.S. Bureau of the Census, 1994a).

Beef cows, swine and sheep are raised for meat. Sheep are also raised for wool. Sixty farms contained 668 beef cows, 19 farms raised 634 hogs and pigs, and 31 farms raised 767 sheep and lambs (U.S. Bureau of the Census, 1994a).

Farmed acreage in Monroe County is devoted primarily to production of corn, wheat, and hay. Field corn is raised for grain with much of the output (70 percent) used to feed dairy cows, beef, sheep, and swine locally, in neighboring counties, and along the east coast (Agriculture in Monroe County, 1998). Monroe County ranks tenth in the State in bushels of grain corn produced (U.S. Bureau of the Census, 1994a). Wheat is used mainly for bakery flour.

In addition to grain corn, cabbage, cucumbers, dry beans, and sweet corn make up the primary vegetable acreage. Cabbage is raised mainly for cole slaw production. Western New York produces an estimated 90 percent of the coleslaw cabbage used in the eastern U.S. (Agriculture in Monroe County. 1998). The market requires producers to sell cabbage year round, either individually or through grower-shippers or brokers.

As noted above, fruits are also major crops. In addition to its national ranking, Monroe County is one of the Lake Plains counties which is the second largest apple producing region in the U.S. In terms of state rankings, New York State ranks second to Washington State in apple production (U.S. Bureau of the Census, 1994c).

As indicated in Table 1, cherries are a major fruit crop both in terms of pounds of cherries produced and acres devoted to growing cherries.

Grapes, honey, and flowers are also produced in Monroe County. Bedding plants are grown by at least 13 greenhouse businesses and honey is produce by three local beekeepers, one of which is the largest apiary in the State (Agriculture in Monroe County, 1998).

The market for agricultural products tends to be highly competitive, with product perishability playing a major role in determining price. Supply to consumers is determined by availability of local products as well as national and international products. Overall, local producers compete nationally for markets in products such as grains and dry beans. To offset the effect of perishability of vegetables and to extend the season, local producers have adopted storage technologies such as those described under the output sector for cabbage, winter squash, and apples (Agriculture in Monroe County, 1998).

Historically, supply and price control programs for crops such as dairy, corn for grain, wheat and other grains, have been administered by the Farm Service Agency (Interview with Ted McKay, Farm Service Agency, personal communication, January 29, 1998).

Some commodities are sold to agricultural cooperatives, and agribusinesses. In these situations, producers may contract a portion of their production for sales (Agriculture in Monroe County, 1998).

Output Sector

The output sector consists of businesses such as food canning operations, that serve as markets for agricultural products as well as operations such as roadside stands and farmer's markets which sell products directly to consumers.

Direct Marketing. Direct marketing is the process of selling commodities directly to consumers. It has become a significant activity for farmers as a way to increase incomes and reduce production costs (Ebenhack, 1997b).

There are two types of direct marketing. The first is retail direct marketing to consumers, the second is wholesale direct sales. Retail consists of sales through such venues as roadside stands, farm markets, and u-pick operations. Wholesale consists of sales to retail stores, restaurants, and institutions providing food services (Ebenhack, 1997b).

Nursery and greenhouse products account for the largest percentage of direct marketing sales in New York State (Ebenhack, 1997b). Nursery and greenhouse operations do well in an urban area like Monroe County because their products are in large demand for landscaping purposes. The potted and bedding plants grown by local greenhouses are sold locally through numerous florists, garden centers, farm markets, and other outlets. Golf courses are a major market for horticultural products. Monroe County has 20 golf courses that are internationally known (Agriculture in Monroe County, 1998), with some of the courses hosting PGA and LPGA tournaments and the Ryder Cup.

Vegetables account for the second largest percentage of direct marketing sales in the State (Ebenhack, 1997b). In Monroe County, fresh market vegetables are directly marketed through approximately 50 roadside stands and farm markets, and Wegmans and Tops, two supermarket chains in Monroe County (Agriculture in Monroe County, 1998). There also are u-pick operations, small farm markets such as those that are set up on specific days at shopping malls and in the Rochester Business District, and large farm markets such as the Rochester Public Market and Genesee Valley Regional Market. These outlets provide a significant source of income to farmers and provide fresh produce to consumers. More farmers are involved in retail direct marketing in Western New York than in any other region of the State (Ebenhack, 1997b). Metropolitan areas such as Rochester and Buffalo and tourist regions such as the Finger Lakes provide marketing opportunities to a large population base (Samuelson, 1992).

There are approximately 15 fruit and vegetable wholesalers located in Monroe County, mainly located at the Genesee Valley Regional and Rochester Public markets. Fresh market vegetables are also sold at Buffalo and Syracuse markets and other outlets outside the County (Agriculture in Monroe County, 1998).

To meet the year round demand for cabbage, once harvested in October and November, the product is stored in environmentally controlled facilities during the winter months. Winter squash is produced and stored in a manner similar to cabbage; however, the storage period is shorter. Producers also market winter squash directly to retail outlets (Agriculture in Monroe County, 1998).

Cucumbers are produced for fresh market consumption and also sold through packers in Holly and neighboring counties, and through vegetable wholesalers (Agriculture in Monroe County, 1998).

Finally, some farmers conduct value added operations where they process the raw product into a finished product for sale to outlets such as supermarket chains.

Dairy. Dairy farms produce milk that is processed into fluid milk or cheese at five in-State plants plus one in New Jersey. Facilities that are owned by producer cooperatives include Upstate, Dairylea, Sorrento, and Cohocton (Agriculture in Monroe County, 1998). Milk is also processed at Pittsford Farms Dairy in the Village of Pittsford.

Meat. Beef producers market animals at the Finger Lakes Livestock Exchange, to packers in Rochester and Pennsylvania, and direct to consumers. Calves are sold direct or through auction to local and out-of-state farmers. Swine producers sell primarily directly to packers in Pennsylvania, Auburn, and Savannah. Mutton is sold to ethnic markets and wool is sold to the garment industry (Ebenhack, 1997b; Agriculture in Monroe County, 1998).

Field Crops. Winter wheat (soft red) producers tend to sell primarily to Agway Flour Mill, located in the Village of Churchville. The mill doubled its production five years ago, and recently doubled it again (Ebenhack, 1997b; Agriculture in Monroe County, 1998).

Hay and straw is produced and sold locally to horse owners, and to brokers who market it along the east coast. Hay is also auctioned at places such as the Finger Lakes Auction in Canandaigua and the Lancaster Auction in Pennsylvania (Ebenhack, 1997b; Agriculture in Monroe County, 1998).

Approximately 70 percent of the grain corn output is used to feed dairy, beef, sheep, swine, and poultry in Monroe and neighboring counties as well as along the east coast (Agriculture in Monroe County, 1998).

Dry beans are usually sold to one of two Monroe County brokers, others outside the County, or to brokers in Pennsylvania. Brokers sell 80 percent of the product to canners and the remainder for fresh consumption, mainly in South America and the Caribbean countries (Ebenhack, 1997b; Agriculture in Monroe County, 1998).

Fruits. Apples, peaches, pears, cherries, and other small fruits are marketed directly in a similar way to fresh vegetables. Apples are also stored in environmentally controlled facilities for availability during the off-season. Processing apples are sold to Duffy Mott, Agrilink (a processing and marketing cooperative formerly named Curtice Burns Foods), and Seneca Foods, and to two smaller processors in Wayne County (Agriculture in Monroe County, 1998).

Here in Monroe County grapes are sold to several different wineries, the largest of which are owned by Canandaigua Wines. Small farm wineries are evolving and represent an increasing market for producers. Honey is sold through local roadside markets, farmers markets, and supermarkets. Beekeepers also provide pollination services to apple, melon, cucumber, and other producers (Agriculture in Monroe County, 1998).

Food Processors. Food processors are another method of marketing commodities. Monroe County has been home to some of the significant advancements in the food processing industry. The first state association of food processors was formed over 100 years ago in New York. The Associated New York State Food Processors, located in the Village of Spencerport, plays an active role in the development of agriculture as well as food processing. Additionally, the first labeling machine was set up in Rochester, and the sanitary can was first used in processing in the Village of Fairport (Ebenhack, 1997b).

The food processing industry began experiencing a decline in the 1950's partly due to stringent environmental regulations on wastewater imposed by the Rockefeller administration. The financial burden to comply with the regulations was so great that many processors went out of business. Those that remain in business continue to maintain compliance (Ebenhack, 1997b).

Monroe County continues to house five of the top eight food processors in the Genesee/Finger Lakes region. They are: Agrilink, Seneca Foods, Genesee Corporation, Van den Berg Food Company and Cantisano Foods. Agrilink, Seneca Foods, and Genesee Corporation are the top three processors in the region (Ebenhack, 1997b).

In terms of exports, Comstock Michigan Fruits (now Agrilink) was the largest exporter of food products in the region in 1996 with $13,000,000 in sales abroad, representing seven percent of total sales (Rochester Business Journal, 1998).

Monroe County ranked first in the region in 1995 in terms of number of employees in agricultural services with 1,280 employees (U.S. Bureau of the Census, 1997).

Assistance on food processing is provided by the Geneva Experiment Station, the College of Agriculture at Cornell, and the Food Processing Program at Morrisville (Ebenhack, 1997b).

Challenges facing the food processing industry today are: inability to obtain seasonal labor for processing at harvest time which has led to increased mechanization, excise taxes on wine, nutrition labeling, and environmental regulations. Because of its highly competitive nature, the food processors that have remained in the area have been able to stay in business by streamlining production, shipping in product from other parts of the country (in part, to help maintain a year round operation), vertical integration, diversification, and aggressive national and international marketing. Industry trends today are: (1) to consolidate so that few processors handle larger quantities of product and, (2) the emergence of small, specialized processors, particularly wineries (Ebenhack, 1997b).

Historical Trends

Despite Monroe County's significant ranking in several agricultural production categories in the region, the State and nationwide, data show that agriculture, in terms of acreage and number of operations, has declined significantly in Monroe County over the past several decades. Indeed, even though the latest figures in Table 1 show a national ranking in several agricultural categories, in almost every instance these figures are down from those cited for 1987. To further illustrate the decline, Figures 1 through 7 track the changes that have taken place in some of the key indicators of the status of agriculture in the County since the early 1900's and during the last 23 years. Appendix A contains further information depicting trends in Monroe County's agriculture industry (data for Figures 1 through 7 and Appendix A from U. S. Bureau of the Census, 1910 to 1992, provided by Ebenhack, 1997, Rochester Community Plant Food Project).

The number of farms has declined (Figure 1). The 511 farms in 1992 represents only 8.5 percent

of the almost 6,000 farms in 1910. There was an average loss of 81 farms per year between 1910 and 1974 after which the rate of loss slowed significantly to 16 farms per year between 1974 and 1992.

Similarly, there has been a decline in land in farms from 385,296 acres in 1910 (which represents almost 91 percent of the current acreage in Monroe County) to 110,150 acres in 1992 as indicated in Figure 2. The 1992 acreage is 28.5 percent of the acreage in farms in 1910 and is 25.9 percent of the County's current total acreage which is 424,454 acres. The average annual loss of land in farms between 1910 and 1974 was 3,873 acres but, like the rate of loss of farms per year, the rate of land in farms lost per year dropped to 1,515 acres for the period 1974-1992.

Cropland declined from 250,844 acres in the mid-1920's to 107,100 acres in 1992; again, the rate of loss slowed between 1974 and 1992 (Figure 3). Consistent with the trend shown in Figure 3, Figure 4 shows that harvested cropland decreased from 230,989 acres in the mid-1920's to 68,878 acres in 1992. The decrease was fairly steady between 1924 and 1969, after which the acres in harvested cropland began to rise, reaching 101,142 acres in 1982 before falling to the 1992 figure.

While Figures 1 through 4 show a decline in various farming categories, average farm size increased steadily and significantly since the mid-1920's from approximately 69 acres to 216 acres in 1992 (Figure 5). From 1925 to 1974, the annual average increase in farm size was 2.12 acres whereas the average increase in farm size between 1974 and 1992 was about 2.4 acres per year.

Figure 6 shows that since 1974, the number of farm operators whose principal occupation was farming decreased from 452 persons to 273 persons, a 40 percent decline, while Figure 7 shows that the number of operators whose principal occupation was other than farming declined by 25 percent between 1974 and 1992, dropping from 317 persons to 238 persons. Overall, the retention of principal farm operators to part-time operators has remained about the same (53 percent).

Figure 1
Farms in Monroe County

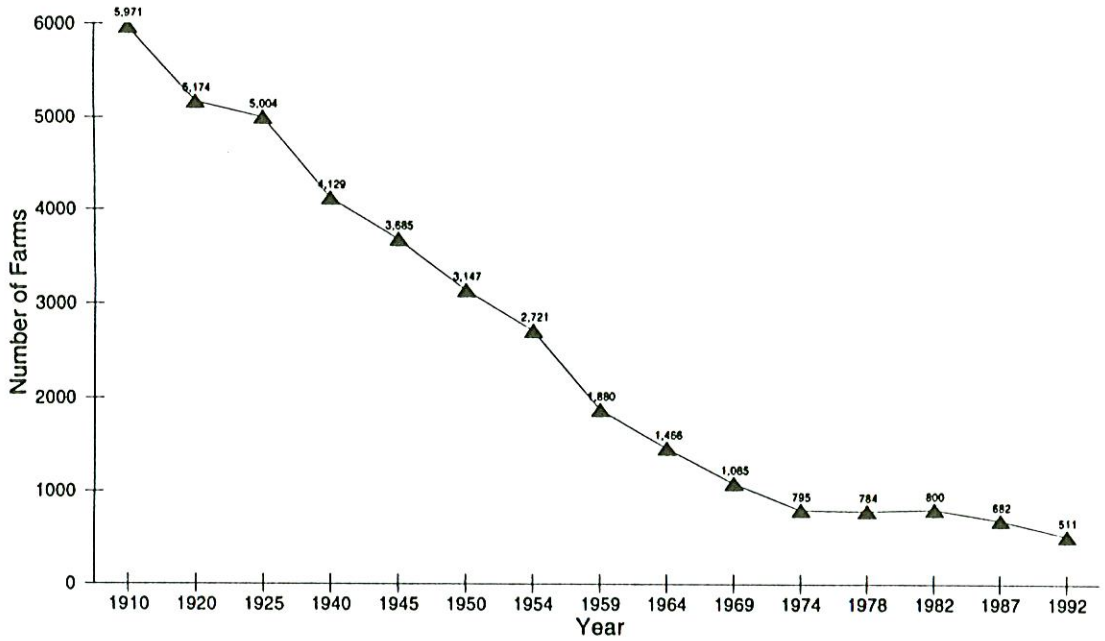


Figure 2
Land in Farms, Monroe County

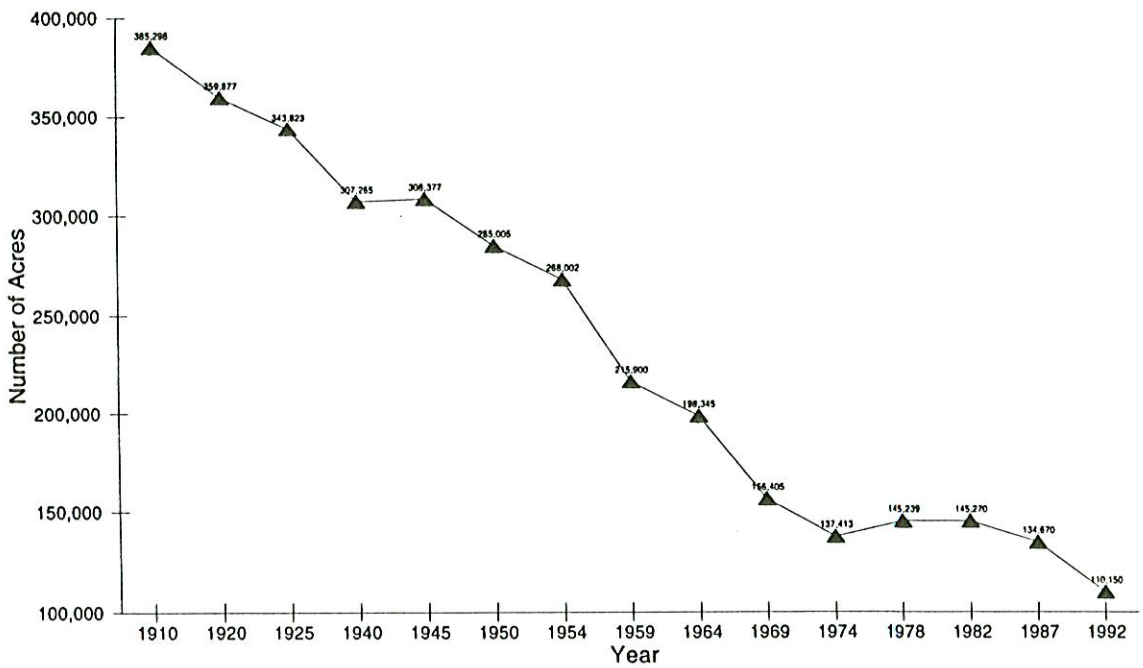


Figure 3

Total Cropland in Monroe County

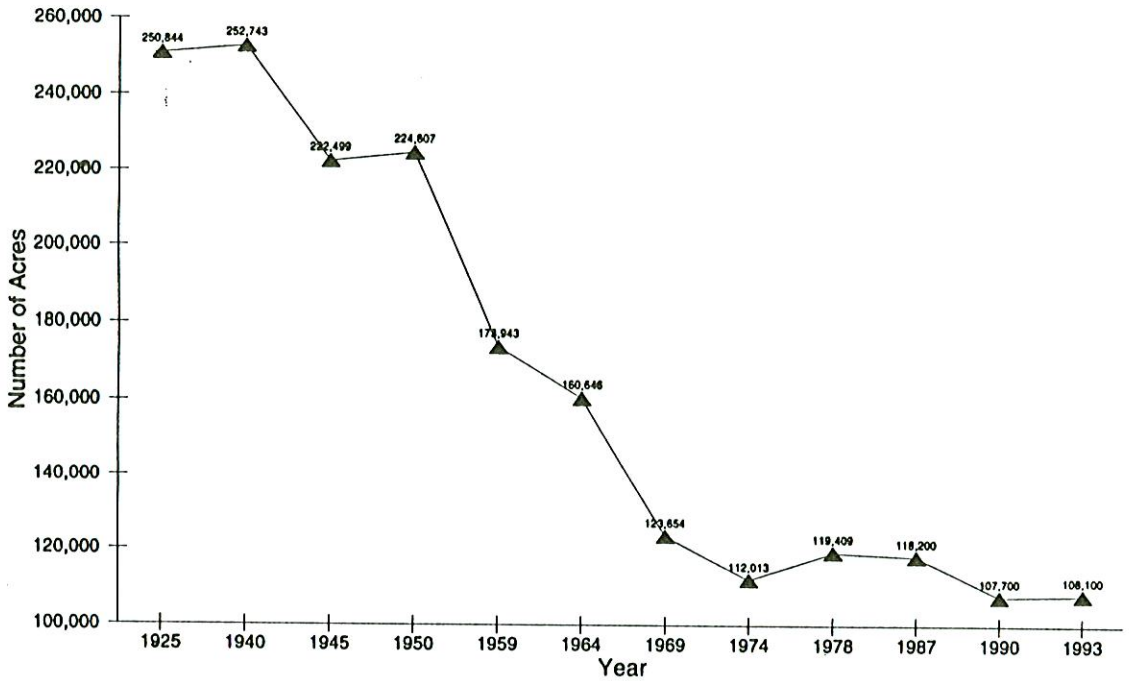


Figure 4

Harvested Cropland, Monroe County

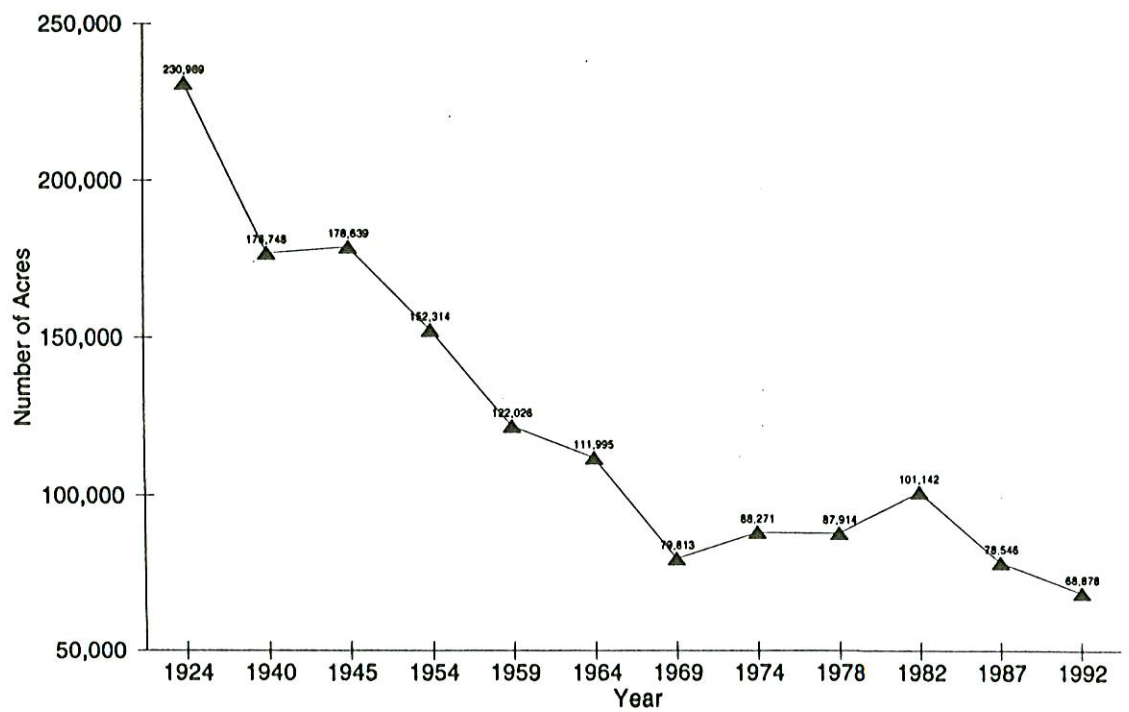


Figure 5

Average Size of Farm, Monroe County

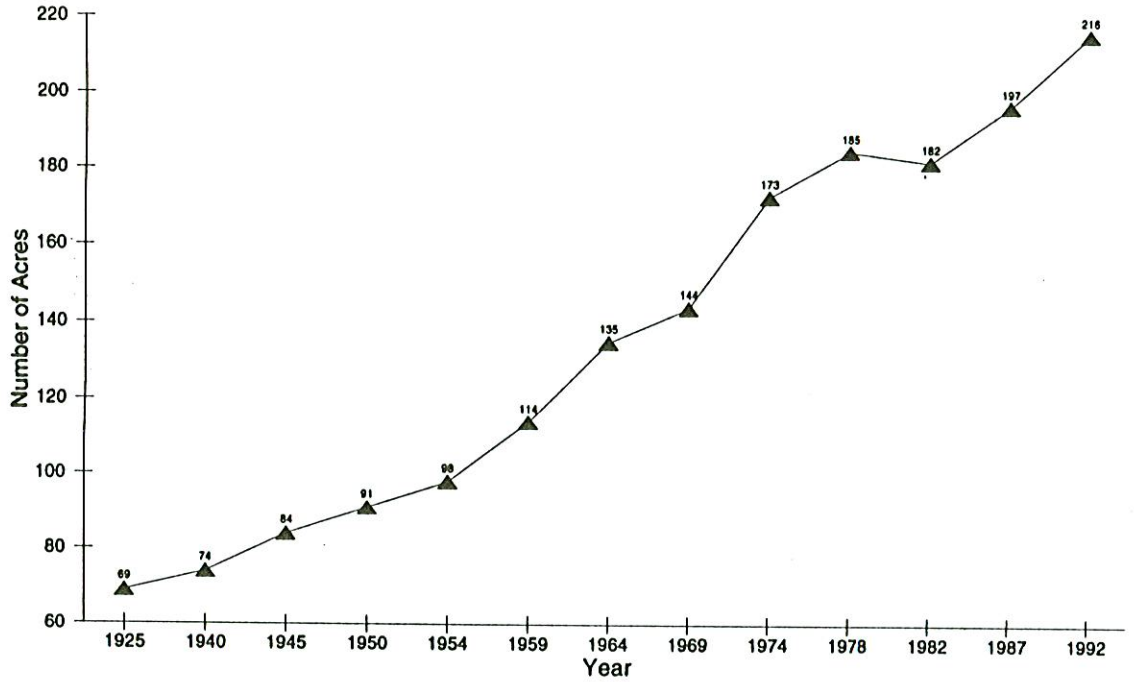


Figure 6

Operators Principal Occupation-Farming

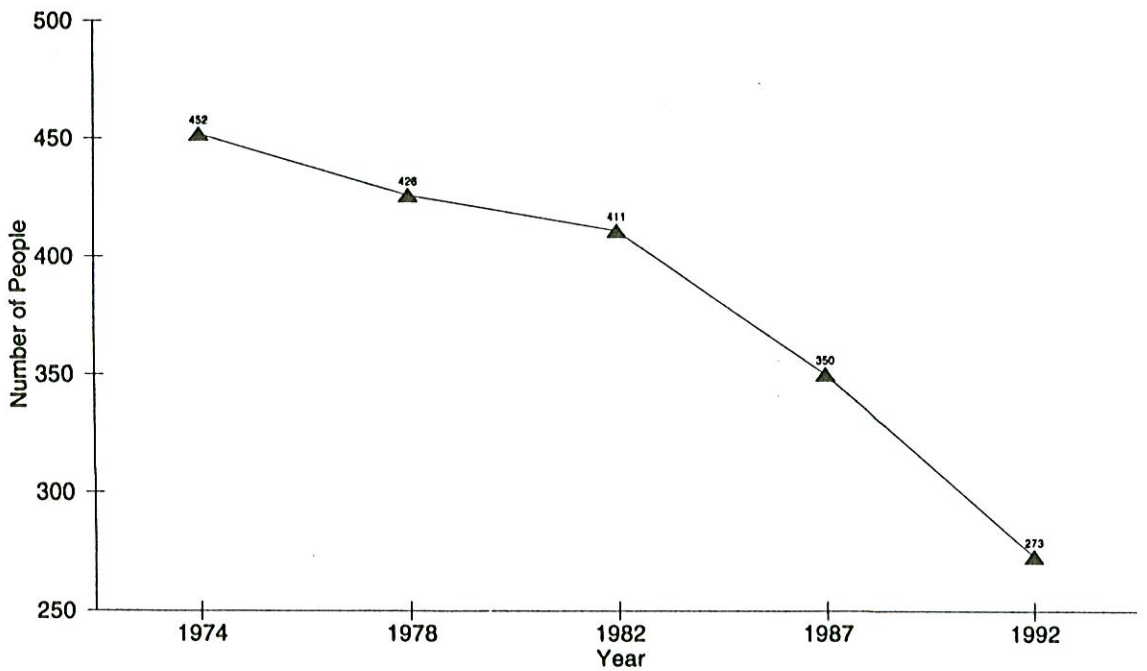
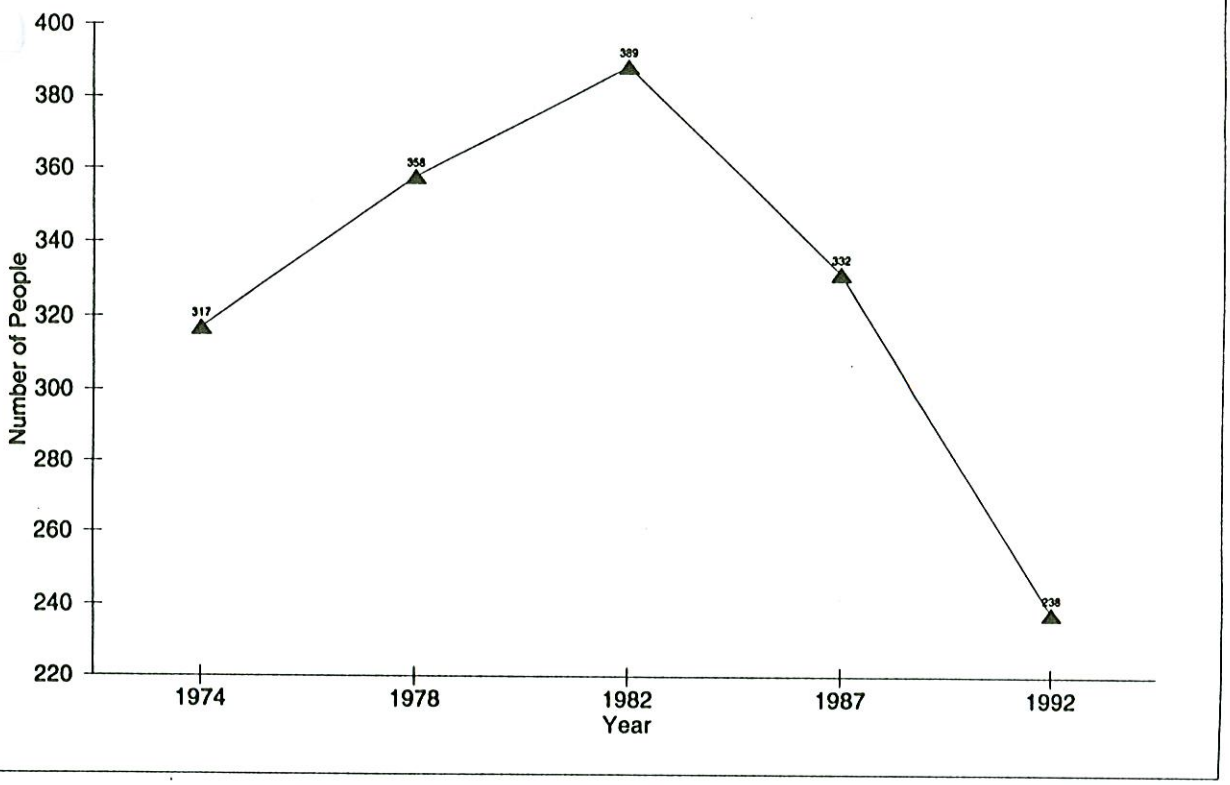


Figure 7

Operators Principal Occupation - Other



Between 1982 and 1992, overall acreage and productivity on a per acre basis in traditional commodities such as oats and corn declined (U.S. Bureau of the Census, 1994a). Between 1982 and 1992, acreage in oats decreased from 8,700 acres to 2,393 acres. Productivity per acre went from 79 to 65.9 bushels. For corn for grain or seed, acreage decreased from 29,560 acres to 18,782 acres. Productivity on a per acre basis went from 94.5 to 90.65 bushels. Productivity is heavily related to weather factors.

Total gross sales declined from $93,371,000 to $41,485,000. Total land in farms also declined from 150,258 acres to 110,150 acres. However, market value of agriculture products sold per farm increased significantly from $54,214 to $81,183.

Finally, the average age of the farm operator in Monroe County increased from 51 years to 54 years between 1982 and 1992 (U.S. Bureau of the Census, 1994a).

Labor, Land, Capital, and Technology

The availability and nature of agricultural labor tends to be related to both population growth and the proximity of agricultural areas to urban areas. Historically, agricultural labor has been viewed as surplus labor that has little or no marginal return. However, this perspective underestimates the use of labor in and adjacent to highly populated areas especially where farms are involved in multicropping. Multicropping usually becomes economically justified since higher populations often increase incomes and consequently increase the demand for agricultural products. Increases in demand translate into higher prices received by farmers for products, such as fresh fruits and vegetables. However, increased prices can only be realized as long as government intervention or the imports of inexpensive food do not take place that could effectively drive down prices (Boserup, 1989). Increased prices may be necessary to offset increased costs of production associated with expanding production.

In multicropping areas, more intensive labor methods are required to preserve soil fertility, reduce weed growth and diseases, grow fodder for animals, irrigation, and protect the land. Hence large investments in labor occur. In addition, large investments in land and equipment, such as drainage, tractors, cultivators, irrigation, fencing, etc. are necessary to support multicropping activities.

In the short run, increases in population result in increases in demand for agricultural products. The increase in demand can be met by transporting commodities from outlying areas into the population and/or providing for additional investment in land, labor, and capital in the immediate area to encourage more agricultural production. In order to prevent leakages associated with transporting goods into a local economy (consequently, money going out of the area) expansions in agricultural production in the immediate area would be desirable. Although expansion in agricultural production may increase some production costs, typically, communities with agricultural land that has long fallow periods (agricultural vacant land), are undervalued in terms of fertility and productivity (Boserup, 1989). Hence, expansions in the agricultural sector may significantly increase the rate of return on both land and capital as well as significantly increase

the real wages of agricultural labor, and have a positive impact on the overall local economy.

In the long run, scientific and technological innovations can have profound impacts on the expansion of agricultural products that may be required to meet increases in demand of a growing population. Agricultural producers dependent on high-level technologies are dependent on a strong infrastructure that includes transportation, trade facilities, repair shops, electricity, research stations, extension services, and so forth. Historically, densely populated areas encourage the introduction of scientific and technological change in the agricultural sector since per capita costs of establishing and maintaining a strong infrastructure are much lower when compared to rural populated areas (Boserup, 1989).

Farm Labor

Earlier, it was noted that food processors have had difficulty obtaining labor at harvest time. Farmers, too, historically have had a difficult time obtaining qualified labor to work on farms. Approximately 18 percent of the farmers responding to a survey in 1971 indicated that difficulty in obtaining farm labor could discourage them from continuing to farm (Monroe County Planning Council, 1971). Obtaining an adequate supply of qualified farm labor at reasonable costs in urbanizing areas like Monroe County may be more difficult because of competition from alternative employment opportunities (Monroe County Planning Council, 1972).

While competition from other industries may be a problem, a more recent pressing problem for Western New York and Monroe County farmers has been inspection of migrant labor records by Immigration and Naturalization Services (INS) to uncover illegal workers. During the fall apple harvest in 1997, INS inspected migrant labor records of farms in Western New York and arrested several illegal workers (Goodman, 1998).

Through efforts of agricultural organizations, immigration law was changed to permit farmers to bring in migrant labor for a specific time period after which they must return home. The program is referred to as H-2A after the section of immigration law authorizing it (Goodman, 1998); it is also known as the Guest Worker Program. A remaining issue, however is that because of past actions by INS, many migrant laborers are hesitant to come to Western New York even though the H-2A program is in effect (Goodman, 1998).

Others argue that there is an adequate supply of farm labor locally and therefore, no need to hire migrant laborers nor for the Federal government to make it easier to bring in migrant labor with H-2A (Goodman, 1998). However, based on discussions with Monroe County farmers, attempts to hire local labor have not been all that successful. Local laborers need to be taught what to do and lack the skills of experienced migrant workers.

Population, Economic, and Farmland Changes

While farming has been experiencing a decline since the early part of the century, as illustrated in Figures 1 through 4, the decline between 1950 and 1970 has, as noted in chapter 2, been primarily attributed to urban expansion.

Between 1950 and 1970, Monroe County experienced a 46 percent increase in population. The continuation of Veterans Administration mortgage benefits established after World War II, and the institution of other tax benefits favoring homeowners made it easy to own a home (Westchester County Department of Planning, 1997). Expansion of the County's expressway system reduced drive times and made more of the County easily accessible by vehicle. The combination of these factors would appear to be largely responsible for the urban expansion pressures described in chapter 2 that were faced by farming during this period. As a result, 121,000 acres of farmland had been idled by urban expansion pressures of the 1950's and 1960's, but none of the land had been developed into urban uses.

Beginning in the 1970's, the rate of decline in farms, land in farms, and total and harvested cropland, tended to level off. Between 1970 and 1980, the country experienced double digit inflation, high interests rates, and a recession (Westchester County Department of Planning, 1997). During this same time period, Monroe County experienced a 1.3 percent decrease in population but most of the decline took place in Rochester and in several villages. The rural towns, however, continued to grow and in some cases, at double digit percentage rates. Although rural towns continued to grow, the overall economic conditions during the decade may, in part, have acted to reduce the level of speculation and urban expansion pressures faced by farmers that occurred between 1950 and 1970 and, thus, may have helped in reversing the declines in agriculture.

Between 1980 and 1990, the County's population increased by 1.7 percent. The majority of the increase took place in the farming and rural communities, and the declines illustrated in Figures 1 through 4 reappear, indicating that farmers may have faced an increase in development pressure during the decade.

Thus, the overall economic climate and population change impact farm land use. Although, it is difficult to forecast the economic climate of agriculture, it is apparent that population growth can create development pressure by increasing demand for farmland for nonfarm use. Also, population is projected to grow during the next three decades. Although growth is projected to be small, based on what occurred in the past decade, population growth will continue to place conversion pressures on farmland because most of the growth is projected to take place in the County's farming communities.

Trends in Agricultural Districts

As noted in chapter 1, agricultural districts law permits counties to establish agricultural districts. The request to establish a district is made by property owners to the county legislative body.

Upon approval by the county legislative body, the Commissioner of Agriculture and Markets must certify a district. The districts provide certain benefits to farmers and farmland owners in order to help promote farming. Appendix B contains a summary of the benefits.

Between 1973 and 1976, Monroe County created five agricultural districts: Midwestern #1, Southwestern #2, Northeastern #3, Southeastern #4, and Northwestern #5. The districts cover portions of 16 of the 19 towns in Monroe County. Their general location is shown on Map 4.

Article 25AA requires agricultural districts to be reviewed eight years after creation and every eight years thereafter to see if the districts are fulfilling their intended purpose which is to protect and promote farming. Table 2 presents the major categories for which data is collected during the district eight-year review process, and compares the data from each district's most current eight-year review to its previous eight-year review.

A comparison of the data for each category illustrates that there has been an increase from the previous review to the current review in each of the key variables that assess activity in an agricultural district. For example, the number of acres rented and owned by farmers has increased significantly, as did the number of acres cropped. Additionally, total acreage of parcels enrolled in the districts has also increased.

Even though there has been decreases in farms, harvested land, and other indicators on a countywide basis, there has been an increase in farms enrolling in agricultural districts, indicating that the districts program is helping to keep land in farming. Based on interviews and meetings with farmers during district review periods, farmers are joining agricultural districts for right to farm protections and protection from municipal zoning regulations.

Finally, while overall district totals all show an increase from the previous eight-year review to the most current eight-year review, certain individual districts experienced decreases in acres owned by farmers, acres cropped, and acres in farms while most experienced an increase in the number of acres rented. These changes may be an indication that farmers have sold land for nonfarm uses or to reduce operating costs, taken land out of production in anticipation of possible nonfarm development, and/or are renting land versus buying it because: (1) the land may be too expensive to purchase or (2) farmers would rather rent land than purchase it because they are uncertain as to how long they will remain in farming.

Rollback Penalties

Table 2 lists the number of rollback penalties recorded in each district during the district's most recent review. A rollback penalty is the payment of back taxes plus interest for converting

Map 4 - Agriculture Districts, Monroe County, NY

Table 2
Agricultural Districts Summary

District	Date of Most Current Review	Year of Previous Review	Acres Current Review	Acres Previous Review	Acres At Creation Date	Acres Cropped Current Review	Acres Cropped Previous Review	No. of Farms w/Gross Sales of $100,000 or more Current Review	No. of Farms w/Gross Sales of $100,000 or more Previous Review	Acres in Farm Current Review	Acres in Farm Previous Review	Acres Owned by Farmers Current Review	Acres Owned by Farmers Previous Review	Acres Rented by Farmers Current Review	Acres Rented by Farmers Previous Review	Farms w/Total Capital Investments of $100,000 or more over past 7 years Current Review	Farms w/Total Capital Investments of $100,000 or more over past 7 years Previous Review	Rollback Penalties Current Review	Presence of Public Sewer	Presence of Public Water
Midwestern (#1)	09/09/97	1989	15,754	15,864	9,999 (8/73)	7,647	8,045	21	21	7,819	8,220	6,886	6,882	933	1,338	29	29	50	N	Y
Southwestern (#2)	07/02/91	1982	37,138	36,599	34,487 (11/74)	24,491	20,000	17	10	28,944	25,000	15,018	15,000	13,870	10,000	16	5	3	N	Y
Northeastern (#3)	12/24/92	1983	10,413	9,020	7,346 (5/75)	5,666	6,405	23	12	6,295	6,740	3,147	6,083	3,147	1,190	17	12	6	Y	Y
Southeastern (#4)	01/18/94	1983	33,325	31,506	18,450 (10/75)	18,096	15,948	35	60	24,128	26,746	8,093	3,822	16,035	13,911	45	68	0	Y	Y
Northwestern (#5)	08/28/96	1984	37,258	35,310	29,760 (12/76)	23,875	23,617	68	35	33,853	26,785	20,433	16,872	13,420	11,113	60	22	10	Y	Y
District Totals			133,888	128,299	100,042	79,775	74,015	164	138	101,039	93,491	53,577	48,659	47,405	37,552	167	136	69		

Number of Acres in Monroe County 424,454

Percent of County Acreage in Agricultural Districts 31.50

Source: Eight-year review reports and files for each District and Monroe County Legislature proceedings for reviews completed through December, 1997.

farmland receiving an agricultural assessment value to a nonfarm use. While it is not known wether the rollback penalty has been imposed in every instance of conversion, there have been many instances where it has been imposed and, thus, those rollback penalties that have been imposed may be considered as indicators of nonfarm development. In this context, they can be useful in making some general observations about what may be associated with the conversion.

When looking at rollback penalties assessed during each district's most recent review, the Midwestern District had by far the largest number of penalties. Fifty rollback penalties were recorded on 540 acres in the District.

The most significant change that occurred in the Midwestern District during its most recent review was the extension of the Route 531 Expressway. During 1994, the expressway was extended into and through part of the District. The extension had been in the planning and design stages since the 1980's, the period of the District's previous review. Further, the expressway's interchange is next to the District in the Town of Ogden, the town in which 80 of the 88 rollback penalties occurred during the current and previous reviews. Therefore, the occurrence of these rollback penalties may be associated with the presence of the expressway interchange and, thus, may reflect the conclusion that highways are one of the most important infrastructure components in influencing where urban development may take place (Monroe County Department of Planning, 1979a).

Similarly, the declines in acres cropped, acres in farms, and acres rented by farmers in this District may, in part, be a reflection of the development and development pressures represented by these penalties and the influence of the presence of the expressway interchange. The analysis section of the plan will look more closely at the relationship of farmland and expressway interchanges.

Presence of Public Sewer and Water

Table 2 indicates the presence of public sewer and water in the districts. Historically, sewer, along with highways, tend to be important factors in determining where urban expansion may take place (Monroe County Department of Planning, 1979a).

As noted in chapter 2, much of the County's interceptor sewer system was constructed in farming areas in the 1970's. However, despite the presence of sewers in many rural areas as an incentive to development, farmers who wished to remain in agriculture requested the creation of agricultural districts in areas served by public sewer.

Like sewer, public water facilities already existed in areas that eventually became parts of agricultural districts, and water facilities continue to be constructed in agricultural districts. Today, approximately 90 percent of the County has public water (Richard Metzger, Monroe County Water Authority, personal communication, July, 1998). But unlike the incentive for development that sewers and highways may be, public water does not appear to be as great of an incentive to development. Thus, the general availability of public water, by itself, would appear

not to favor any one area of the County over another for development purposes.

An indication of this is that during the most recent review of the Midwestern District, it was noted that a 16 inch reinforcing water main was constructed to finish a loop in order to ensure a continuous water supply to an area which already had water service. The area through which the line was constructed did not have prior access to water. A review of the land use and tax parcel pattern along the line's route several years after it was constructed revealed that the land was still in active agriculture and that the land was still in large parcels.

Land used in agricultural production in agricultural districts is exempt from fees for sewer and water line extensions as long as the district pre-dates the imposition of the fee to pay for the improvement (New York State Department of Agriculture and Markets, 1997). Exceptions are: a one-half acre lot around all dwellings and nonfarm structures, and any farm operations or structures which would directly benefit from the utility. When the fee pre-dates the district, the farmer receives no exemption.

Finally, whenever there is a proposal to construct sewer or water facilities in an agricultural district, and the proposal involves the acquisition of more than one acre from an active farm in the district, or the acquisition of a total of more than 10 acres in the district, a Notice of Intent (NOI) must be filed by the service provider with the New York State Department of Agriculture and Markets (NYSDAM) and the local farmland protection board (New York State Department Agriculture and Markets, 1997). The board reviews each project and submits its comments and recommendations to NYSDAM and the service provider.

The AFPB reviews eight to ten NOI's per year, and coordinates closely with the service provider during the review process. Recommendations on projects have included alternative routes, line sizing and use of force mains to minimize potential development impacts, and use of construction methods that maintain the productivity of the soil for farming, all of which have helped minimize or eliminate adverse impacts to farming operations.

Agricultural Districts and Economically Viable Farming Areas

Map 5 shows the relationship between the location of the five current agricultural districts and the economic viability of farming areas in Monroe County. The areas of viability have declined in size from the original areas due to land conversion (Monroe County Department of Planning, 1988). Map 5 shows their approximate current location and demonstrates that districts have generally been created and expanded in areas of high viability. This action is consistent with the recommendation to give priority to establishing and expanding agricultural districts in areas of high economic viability (Monroe County Department of Planning, 1973). Additionally, of the total number of acres coded agricultural by municipal assessors as listed in Table 3, 73 percent are in agricultural districts. This indicates that a large percentage of Monroe County's farmland is in agricultural districts and is also in areas identified as economically viable farm areas.

Map 5 - 1997 Economic Viability of Farm Areas & Agricultural Districts, Monroe County, NYS

Table 3
Agricultural and Selected Residential Parcels
In Agricultural Districts and Monroe County

	Agricultural Districts	County
Number of Agricultural Parcels	1,259	1,864
Acres Occupied by Agricultural Parcels	81,507	111,654
Number of Residential Parcels Grtr. Than Five Acres in Size	1,414	3,697
Acres Occupied by Residential Parcels Grtr. Than Five Acres in Size	23,775	54,597
Average Size of Residential Parcels in Acres	16.8	

Source: RPS records maintained by Monroe County Real Property Tax Services, July and December, 1997.

It is possible, however, that there are economically viable farm operations outside of the mapped areas of viability. So, while it makes sense to try and concentrate agricultural districts in areas of mapped viability to enhance the chances of keeping these areas in agricultural production, it also seems appropriate to expand districts to include those farmers outside of these mapped areas who want to be in a district because their operations are obviously economically viable and the farmer deserves to have the benefits afforded by district membership.

Finally, in addition to collecting information on parcels with an agricultural class code, data was collected on parcels with a residential class code where the parcel size is five or more acres. This was done because it may be that some of these residential parcels may actually be farmed but receive a residential class code. It was found that there were 1,414 parcels in agricultural districts with a residential class code where the parcel size is five or more acres, occupying 23,775 acres, and averaging out to 16.8 acres per parcel (Table 3). The average parcel size indicates that it may be possible that some of these parcels could be farmed by the owner or rented out for farming. When looking at the acres of rented land in Table 2, the acres rented increased by almost 10,000 acres between the previous and current eight-year reviews. Thus, the availability of rented land is very important to Monroe County's agricultural industry, and it may be possible that many of the parcels five acres or more in size with a residential class code are rented for farming.

Chapter Summary

Monroe County's production sector produces a variety of commodities and ranks high in the region, State and nationwide.

The input, production, and output sectors are interrelated. The economic viability of any one sector impacts the economic viability of the other sectors.

Farmers rely heavily on skilled migrant labor. Even though federal regulations regarding migrant labor have eased, migrant laborers are still reluctant to travel to this area to work. Local labor is unskilled and needs to be trained. Farmers need to be assured that they will have an adequate, skilled labor supply in order to maintain viable farming operations.

The declines in farming identified in this chapter appeared to level off at about the same time population growth was leveling off following the major growth period of the 1950's and 1960's and its resultant urban expansion. The 1970's were a period of population decline and nationwide economic conditions which helped reduce urban expansion pressures. Population growth increased slightly in the 1980's and declines in farming reappeared toward the end of the decade. Population projections indicate modest growth increases in each of the next ten year periods until 2030. But although growth is projected to be small, based on what occurred in the past decade, it is expected that it will continue to place conversion pressure on Monroe County's farming community. And it is likely that these trends are indicative of the changes the agriculture industry experienced and will continue to experience not only in Monroe County but throughout the State and the nation.

The declines in the number of people principally occupied in farming and in those who earned some of their income from farming reflects the decline in number of farms and farm acreage.

Although the number of farms and farm acreage have declined, farm size, acreage, and the average of the market value of agricultural products have experienced slight increases on a per farm basis, suggesting that remaining farms have increased production and tend to be more intensive. This trend in farming tends to be prevalent in areas near large populations with adjacent commercial agriculture, where work seasons become longer and crop frequency increases in response to size of population (market). This trend also appears to be prevalent in Monroe County where many agricultural operations can also be characterized as intensive and diversified.

The increase in farm size reflects a trend where one or more adjacent farmers purchase some or all of the acreage of a farm that has gone out of business and incorporate it into their existing operation. It is also a response to increased reliance on machinery which permits farmers to farm more land. Farms are becoming fewer and larger.

The average age of the Monroe County farmer increased from 51 years to 54 years between 1982 and 1992, indicating that younger people are not selecting farming as a career.

Dense and growing populations such as Monroe County's increase demand for agricultural products, prompting technological and scientific changes in agriculture which encourage further investments in land, labor, and capital.

Highway and sewer access appear to increases an area's development potential. The analysis portion of this plan (chapter 8) will look more closely at the relationship of farmland to highway and sewer facilities.

Almost three-fourths of Monroe County's agricultural acreage is in agricultural districts. These districts encompass large portions of the areas identified as having high and medium viability for farming. Thus, the majority of Monroe County's farming is taking place in areas highly viable for farming.

The amount of land rented by farmers (Table 2) is almost as great as the amount of land owned by farmers in agricultural districts. This indicates that farmers are more likely to rent land than buy land.

Finally, while agriculture as a whole has experienced declines in Monroe County, the total figures for all of the major variables which indicate the general health of the agricultural districts program increased between the previous review period and the most recent review period. During district eight-year reviews, farmers have stated that they are joining the districts for the benefits and protections it provides to farmland. This indicates that for those who wish to remain in farming, the agricultural districts program is helping them to achieve their objective.

Chapter 4
Land Use Regulations and Municipal Planning Related to Agriculture

In New York State, most of the authority to regulate land use and do land use planning has been delegated by the State to municipalities -- cities, towns, and villages. In Monroe County, farming is found predominantly in the towns and to a very small degree, in villages. Therefore, an inventory of town and village land use regulations and comprehensive planning documents was conducted to determine what regulations towns and villages apply to farming in Monroe County. Also, there are a number of land use regulatory and design techniques that have wide application to a variety of land uses, including farming. This chapter identifies these techniques and identifies which municipalities in Monroe County are currently using these techniques to protect and preserve farmland. The chapter concludes with a summary of major land use legislation at the State and Federal level concerning farmland preservation and protection.

The results of the inventory of municipal land use regulations applied to farming is summarized in Table 4. Appendix C contains the methodology used to collect this data. Before presenting the inventory results, it is important to note that one of the benefits farmers receive for being in an agricultural district is that municipalities cannot enact zoning ordinances, regulations, or other local laws that "unreasonably restrict or regulate farm operations within agricultural districts in contravention of the purposes of (this agricultural districts law) unless it can be shown that the public health or safety is threatened" (New York State Department of Agriculture and Markets, 1997, p. 39). The reasonableness of a restriction may be determined by the Commissioner of NYSDAM.

Town Land Use Regulations

Definitions

Eighteen of the 19 towns have a definition for agriculture/farm (column 1) and, as noted in chapter 3 and column 6, 16 of the 19 towns have land in a State-certified agricultural district. However, if a farmer requested NYSDAM to review a definition as it related to a particular farm operation, many of the definitions (column 2), including those of many of the towns which have land in an agricultural district, may be found to be inconsistent with the description of "farm operation"which is found in Agriculture and Markets Law, Article 25AA, Agricultural Districts.

The reason why these definitions may be inconsistent with Article 25AA is that they require farms to be a certain minimum size such as five or ten acres. Article 25AA does require "land used in agricultural production" to meet minimum acreage and gross sales requirements but these requirements are only for the purpose of determining eligibility for an agricultural assessment value under the agricultural districts program. Aside from being eligible for an agricultural assessment value, farm operations do not have to meet any State-mandated minimum size requirement. Thus, a farmer could have an operation in an agricultural

TABLE 4
Municipal Land Use Regulations Related to Agriculture*

Towns	1 Agricultural Activities Defined? Y N	2 Agriculture or Farm Definition Consistent with NYSDAM?	3 Regulate Other Agricultural Activities? Y N	4 Agricultural Farm Permitted In Districts	5 Agriculture Not Listed as a Permitted Use In Districts ?	6 Agriculture Districts Present? Y N	7 Zoning Districts Present In Agricultural District	8 Any Pro-Agriculture Provisions? Y N	9 ADS? Y N	10 Comp. Plan Promote Agriculture? Y N	11 Does Zoning Implement Plan In Agriculture Dist.??	12 Sub. Reg. Provisions Re: Agriculture ? Y N	13 Have a Process to Address Complaints? Y N	14 Is There an Agriculture Advisory Body? Y N
Brighton	Agricultural operations Farm	Yes 1	Possession of farm animals		A, B, C, PRD D-1, D-2, E-1 E-2, E-F, F-1 F-2. TOP, G	X		X	X	X		X	X	X
Chili	Agriculture Farming	1 1	Slaughterhouses	AC, PRD, RA-1	R-1, RM, NB, GB, LI, GI	X#2	AC, PRD, RA-1	Incentive zoning	X	X	Yes	X	X	X
Clarkson	Farm	1	Farm labor housing	2	2	X#5	2	X	X	X	Yes	X	X	X
Gates	Agriculture Farming	1 1	slaughterhouses and rendering plants	[R-1] restrict FW, FPO	MR, PUD BN-R, NB GB, LI GI, AOD	X		X	X	X		X	X	X
Greece	Farm	1	Truck gardens, nurseries greenhouses, farm stands Sales of agricultural goods	SF1, SF2 SF3, SFE COS, IL, IG MFL, MFH	CHC, BP BR, BG, MXU,	X#5	SF-1, SF-2 1G	X	X	X	Yes	X	X	X
Hamlin	Agricultural business Agriculture Farm Farm labor camp	Yes 1	Roadside stands Keeping of animals and poultry	2	2	X#5	2	X	X	X	Yes	X	X	X
Henrietta	Farm	1	X	R-1, R-2	B-2, B-1 PCD, ILCD I, PUD, HP	X#4	R-1-20, R-1-15 B-1	X	X	X	1	X	X	X
Irondequoit	Farm	1	X	[R-R, R-1, R-2 R-3, R-4, R-5] restrict	R-6, C WD	X		X	X	X		X	X	X
Mendon	Agricultural or farming activities Farm Farm & craft market Farm, buildings, farm operations	Yes Yes Yes	Roadside stands	RA-5ac, RA-2ac RA-1ac FPO, FW RS-30	PUD, CB, I	X#4	RA-5, RA-1, RS-30 RA-2, I, CB	Disclosure notice	X	X	1	X	X	Farmland Advisory Committee

Towns	1 Agricultural Activities Defined? Y N	2 Agriculture or Farm Definition Consistent with NYSDAM?	3 Regulate Other Agricultural Activities? Y N	4 Agriculture/ Farm Permitted in Districts	5 Agriculture Not Listed as a Permitted Use in Districts ?	6 Agriculture Districts Present? Y N	7 Zoning Districts Present in Agricultural District	8 Any Pro-Agriculture Provisions? Y N	9 ADS? Y N	10 Comp. Plan Promote Agriculture? Y N	11 Does Zoning Implement Plan in Agriculture District?	12 Sub. Reg. Provisions Re: Agriculture ? Y N	13 Have a Process to Mitigate Complaints: Y N	14 Is There an Agriculture Advisory Body? Y N
Ogden	Animals, farm Farm, commercial Farm, noncommercial Roadside stand	1 1 1	X	RA [RR, RT, R-1 R-2] restrict SID restrict	MFR, RB NC, GC, LI	X#1, #5	GC, R-3, R-2 LI, I	X	X	X	1	X	X	X
Parma	Agricultural or Farming Activities Farm Farm buildings Roadside stand Stable Animal farm	Yes 1	Roadside stands Manure storage Keeping of horses Temporary housing Buildings housing animals in RB, GC, AC, LI Limit new farm building cost to $10,000; may be waived	AC, RR, MD, HD, WF, RD, GC, HC, LI	TH, NC	X#5	AC, RR, MD, HD, WF, RD, GC, HC, LI	Incentive zoning	X	X	Yes	X	X	X
Penfield	Active orchards	Yes	X	RA-2, RR-1 R-1-20, R-1-15 R-1-12, PD	MR, TH, HP MHP, BN-R NB, GB, LI	X#3	RR-1, R-1-20 RA-2, NB	Open space easement	X	X	1	X	X	X
Perinton	Farm	1	Farm stands	R-S, LD	[AA, A, B, C AD, RT-2-5 RT-1-2-5] residential IND, RB, CO LC, APT, TH	X #4	B, R-S RT-1-2-5, RT-2-5	Conservation easement	X	X	1	X	X	X
Pittsford	X		Farm stands	Agricultural zone, AA, A-1, A [RRAA, SRAA] restrict	BR, C LI, HTMOP BO, PUD	X#4	RRAA, SRAA	Conservation easement Incentive zoning PDR	X	X	Yes	X	X	X
Riga	Agriculture-Industrial operations Agricultural use, customary	Yes	Construction of barns, storage sheds Storage of farm equipment Pasturing or housing of livestock	FW, RA HC, LI GI,	FPO PRD, MHP	X#1, #2	RA, GI, LI MHP, HC, FPO	Disclosure notice	X	X	Yes	X	X	X
Rush	X		X	[R-20, R-30 RR-5, R-MH] restrict	R-MD, R-TH C, I, LI	X#4	R-20, R-30 C-C, R-MH	Disclosure notice	X	X	1	X	X	Farmland Advisory Board
Sweden	Farm	1	X	[R1-1, R1-2, R1-3 R1-1s, R1-2S, R1-3S R-2] restrict	B-1, B-2, B-3 IND, PUD	X#1, #5	R-2, R1-2 B-1, B-3	Right to farm law	X	X	1	X	X	X
Webster	Agricultural use Farm Pasture	1 1	Roadside stands Livestock Stabling of farm animals Manure storage	3	3	X#3	3	Open space preservation	X	X	Yes	X	X	X
Wheatland	Agriculture	1	X	2	2	X#2	2	X	X	X	Yes	X	X	X

Villages	1 Agricultural Activities Defined? Y N	2 Agriculture or Farm Definition Consistent with NYSDAM?	3 Regulate Other Agricultural Activities? Y N	4 Agriculture/Farm Permitted in District? Y N	5 Agriculture not listed as a permitted use in District? Y N	6 Agriculture Districts Present? Y N	7 Zoning Districts Present in Agriculture District	8 Any Pro-Agriculture Provisions? Y N	9 ADS? Y N	10 Comp. Plan Promote Agriculture? Y N	11 Does Zoning Implement Plan in Agriculture District?	12 Sub. Reg. Provisions RE Agriculture? Y N	13 Have a Process to Mitigate Complaints? Y N	14 Is There an Agriculture Advisory Body? Y N
Brockport	x		x	O, T, B, I	O	x		x	x	x		x	x	x
Churchville	x		x	R-1, R-2 B, F,	PRD	x		x	x	x		x	x	x
East Rochester	x		x		R-1-70, R-1-48 R-2-48, AR, LC GC, I	x		x	x	x		x	x	x
Fairport	x		x	LDD	R-A, R-B, R-C R-D, R-E, LC-R NB, B-1, M-1	x		x	x	x		x	x	x
Hilton	Customary agricultural use Farm	Yes 1	x	FHP (restrict)	R-1, R-2, MR C, I LI PRD, LC	x		x	x	x		x	x	x
Honeoye Falls	x		Animal husbandry	R-1, R-2 RM, RM-G SC, IP	RA, TV VB, GC	X #4	RM-G, IP GC	x	x	x	1	x	x	x
Pittsford	x		x		R-1, R-2, R-3 R-4, MR, B-1 B-2, B-3, M-1 M-2, HD	X #4	R-1	Dairy protected under state and national register of historic places	x	x		x	x	x
Scottsville	x		x		CBD, GB LI, H, R	x		x	x	x		x	x	x
Spencerport	Farm	x	Stabling of farm animals Manure storage Fruit & vegetable stands	A-R, restrict B-C, restrict	C-I	x		x	x	x		x	x	x
Webster	x		x		R-1-13.6 R-1-9.6 R-2-9.6 RM, NB, CB GI, PUD	x		x	x	x		x	x	x

1 May not be consistent with Agriculture and Markets Law.
2 Farming is permitted in Agricultural Districts regardless of zoning district applying to the land.
3 Farming is permitted in all zoning districts.

*Source: Municipal codes, laws, comprehensive plans, and personal communication with municipal staff. See Appendix C for data collection methodology.

district which meets the State's definition but would not meet the size requirement of the town definition.

Also, some definitions and agriculture-related regulations (column 3) place limitations or prohibitions on certain types of farming activities such as raising of swine, goats, and fur bearing animals. As a result, if NYSDAM were requested to review these definitions and regulations as they relate to a particular farm operation, they may find them to be inconsistent with Article 25AA unless the regulation directly relates to public health or safety.

Zoning Districts

Columns 4 and 5 list the zoning districts in which agriculture is and is not listed as a permitted use. Of the 16 towns in which an agricultural district is present, seven have zoning districts that apply to land in an agricultural district which do not list agriculture as a permitted use. Again, upon review by NYSDAM, this zoning may be found to be inconsistent with Article 25AA if the land owner wanted to farm the land located in the particular zoning district (compare columns 5 and 7. NOTE: The MHP-Mobile Home Park District in Riga is completely developed with mobile homes. Thus, it is unlikely the land will ever be farmed. Therefore, this area is not considered to be inconsistent with Article 25AA). The zoning ordinances of the Towns of Clarkson, Hamlin, and Wheatland contain a provision which states that agriculture may take place in State-certified agricultural districts regardless of the zoning that applies to the land in the district, and the Town of Webster's zoning ordinance permits agriculture in all zoning districts.

In the districts in which agriculture is listed as a permitted use, only one district, the Agricultural Zone in the Town of Pittsford, limits uses to exclusively agricultural ones, and there is no minimum lot size requirement. Some of the other districts contain "agriculture" or "agricultural" in the district title and mention that it is the district's purpose to conserve lands suitable for agriculture and protect them from encroachment by incompatible uses. The districts permit homes on lot sizes ranging between one to five acres. However, as already noted, nonfarm residences are potentially incompatible uses with farming operations. Also, the report "Zoning for Farming" concludes that these types of zoning districts are agriculture in name only and, effectively, are residential districts (Center for Rural Pennsylvania, 1995).

Others residential districts applying to land in agricultural districts are conventional suburban single family zoning districts in which farms are listed as a permitted use. Typical lot sizes in these zones range from 12,000 to 20,000 square feet, permitting two to three dwelling units per acres. This density of residential development can place more homes adjacent to farms, increasing the likelihood of nonfarm neighbor complaints about agricultural operations.

Finally, during the eight-year reviews of agricultural districts, municipalities are notified if it is found that their zoning definitions and/or regulations applying to land in an agricultural district are or may potentially be inconsistent with Article 25AA because of restrictions or prohibitions the definitions and/or districts place on agriculture. During two recent reviews, four of the nine

towns involved were so notified.

Regulations Promoting Agriculture

Ten towns -- Chili, Mendon, Parma, Penfield, Perinton, Pittsford, Riga, Rush, Sweden, and Webster -- currently have zoning laws and/or regulations that encourage agricultural land use (column 8).

Penfield, Perinton, Pittsford, and Webster have voluntary easement programs through which land receives a lower assessment in return for keeping it in open space or agriculture. These programs were established under Section 247 of the NYS General Municipal Law which authorizes municipalities to acquire interests or rights in land. Farms receiving an agricultural assessment value are not eligible for the easement program and vice versa.

Perinton enacted the first easement program in Monroe County in 1972. The easement reduces the assessed value of the land which in turn, reduces all taxes to which the property is subject. Landowners may take a conservation or farming easement. To encourage active farming, farming easements are approximately twice as beneficial in terms of tax reduction as are conservation easements. For example, property under a five year conservation easement is taxed at 75 percent of its pre-easement value, actively farmed property is taxed at 40 percent of its pre-easement value. The same is true for Webster. In Penfield, farming easements are more beneficial than open space easements but not to the extent of those in Perinton and Webster. Pittsford's program only provides for open space easements. Actively farmed land under a 15 year (or longer) easement in Perinton and Webster receives the maximum abatement possible which is a 90 percent taxation abatement, meaning the land is taxed at only ten percent of its pre-easement value.

As of May, 1998, approximately 5,349 acres were in easements in Perinton, Penfield, and Webster; no land had yet been signed up in Pittsford. Of the 5,349 acres, approximately 3,278 acres (61 percent) were in farming easements with the remainder in conservation/open space easements (see also chapter 8, Descriptive Analysis of Variables, Site Assessment Factors Supporting Retention in Agriculture).

Chili, Parma, and Pittsford use incentive zoning to preserve farmed areas, and Pittsford has another zoning provision which permits a density bonus for development proposed on greater than ten acres in the Rural Residential District if 50 percent of the land is set aside for such purposes as agriculture.

Mendon, Riga, Rush, and Sweden require a disclosure notice to be placed on all site plans and subdivision maps of proposed development in agricultural districts. The notice advises new/potential property owners that they could experience noise, odors, and dust due to farming operations. Basically, the purpose of these laws is to make people aware of agricultural operations so that they are less likely to file nuisance complaints or suits against farmers. Riga, where disclosure notices have been a requirement for ten years, was the first town in the County

to enact a disclosure notice law. Sweden's law, titled Right to Farm, also requires that a written disclosure notice be given to prospective owners/renters, and that it also be included in deeds. These municipal laws complement State real property and real property tax laws (see Table 6) and Article 25AA by notifying prospective property owners that the property they may purchase is in an agricultural district.

In 1998, largely through the efforts of the AFPB's coordination with the NYS Legislative Commission on Rural Resources, State law was amended to require disclosure notices at the time of purchase offer on property in agricultural districts. Prior to the amendment, the law did not say when the notice had to be presented. Consequently, notices were often presented at the closing of sale. Requiring the notice at the time of purchase offer makes people aware of agricultural activities **before** they have made a decision to purchase the property and, thus, they can take this information into consideration as to whether or not to pursue purchase. Providing notices earlier in the real estate transaction process also increases the potential to reduce nonfarm neighbor complaints.

Also during 1998, the AFPB discussed with the Greater Rochester Association of Realtors the possibility of advising prospective property owners of agricultural activities earlier in the real estate process. The Association suggested that the disclosure notice might be part of a property's multiple listing. This way, people could be made aware of agricultural operations before they even see a property and could use this information in deciding whether to look at it. More work needs to be done on this to determine its feasibility but it does hold promise.

Agriculture Data Statement Compliance

All towns which have land in an agricultural district comply with the Agriculture Data Statement (ADS) requirement (column 9). ADS is required by State law whenever a special permit, subdivision approval, use variance, site plan, or other special authorization, is required from a municipal board for a proposal to develop a portion of an active farm in an agricultural district or to develop land which is within 500 feet of an active farm in an agricultural district. The ADS provides information on the status of agriculture and farming operations in the vicinity of the proposed project. Typically, the affected farmers are notified of the meeting at which the municipal board will discuss the proposed project. The ADS data and farmer input are then used by the municipal board to assess the impacts on farming likely to be caused by the proposed development.

Planning

No municipality in Monroe County has written an agricultural protection plan. However, Town Law, Section 272-a, Village Law, Section 7-722, and General City Law, Section 28-a, enable and encourage municipalities to prepare comprehensive plans to promote the health, safety, and general welfare of the citizenry and to guide the orderly growth and development of the State's municipalities. Agriculture is one of the topics listed in the statutes that may be included in a plan "at the level of detail adopted to the specific requirements" of the municipality.

Thus, through the comprehensive planning process, municipalities have an excellent opportunity to plan for the preservation and promotion of agriculture. Further, the comprehensive planning statutes ensure coordination between municipal and County level agricultural planning, and also require zoning and other techniques that will be used to implement the municipal plan's recommendations to be consistent with Agriculture and Markets Law insofar as they relate to land receiving an agricultural assessment value or land in an agricultural district.

Each of the 16 towns which have land in an agricultural district have a comprehensive plan, and each plan identifies agriculture as the future land use in the agricultural district (column 10). Each plan also contains goals, policies, and measures to implement the agriculture-related recommendations.

Column 11 indicates whether each town's zoning implements the plan's agricultural recommendations in agricultural districts. The results here are the same as those mentioned under the earlier discussion of Zoning Districts because the same seven towns have zoning districts which apply to areas identified in the plan for agriculture, which includes land in agricultural districts, but the zoning districts do not list agriculture as a permitted use. Thus, in addition to potentially being inconsistent with Article 25AA, these zoning regulations may also be inconsistent with the respective municipal comprehensive plan recommendations for agriculture.

As a result of these findings and those described under Zoning Districts, a further review was conduted on the regulations for selected towns. The review indicated that the regulations supporting agriculture were recently enacted, whereas the zoning which applies to agricultural districts but does not list agriculture as a permitted use, was enacted many years ago, in some cases 20 years ago. Thus, it appears that previous land use policy in these municipalities is inconsistent with current land use policies and plans which promote agriculture.

Besides promoting agriculture in their comprehensive plan, the Town of Pittsford has identified farmland to be preserved through PDR and has developed a PDR program to acquire the farmland's development rights. Pittsford's program has received national and international recognition as a model for farmland preservation (Jimenez, 1998).

Pittsford initially identified the farms and other sites in the "Greenprint for the Future" report and in their town comprehensive planning program. Next, town officials created the Resource Protection Committee which developed criteria that were applied to nine sites identified in these reports to rate the importance of each site in the categories of agriculture, ecology, greenway and open space, and cultural and scenic resources. The criteria and evaluation system were conceptually similar to that used in the LESA rating system mentioned in chapter 2.

Based on the application of the rating criteria, seven farms were selected for PDR. Since the time that the sites were selected, Pittsford has bonded the purchase of the rights and, with the support of the AFPB, has secured State and Federal funding to partially offset the cost of the rights. Town officials began negotiating with the owners of the seven farms to purchase the

development rights on 1,200 acres. At the time of this writing, negotiations with all seven property owners were nearly complete. This land would be added to approximately 94 acres of farmland from which the Town purchased the development rights several years ago.

In the early 1990's, the Town of Rush studied the use of a combining sliding scale zoning and incentive zoning as a way to preserve farmland (see Table 5 for technique descriptions). After considerable deliberation, the town concluded that the process is more suited to larger farms and areas that are more rural than is the case in Rush.

Subdivision Regulations

Six towns have provisions in their subdivision regulations that relate to agriculture (column 12). Examples include: the Town of Perinton's required compliance with the ADS requirement; the requirement of the Towns of Mendon and Webster that as a condition of final plan approval of a cluster subdivision (see Table 5 for technique description) a perpetual conservation easement or other instrument be placed on the open land so as to have the effect of permanently restricting development and allowing the use of the land for agriculture or open space purposes.

Dealing with Complaints

As noted in column 13, most towns have either a formal or informal process for addressing complaints about agricultural operations. In most cases, complaints are handled by the building inspector or code enforcement officer. Typically, the complainant is told that farming is a permitted use and that the farmer has the right to engage in various agriculture-related operations and procedures. However, some complaints involve pesticides or health matters and these are usually referred to the County Health Department, State Department of Conservation, Agriculture and Markets, or Cornell Cooperative Extension.

Agricultural Advisory Boards

Two towns -- Mendon and Rush -- have created farmland advisory bodies (column 14) which advise the various town boards on agriculture-related matters, including such matters as assessing the impact on agriculture caused by nonfarm development proposals, ways to mitigate impacts to farming operations from such proposals, and ways farming operations could minimize their impact on adjacent nonfarm uses. In Mendon, the board maintains an active agricultural lands map on which they plot development proposals to keep track of development in agricultural areas. Both town bodies are currently considering the preparation of right to farm laws, and Mendon's board is also considering the preparation of a farmland protection plan.

Although only Mendon and Rush have formal farmland advisory boards, several other towns seek the agricultural community's input and perspective on municipal matters related to farming by encouraging farmers to become members of the legislative, planning, zoning, and conservation boards.

Lastly, many towns exempt the construction of farm-related structures (barns, silos, sheds) from the site plan review process that is required for most, if not all, other nonresidential structures.

Village Land Use Regulations

The County's ten villages were also included in the survey of municipal land use regulations related to agriculture. Only the Villages of Honeoye Falls and Pittsford have land in an agricultural district, the Southeastern Agricultural District #4 (Table 4).

The Village of Pittsford does not have a comprehensive plan. Honeoye Falls does not have a comprehensive plan as described under State law but does have a three volume report which is the basis for village planning (Citizens Advisory Committee, 1990). This report recommends retention of agriculture where it currently exists in the Village. However, one of the zoning districts which applies to the land in the agriculture district does not list agriculture or farming as permitted uses, and the zoning district that applies to land in the agricultural district in the Village of Pittsford does not permit agriculture or farming.

Neither village uses the ADS to assess impacts of potential development on farmland in the agricultural district.

Finally, there is an agricultural operation in the Village of Pittsford that enjoys a unique distinction. Pittsford Farms Dairy, an operating dairy located on Main Street, is listed on the State and National registers of historic places.

Farmland Preservation and Protection Techniques Available to Municipalities

Table 5 contains information on several techniques available to municipalities to preserve and protect farmland. A comparison of these techniques to the data in Table 4 indicates that nine of the techniques are currently employed by towns in Monroe County to preserve agriculture. The techniques are: comprehensive plans; ADS; conservation easement programs; disclosure notices; farmland advisory bodies; incentive zoning; cluster development; PDR; and exclusive agricultural zoning.

TABLE 5
Farmland Preservation and Protection Techniques Available to Municipalities

TECHNIQUE	DEFINITION	PURPOSE	WHEN USED	AUTHORITY	COMMENTS
Comprehensive Plan	Graphic & written material which identify community's goals, policies and standards for the short & long term protection, growth, development, and enhancement of the community. Agriculture is one of the 15 topics to be considered in preparing a plan.	To promote the health, safety and general welfare of the community & its residents, and to provide for growth in an orderly fiscally responsible fashion. Identifies where and when various types of land uses should occur. Also, plans should reflect the needs of the region of which the municipality is a part.	A comprehensive plan may be prepared at any time.	Town Law, Section 272-a; Village Law Section, 7-722; General City Law, Section 28-a.	Is a community's guide to future land use and development and, thus, can identify areas that should remain in agriculture. Plans may be adopted. If adopted, all zoning changes must comply with the plan. The comprehensive planning statutes insure coordination between municipal and county level agricultural planning; requires zoning and other techniques that will be used to implement the plan to be consistent with Agriculture and Markets Law insofar as they relate to land receiving an agricultural assessment value or land in an agricultural district. Requires periodic updating to maintain relevance. Difficulties can arise when a community has no plan, or it is out-of-date, or the zoning ordinance is in conflict with plan recommendations. Plans may be prepared but not adopted or followed. Plans are costly and it generally takes a year or more to develop a plan.
Agricultural Zoning	Designates a portion of a community where agriculture is permitted by right, and nonfarm uses are either limited or prohibited.	To protect & promote continuation of farming in areas with prime soils & where farming is viable. Preserves large tracts for farming, creating stability, thereby promoting investment in farming.	When a community is interested in accomplishing the purpose. When a community wants to implement comprehensive plan recommendations which identify a part of the community for agriculture.	Town Law, Sections 261, 262; Village Law, Section 7-700, 7-702; General City Law, Section 20.	Can help stabilize agricultural areas, making it more likely that the farmer will continue to invest/reinvest in the farming operation. May need to be implemented on an inter-municipal scale to apply to a large enough farming area to promote agricultural viability. Should contain a limited range of compatible nonfarm uses at densities that preserve the rural character. Could reduce the nonfarm development potential of farmland. Like all zoning, it is subject to change by the municipality
Incentive Zoning	The granting of specific incentives or bonuses to developers in exchange for the retention or provision of community benefits or amenities.	To advance a community's physical, cultural and social policies in accordance with the comprehensive plan & other community planning & land use techniques.	When, as part of development, the opportunity arises to achieve a planning objective, such as preserve farmland, provide affordable housing, provide recreation facilities or lands, the municipality may offer the developer	Town Law, Section 261-b; Village Law, Section 7-703; General City Law, Section 81-d.	Provides opportunity to help keep land in farming that might otherwise be developed. Legislative body must find that any increased density in the form of a bonus will not burden infrastructure or be incompatible with surrounding or planned development. Increased density could increase chance of conflict between farm and nonfarm neighbors. Cash may be provided in lieu of an amenity.

TECHNIQUE	DEFINITION	PURPOSE	WHEN USED	AUTHORITY	COMMENTS
			a bonus in the form of, for example, increased density in exchange for the amenity.		The cash must be placed in a trust fund to be used exclusively for community benefits authorized by the legislative body. Before adopting an incentive zoning ordinance, the legislative body must determine impacts on gain or loss in affordable housing opportunities resulting from the process.
Cluster Development	Development, generally a subdivision, designed to preserve the natural & scenic qualities of open lands.	To enable & encourage flexibility in the design of the development so as to preserve the natural & scenic qualities of open lands.	When a municipality wants to preserve a natural feature such as a woodlot or stream, a scenic feature, provide an active recreation area in a subdivision or protect a viable farming operation or productive agricultural land.	Town Law, Section 278; Village Law, Section 7-738; General City Law, Section 37.	Can be mandated by municipality. Can preserve portions of a site that contain viable farmland for continued farming. Can place nonfarm neighbors next to farming operations, resulting in conflicts.
Performance Subdivision	A subdivision in which the permissible density is increased in exchange for preserving 50-60% of the site as open space. The open space must have "conservation value", and agriculture is considered one of the conservation values. The open space must be permanently protected by a conservation easement.	To preserve lands that have a conservation value, defined as historic, ecological, agricultural, water resource, scenic, or other natural resource value.	Whenever a municipality wants to achieve the purpose.	Town Law, Section 261; Village Law, Section 7-700; General City Law, Section 20.	New technique adopted by the Town of Skaneateles in Onondaga County. Appears similar to incentive zoning where a municipality may grant a developer an incentive or bonus (e.g., increased density) in exchange for the provision of a community benefit (e.g., preservation of farmed land). Increased density could increase chances of conflict between farm & nonfarm Neighbors.
Sliding Scale Zoning	A system, or scale, where the number of development units allowed per parcel is based on the parcel size. As the parcel size increases, the number of development units allowed increases but at a lesser rate, resulting in an increase in the average acreage per development unit as the parcel size increases.	Used in agricultural areas to maintain farm viability by (1) placing a maximum limit on nonfarm development lot sizes; (2) keeping nonfarm development at rural densities; and (3) only allowing nonfarm development in locations that will not disrupt viable farming operations.	Whenever a municipality wants to achieve the purpose.	Town Law, Section 261; Village Law, Section 7-700; General City Law, Section 20.	Has been used successfully in Pennsylvania where it is sometimes referred to as Agriculture Protection Zoning. Helps maintain farm viability by keeping density of development low and in locations which will not disrupt the farm operation. Is complex and can be time consuming to set up and administer. May need to be implemented on an intermunicipal scale to apply to a large enough area to promote Agricultural viability.

TECHNIQUE	DEFINITION	PURPOSE	WHEN USED	AUTHORITY	COMMENTS
Coordination with Agricultural Districts	Municipalities may not unreasonably restrict or regulate farm structures state agricultural districts law. Brings	To permit farming operations in agricultural districts to be undertaken without	Prohibition against unreasonable restrictions applies	Town Law, Section 283a; Village Law, Section 7-739; continuously.	Requires municipal laws, rules & regulations pertaining to farming to be consistent with General Municipal Law,
	or farming practices in agricultural districts unless the regulation relates directly to the maintenance of public health or safety.	unreasonable restrictions and in accordance with the state agricultural districts law. Also, to notify farmers in the district of development proposals and requires municipality to consider possible impacts of the proposed development on nearby farming operations.	An Agricultural Data Statement (ADS) is used to notify farmers of proposed development whenever the development requires a special permit, site plan or subdivision approval, or a use variance from the municipality, and the proposed development is to be located on an active farm in an agricultural district or on property with boundaries within 500 feet of an active farm in an agricultural district.	Section 239-m.	attention to the need to consider potential impacts of development on farming operations and practices. Municipalities may expand law to apply to farms outside of agricultural districts. There is no assurance that adverse impacts on farming caused by the proposed development will be required by the municipality to be mitigated.
Disclosure Notice	Notification to potential nonfarm neighbor that farming is A permitted use and that nonfarm neighbors may experience noise, odors. dust, etc. as a result of normal farming practice.	To minimize nuisance suits brought against farmers by new, nonfarm neighbors.	When potential new, non farm neighbors seek residences in/near agricultural areas.	General authority to enact laws under enabling statutes.	Notifying new nonfarm neighbors of the impacts they are likely to experience due to farming operations forewarns them of what they can expect & therefore, helps to minimize nuisance suites. Minimizing conflicts with nonfarm neighbors helps to stabilize agricultural areas, making it more likely that the farmer will invest/reinvest in the farming operation. Municipalities do not have to adopt disclosure notices.
Right to Farm Law	The determination of whether an agricultural activity is a "sound agricultural practice" necessary to the production, preparation and/or marketing of agricultural products on a farm.	To permit continuance of sound practices and eliminate unsound practices.	Whenever a person brings a nuisance suit against a farmer regarding the soundness of a practice, or otherwise questions or complains about the practice.	General authority to enact laws under enabling statutes.	Municipality establishes a body to hear and resolve formal complaints. Those not resolved may be taken to the Commissioner of Agriculture and Markets for determination of soundness. Helps to reduce number of complaints on which Commissioner must act. Allows decisions to be made at local level. Helps promote agriculture. Optional; municipalities do not have to adopt Right-To-Farm legislation.
Farmland Advisory	A municipal board which	Provide a voice on	Board would be appointed	Appointed by legislative	Provides expertise on municipal matters that

TECHNIQUE	DEFINITION	PURPOSE	WHEN USED	AUTHORITY	COMMENTS
Boards	advises the legislative planning and zoning boards about agri-cultural matters and about impacts proposed develop-ment may have on farming operations.	agricultural matters.	to provide advice and input as required/requested by this legislative board.	board under general authority to create advisory boards.	involve farming. Board can consist of all farmers or of farm & non-farm-members. Optional. Municipalities do not have to appoint such a board. Board is advisory only.
Purchase of Development Rights (PDR)	A development right is the difference between the market value of land for a potential use and the market value of the land as it is currently used.	To remove the development pressure on the land and keep it in its current use.	When a municipality wants to keep certain land(s) in its current use and property owners are willing to participate in the program. Private, not-for-profit land trusts may also PDR if the property owner wants to keep the land in its current use and there is no municipal PDR program.	General Municipal Law, Section 247.	PDR on farmland keeps the land in farming in perpetuity. The dollar value of the development right is paid to the property owner. The property owner gives up the right to develop the land for a nonfarm use in exchange for the value of the development right(s) but may retain all other rights to the land. PDR can be costly. The proposal to provide municipal funds for PDR generally requires voter approval. The process can be time consuming, requiring appraisals and then negotiations with property owners from whom the rights are to be purchased.
Transfer of Development Rights (TDR)	The process of transferring development rights from property in "sending" areas to property in "receiving" areas.	To protect the natural, scenic or agricultural qualities of open lands, enhance sites of special character or value & encourage careful management of land in recognition that it is a basic & valuable natural resource.	Used whenever a community wants to achieve the purpose and property owners are willing to participate in the program.	Town Law, Section 261-1; Village Law, Sec. 7-701 General City Law, Section 20-f, Environmental Conservation Law, Title 3, Article 49.	Can result in the permanent preservation of farmland. TDR programs are complex. If community functions as "bank" for rights to be transferred to "receiving" area, community may be the one who has to purchase the rights and, thus, spend public funds on something for which they may not receive reimbursement for years, if ever. As part of TDR, land in "sending" area must be placed in a conservation easement as defined In the state conservation law. "Receiving" area must have the ability to accommodate the additional development.
Conservation Easements	An easement on the land which limits its use to some purpose, e.g. open space, or agriculture.	To keep land in its current use.	When a municipality wants to keep land it its current use and property owners are willing to participate in the program.	General Municipal Law, Section 247 Environmental Conserva-tion Law, Title 3, Article 49.	Conservation easements can keep land in farming. Conservation easements restrict the use of land. The property owner volunteers for the restriction and receives compensation for it. Conservation easements can be permanent such as in the case of PDR, TDR. They can also be temporary where a

TECHNIQUE	DEFINITION	PURPOSE	WHEN USED	AUTHORITY	COMMENTS
					municipality sets up a conservation easement program in which property owners receive a property tax reduction for the period of time during which they enroll the property in the program.
Use Value Assessment	A system where the value of the property for tax purposes is based on its current use versus its fair market value.	Used to encourage, for example, the continuation of the use of property for active farming.	Whenever a municipality wants to achieve the purpose.	Municipal authority to tax property.	There are options under this type of program. One is that land is assessed for its value as farmland. If the use changes, the deferred tax is levied in an amount equal to the tax savings. Another is that farmers agree to keep their land in farming for a specified time period in exchange for the use value assessment. Based on the options, this technique is similar to the agricultural assessment value program under Article 25AA of the NYS Agriculture and Markets Law and is also similar to a temporary conservation easement.
Land Evaluation Site Assessment Rating System (LESA)	A system developed by the U.S. Soil Conservation Service (now the Natural Resources Conservation Service) that evaluates soil and site related factors to determine the suitability of land for various uses.	To identify which use or class of uses land is best suited for.	Used generally by a unit of government during the process of preparing some type of land use plan.	None required.	LESA can be used to identify which agricultural areas are worthy of retention based on soil conditions and such site factors as parcel size, adjacent land use, presence of sewer and water, proximity to roads and ecological values. When the property owner is willing, PDR and conservation easements are often applied to land worthy of retention. Only identifies lands worthy of retention. Does not provide the funds to protect it. The process of identification can be time consuming.

Sources: New York State Department of State. (1996). Guide to planning and zoning laws of New York State. Local government series. Division of Local Government. Albany, NY.; and Daly, J. E. and Nolon, J. R. (1996). Local leader's guide to land use practices. Land Use Law Center. White Plains, NY: Pace University School of Law.

Lastly, all municipalities must comply with the State Environmental Quality Review (SEQR) Act. "The basic purpose of SEQR is to incorporate the consideration of environmental factors into the existing planning, review, and decision-making processes" (New York State Department of Environmental Conservation, 1995, p. 1) of government agencies so that these factors are given appropriate consideration along with social and economic factors when reaching decisions on proposed activities. Although not a farmland preservation technique, the SEQR process can be used to help identify potential adverse impacts of development on farming so that these impacts are understood, and then minimized or mitigated where possible as part of the decision-making and land development processes.

State and Federal Programs Related to the Preservation and Protection of Agricultural Lands

In addition to the State constitution's directive to the State legislature to protect agricultural lands, the Agricultural Districts Law, and the agricultural and farmland protection program, there are other State laws and programs related to the preservation and protection of agricultural lands. Also, there are various Federal laws and programs related to agricultural preservation and protection. A summary of some of the more significant ones is provided in Table 6. Appendix C contains the methodology used to collect this data.

Table 6
Summary of State and Federal Programs Related to the Preservation and Protection of Agricultural Lands

State	
•	Farmland Protection Trust Fund. Creates a special trust fund under the joint custody of the State Comptroller and Commissioner of Taxation and Finance for the purpose of allocating funds to municipalities which have farmland protection plans, to protect and preserve farmland for agricultural purposes. Makes New York State eligible for the Federal Farms for the Future Program. The trust fund has not been funded.*
•	Conserving Open Space in New York State, 1997. Prepared by NYS Dept. of Environmental Conservation and NYS Office of Parks, Recreation and Historic Preservation and updated every two years. It identifies what open space should be preserved for New York State's future and how to conserve and manage it in a sensible, affordable way. Maintaining the natural resource-based farming industry is one of the plan's goals. Policies related to agriculture include: supporting the Governor's property tax efforts aimed at keeping farming viable; supporting farmland protection planning and implementation initiatives; encouraging local governments to dedicate funding sources to help implement farmland protection plans; increasing public education on the State's right-to-farm laws and of potential effects of agricultural practices needed to maintain viable farm operations; and encouraging municipalities and the State to participate in the USDA Farmland Protection Program authorized by the 1996 Federal Agricultural Improvement and Reform (FAIR) Act.
•	Comprehensive Inventory of Lands having Statewide or Regional Significance, Environmental Conservation Law, Art. 49, Title 3, Sec. 49-0205. The law calls for a comprehensive inventory of protected and unprotected resources having Statewide or regional significance. The inventory is to include agricultural areas and agricultural districts. The law's purpose is to provide a basis for a strategy for the preservation of land resources and the preparation of a State land acquisition plan, and is the precursor to the State's Open Space Plan.
•	Conservation Easements, Environmental Conservation Law, Art. 49, Title 3, Sec. 49-0301. Among the purposes of this law is the preservation, development, and improvement of agricultural land because it, in addition to other assets, is basic to the maintenance, enhancement and improvement of recreational opportunities, tourism, community attractiveness, balanced economic growth, and quality of life in the State. The Law sets forth procedures for establishing and modifying easements.
•	Environmental Conservation Law, Article 49. Permits farmers to donate development rights in exchange for certain Federal and State income tax deductions.*

•	Commissioner of Department of Environmental Conservation policy statement, 1978, directs the agency's program and operational units to ensure protection and enhancement of environmentally significant and economically valuable agricultural lands.*
•	Environmental Protection Fund of 1992 provides funds for counties and municipalities to implement farmland protection plans, including acquisition of productive farmland.* The same is true for the Clean Water/Clean Air Bond Act.
•	Preservation of Agricultural Lands, Public Park and Recreational Lands, Wildlife & Waterfowl Refuges and Historical Sites, Transportation Law, Sec. 14-a. The State's Commissioner of Transportation is to consult with the Commissioner of Agriculture and Markets regarding impacts of proposed transportation plans and programs so as to maintain as much as possible the natural characteristics of the land traversed by transportation projects.
•	Real Property Law, Sec.'s 333, 333-c; Real Property Tax Law, Sec. 574. Requires the provision of a disclosure notification to persons buying property located partially or wholly in an agricultural district, and then the recording of this information with the local assessor. The disclosure notice, which is found in Sec. 333-c, States that the property is partially or wholly in an agricultural district and is subject to impacts from farming activities which include, but are not limited to, noise, odors, and dust. The purpose is to make prospective property owners aware of these impacts before they close on the property. The notice also helps to minimize nuisance suits against farmers suits by forewarning prospective non-farm neighbors of potential impacts.
Federal	
•	Federal Agricultural Improvement and Reform Act, 1996, Public Laws, Sec. 388, Farmland Protection Program. The Secretary of Agriculture shall establish and carry out a farmland protection program by purchasing conservation easements or other interests in land of not less than 170,000 acres nor more than 340,000 acres nationwide with prime, unique or other productive soil that is subject to a pending offer from States, tribes, and local governments for the purpose of protecting the soil by limiting conversion to non-agricultural use of the land. To be eligible, governments must have an existing farmland protection program, have pending offers, and be able to fund at least 50 percent of the fair market value of the pending offers. The Act appropriated $35 million to implement the program, and $17.3 million is available in Federal fiscal year 1998.
•	Farms for the Future Act, 1990. Provides interest-free loans to States of up to $10 million for the purpose of financing the purchase of agricultural conservation easements in order to keep land in farming. So far, funds have only been made available for a pilot program in Vermont.*
•	Debt Cancellation Conservation Easement Program (1988). Authorizes the Farm Service Agency to allow farmers to cancel a portion of their Federal loans if they place a conservation easement on any of the following features that may be on their farms: wetlands, lands in 100 year floodplains, areas of high water quality or scenic value, highly erodible lands, and fish and wildlife habitat.*

•	Wetland Reserve Program. Administered by the Natural Resources Conservation Service. A voluntary program which pays farmers (and other landowners as well) for permanent conservation easements over wetlands on their property and also provides cost sharing payments to restore and protect the wetlands.*
•	Farmland Protection Policy Act, 1981, Title 7, Agriculture, Sec.4201. This act is intended to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to non-farm uses, and to assure that Federal programs are administered in a way that, to the extent possible, will be compatible with State, local and private programs and policies to protect farmland. Site assessment criteria are listed in the implementing regulations (7 CFR Parts 658, 658.5). They are to be combined with land evaluation criteria provided by the local Natural Resources Conservation Service conservationist to assess whether or not a proposed Federal project will unnecessarily convert farmland. If the site is located in a State or municipality that has a LESA system approved by the governing body, and it is on the NRCS State Conservationist's list as one which meets the Act's purpose, the local system should be used to evaluate the impact of the proposed Federal project.
•	Environmental Conservation Acreage Reserve Program, Title 16, Conservation, Sec. 3830. Between 1996 and 2002, an environmental conservation acreage reserve program shall be implemented through contracts and the acquisition of easements to help owners and operators of farms and ranches conserve and enhance soil, water and related resources. In Monroe County, approximately 1,000 acres are enrolled in the program.
•	Environmental Quality Incentive Program, Title 16, Conservation, Sec. 3839aa. Provides funds to farmers to develop and implement solutions to help improve water quality and reduce the loss of valuable soil through erosion. Fifty percent of the funds are allocated to livestock operations. Funds are awarded on a competitive basis to implement conservation practices using a cost benefit analysis approach. Most projects are awarded on a watershed basis with agriculture being the primary pollutant that adversely impacts surface water for either drinking or recreational purposes.
•	Conservation Farm Option, Title 16, Conservation, Sec. 3839bb. The purposes of this legislation are many and include conservation of soil and other similar conservation purposes.

Sources: McKinney's Consolidated Laws of New York State Annotated. (1984, 1997, 1998); United States Code Annotated. (1988, 1998); United States Code Congressional and Administrative News. (1997); New York State Department of Environmental Conservation and New York State Office of Parks, Recreation and Historic Preservation. (1997). Conserving Open Space in New York State 1997, Summary of the Plan, p. 10; *Washington County Agricultural and Farmland Protection Board. (1996). Washington County Agricultural and Farmland Protection Plan ,pp. 29,30,83,84.

Lastly, all municipalities must comply with the State Environmental Quality Review (SEQR) Act. "The basic purpose of SEQR is to incorporate the consideration of environmental factors into the existing planning, review, and decision-making processes" (New York State Department of Environmental Conservation, 1995, p. 1) of government agencies so that these factors are given appropriate consideration along with social and economic factors when reaching decisions on proposed activities. Although not a farmland preservation technique, the SEQR process can be used to help identify potential adverse impacts of development on farming so that these impacts are understood, and then minimized or mitigated where possible as part of the decision-making and land development processes.

State and Federal Programs Related to the Preservation and Protection of Agricultural Lands

In addition to the State constitution's directive to the State legislature to protect agricultural lands, the Agricultural Districts Law, and the agricultural and farmland protection program, there are other State laws and programs related to the preservation and protection of agricultural lands. Also, there are various Federal laws and programs related to agricultural preservation and protection. A summary of some of the more significant ones is provided in Table 6. Appendix C contains the methodology used to collect this data.

Table 6
Summary of State and Federal Programs Related to the Preservation and Protection of Agricultural Lands

State
• Farmland Protection Trust Fund. Creates a special trust fund under the joint custody of the State Comptroller and Commissioner of Taxation and Finance for the purpose of allocating funds to municipalities which have farmland protection plans, to protect and preserve farmland for agricultural purposes. Makes New York State eligible for the Federal Farms for the Future Program. The trust fund has not been funded.*
• Conserving Open Space in New York State, 1997. Prepared by NYS Dept. of Environmental Conservation and NYS Office of Parks, Recreation and Historic Preservation and updated every two years. It identifies what open space should be preserved for New York State's future and how to conserve and manage it in a sensible, affordable way. Maintaining the natural resource-based farming industry is one of the plan's goals. Policies related to agriculture include: supporting the Governor's property tax efforts aimed at keeping farming viable; supporting farmland protection planning and implementation initiatives; encouraging local governments to dedicate funding sources to help implement farmland protection plans; increasing public education on the State's right-to-farm laws and of potential effects of agricultural practices needed to maintain viable farm operations; and encouraging municipalities and the State to participate in the USDA Farmland Protection Program authorized by the 1996 Federal Agricultural Improvement and Reform (FAIR) Act.
• Comprehensive Inventory of Lands having Statewide or Regional Significance, Environmental Conservation Law, Art. 49, Title 3, Sec. 49-0205. The law calls for a comprehensive inventory of protected and unprotected resources having Statewide or regional significance. The inventory is to include agricultural areas and agricultural districts. The law's purpose is to provide a basis for a strategy for the preservation of land resources and the preparation of a State land acquisition plan, and is the precursor to the State's Open Space Plan.
• Conservation Easements, Environmental Conservation Law, Art. 49, Title 3, Sec. 49-0301. Among the purposes of this law is the preservation, development, and improvement of agricultural land because it, in addition to other assets, is basic to the maintenance, enhancement and improvement of recreational opportunities, tourism, community attractiveness, balanced economic growth, and quality of life in the State. The Law sets forth procedures for establishing and modifying easements.
• Environmental Conservation Law, Article 49. Permits farmers to donate development rights in exchange for certain Federal and State income tax deductions.*

• Commissioner of Department of Environmental Conservation policy statement, 1978, directs the agency's program and operational units to ensure protection and enhancement of environmentally significant and economically valuable agricultural lands.*
• Environmental Protection Fund of 1992 provides funds for counties and municipalities to implement farmland protection plans, including acquisition of productive farmland.* The same is true for the Clean Water/Clean Air Bond Act.
• Preservation of Agricultural Lands, Public Park and Recreational Lands, Wildlife & Waterfowl Refuges and Historical Sites, Transportation Law, Sec. 14-a. The State's Commissioner of Transportation is to consult with the Commissioner of Agriculture and Markets regarding impacts of proposed transportation plans and programs so as to maintain as much as possible the natural characteristics of the land traversed by transportation projects.
• Real Property Law, Sec.'s 333, 333-c; Real Property Tax Law, Sec. 574. Requires the provision of a disclosure notification to persons buying property located partially or wholly in an agricultural district, and then the recording of this information with the local assessor. The disclosure notice, which is found in Sec. 333-c, States that the property is partially or wholly in an agricultural district and is subject to impacts from farming activities which include, but are not limited to, noise, odors, and dust. The purpose is to make prospective property owners aware of these impacts before they close on the property. The notice also helps to minimize nuisance suits against farmers suits by forewarning prospective non-farm neighbors of potential impacts.
Federal
• Federal Agricultural Improvement and Reform Act, 1996, Public Laws, Sec. 388, Farmland Protection Program. The Secretary of Agriculture shall establish and carry out a farmland protection program by purchasing conservation easements or other interests in land of not less than 170,000 acres nor more than 340,000 acres nationwide with prime, unique or other productive soil that is subject to a pending offer from States, tribes, and local governments for the purpose of protecting the soil by limiting conversion to non-agricultural use of the land. To be eligible, governments must have an existing farmland protection program, have pending offers, and be able to fund at least 50 percent of the fair market value of the pending offers. The Act appropriated $35 million to implement the program, and $17.3 million is available in Federal fiscal year 1998.
• Farms for the Future Act, 1990. Provides interest-free loans to States of up to $10 million for the purpose of financing the purchase of agricultural conservation easements in order to keep land in farming. So far, funds have only been made available for a pilot program in Vermont.*
• Debt Cancellation Conservation Easement Program (1988). Authorizes the Farm Service Agency to allow farmers to cancel a portion of their Federal loans if they place a conservation easement on any of the following features that may be on their farms: wetlands, lands

	in 100 year floodplains, areas of high water quality or scenic value, highly erodible lands, and fish and wildlife habitat.*
•	Wetland Reserve Program. Administered by the Natural Resources Conservation Service. A voluntary program which pays farmers (and other landowners as well) for permanent conservation easements over wetlands on their property and also provides cost sharing payments to restore and protect the wetlands.*
•	Farmland Protection Policy Act, 1981, Title 7, Agriculture, Sec.4201. This act is intended to minimize the extent to which Federal programs contribute to the unnecessary and irreversible conversion of farmland to non-farm uses, and to assure that Federal programs are administered in a way that, to the extent possible, will be compatible with State, local and private programs and policies to protect farmland. Site assessment criteria are listed in the implementing regulations (7 CFR Parts 658, 658.5). They are to be combined with land evaluation criteria provided by the local Natural Resources Conservation Service conservationist to assess whether or not a proposed Federal project will unnecessarily convert farmland. If the site is located in a State or municipality that has a LESA system approved by the governing body, and it is on the NRCS State Conservationist's list as one which meets the Act's purpose, the local system should be used to evaluate the impact of the proposed Federal project.
•	Environmental Conservation Acreage Reserve Program, Title 16, Conservation, Sec. 3830. Between 1996 and 2002, an environmental conservation acreage reserve program shall be implemented through contracts and the acquisition of easements to help owners and operators of farms and ranches conserve and enhance soil, water and related resources. In Monroe County, approximately 1,000 acres are enrolled in the program.
•	Environmental Quality Incentive Program, Title 16, Conservation, Sec. 3839aa. Provides funds to farmers to develop and implement solutions to help improve water quality and reduce the loss of valuable soil through erosion. Fifty percent of the funds are allocated to livestock operations. Funds are awarded on a competitive basis to implement conservation practices using a cost benefit analysis approach. Most projects are awarded on a watershed basis with agriculture being the primary pollutant that adversely impacts surface water for either drinking or recreational purposes.
•	Conservation Farm Option, Title 16, Conservation, Sec. 3839bb. The purposes of this legislation are many and include conservation of soil and other similar conservation purposes.

Sources: McKinney's Consolidated Laws of New York State Annotated. (1984, 1997, 1998); United States Code Annotated. (1988, 1998); United States Code Congressional and Administrative News. (1997); New York State Department of Environmental Conservation and New York State Office of Parks, Recreation and Historic Preservation. (1997). Conserving Open Space in New York State 1997, Summary of the Plan, p. 10; *Washington County Agricultural and Farmland Protection Board. (1996). Washington County Agricultural and Farmland Protection Plan ,pp. 29,30,83,84.

Chapter Summary

There is a great deal of variation in the way municipalities regulate agriculture.

Several municipal definitions of agriculture/farm may be inconsistent with Article 25AA. Much of the potential inconsistency is due to requirements on minimum farm size, or restrictions or prohibitions on certain types of agricultural practices.

Three town zoning ordinances state that any agricultural use may take place in a State-certified agricultural district regardless of what zoning district applies to the land, and one town permits agriculture in all zoning districts. However, several municipalities have zoning districts which apply to land in an agricultural district which do not list agriculture as a permitted use, making the zoning potentially inconsistent with Article 25AA.

In addition to zoning district and definitional restrictions, some municipalities have other zoning provisions which limit the types of agricultural operations which may take place in the community; e.g., raising of swine, goats, and fur bearing animals, or the keeping of cows, horses, and poultry. These, too, may be judged to be inconsistent with Article 25AA.

The comprehensive plans of municipalities that have land in an agricultural district promote agriculture. However, in several municipalities, some of the zoning districts that apply to areas designated for agriculture, which includes land in agricultural districts, do not list agriculture as a permitted use, making the zoning potentially inconsistent with the plan as well as potentially inconsistent with Article 25AA.

Many inconsistencies between land use regulations and plans are the result of old land use policy being in conflict with the current land use policy and plan of the municipality which promotes agriculture. The current policy involves a variety of techniques which can help preserve farming.

While many municipalities have legislated a variety of techniques to help protect and promote agriculture, it is likely that the techniques are not usually “packaged” and put forth as a pro-active, coordinated program to preserve agriculture. When coupled with the fact that older regulations are inconsistent with current policy, and the fact that most zoning applying to farmland is basically considered residential zoning, all of these factors may well limit the overall effectiveness of current techniques to preserve agriculture.

Disclosure notices make prospective nonfarm residents aware that the property they may buy is in an agricultural district and that they may be subject to noise, odors, and dust emanating from farms. The notice helps reduce nuisance complaints and suits against farmers by nonfarm neighbors. Revisions to the notice have been enacted which strengthen the law in the farmer’s favor by requiring the disclosure notice to be provided to potential property owners at the time of purchase offer. Also, it may be possible to include disclosure notices in multiple listings of properties in agricultural districts. Providing notices in multiple listings would provide prospective property owners with the earliest notification possible.

In addition to those farmland preservation techniques already being used by Monroe County municipalities, there are others as well, many of which are described in Table 5. Some of the techniques described in Table 5 are complex, some take a significant amount of time to implement, and others require significant funds to implement and, thus, may be reasons as to why they are not in use by more municipalities.

The State and Federal laws and programs appear to be consistent with the State's policies to preserve and protect agriculture contained in the agricultural districts law and the farmland protection program. Many of the regulations are focused on preserving the land by encouraging the establishment of easements. However, implementing incentive programs and legal protections to preserve farmland has been deemed inconsistent with government policies that protect water supplies from agricultural contamination (Poe, 1997). It has been found that such programs tend to conflict with one another when environmental objectives are tied to agricultural production practices. Thus, there may be a need for government to assess policies related to agriculture and revise those that are in conflict.

Chapter 5
Financial Assistance

To maintain viability, agriculture, like all other businesses, must have access to investment capital through economic development programs and other opportunities that accommodate increased operating efficiency and growth. In addition to banks and loan associations, several local organizations and governmental agencies provide financial assistance through a variety of loan programs. This chapter presents a summary of programs available through these organizations and agencies as they relate to the needs of farming in Monroe County.

Farm Service Agency (FSA)

FSA has combined with the former Farmers Home Administration (FmHA) with offices in Batavia, N.Y. servicing Monroe County. (Information was obtained from USDA's Farm Service Agency Producer's Guide to Loan Programs, 1998. For more information call 716-473-3440 or 202-720-1632).

FSA offers direct loans and guarantees loans, and provides credit counseling to farmers who are temporarily unable to obtain private, commercial credit. These may be beginning farmers who can't qualify for conventional loans because of insufficient net worth, or established farmers who have suffered financial setbacks from natural disasters. Loans are tailored to a producer's needs and may be used to buy farmland and finance agricultural production. The program is designed for family farms. Examples of programs include:

- Farm Ownership Loans. Direct loan funds may be used to buy farmland, construct or repair buildings, and develop farmland to promote soil and water conservation. Under the guaranteed program, loans may also be used to refinance debt. Loan limits are $200,000 for direct loans and $300,000 for guaranteed loans. Direct farm ownership joint financing is available where FSA lends up to 50 percent of the amount to be financed and another lender provides the balance. Loan terms are up to 40 years.

- Farm Operating Loans. Direct loans may be used to purchase livestock, farm equipment, feed, seed, fuel, farm chemicals, insurance and other operating expenses, soil and water conservation, and refinancing indebtedness with certain limitations. Guaranteed loans may be used for all of these purposes plus refinancing debts. The maximum amount is $200,000 for direct operating loans and $400,000 for guaranteed loans. Loan term is one to seven years.

- Beginning Farmer and Rancher Loan. For those who are not able to qualify for commercial credit. Applicants must have operated a farm or ranch for at least three but not more than ten years; farm size cannot be greater than 25 percent of the average farm size in the county (applies to guaranteed loans not direct loans); and if the applicant is a business entity, all members must be related by blood or marriage, and all stockholders in

a corporation must be eligible beginning farmers or ranchers. Those that qualify apply for the Down payment Farm Ownership Loan.

- Down payment Farm Ownership Loans. Designed to assist beginning farmers and ranchers purchase a farm or ranch. The operation's purchase price or appraised value, whichever is lower, may not exceed $250,000. First, applicants make a down payment equal to ten percent of the purchase price. FSA finances up to 30 percent of the purchase price or appraised value, whichever is less. The remaining balance, not to exceed 60 percent, is obtained from a commercial lender. FSA can provide up to a 95 percent guarantee if financing is obtained through an eligible commercial lender. The loan term is ten years.

  The program also provides a way for retiring farmers to transfer land to a future generation of farmers and ranchers. FSA advertises acquired property within 15 days of acquisition. Eligible beginning farmers and ranchers are give first priority on this land at the appraised value for the first 75 days following acquisition.

- Emergency Loan Assistance. Covers production and physical losses in counties declared as disaster areas by the President or designated by the Secretary of Agriculture, or where the FSA Administrator has determined that a disaster has occurred. Loans may be made for up to 80 percent of the actual production loss and 100 percent of the actual physical loss to a maximum of $500,000. Loan terms range from one to seven years on non-real estate losses and up to 40 years for physical losses on real estate.

U.S. Small Business Administration (SBA)

SBA provides loan guarantees on loans made by commercial banks to eligible small businesses (Victoria Reynolds, Loan Specialist, personal communication, May 4, 1998). Farmers must first apply to the USDA (or FSA) for funding, and only if they are denied may they then pursue an SBA Guarantee loan from their commercial bank (applications denied by USDA for credit reasons probably will not be found credit worthy by SBA). Farm-related businesses (input and output sector businesses) may apply directly to their lender for an SBA guarantee without first going to USDA.

The SBA offers two primary lending programs, the 504 Program, which is described later under MCIDC, and the 7(a) Guarantee Program. Under 7(a), SBA guarantees up to 75 percent of a loan from a commercial bank, with a maximum loan guarantee of $750,000. Interest rates and terms are set by the bank. Loan maturities can be up to 25 years depending on the use of loan proceeds.

Activities for which 504 loans may be used are listed in the description under MCIDC. Activities for which 7(a) loans may be used include those under 504 plus the following:

- Operating expenses directly related to the farming operation, excluding personal or

family living expenses;

- Purchase of seed and the acquisition of animals; and
- Refinancing debt related to the farming operation, excluding personal or family debt, provided the refinancing meets Agency policy regarding refinancing.

For more information, contact Victoria Reynolds, Loan Specialist, U. S. Small Business Administration, 100 State Street, Room 410, Rochester, New York 14614, telephone (716) 263-6700.

Farm Credit of Western New York, ACA.

Farm Credit does not have different funding programs based on job retention/creation criteria or which focus on a particular aspect of an operation such as manufacturing or value added processes. Rather, Farm Credit is a "straight" lender (Daniel O'Connell, Senior Loan Officer, personal communication, February 5, 1998). Usually, there are no minimum or maximum loan amounts. The amount an applicant may receive is heavily based on the applicant's financial statement, income statement and/or tax return, and a budget which demonstrates ability to repay the loan.

Loan terms are based on the purpose of the loan. For production loans, the repayment term is generally one year; for machinery and equipment loans, seven years; for buildings and structures such as a grain bin or storage facility, ten years; and for purchase of land or a farm, 20 years (and in some cases 25 or 30 years).

Interest rates are variable according to Farm Credit's costs but generally are tied to the prime rate. Rates as of February, 1998 were: 10 3/4 percent on loans of under $25,000; 9 3/4 percent on $25,000-$50,000; 9 1/4 percent on $50,000-$100,000; 8 ½ percent on $100,000-$400,000; 8 1/4 percent on $400,000-$2 million; and 8 percent on $2 million or more. Loans are made to full- and part-time farmers, and to agriculture-related businesses that provide on-farm services.

Farm Credit also provides mortgages. There is no mortgage tax on mortgages held by Farm Credit (Monroe County, however, charges a $5 filing fee).

Lastly, Farm Credit provides tax services, financial record-keeping services and software, payroll services, crop insurance, Credit life insurance, and business and estate planning. The Farm Credit office in Batavia services the west side of Monroe County, and may be reached for more information by calling toll free 1-800-929-1350. The office in Phelps services the east side of Monroe County and may be reached by calling toll free 1-800-929-7102.

Rural Opportunities Enterprise Center, Inc. (ROECI)

ROECI has an Intermediary Relending Program (IRP) which is designed to provide loans to small businesses for real estate, equipment, and working capital (John Bell, Senior Business Development Officer, personal communication, April 7, 1998). The business must be located in

a rural community, defined as a community with a population of less than 25,000 people.

Eligible activities include value added operations, wholesale, manufacturing, and retail and service businesses operated for profit. Along with the ROECI Loan Fund application, submissions should include:

- Business plan, including history and description of the business, detailed market analysis, marketing plan, and uses of the proposed loan;
- Three years historical financial data, if available, projected monthly cash flow for at least one year and proforma income and expense statement;
- Previous year's personal income tax return for owner(s); and
- Current personal financial statement.

Loans are up to $150,000 or 50 percent of project costs, whichever is less. Loan terms are flexible, not to exceed ten years. Interest rates are tied to the prime rate, and an origination fee may be applicable. The IRP has limited resources to help applicants prepare business plans and cash flow projections.

For more information, contact John Bell, Senior Business Development Officer, Rural Opportunities, Inc., 400 East Avenue, Rochester, New York 14607, telephone (716) 340-3387.

County of Monroe Industrial Development Agency (COMIDA)

Each application is judged on its own merits but generally, an agricultural operation that meets the definition of manufacturing may be eligible for COMIDA assistance (Martin Lawson, Economic Development Specialist, personal communication, February 4, 1998). Examples of operations that may qualify would be ones which add value to a raw product (value added operations) such as a cider mill, milk processing, or ones which take a field crop and process and package it for consumer sales. Equipment used in the processing, as well as the building occupied by the operation or a warehouse that's needed to store the processed product, are eligible for assistance.

The types of assistance COMIDA can provide are:

- Sale/Leaseback. Sales tax exemption on construction materials and the initial equipping of the facility; mortgage tax exemption, and real estate tax abatement on the increased assessment due to the improvement. Due to the amount of the closing costs, the minimum practical project cost for a sale/lease back is $500,000 and there is no upper limit.

- Industrial Revenue Bond financing. Tax exempt bond financing through a bank or underwriter for the purchase, construction, renovation and equipping of a facility. Terms are from 10 to 30 years at interest rates that are at least two percentage points less than the conventional rates. Currently, rates are in the five to six percent range as set by the

bond market at closing. Again, due to closing costs, the minimum practical project cost for tax exempt bond financing is $1.5 million, and the allowable ceiling is $10 million. Projects that are eligible for industrial revenue bonds are also eligible for sale/lease back benefits.

Brockport Cold Storage is an example of an agriculture-related operation that received full program benefits; Empire Beef was eligible for the sale/lease back benefit only.

For more information, contact Martin Lawson, Economic Development Specialist, COMIDA, Monroe County Department of Planning and Development, CityPlace, 50 West Main Street, Suite 8100, Rochester, New York 14614, telephone (716) 428-2189.

Monroe County Industrial Development Corporation (MCIDC)

The primary purpose of MCIDC is to encourage job retention/expansion by providing economic development assistance to businesses (Paul Hohensee, Business Development Analyst, personal communication, February 4, 1998). MCIDC has two programs that may assist farmers. They are:

- Revolving Loan Fund. Provides expanding businesses with financing for fixed assets (equipment) and working capital. Loans are available for up to $75,000 with a term up to seven years. Interest rates on loans are prime minus one percent.

- SBA 504 Program. This program provides long term financing for the purchase of land, buildings, machinery and equipment, construction, expansion, renovation and modernization at fixed, below market rates. Fifty percent of the loan is financed by a bank, 40 percent by SBA through MCIDC, and 10 percent in equity provided by the applicant. Loans range from a minimum of $50,000 to a maximum of $750,000. Loan terms are 20 years for buildings and 10 years for equipment, and both are at fixed interest rates. Loan fees are paid over the term of the loan. For each $35,000 loaned, the applicant must create one job within two years.

For more information, contact Paul Hohensee, Business Development Analyst, Monroe County Department of Planning and Development, Economic Development Division, CityPlace, 50 West Main Street, Suite 8100, Rochester, New York 14614, telephone (716) 428-5347.

Monroe County Department of Planning and Development, Economic Development Division (ED)

- Monroe County Community Development Block Grant Revolving Loan Fund. This program is administered by ED. It provides funds for job-creating businesses that demonstrate a need for financing which cannot be entirely met from other sources. Funds can be used for fixed assets (equipment) and working capital. The criteria for obtaining funding is the creation of jobs for persons of low/moderate income. This program

provides loans of up to $100,000 for a term no greater than five years at prime minus three percent.

For more information, contact Paul Hohensee.

Genesee/Finger Lakes Regional Planning Council (G/FL).

G/FL Revolving Loan Fund (RLF). G/FL maintains an RLF (Paul Howard, Executive Director, personal communication, February 6, 1998). The purpose of the this fund is the same as ED's Block Grant Fund. As a general rule, G/FL is looking to assist projects that add value to products, and will loan about $10-12,000 for each job that is created/retained as a result of the loan. G/FL currently has about $125,000 to loan. Interest rates are one percent below prime. The fund is designed for gap financing (the difference between the total amount needed and the amount being loaned by, for example, a commercial bank). Loan terms are five to six years for working capital; eight years for equipment; and 10-15 years for real estate. Loan amounts are normally limited to 20-30 percent of the total project package.

For more information, contact Paul Howard, Executive Director, Genesee/Finger Lakes Regional Planning Council, 1427 Monroe Avenue, Rochester, New York 14618, telephone (716) 442-3770.

New York State Department of Economic Development

The Department of Economic Development has a consolidated economic development program called Empire State Development (ESD). It's mission is "creating jobs and encouraging economic prosperity by strengthening and supporting New York State businesses" (Business Assistance in the *New* Empire State, n.d., p.1).

The programs describe the services ESD can provide to businesses and manufacturing. There is no specific mention of farming or agricultural operations as a category. ESD staff would have to be contacted to find out if a specific agricultural operation or project would be eligible for assistance.

Some of the programs for which farmers and the agriculture industry may be eligible for include:

- Ownership Transition Services. Designed to help business owners develop a succession plan to help insure that the business gets transferred to the next generation. For a nominal fee, financial consultants provide advice in such areas as: sale or gift to family members; sale to management; sale to outside investors; employee stock option ownership plans; or a combination of these techniques.

- Entrepreneurial Assistance. Encourages the start of new businesses by minorities and women. Training is provided through classroom instruction by non-profit organizations and vocational and educational institutions on the development of professional business

plans. If business financing is needed, the business plan may be part of a financial package, and the training centers are typically linked to various funding sources to assist program participants.

- Government Market Development Assistance. The State is a major purchaser of goods and services. The "New York State Contract Reporter" is a weekly publication that provides information on State contracts on which any individual or business may bid. Food is one of the commodities listed in the publication. Subscriptions to the "Reporter" may be obtained by calling 800-592-4369.

- Linked Deposit. Created to assist eligible businesses to make investment or undertake projects that will improve their performance and competitiveness. Businesses eligible for this program include NYS-certified minority or women-owned businesses and businesses with fewer than 100 full time NYS-based employees which is undertaking a project to increase its export activities. The maximum loan amount is $1,000,000 for a participation period of two years.

  Under this program, eligible businesses obtain a loan from a bank or loan association that is two to three percentage points below the prevailing rate on such loans, making borrowing less expensive. In return, the State deposits funds with the lender at comparably reduced rates.

Information on ESD programs may be obtained from the NYS Department of Economic Development office in Rochester by calling (716) 325-1944.

Chapter Summary

The FSA, SBA, and Farm Credit have programs specifically designed to provide financial assistance to the agricultural community. These programs help farmers purchase property, equipment, and help them to meet farm operating expenses.

Rural Opportunities provides financial assistance for a variety of activities as long as the activity is located in a community with a population of less than 25,000 people. Thus, a farmer would be ineligible for assistance if his/her operation were is a community of more than 25,000 people.

COMIDA provides sale/leaseback and industrial revenue bond financing. Closing costs limit the minimum practical project costs to ones involving $500,000 or more for sale/leaseback and $1.5 to $10 million for revenue bond financing. Assistance has been provided to Brockport Cold Storage and Empire Beef, both of which may be considered as agriculture-related operations. However, the cost of many projects a farmer might undertake to improve the economic viability of his/her operation may not equal or exceed COMIDA's minimum loan amounts, making the farmer ineligible for COMIDA assistance and the benefits provided by COMIDA programs.

Other programs available from Monroe County, the revolving loan fund provided by the Genesee Finger Lakes Regional Planning Council, and programs available through Empire State Development are designed primarily to assist manufacturing operations and link financing to job creation/retention. A farmer would be ineligible for assistance under these programs unless the project involved job creation/retention.

As noted in chapter 1, production agriculture and agricultural manufacturing industries generate high economic multipliers, higher than in many nonagricultural industries, including nonfood manufacturing. And, agriculture makes large investments in the local economy when compared to other industries. As a result, increases in agricultural production produce relative large secondary and tertiary benefits to industries linked to agriculture. Also, locally, almost 3,000 persons are employed full time in agriculture and 4,000 workers in total, as much or more than many businesses and industries in Monroe County. Therefore, for these reasons, it would appear to make good business sense to make agriculture an integral part of all economic development programs.

Chapter 6
Cost of Community Services

As noted in the chapter 2, a 1971 survey of Monroe County farmers indicated that they payed more in taxes than they received in services. Several studies have been conducted throughout the country on this subject. The studies are primarily designed to determine what the taxes paid by various land use categories are versus the cost of services demanded by these uses.

The results of several cost of community services studies are presented in Table 7. In every one of these studies, the cost of services demanded by farms is reported to be less than the revenue they generate in the form of taxes. The cost of services demanded by commercial and industrial development is also less than the revenue they generate in taxes. The opposite was reported to be true for residential development.

To gain a local perspective on the cost of community services, a review was conducted of the study done for the Town of Pittsford in Monroe County, and the study done for the Town of Ontario in Wayne County, Monroe County's neighbor to the east. To see if similar results were obtained elsewhere in the State, a review was conducted of the Dutchess County study, which is listed in Table 7, and of a summary of the costs of services analysis done for the Onondaga County farmland protection plan. This chapter presents the results of these reviews.

Town of Pittsford

The Town of Pittsford evaluated tax revenues generated by different land uses as compared to the costs of services provided to the respective land uses. However, Pittsford took a different approach by conducting an analysis of development alternatives (Gardner, 1993).

The purpose of the project was to estimate the balance of changes in service costs and tax base from residential development and to explore potential tax impacts of a different mix of land use on the land devoted to development so that this information could be taken into consideration by Pittsford officials in their upcoming review of the Town's master plan.

The study looked at tax impacts on residents from 1993-2005 under current zoning, assuming that 80 percent of the developable land would be developed, with the remaining 20 percent staying in agriculture or vacant land. The first scenario looked at the tax impacts based on the assumption that the developable land would consist entirely of residences. The residences to occupy the land were a mix of "high range" homes (home price around $500,000 at .4 dwellings per acre), "mid range" ($250,000 at .6 per acre), and "low range" ($160,000 at .7 per acre) (Gardner, 1993, p.i). Next, tax impacts on residents were determined when the development scheme consisted of residences and office development. The cost structure of the school district and town in 1993 was assumed to be constant so that the affect of increasing development could be studied separately from other factors affecting the cost of local government.

Table 7
Results of Cost of Community Services Studies

Municipality	Residential	Commercial Industrial	Farms Forest Open Land
Village--Madison, Ohio	1 : 1.67[1]	1 : .20[1]	1 : .38[1]
Town--Madison, Ohio	1 : 1.4	1 : .25	1 : .30
Hebron, Conn.	1 : 1.06	1 : .42	1 : .36
Agawam, Mass.	1 : 1.05	1 : .44	1 : .31
Deerfield, Mass.	1 : 1.16	1 : .38	1 : .29
Gill, Mass.	1 : 1.15	1 : .43	1 : .38
Beckman, Dutchess Co., NY*	1 : 1.12	1 : .18	1 : .48
Northeast, Dutchess Co., NY*	1 : 1.36	1 : .29	1 : .21
Hector, Schoharie, NY**	1 : 1.30	1 : .15	1 : .28
Dix, Schoharie Co., NY	1 : 1.51	1 : .27	1 : .31
Reading, Schoharie, NY	1 : 1.88	1 : .26	1 : .32
Montour, Schoharie, NY	1 : 1.50	1 : .28	1 : .29
4 So. New England towns	1 : 1.11	1 : .42	1 : .34
Ave. All NY municipalities	1 : 1.45	1 : .24	1 : .32
Ave. All municipalities	1 : 1.33	1 : .31	1 : .32

* Beckman--a $40,000 fire truck charged to “ag”--it was needed to protect ag buildings
* Only ag assessment land was used in figures
** Hector--Sales tax affected the figures for Commercial and Industrial

THESE STUDIES SHOW REVENUES COMPARED TO EXPENSES ON A DOLLAR TO DOLLAR BASIS BY LAND USE: A COMPARISON OF DEMANDS FOR PUBLIC SERVICES TO DOLLARS PAID IN TAXES.

Source of Table: Washing County Agricultural and Farmland Protection Board. (1996). Washington County Agricultural and Farmland Protection Plan, p. 27.

[1]For every $1.00 of taxes received from residential development, it costs the municipality $1.67 to provide it with services; for every $1.00 of taxes received from commercial/industrial development, it costs the municipality $.20 to provide it with services; and for every $1.00 of taxes received from farms, forest and open lands, it costs the municipality $.38 to provide it with services.

Several development scenarios were tested on the 80 percent land to be developed. Scenarios included: all residential with varying percentages of the land devoted to the different price ranges of homes, e.g., 24 percent high range, 40 percent mid range, and 16 percent low range, then scenarios that included different percentages of the land devoted to different mixes of homes where some of the land would be developed with offices, e.g., 24 percent high range, 37 percent mid range, 8 percent low range, and 11 percent office. Further, several assumptions were made about allocating expenses related to the various development scenarios to municipal and school budgets. For example, town supervisor and town board expenses were assumed to be constant as the community grows; justice department, assessor, highway, and brush and weed collection costs were expected to increase as population grows; and daytime traffic would increase as office development brings more employees into town.

The study concluded that tax rates would rise through 2005 when all of the developable land was built with homes, regardless of the mix of housing ranges or land devoted to the different ranges. The increase is a result of school taxes. A new home would have to cost $350,000 if tax rates were to remain constant after the home was built (Gardner, 1993). Homes costing less would add more to the aggregate cost than to aggregate revenue of the town.

When the office component is factored in, it was found that the "break even" development scenario -- the one where the net present value of changes in future tax payments was effectively zero -- was a mix of 20 percent agricultural/vacant, 24 percent high range housing, 37 percent mid range, and 8 percent low range, and 11 percent office. When office development is increased to 15 percent of the developable land, residents pay approximately $14 million less in taxes over a 20 year period.

The study also looked at what current residents might be willing to pay to keep land undeveloped. A hypothetical 200 acre parcel was used in this example. It was developed with 120 mid range homes. Since these homes were below the $350,000 "break even" home, it would cost more to serve these homes than they would pay in tax revenue. The study concluded that town residents would be better off from a tax standpoint if the development rights on the 200 acres could be purchased for about $14,000 per acre.

The study also concluded that consideration should be given to adopting a master plan that reduces the share of residential development by incorporating more nonresidential development.

Town of Ontario

A similar study was done by the Town of Ontario (Town of Ontario Growth Ad Hoc Committee, 1995). Basing their study on various assumptions pertaining to such factors as number of homes to be built, tax rates, municipal costs incurred for each new home, student costs, etc., the Committee concluded that: (1) increasing population density in residential development increases taxes; (2) commercial and industrial development decreases taxes; and (3) less expensive homes have a greater unfavorable impact on taxes than do homes valued at or above the town average (Town of Ontario Growth Ad Hoc Committee, 1995).

Dutchess County

Cornell Cooperative Extension-Dutchess County and the American Farmland Trust undertook a cost of government services study on the Towns of Beekman and North East in Dutchess County (Cornell Cooperative Extension-Dutchess County and American Farmland Trust, 1989). The goal of the study was to determine the relative impact of particular land uses - residential, agriculture, and commercial/industrial -- on each town's budget, and use the results to promote a more favorable balance of land uses within each community. The Town of Beekman was a rapidly developing community with few remaining farms; the Town of North East was an agricultural town beginning to face development.

Revenues and expenses from each town's budget were grouped into categories. Then, relative proportions of revenues and expenses were allocated to each land use based on assumptions about the nature of the revenue or expense. For example, State revenue sharing funds are based on population so this revenue was assigned to the residential category. Similarly, expenditures for education were assigned to the residential category.

Ratios of revenues to expenditures were then calculated for each land use category in each town. In both towns, the cost to provide services to residential development exceeded the revenue generated. The opposite was true for the agricultural land and commercial/industrial categories. The study concluded that farmland more than pays for itself and that municipal officials should be aware of the fiscal impacts of different land uses when planning for the community's future land use.

Onondaga County

A two page study of the impact of a major city, Syracuse, on farmland was conducted in support of a farmland protection plan for Onondaga County (Wagner, n.d.). The study looked at the tax rates and farm trends over a 20 year period for the Town of Manlius, close to Syracuse, and Fabius, about 20 miles away from Syracuse.

Fabius lost 47 percent of its farms; Manlius lost 75 percent of its farms. Property taxes per acre in Fabius increased 39 percent from 1984-96 and 147 percent in Manlius. More farms were lost closer to the city and those remaining were paying more tax per acre than the State average for property taxes. The study concluded that higher tax rates affected the number of farms.

Next, as an example, the study looked at a 100 acre corn field which was sold for development to determine which provided more benefits to the County -- leaving the land in crop or developing it into 20 five acre lots with $150,000 homes. After analyzing the taxes paid by the homes and the costs to the municipality to serve the homes, and taxes paid by the cropland and the costs of services provided to the farm, the results indicated that it would cost the town $33,000 more to serve the homes than it would take in tax revenue from the homes, and the farm would pay $2,400 more in tax revenue than it would demand in the way of services from the town.

The study concluded that when looking strictly at taxes, residential development does not pay its own way.

Net Service Costs

Some may question the results of cost of services studies. A potential limitation of these studies is that they do not consider the economic multiplier effects of the various land uses within a community. For example, industrial development "which pays its way" generates residential development which, in turn, generates the need for business and commercial development which also pays its way. Without the presence of employment opportunities there would be little residential development, and without residential development to provide customers, businesses would not locate where they are. Multiplier effects were alluded to in the study of the impact of Syracuse on farmland (Wagner, n.d.).

Therefore, it may be appropriate to include economic multiplier effects of the major land use categories in cost of community services studies. Including this data may present a more equitable, accurate picture of costs and revenues generated by each of the major land use categories. This information could then be used to arrive at a "net" cost of services for each major land use category which could then be used for land use planning and other policy and decision-making purposes.

Chapter Summary

Based on the assumptions included in the cost of services studies, the studies conclude that agriculture pays more in tax revenues than it demands in municipal services. Commercial and industrial development also pay more in tax revenues than they demand in services. The opposite is true for residential development because of the municipal and educational services required to serve residential development. To pay for these services, municipal taxes are often raised which raises the taxes paid by farmers and all other land use sectors of the community.

The Pittsford study illustrated the impacts of land use on taxes by varying the percentage of land devoted to different types of land use. Based on the assumptions in the study, the analysis concluded that taxes are the highest when all of the developable land is devoted to the residential land use category. When nonresidential development is figured into the equation, taxes are lower. The study also concluded that current residents may be better off from a tax standpoint if they were to purchase the development rights of land that might otherwise be developed.

The Dutchess County and Town of Pittsford studies recommended that the results of the analyses be used when doing land use planning in an attempt to provide a more balanced tax base.

Consideration of economic multiplier effects and other appropriate characteristics in cost of community services studies may lead to the identification of the "net" costs of services generated by each major land use category.

Chapter 7
Current Issues and Concerns in Agriculture

In 1996, the AFPB commissioned a survey of agricultural landowners in Monroe County to assess their attitudes and perceptions concerning farmland protection policy (King, Lamb, Brand, and Wilkins, 1997).

The survey asked questions and provided results regarding agricultural landowners and farmers attitudes concerning: (1) what town, County, and State government could do to help promote agriculture; (2) farmland preservation and agricultural protection at the town level; (3) State and local taxes; (4) economic indicators of viability/activity associated with a farm operation; and (5) education and marketing issues impacting agriculture. A comment section was included so that respondents could expand on their answers. Appendix D contains the survey and the detailed results.

This chapter summarizes the results of the survey by topic such as taxes, agriculture districts program, and, where applicable, presents what has or is being done relative to the issues and concerns raised in the survey.

In addition to the survey, representatives of several local agriculture interest groups were interviewed to determine what the issues and concerns in agriculture are from each organization's perspective. The organizations interviewed were: Monroe County Farm Bureau; USDA Farm Service Agency and Natural Resources Conservation Service; Town of Mendon Farmland Advisory Committee; Town of Rush Farmland Advisory Board; and the Genesee Land Trust. A summary of each organization's views relative to the topics covered in this chapter, along with in-depth summaries of each interview are found in Appendix E.

Taxes

As noted in chapter 2, taxes were the most important concern of farmers in the 1971 survey and today, taxes still continue to be the most important problem farmers face. Over 80 percent of the survey respondents said that tax pressures at all levels of government are a major concern. When responding to the question on what are the three most important things towns, the County, and the State can do to help promote agriculture, providing tax incentives drew the largest percentage of responses for towns (31 percent) and the County (27 percent). The most important things the State can do are eliminate the estate tax (29 percent) and convert the property tax to an income tax (27 percent).

In response to several other questions on taxes: 50 percent said there is an immediate need for more equitable tax assessment practices at the town level; 80 percent agreed or strongly agreed that taxes should only be paid on the farm house and not on farmland or farm buildings. Also, 85 percent agreed or strongly agreed that no capital gains tax should be paid if land is kept in farming for at least five years after transfer of ownership. When asked which level of government should be responsible to help offset tax exemptions for land being actively farmed if

funds were available (that is, make up the loss in tax revenue caused by the exemptions), 33.6 percent said the State, 26.4 percent said the County, and 19.5 percent said the town/village.

Ninety percent of the respondents agreed or strongly agreed that farming pays more in taxes than it receives in services. These responses are supported by the findings of various cost of community services studies summarized in chapter 6.

Another tax of concern is the gift tax. Gift taxes must be paid on any gift worth more than $10,000. Thus, if a farmer wants his heirs to have the farm, in order to avoid paying a gift tax on it, the farmer has to divide the farm's assets among the heirs into portions that are less than $10,000 in value. This may require the farmer to begin estate planning well in advance of the time the estate is to be turned over to the heirs. The fact that portions of the farm's assets may be under joint ownership or under separate ownership as a result of this process, may make it difficult to use the assets to secure loans and financial assistance necessary to maintain farm operations.

Status

Progress has been made on the tax issue at the State level. In 1996, the State Legislature enacted the Farmers's School Tax Credit. This law permits qualified farmers and qualified agricultural land to receive an income tax credit for school taxes. If ,for example, $7,000 is paid in State income taxes and $5,000 was paid in school taxes, the farmer only has to pay $2,000 in State income tax. If the reverse is true, the farmer would get a $2,000 refund. It will apply for the first time to 1997 income tax returns.

The School Tax Relief (STAR) program was also passed into law by the State Legislature. It provides a $50,000 homestead exemption to qualifying senior citizens and a $30,000 exemption to all other qualified homeowners. This applies to farm and nonfarm homeowners alike.

Estate taxes have been reduced at the State level, and this should help eliminate the need to sell farmland and equipment in order to pay estate taxes. In 1997, the portion of the value of an estate which is exempted from estate taxes was raised from $115,000 to $600,000 - the same as the Federal exemption. Efforts are underway to raise the Federal level to $2 million.

As noted in chapter 4, the Towns of Penfield, Perinton, Pittsford and Webster have programs that reduce property taxes on agricultural land if the land is placed in a easement.

Monroe County does not have a tax incentive program for agriculture. However, as of this writing, the County is in its sixth consecutive year with no County property tax increase, and is proposing the same in 1999.

Agricultural Districts Program

Continuing to renew agricultural districts received the same percentage of responses (27 percent) as did tax incentives as one of the three most important things the County can do to promote agriculture.

Fifty-five percent of the respondents agreed or strongly agreed that the program adequately retained farmland. The data in chapter 3 which showed that, overall, acres owned and rented by farmers, acres in farms, and acres cropped have all increased in agricultural districts, supports this response.

Although 55 percent felt that the program adequately retained farmland, expanding the agricultural districts program to provide more protections was the third most important thing survey respondents said the State could do to promote agriculture.

The three most important reasons why farmers enrolled their land in an agricultural district are: (1) to help reduce property taxes; (2) protection from unreasonable local land use laws that place restrictions on farming; and (3) protection from eminent domain proceedings (which is provided through the Notice of Intent requirement).

Status

The County continues to renew agricultural districts. Each time a district has come up for review it has been renewed, and each time the renewal has resulted in a net increase in the district's farm acreage.

Right To Farm, Uniform Agricultural Zoning

Providing a right to farm law was mentioned by survey respondents as the second most important thing towns can do to promote agriculture and the third most important thing the County can do to promote agriculture. Enacting uniform agricultural zoning was listed as the third most important thing towns could do to promote agriculture. The need for a right to farm law and agricultural zoning were two concerns identified by farmers in the 1971 survey.

Status

Currently, no municipalities have a right to farm law as it is described in Agriculture and Markets Law, and there is no uniform agricultural zoning in the County. As a matter of fact, as indicated in chapter 4, there is a great deal of variation in the zoning that is applied to agriculture. Thus, the concerns raised through the survey regarding zoning are consistent with the findings from the review of the land use regulations in chapter 4.

Preserving Farmland and Promoting Agriculture

Eighty-five percent agreed or strongly agreed that there is a need for farmland protection/ preservation at the town level; the need for farmland protection was another issue identified by farmers in the 1971 survey. Sixty percent of the respondents to this question suggested that protections should not be limited to only farmland in agricultural districts. The three most important factors towns should consider in protecting farmland are: farm viability (27 percent); contiguous to other actively farmed land (21 percent); and soil type (19 percent). Some respondents commented that consideration should be given to the use of PDR.

Regarding the question of whether their municipality has implemented any programs to promote agriculture, only 24 percent said their community had implemented such a program, 32 percent said no, and the remainder, 44 percent, were unsure.

Status

As noted in chapter 4, Monroe County towns have a variety of programs and regulations to promote agriculture such as comprehensive plans, PDR, farmland advisory committees, easement programs to reduce taxes on agricultural land, and disclosure notice requirements.

Major Concerns

The major concerns respondents said they faced when conducting agricultural operations are: zoning (35 percent); local government is not aware of agriculture's impact on the economy (25 percent); environmental regulations (24 percent); open burning regulations and subdivision development (21 percent); drainage from adjacent lands (18 percent); and neighbor complaints and transportation constraints on farm equipment (16 percent).

Several comments were made regarding the need to keep culverts and other drainage systems in good operating condition. Concern was raised about the impact of upstream development and the damage its drainage is causing to downstream farms both in the form of redirecting the drainage and in the volume of stormwater being added to the existing drainage system.

Status

The concerns with zoning were noted above under the discussion on right to farm and uniform agricultural zoning. Some actions are being taken on the other concerns. For example, the Monroe County Planning and Development Department makes comments regarding drainage in reports on development proposals adjacent to farmland (see chapter 2), neighbor complaints are handled informally by the towns on a case-by-case basis or by Cornell Cooperative Extension-Monroe County, County Health Department or the State Department of Environmental Conservation when the complaint involves a health issue (see chapter 4), and constraints to operating farm vehicles on public highways is being addressed by the Farm Bureau (Robert

Colby, Monroe County Farm Bureau, personal communication, May, 1998). Finally, Cornell Cooperative Extension-Monroe County has been working with the Monroe County Administration, Monroe County Health Department, and the New York State Department of Agriculture and Markets to revise the County's open burning law to address the needs of farmers when it comes to burning such items as brush, trees and limbs, and other items.

Economic Viability of Farming Operations

Sixty-six percent of the respondents said that the level of agribusiness services available were adequate to meet their needs. Approximately 70 percent said that they had not bought or sold any farmland during the past five years. If land was sold, it was due to a "business decision", a transfer to a family member, or to meet farm operating expenses. Seventy-three percent said that there are not enough economic development incentives to expand operations in Monroe County. When asked what would encourage expansion, the top three responses were: real estate tax abatement (34 percent); low interest loans (16 percent); and relief from unfair international competition (13 percent). Twenty-seven percent said the North American Free Trade Agreement (NAFTA) adversely affected their operation; 29 percent were unsure as to what effects NAFTA had on their operation.

Over 70 percent of the respondents indicated that they were unsure as to whether a family member would continue farming their land. Yet, an almost equal percentage (66 percent) indicated that they would not sell their farmland tomorrow even if the money they were to receive was more per acre than it is worth per acre for agriculture.

About 67 percent agreed or strongly agreed that agri-tourism could help promote the economic viability of farming.

Status

As noted under Taxes, above, some towns have conservation easement programs which help reduce property taxes. With regard to low interest loans, as noted in chapter 5, Farm Service Agency, Small Business Administration, and Farm Credit currently have loan programs specifically for agriculture and farming operations whereas, the eligibility requirements of many of the other programs described in chapter 5 may preclude their application to various business improvements or expansions that may be undertaken by the different sectors of the agriculture industry.

There is no formal agri-tourism program in Monroe County at this time. However, a number of farms and businesses in Monroe County are listed in the New York Seaway Trail, Inc.'s magazine "Journey" and in the organization's "Seaway Trail Agri-Sampler" brochure as places Seaway Trail tourists can visit to see agricultural history as well as to sample Monroe County products.

The sites listed in Journey (New York Seaway Trail, inc.,1993, 1998) and the Agri-Sampler (New York Seaway Trail, Inc., n.d.) include: Genesee Country Village & Museum, Rochester Public Market, Casa Larga Vineyards, Gro-Moore Farms, Cobblestone Farm Market, Downtown Riverwalk Farmers Market, Lilac Festival, Monroe County Fair, Aman's Farm Market, McCracken Farms, Daisy Flour Mill, Bauman's Farm Market, Colby's Farm Market, Fairport Farmers Market, The Mall at Greece Towne Farmers Market, North Chili Farmers Market, and Tirabassi Farm Market. These listings were the result of a trailwide inventory in 1996 of existing agri-tourism resources with the assistance of Cornell Cooperative Extension-Monroe County.

As a result of the growing interest in agri-tourism, the College of Agriculture at Cornell is offering a program called "Enterprise and Personal Entrepreneurship" to teach about value added niches. Retail and agri-tourism ventures appear to be most successful on farms located near urban and suburban consumers (New York State Legislative Commission on Rural Resources, 1997). Thus, these activities would appear to be worth pursuing in Monroe County.

Finally, the Monroe County Farm Bureau has highlighted the need for Cornell Cooperative Extension-Monroe County to place greater emphasis on the greenhouse sector of agriculture. In response, Extension is proposing to undertake a marketing feasibility study with the Monroe County Department of Planning and Development's Economic Development Division to support the creation of a Greenhouse Specialist position. Monroe County's greenhouse operators are a growing industry in the County, both in terms of commercial horticulture businesses and farmers who are introducing or expanding greenhouses. Currently, however, greenhouse operators have to go to Ohio and Canada for information and advice, and they face stiff competition from the well- established Ohio and Canadian greenhouse industries. It is anticipated that the position will help the greenhouse sector become more profitable, expand, and become more competitive by providing accurate, timely researched-based information concerning production, environmental concerns, and business management.

Education and Marketing

Over 90 percent of the respondents agreed or strongly agreed that the general public needs to be better educated on the importance of the agriculture industry to Monroe County, and 90 percent agreed or strongly agreed that local officials and the general public need to be better informed about the environmental benefits of farming to the community. When asked who should be making the most important contributions to educating the public on agriculture and to promoting agriculture in Monroe County, the respondents said: County Cooperative Extension (29 percent), Monroe County Farm Bureau (27 percent), individual farmers/other organizations (17 percent), local governments (15 percent), and schools (12 percent). Cooperative Extension, Farm Bureau, and individual farmers/other organizations were also identified as the top three choices as the organizations and individuals who are currently making the most important contributions to agricultural education and promotion.

Regarding marketing, almost 80 percent agreed or strongly agreed that Monroe County products

should have labels identifying them as local products. One comment noted that a local supermarket chain, Wegmans, has a positive impact on local agriculture by purchasing a variety of local products and by promoting and educating about the importance of locally grown fresh produce.

Status

Currently, the majority of agriculture-related education is provided by Cornell Cooperative Extension-Monroe County. Educational programming is provided in the areas of land use, farm business management, and general recommendations on fruit, field crops, and vegetable production (Robert N. King, Cornell Cooperative Extension-Monroe County, personal communication, March, 1998). Extension also participates on regional vegetable, fruit, and dairy teams which provide educational programs on insect, disease, and weed management, cultivar and seed selection, production practices, integrated pest management practices, soil and water conservation practices, harvesting, and handling and marketing of products.

Extension also provides advice and consultation on issues such as farmland protection planning, Notice of Intent reviews, agricultural districts, agricultural assessment values, zoning, fire districts, road construction, water quality issues through membership on the County's Water Quality Coordinating Committee, and requests for information from various public and private organizations. Recently, more emphasis has been placed on educating elected and appointed officials on agricultural matters.

The Farm Bureau has called for Cornell Cooperative Extension-Monroe County to expand agricultural programs regarding agricultural awareness, and agricultural education for youth as well as a need for more in-depth programming in the commodity areas addressed by the regional teams and the need for in-depth research in these commodity areas by Cornell University and the agricultural experiment stations. Recently (1998), Cornell Cooperative Extension-Monroe County has hired a community agricultural educator to work with youth audiences.

There is some degree of agricultural awareness and education being provided at Monroe County's Springdale Farm. The farm is operated as a demonstration farm by the Heritage Christian Home, Inc (HCH) (David Rinaldo Monroe County Department of Parks, personal communication, November, 1998). In addition to the farm's animals, HCH also provides educational programs on agriculture and educational materials. The farm is open to the public seven days a week year round.

Recently, the State Farm Bureau has established a Foundation for Agricultural Education. Its purpose is to educate New Yorkers about agriculture and to increase understanding between farmers and nonfarmers (New York State Legislative Commission on Rural Resources, 1997).

An agricultural literacy curriculum is being developed for middle school students by Cayuga

Nature Center in Ithaca and the statewide New York Sustainable Agriculture Working Group in Rochester (Neff, 1998). Teachers, farmers, and extension educators will design the curriculum in coordination with NY Agriculture in the Classroom and the NYS School Food Service Association. The program will be pilot-tested statewide by teachers currently using garden, food, and place-based learning activities.

The Monroe County Soil and Water Conservation District also provides a variety of technical, support, and educational services to the agriculture industry. The District provides technical and support services to farmers and farmland owners regarding contouring, grading, grass waterways, stormwater management, and ways to minimize soil erosion and nonpoint source pollution to waterways, and ways to maintain viable agricultural operations and preparation of agricultural land assessments. They also provide assistance on such programs as Conservation Reserve, Wetland Reserve, Wildlife Habitat Improvement, and Agricultural Environmental Management which are geared to preserving water quality, conserving and enhancing soil, and providing wildlife habitats as part of farming operations. Lastly, the District also provides education programs to both the urban and rural youth of the County regarding resource conservation and management.

Cornell Cooperative Extension-Genesee County will be coordinating a "Buy Local" campaign to promote local agriculture and farm products from Genesee, Livingston, Monroe, Niagara, Orleans, and Wyoming Counties (Neff, 1998). A regional logo, displays, and brochures highlighting local products will be created by a team of extension staff, vegetable growers, county Farm Bureaus, and the Genesee County Chamber of Commerce. The information will be available at markets, county fairs, conventions, and public events. The information will also be incorporated into a vocational agricultural school curriculum by Genesee County Boces, and will be used by 4-H and NY Agriculture in other classroom projects.

Chapter Summary

Many of the findings and conclusions from the review of municipal regulations in chapter 4, financial assistance in chapter 5, and cost of community services studies in chapter 6 support the survey responses on these subjects. Additionally, many of the concerns identified in the survey are the same as those identified in the survey of farmers conducted in 1971.

Taxes are far and away the major concern of survey respondents. Tax pressures are faced by farmers at all levels of government. Taxes were also the leading concern in the 1971 survey. Thus, until recently, it does not appear that any substantial progress had been made on the tax issue since the enactment of the agricultural assessment value program in the early 1970's.

According to survey respondents the three most important things towns can do to promote agriculture are: provide tax incentives, adopt right to farm laws, and adopt uniform agricultural zoning. The three more important things the County can do are: renew agricultural districts, provide tax incentives, and adopt a right to farm law. Lastly, the three most important things the

State can do are: convert the property tax into an income tax, eliminate the estate tax, and expand the protections provided to farmers under the agricultural districts program.

Agricultural districts help promote agriculture and provide benefits to help keep farmers in operation. Renewing agricultural districts and expanding district benefits are important to farmers.

Because respondents indicated that reduction in property taxes was the primary reason farmers join agricultural districts, it is apparent that farmers are not adequately informed on the benefits of the district program. In order to receive a reduction in property taxes, the farmer must apply for the agricultural assessment value; it is not automatically provided to a farmer upon joining a district.

Just as there was in the early 1970's, there is strong support for agricultural preservation and promotion. Adopting right to farm laws and uniform agricultural zoning are viewed by survey respondents as important tools with which to help promote agriculture.

The discrepancy between the fact that over 70 percent of the respondents were unsure whether a family member would continue farming the land while 66 percent would not sell their land for more than it was worth in farming, appears to indicate a lack of long range estate planning on the part of the farmers who wish to keep their land in farming. Farmer age and family difficulties were cited as reasons for a decline in dairy farming in Dutchess County (Stashenko, 1993). As noted in chapter 3, the average age of the Monroe County farmer is increasing. Thus, the same factors causing farm loss in Dutchess County could affect farming in Monroe County unless farmers undertake long range estate planning.

The economic viability of the local greenhouse sector may be improved with the assistance of Cornell Cooperative Extension-Monroe County.

About 67 percent of the survey respondents indicated that agri-tourism could help promote the economic viability of farming.

Almost 80 percent of the respondents support “locally grown” labeling of local agricultural products. Efforts are underway by Cornell Cooperative Extension-Genesee County to develop a“buy local” program for Western New York counties. Local efforts should be part of the broader program being developed by Cornell Cooperative Extension-Monroe County.

Cornell Cooperative Extension-Monroe County and the Monroe County Soil and Water Conservation District provide a broad range of technical, support, and educational services to the agriculture industry.

A need has been identified for an expansion of Cornell Cooperative Extension-Monroe County's agricultural programs regarding agricultural awareness, agricultural education for youth, more in- depth programming in the commodity areas addressed by regional teams, and more research in these commodity areas by Cornell University and the experiment stations. Recently (1998), Cornell Cooperative Extension-Monroe County has hired a community agricultural educator to work with youth audiences.

A statewide pilot program concerning agricultural literacy is being developed for middle school students. Local efforts concerning agriculture in the classroom should be coordinated with this program.

There is a need to educate local officials and the general public about the many benefits of agriculture and for municipalities to make residents aware of efforts being made to promote agriculture.

Implication

Based on the survey results, a great deal of work needs to be done in many areas to preserve and promote agriculture. Many of these are the same areas that were identified as issues in the agricultural planning efforts of the 1970's and 1980's -- taxes, farmland preservation, marketing, education, economic development, and land use regulation. The fact that farmers today are expressing the same concerns that were expressed years ago indicates that insufficient progress has been made to resolve the concerns in the intervening time period. The expectation is that this planning effort will be more successful in helping to address these issues and in preserving and promoting agriculture.

Chapter 8
Analysis and Findings

This chapter identifies the type of agricultural operations (field crops, dairy, orchards) that may be under conversion pressure and the types of soils involved in conversions to nonfarm uses. Data was gathered on agricultural operations, soils, and natural features and socio-economic factors by using the Monroe County Real Property Tax Services automated tax records and mapped information maintained and developed by the Monroe County Department of Planning and Development

Proximity analyses and correlation analyses were conducted on certain variables to determine their degree of association (relationship) with one another. Consequently, a regression analysis was then performed to identify and describe land use factors that assess development and identify farming operations under conversion pressure. Next, a descriptive analysis was done that identifies the soils being converted into nonfarm use and the frequency of conversion. Finally, a conceptual model was developed that identifies possible trends concerning farmland that would be useful for future planning purposes.

The chapter provides a description of the methodology and the data collection process. A definition of the variables used in the analyses is provided. The findings are presented by descriptive analysis, proximity analysis, correlation analysis, regression analysis, analysis of soils, and a land use conversion model.

Methodology

The Land Evaluation and Site Assessment (LESA) methodology, described in chapter 2, provided the criteria and concepts for both the data collection and analysis. This methodology was applied at the municipal (town) level to describe development pressure on farmland and land use.

LESA has been widely used since its inception in 1981. As noted in chapter 4, the Farmland Protection Policy Act of 1981 requires Federal agencies to use LESA to minimize Federal program contribution to unnecessary and irreversible farmland conversion and to assure as much as possible, that Federal programs are administered in a way which is compatible with state, local, and private programs to protect farmland. Additionally, the LESA system is used by Pennsylvania communities to identify farmland for PDR under the State's PDR program. Thus, LESA provides a proven and exemplary framework by which to describe and identify agricultural land for preservation and economic development.

There are two components to LESA. The first, land evaluation (LE), rates the soil-based qualities of a parcel for agricultural use, employing such factors as land capability classes or soil productivity ratings. The second, the site assessment (SA) component, rates factors other than soils that are important to the use of land for agriculture. Typically, site assessment factors measure agricultural productivity (commodity acreage, value of land and buildings), development pressure on agriculture (proximity to public sewer, distance to urban feeder highway), and factors which support retention of agriculture (proximity to wetlands,

floodplains, historic sites) (Pease and Coughlin, 1996).

Besides LESA factors, economic factors that influence demand for a "good" were also identified. In this case the "good" being identified is agricultural land used for development purposes. Factors other than the price of agricultural land can change the quantity demanded for agricultural land. This has been well documented in economic literature, budget studies, historical experiences, and behavioral studies (Samuelson, 1980; Tomek and Robinson, 1990). Using the 1990 Census, income, population, and population change (1980-90) were used for analysis on a town basis. Median family income was used since income is normally an economic factor that tends to be directly related with the ability to buy a good (land). Population and population change were also used since if each resident consumed a given amount of land an increase in population would indicate corresponding changes in demand for agricultural land while total population would indicate overall demand for land on a town basis (Samuelson, 1980; Nicholson, 1992). The qualitative and survey data as identified in chapters 1-7 was used to better explain and characterize the quantitative data used in the analysis as well as complement the overall planning effort.

Data that was readily available and periodically updated through the County's data bases were used to create a baseline for this project. Property class code changes and building permits served as proxies for development pressure since these variables indicate a significant change in land use as determined by town assessors. Descriptive and inferential statistics were used to develop both statistical models and conceptual models that describe agricultural land use.

Analyses were conducted at the municipal (town) level (where applicable, village data is included with town data). The municipal level was selected for a variety of reasons. Municipalities are the level of government in New York State which have land use regulatory authority. Specifically, municipalities have been granted the police power to regulate the location and types of land uses (zoning) by the State Legislature (New York State Department of State, 1993). Municipalities have also been authorized by the State to prepare comprehensive master plans for the future development of the community (New York State Department of State, 1993). Thus, municipalities have the ability to determine what the current and future land use patterns will be and the ability through zoning and other Legislative authorizations to implement and change the pattern. The municipal level is also the level at which parcel based Real Property Services (RPS) data is collected and organized for tax assessment and record keeping purposes (James Schirmer, Director, and Guy Golisano, Assessment Information Coordinator, Monroe County Real Property Tax Services, personal communication, March, 1998). Finally, municipalities are a common unit used for the collection and analysis of other types of data such as census data. Consequently, municipalities can use this data when making decisions regarding agricultural land use.

Data Collection

The collection, storage, and organization of data was done primarily through the use of the County's Geographic Information System (GIS) located in the County's Planning and Development Department. The GIS system utilizes ArcView and ArcInfo software to link spatial data (maps) with tabular data (tables).

A major source of quantitative data was the Planning and Development Department's GIS files of digitized environmental atlas maps of each municipality, which include soil survey data, agricultural districts, wetlands, floodplains, drainage divides and watersheds, historic sites, sewer and water lines and districts. Census data was collected on population and median family income. Another major source of data was the municipal RPS parcel record data maintained by Monroe County's Real Property Tax Services (RPTS). RPS data is an automated record containing information on each parcel in the County. Each parcel record contains the grid coordinates of the parcel's centroid (center). The RPS data was downloaded and entered into the GIS by grid coordinates. The data sets were then combined and linked through Arc View, Arc Info, and Visual dBASE to be able to map the location of parcel record data.

As noted earlier, the primary use of RPS data is for tax assessment and record keeping purposes. Because this data is for property tax assessment, the records reflect accounting principles rather than land use functions. However, included in these records is documentation describing the physical characteristics of each parcel of land. Due to cost and time limitations imposed on this project, it was logistically and fiscally impossible to conduct an exhaustive field study of each and every agricultural parcel. In addition, the intent of this plan is to establish a baseline data set that can be updated automatically over a given time period (one year). Thus, RPS records were chosen since they are updated annually and easily accessible by computer.

When looking at assessed values, assessors tend to differ in the valuation and classification of a parcel (James Schirmer, Director, Real Property Tax Services, personal communication, March, 1998). This was somewhat evident during the data analysis. However, property characteristics such as acreage, boundary descriptions, sewerage, public water, and so forth, proved to be very consistent. Even though assessed values tend to fluctuate, the data pertaining to the physical description of parcels did not vary widely and proved suitable for analysis of parcel characteristics such as proximity to other properties, roads, schools, shopping centers, and so forth. Therefore, the RPS data proved highly relevant when looking at property characteristics and other attributes associated with class codes to characterize the County and towns in terms of land use and development pressures.

There are, however, some limitations and constraints when using RPS data for planning and statistical purposes. At times, grid coordinates assigned to a parcel are incorrect, resulting in the parcel being incorrectly located. As a result, there are instances where acreage figures are listed in tables for a municipality but the corresponding map will not show the location of all the acreage due to incorrect grid coordinates. In total, incorrect grid coordinates occurred on 1.1 percent of the 251,308 parcels located in the County, or 2,787 parcels, which is considered acceptable for planning purposes. The matter of incorrect grid coordinates deserves attention but is outside the scope of this plan.

Another constraint when working with RPS data is that data obtained on the same item(s) -- for example, number of parcels or acreage classified as being in agriculture -- but at different times during the same year, may yield different results. This occurs because changes are being made to the data files throughout the year, by municipal assessors to reflect changes that have occurred at the local level. Thus, once a data base for this project has been established, it is recommended that data be obtained the same time of year in subsequent years in order to build a data base for time series analysis in order to identify trends. This is not a limitation with the data itself but rather a recognition as to when data should be obtained each year in order to do time series analysis.

Finally, several maps in this chapter contain symbols which represent the parcel centroid of parcel-based data regarding land use. The symbol is the same size regardless of how much acreage is associated with the particular location of the use. Thus, there will be instances where a municipality may only have a few symbols on a map for a specific use versus another community but the corresponding table will indicate that the former has more acreage in the land use category than the latter. This is not a limitation with the data but is something to be kept in mind when comparing tabular and mapped information for certain variables. A county wide tax parcel base map will be available in 1999 upon completion of the County's tax map conversion program. This map will permit the display of spatial data in a manner which will present an accurate picture of just how much land is currently represented by parcel centroid symbols.

Definition of Variables

Many of the variables used in this analysis are ones identified in the LESA Guidebook (Pease and Coughlin, 1996). The Guidebook (p.65) notes that the list of variables is not finite and that other variables may be used depending on the local availability of data, or other data may be used which better represents local conditions. Thus, the following variables were added to the LESA variables which were used in the analysis: agricultural commodities were used as a measure of agricultural productivity; and property class code changes, building permits, shopping centers, industrial operations, interchanges, population and population change, average median family income per census tract, and perceived quality of school districts were also used to measure development pressure. Wild, forested, conservation lands and public parks were used to identify open space which LESA considers a factor supporting retention of agriculture.

Note that there are two classes of variables; dependent variables and independent variables. The dependent variables are ones in which a change is dependent on other variables. The independent variables are the ones that cause the change in the dependent variables.

Land Evaluation Factors

LE Factors Rating Soil-based Qualities. The data for this independent variable was collected by digitizing soils maps for seven towns. Due to logistics and financial considerations, the County's Agricultural and Farmland Protection Board selected the following seven towns in which to digitize soils maps: Hamlin, Mendon, Ogden, Penfield, Perinton, Sweden, and Wheatland. These towns were chosen based on the following criteria: different levels of development, presence of an agricultural district, types of agricultural commodities, and geographical location. Together, these seven towns contain 49 percent of the agricultural acreage in Monroe County.

Site Assessment Factors Measuring Agricultural Productivity

Agricultural Commodities. This independent variable consists of all properties classified in RPS records as agricultural by municipal assessors (New York State Board of Real Property Services, 1996) using what is commonly called the Assessor's Manual. The variable includes the following categories: field crops, livestock and products, agricultural vacant land, orchard and fruit crops, truck crops and specialty farms. Data was collected on the number of parcels, parcel location, and acreage by commodity, agricultural land value and land and buildings value on a municipal basis. (Appendix Fcontains a detailed listing of all of the various types of agricultural operations contained in each category as well as a listing of all other activities contained in other variables used in this analysis that are based on RPS data.)

Site Assessment Factors Measuring Development Pressure

Property Class Code Changes. This dependent variable measures the level of significant land use change within a given year. This data was obtained from RPS records. Each parcel of land has a property class code assigned to it which identifies how the property is used. The code is assigned to the RPS record on each parcel by the municipal assessor in accordance with the Assessor's Manual. There are nine land use class code categories and each is assigned a three

digit number as follows:

- 100-Agriculture;
- 200-Residential;
- 300-Vacant Land;
- 400-Commercial;
- 500-Recreation and Entertainment;
- 600-Community Services;
- 700- Industrial;
- 800-Public Services; and
- 900-Wild, Forested, Conservation Lands and Public Parks

Additionally, each category has divisions and subdivisions. For example:

- 100-Agriculture
  110- Livestock and Products
  113-Cattle, calves, and hogs (New York State Board of Real Property Services, Sec. APP-B, p. 1.00).

A property class code change occurs when a parcel's land use changes and the change gets recorded by the municipal assessor. This data was collected for 1997, meaning the data identified parcels that changed codes between March 1, 1997 and March 1, 1996, March 1 being the taxable status date by which all real property transaction records for the period March 1 to March 1 of the previous year must be recorded. A total of 4,383 class code changes occurred in 1997 in Monroe County, and included changes in all nine categories (changes occurred to 155 agricultural parcels, representing 3.5 percent of the total number of class code changes).

Since there can be a change *from* one category *to* another one (e.g., from 100 to 300) as well as a change *to* a category *from* another category (e.g., to 100 from 300), there ends up being 162 possible combinations of class code changes in the file.

Single Family Building Permits Issued by Municipality, 1997. Another dependent variable was identified -- single family building permits (new construction only) -- and was used as an indication of development pressure. The number of single family building permits issued by municipality for 1997 was obtained from the Rochester Home Builders' Association.

Regional and Area or Neighborhood Shopping Centers. The independent variable shopping centers is considered an indication and cause of urban growth and development. Location, number, and acreage of each type of center was collected on a municipal basis.

This variable consists of all properties in Monroe County classified by municipal assessors in RPS records as regional shopping centers and area or neighborhood shopping centers. Regional shopping centers are defined as multi occupant facilities with ten or more stores, usually including a large department store or two, and parking. Area or neighborhood shopping centers are defined as smaller facilities featuring a junior department store, several other stores, parking and possibly a supermarket (New York State Board of Real Property Services, 1996).

Industrial Operations. Like shopping centers, the independent variable industrial operations is

also considered an indication and cause of urban growth and, thus, represents conversion pressure on nearby farmland. Operations in this classification include manufacturing and processing, mining and quarrying, related research facilities, wells, and industrial pipeline products (New York State Board of Real Property Services, 1996). Data on number, location, and acreage of all industrially classified operations was collected by municipality from RPS records.

Areas Served by Public Sanitary Sewer. The independent variable public sewer is considered as a cause for development to take place. Historically, conversion pressure on farmland is greater the closer it is to public sewer.

The sanitary sewer service coverage was compiled by acreage for each municipality based on areas currently served by sanitary sewer as identified on parcel base maps of each municipality during a 1997-98 survey of municipal engineers, highway superintendents, superintendents of sewer facilities, and directors of building departments. In some cases, municipal officials simply indicated that the entire community was served by sanitary sewer. The data was also based on a map of the County Pure Waters system which shows the location of major interceptor sewers. This information was digitized into the GIS and layered over a base map of the County which shows current municipal boundaries and roads. Thus, since the municipal parcel base map also included roads, in a great majority of instances, the areas identified by municipal officials as being served by sanitary sewer could be easily matched up with the street layout on the County base map, making this data reasonably accurate for planning purposes.

(NOTE: LESA also includes proximity to public water service as a measure of potential development pressure as, in some cases, the availability of public water service influences the location of development. However, as noted in chapter 3, virtually the entire County [90 percent] has water service. Further, the availability of public water can be beneficial to certain types of farming operations and for irrigation purposes. Thus, for these reasons, public water service was not used as a variable.)

Arterial Roads and Interchanges. Data on arterial roads and interchanges, both independent variables, was collected throughout the County. Arterial roads were used to represent the urban feeder highway factor listed in LESA. Roads and interchanges are perceived to encourage development pressure. However, there is also the perception that heavily traveled arterial roads and interchanges may also discourage development to take place near these facilities due to noise and odor problems.

An arterial road is designed to carry large volumes of through traffic for relatively long distances within the metropolitan area, connect major destination points, and often connect to expressways (Steven Cook, Genesee Transportation Council, personal communication, July 21, 1998). For these reasons, development prefers locations along these roads. The Genesee Transportation Council (GTC) has classified roads in Monroe County as arterials using the general definition and other controlling guidelines issued by the Federal Highway Administration.

Interchanges are grade separated points of access to controlled access facilities such as expressways (Steven Cook, Genesee Transportation Council, personal communication, July 21, 1998). Expressways are the highest classification of road in the highway classification system,

followed in descending order by arterials, collectors, then local roads (for example, subdivision streets). Interchanges provide access to and from adjacent and surrounding lands to expressway-level roads at controlled locations. This controlled access to expressways may make land adjacent to interchanges attractive for commercial development scaled to serve motorists using the expressway system. Interchanges may also increase the development potential of surrounding lands over that which existed prior to the presence of the interchange because the land now has access to the expressway system which can reduce travel time. Thus, farms located near interchanges may be subject to conversion pressure.

(NOTE: In some cases, interchanges with expressways involve a road that is of a lower classification than an arterial, such as a collector road. The analysis, however, is limited to arterials because of their designed function and desirability for development and because they are the highest road classification providing unrestricted access to adjacent land. The other road segments should be considered for inclusion in any subsequent analysis involving roads. The interchanges involving these non-arterial roads and expressways are, however, included in the analysis.)

1990 Population and Population Change, 1980-1990, by Municipality. Data on these independent variables was obtained for each municipality from the 1980 and 1990 censuses (U.S. Bureau of the Census, 1983, 1991) to see if there was any association between population and population change 1980 to 1990 and the dependent variables.

Average Median Family Income Per Census Tract by Municipality, 1990. The independent variable average median family income per census tract was obtained for each municipality by taking the median family income for each census tract in a municipality as reported in the 1990 Census (U.S. Bureau of the Census, 1991), totaling the medians, then dividing by the number of census tracts in the municipality. This variable was used to see if income is associated with the dependent variables.

Perceived Quality of a School District . This independent variable was comprised of indicators of performance. A report which graded schools, lists seven indicators of performance for each of the 18 Monroe County school districts ("Grading our Schools," 1998). They are:

Cost per student, 1995-96
Percentage of students receiving regents diplomas, 1996-97;
Percentage of students receiving free or reduced-price lunch, 1996-97;
Percentage of students with limited English skills, 1996-97;
Suspension rate, 1995-96;
Dropout rate, 1995-96; and
Percentage of graduates who went to college, 1996-97.

Cost per student was not used as the report indicates that there is less agreement about how important spending is to student performance ("Grading our Schools", 1998). The report also contains information on other school districts in adjacent counties which serve portions of Monroe County. However, the report included information on only four of the six indicators; therefore, these districts were excluded from this variable. The perceived quality of each school district was arrived at by:

- Ranking each district based on where it placed in each of the six indicator categories. Each district received a score of from one to 18 depending on where it placed in the indicator. For example, student performance tends to be lower in districts with high poverty which is measured by percentage of students eligible for free or reduced-price lunch. Thus, the district with the highest percentage of students receiving free or reduced-price lunches received one point, the district with the lowest percentage received 18 points. Similarly, the district with the highest percentage of students going to college received 18 points and the district with the lowest percentage received one point.
- The points each district received for each indicator were totaled to arrive at a district composite score. Each district was then ranked based on the score; the higher the score, the higher the rank (due to tie scores, the lowest ranking district was 16).

Site Assessment Factors Supporting Retention in Agriculture

Wild, Forested, Conservation Lands and Public Parks. As noted earlier, open space is identified in the LESA Guidebook as a factor helping to retain agriculture. There is no RPS category classified as open space. However, this RPS category includes several land uses that can be considered as open space uses and, therefore, it was selected to represent open space. Included in this variable is all land classified by municipal assessors in the RPS file as wild, forested, conservation lands and public parks. In addition to public parks, this category includes private wild and forest lands, including timber tracts having merchantable timber, private hunting and fishing clubs, State owned forests, conservation lands, and State land in conservation easements (New York State Board of Real Property Services, 1996). Since these lands typically are not available for development, farms located near them may be under less development pressure. Data was obtained from RPS records. The acreage and location of the lands in this category was collected for each municipality.

Floodplains. The data for this variable was taken from the environmental atlas maps for each municipality and is based on data provided in flood insurance studies which identify floodways, and 100 and 500 year floodplains for each municipality in which floodplains occur (U.S. Department of Housing and Urban Development, dates vary depending on when study was done for a particular municipality) .

Development in floodplains is generally restricted and regulated under Federal Insurance Administration regulations because it can reduce a floodplain's water storage capacity and increase water volumes due to impervious surfaces. Each municipality that is in the national flood insurance program is responsible for regulating floodplain development consistent with program requirements designed to minimize development's impact on flood water storage capacity and minimize damage to development in the floodplain. Also, floodplains are generally not considered a desirable location for development due to flood hazards.

Since development in floodplains is restricted, and since floodplains are not considered a desirable location for development, farmland in floodplains would appear to be subject to less conversion pressure. Farmland also helps to absorb flood waters, and can help conveyance since it is basically open land (Pease and Coughlin, 1996). Data was collected on the location and

acreage in floodplains for each municipality.

Wetlands. The wetlands used in this analysis are those that meet the definition of a wetland in New York State Environmental Conservation Law (NYSDEC, n.d.), and which are regulated by the New York State Department of Environmental Conservation (DEC) under the New York State Freshwater Wetlands Act. The data was taken from environmental atlas maps based on DEC's Final Freshwater Wetlands maps. DEC wetlands must be at least 12.4 acres in size, and are classified from most sensitive (I) to least sensitive (III). A smaller wetland may also be included in this category if it is one of unusual importance (United States Environmental Protection Agency, 1993). In addition, an area within 100 feet of a wetland (wetland buffer), or greater if deemed necessary, is also regulated by DEC.

Because wetlands are strictly regulated in an effort to preserve them, it can be extremely difficult, if not impossible under certain circumstances, to obtain permission to develop a wetland or buffer. Thus, they act as a deterrent to development, reducing the conversion pressure on adjacent and nearby farmland. Data on the locations and acreage of wetlands was collected for each municipality.

Protected Farmland, Land in Conservation and Farming Easements. The Town of Pittsford has already purchased the development rights (PDR) from one farm and is in the PDR process on seven other farms. Additionally, easement programs have been enacted in the Towns of Penfield, Perinton, Pittsford, and Webster. These programs are defined and described in chapter 4 under the section headings "Planning" and "Regulations Promoting Agriculture," respectively.

This independent variable consists of all the land contained in the eight farms in Pittsford and all the land that has been voluntarily placed in either conservation or farming easements.

The LESA Guidebook (p.64) lists proximity to protected farmland in the development pressure category. However, since land in this category basically cannot be developed, the closer a farm is to it, the less conversion pressure there is likely to be on the farm and the greater is the likelihood it will remain in farming. Therefore, this factor was considered as one supporting retention of agriculture. Additionally, protected farmland contributes to the contiguous mass of farmland needed to help sustain farming operations and make them economically viable. Location and acreage was collected in May-June, 1998 for each of these attributes from each of the towns offering these programs. The data was entered into the GIS using each parcel's grid coordinates.

Selected Historic Sites and Century Farms. The data for historic sites includes sites of National, State, and local designation. The data was taken from the Monroe County Department of Planning and Development's environmental atlas maps which are based on information obtained from the New York State Office of Parks, Recreation and Historic Preservation, the Landmark Society of Western New York, and municipal historians. This is not a comprehensive, current list of all sites but only those for which information was available at the time data was collected for this variable. However, the data indicates that there are many sites throughout the County. (The inventory of sites should be updated for future planning purposes but this task is beyond the scope of this plan.)

The data for century farms was obtained from Cornell Cooperative Extension-Monroe County.

A century farm is defined by the New York State Agricultural Society as a farm which has been owned and operated for more than 100 years by generations of the same family. Data was compiled on a municipal basis regarding the location and acres devoted to historic sites and century farms.

Generally, historic sites are restricted from development/change by local, State, and/or Federal law and policy, and this is considered to reduce development pressure on farms near them. Also, they usually do not involve any kind of use that would be incompatible with farming practices. Century farms were added to this category because of their historical significance.

(NOTE: Information for selected historic sites does not include parcel identification numbers or grid coordinates. Therefore, the location of these sites was determined by placing a municipality's environmental atlas map mylar of historic sites over the municipality's parcel base map mylar and "digitally placing" each site. As a result, the location of each site may not be precise but is considered acceptable for planning purposes. This mapped data is not available for the City of Rochester. Thus, Rochester historic sites are not on Map 26 but the number is included in the total number of selected historic sites in Table 19.

Descriptive Analysis of Variables

This section provides a descriptive analysis of the dependent and independent variables used to measure agricultural productivity, development pressure, and retention of agriculture. Discussion of each variable is generally broken into two parts, an overall description at the County level, and a description at the municipal level.

Site Assessment Factors Measuring Agricultural Productivity

Agricultural Commodities. Agriculture in Monroe County tends to be intensive and diversified. Many farm operations engage in more than one of the following types of enterprises: livestock and products; field crops; truck crops both mucklands and not mucklands (primarily vegetables); orchard crops (apples and small fruit); and specialty crops (greenhouses, fur products, pheasant, aquatic, livestock such as llamas). Using the description of property class codes in the Assessor's Manual, the assessor will assign a class code to a farm based on its primary use. The primary use of farms in Monroe County is shown on Map 6 along with the percentage of all agricultural acreage occupied by each agricultural class code category.

Therefore the following analysis is based on each assessor's determination of the primary use of the farm operation. At times, this can be misleading since, as noted above, many operations may engage in more than one enterprise. For example it is not uncommon to have combinations of livestock and field crop or vegetable enterprises, or other similar types of combinations. Also, the classification of a parcel indicates its use at a particular time and does not reflect a crop rotation sequence. Finally, the classification code assigned to a parcel may depend on when the assessor visits the property. For example, a ten acre parcel with a home on it may be coded large lot residential at one time during the year, and may be coded agricultural at another time when nine of the ten acres are cropped. Thus, a parcel's classification code is a snapshot in time of an assessor's determination of how the parcel is used. As a result, these are additional limitations or constraints that must be recognized when using RPS data.

MAP 6 - AGRICULTURAL PARCELS

Based on parcels being class coded as agricultural (100 series), farmland was classified by acreage, land value, and value of land and buildings. As indicated in Table 8, there are 1,864 agricultural parcels which account for 111,654 acres of farmland.

Table 8
Municipalities Ranked by Agricultural Parcel Acreage

Municipality	No. of Ag. Parcels	Ag. Parcel Acreage	% of Total Ag. Parcel Acreage	Ag. Land Value	Ag. Land and Buildings Value
Hamlin	207	14,925.09	13.37	$7,015,700.00	$11,067,100.00
Riga	218	13,629.01	12.21	$10,502,900.00	$17,418,100.00
Wheatland	157	11,942.08	10.70	$8,481,300.00	$13,486,200.00
Parma	189	10,577.94	9.47	$484,469.00	$1,140,770.00
Rush	116	9,166.73	8.21	$11,578,000.00	$16,387,700.00
Ogden	176	8,388.38	7.51	$17,079,900.00	$23,502,400.00
Chili	134	8,380.93	7.51	$7,799,900.00	$13,288,000.00
Mendon	144	8,257.69	7.40	$17,103,900.00	$22,755,500.00
Clarkson	68	5,342.71	4.79	$2,288,600.00	$4,158,100.00
Penfield	117	5,134.93	4.60	$19,619,675.00	$26,150,200.00
Sweden	53	3,671.16	3.29	$196,400.00	$257,800.00
Pittsford	56	2,627.41	2.35	$13,975,400.00	$16,035,500.00
Henrietta	49	2,607.45	2.34	$230,200.00	$331,900.00
Greece	74	2,591.36	2.32	$12,086,550.00	$14,648,350.00
Perinton	52	2,452.18	2.20	$156,800.00	$534,700.00
Webster	30	1,537.88	1.38	$2,781,600.00	$4,670,600.00
Brighton	17	384.02	0.34	$7,619,350.00	$8,282,750.00
Gates	5	28.98	0.03	$37,400.00	$119,400.00
Irondequoit	2	7.60	0.01	$6,800.00	$41,900.00
Rochester	0	0	0	0	0
East Rochester	0	0	0	0	0
Total	1864	111,653.54	100.00	$139,044,844.00	$194,276,970.00

Source: July, 1997 RPS parcel records maintained by RPTS.

Based on total figures by municipality, Table 8 indicates an ordinal ranking by acreage. The municipality with the largest acreage is Hamlin with 14,925 acres. The Towns of Riga, Wheatland and Parma range from approximately 13,600 acres to 10,600 acres respectively. The Towns of Rush, Ogden, Chili, Mendon, Clarkson, and Penfield range from 9,200 to 5,100 acres. Sweden, Pittsford, Henrietta, Greece, Perinton, and Webster range from 3,700 to 1,500 acres. The Town of Brighton has 384 acres, while Gates has 29 acres and Irondequoit has approximately eight acres coded as agricultural.

Agricultural Land Value. As indicated in Table 9, land values appeared to be positively related to total agricultural acreage but not strongly associated. The Towns of Penfield, Mendon, Ogden, Pittsford, Greece, Rush, and Riga ranged in land values from $19 million to $10.5 million. The Towns of Wheatland, Chili, Brighton, Hamlin, Webster and Clarkson ranged from $8.5 million to $2.3 million. The Towns of Parma, Henrietta, Sweden, and Perinton ranged from $485,000 to $157,000, while Gates and Irondequoit were under $37,500.

Table 9
Municipalities Ranked by Agricultural Land Value

Municipality	No. Ag. Parcels	Ag. Parcel Acreage	% of Total Ag. Parcel Acreage	Ag. Land Value	Ag. Land and Buildings Value
Penfield	117	5,134.93	4.60	$19,619,675.00	$26,150,200.00
Mendon	144	8,257.69	7.40	$17,103,900.00	$22,755,500.00
Ogden	176	8,388.38	7.51	$17,079,900.00	$23,502,400.00
Pittsford	56	2,627.41	2.35	$13,975,400.00	$16,035,500.00
Greece	74	2,591.36	2.32	$12,086,550.00	$14,648,350.00
Rush	116	9,166.73	8.21	$11,578,000.00	$16,387,700.00
Riga	218	13,629.01	12.21	$10,502,900.00	$17,418,100.00
Wheatland	157	11,942.08	10.70	$8,481,300.00	$13,486,200.00
Chili	134	8,380.93	7.51	$7,799,900.00	$13,288,000.00
Brighton	17	384.02	0.34	$7,619,350.00	$8,282,750.00
Hamlin	207	14,925.09	13.37	$7,015,700.00	$11,067,100.00
Webster	30	1,537.88	1.38	$2,781,600.00	$4,670,600.00
Clarkson	68	5,342.71	4.79	$2,288,600.00	$4,158,100.00
Parma	189	10,577.94	9.47	$484,469.00	$1,140,770.00
Henrietta	49	2,607.45	2.34	$230,200.00	$331,900.00
Sweden	53	3,671.16	3.29	$196,400.00	$257,800.00
Perinton	52	2,452.18	2.20	$156,800.00	$534,700.00
Gates	5	28.98	0.03	$37,400.00	$119,400.00
Irondequoit	2	7.60	0.01	$6,800.00	$41,900.00
Rochester	0	0	0	0	0
E. Rochester	0	0	0	0	0
Totals	1,864	111,653.54	100.00	$139,044,844.00	$194,276,970.00

Source: July, 1997 RPS parcel records maintained by RPTS.

In terms of total agricultural land value per town, the Towns of Penfield, Ogden, and Mendon ranged from $26 million to $22.7 million. The Towns of Riga, Rush, Pittsford, Greece, Wheatland, Chili, and Hamlin ranged from $17 million to $11 million. The Towns of Brighton, Webster, Clarkson, and Parma, ranged from $8 million to $1 million. The Towns of Perinton, Henrietta, Sweden, Gates, and Irondequoit ranged from $435,000 to $42,000.

In an attempt to associate land values with acreage, Table 10 was created based on agricultural land values to better capture the value per acre of farmland in each town.

Table 10
Municipalities Ranked by Land Value Per Acre of Farmland

Municipality	Land Value Per Acre of Farmland
Brighton	$19,841
Pittsford	$5,319
Greece	$4,664
Penfield	$3821
Mendon	$2071
Ogden	$2036
Webster	$1809
Gates	$1291
Rush	$1263
Irondequoit	$895
Chili	$931
Riga	$771
Wheatland	$710
Hamlin	$470
Clarkson	$428
Henrietta [1]	$88 ($1200 [2])
Perinton [1]	$64
Sweden [1]	$54
Parma [1]	$46
Rochester	0
East Rochester	0

[1]These towns did not use full value assessment as of the 1997 RPS data file (as of 1998 Parma has gone to full assessment).
[2]Assessor's estimate of full value (Nathan Gabbert, personal communication, 06/03/98).

Field Crops. The distribution of farms coded as field crops is shown on Map 7. This is the largest classification in terms of number of acres, accounting for 43.28 percent of the total agricultural acreage. This appears to be the predominant land use classification throughout the County and is widely distributed throughout the County except for the Towns of Irondequoit, Brighton and Gates. The Towns of Wheatland, Hamlin, and Parma range from 8,500 to 4,700 acres (Table 11). The Towns of Rush, Chili, Riga, Penfield, Ogden, Mendon, Henrietta, Clarkson, Sweden, and Pittsford range from 3,800 acres to 2,000 acres. The Towns of Webster and Greece have 870 and 784 acres, while Perinton only has 97 acres.

Table 11

Municipalities Ranked by Acreage in Field Crops

Municipality	Number of Field Crop Parcels	Field Crop Acreage	% of Field Crop Acreage
Wheatland	93	8,503.29	17.60
Hamlin	81	6,567.79	13.59
Parma	82	4,753.75	9.84
Rush	40	3,801.34	7.87
Chili	46	3,661.48	7.58
Riga	47	3,232.92	6.69
Penfield	56	2,583.10	5.35
Ogden	47	2,405.31	4.98
Mendon	35	2,380.88	4.93
Henrietta	41	2,344.33	4.85
Clarkson	25	2,261.76	4.68
Sweden	30	2,086.21	4.32
Pittsford	41	1,992.37	4.12
Webster	18	870.85	1.80
Greece	27	784.26	1.62
Perinton	4	96.93	0.20
Irondequoit	0	0	0
Brighton	0	0	0
Gates	0	0	0
Rochester	0	0	0
East Rochester	0	0	0
Total	713	48,326.57	100.00

Source: July, 1997 RPS parcel records maintained by RPTS.

MAP 7 - FIELD CROP FARMS

Livestock and Products. This large category totals 174 parcels (Table 12) accounting for 10.19 percent of the total agricultural acreage. Map 8 shows the location of livestock and products farms.

This category was formed by combining the following class codes: 111 - poultry and poultry products: eggs, chickens, turkeys, ducks and geese; 112 - dairy products: milk, butter and cheese; 113 - cattle, calves, and hogs; 114 - sheep and wool; 115 - honey and beeswax; 116 - other livestock; donkeys, goats; and 117 - horse farms.

By acreage and number of parcels, most of the livestock operations are located in the western half of the County, west of the Genesee River. The most significant source of acreage is located in the Town of Parma and accounts for over 2,800 acres. The Towns of Riga, Hamlin, and Clarkson range between 1,862 and 1,000 acres. The rest of the towns in the County range from 765 acres to 53 acres, with Gates and Irondequoit having none.

Table 12
Municipalities Ranked by Acreage in Livestock and Products

Municipality	No. of L&P Parcels	L&P Acreage	% of L&P Acreage
Parma	44	2,821.60	24.80
Riga	20	1,861.79	16.36
Hamlin	21	1,530.53	13.45
Clarkson	16	1,010.54	8.88
Chili	16	764.98	6.72
Mendon	9	647.25	5.69
Rush	3	462.60	4.07
Ogden	7	398.15	3.50
Pittsford	9	395.13	3.47
Wheatland	2	379.50	3.34
Penfield	9	277.53	2.44
Perinton	4	238.34	2.09
Brighton	3	193.41	1.70
Henrietta	4	133.93	1.18
Greece	4	113.30	1.00
Sweden	2	96.80	0.85
Webster	1	53.20	0.47
Gates	0	0	0
Irondequoit	0	0	0
Rochester	0	0	0
East Rochester	0	0	0
Totals	174	11,378.58	100.00

Source: July, 1997 RPS parcel records maintained by RPTS.

Source: July, 1997 RPS parcel records maintained by RPTS.
MAP 8 - LIVESTOCK & PRODUCTS FARMS

Agricultural Vacant Land. The distribution of this category is shown by town on Map 9. This classification consists of 804 parcels (Table 13) which account for 39.01 percent of the total agricultural acreage. The Towns of Riga, Hamlin, Ogden, and Mendon range from 8,500 to 5,200 acres, whereas the Towns of Rush, Chili, Wheatland, Perinton, Penfield, and Parma range from 4,700 to 1,400 acres. The Towns of Sweden, Webster, Clarkson, Greece, Brighton, and Pittsford range from 786 to 168 acres. The Towns of Irondequoit and Gates do not have any land classified as agricultural vacant.

Table 13

Municipalities Ranked by Agricultural Vacant Acreage

Municipality	Number of Ag. Vacant Parcels	Ag. Vacant Acreage	% of Ag. Vacant Acreage
Riga	151	8,534.30	19.60
Hamlin	88	5,415.08	12.43
Ogden	115	5,312.97	12.20
Mendon	99	5,221.51	11.99
Rush	71	4,781.29	10.98
Chili	66	3,781.99	8.68
Wheatland	62	3,059.29	7.02
Perinton	39	1,959.25	4.50
Penfield	38	1,728.62	3.97
Parma	27	1,391.41	3.19
Sweden	13	785.91	1.80
Webster	8	507.91	1.17
Clarkson	7	354.25	0.81
Greece	7	269.61	0.62
Brighton	8	169.06	0.39
Pittsford	4	168.51	0.39
Henrietta	1	112.34	0.26
Irondequoit	0	0	0
Gates	0	0	0
Rochester	0	0	0
East Rochester	0	0	0
Total	804	43,553.30	100.00

Source: July, 1997 RPS parcel records maintained by RPTS.

MAP 9 - AGRICULTURAL VACANT LAND

Orchard and Fruit Crops. This category includes property class codes 150, Orchard crops; 151, Apples, peaches, cherries, etc.; 152, Vineyards; and 160, other fruits (strawberries, raspberries, etc.). The distribution of orchard and fruit crop farms is shown on Map 10.

Sixty-nine parcels, accounting for 3.44 percent of the total agricultural acreage (Table 14), are classified as orchard and fruit crops. Generally, most orchard enterprises are apple orchards that are located in the north section of the County, close to Lake Ontario. These operations run from west to east, with the largest concentration of orchards being in the Northwest section of the County. The Towns of Hamlin, Parma, Greece, Penfield, Clarkson, Ogden, and Sweden range from about 1,200 acres to 160 acres. The Town of Perinton has 23 acres.

Table 14
Municipalities Ranked by Acreage in Orchard & Fruit Crops

Municipality	Number of O&F Crop Parcels	O&F Crop Acreage	% of O&F Crop Acreage
Hamlin	16	1,211.89	31.60
Parma	18	918.77	23.95
Greece	13	652.35	17.01
Penfield	6	315.77	8.23
Clarkson	5	279.92	7.30
Ogden	7	271.95	7.09
Sweden	3	161.70	4.22
Perinton	1	23.21	0.61
Pittsford	0	0	0
Riga	0	0	0
Wheatland	0	0	0
Rush	0	0	0
Chili	0	0	0
Irondequoit	0	0	0
Mendon	0	0	0
Webster	0	0	0
Henrietta	0	0	0
Brighton	0	0	0
Gates	0	0	0
Rochester	0	0	0
East Rochester	0	0	0
Total	69	3,835.56	100.00

Source: July, 1997 RPS parcel records maintained by RPTS.

Source: July, 1997 RPS parcel records maintained by RPTS.
MAP 10 - ORCHARD & FRUIT FARMS

Truck Crops (Vegetable). Fifty-eight parcels account for 3.22 percent of the total agricultural acreage (Table 15). Most of this acreage is located in the northwest section of the County with Clarkson, Parma, Greece and Sweden ranging from 1,400 acres to 540 acres, respectively. The Towns of Penfield, Rush, Pittsford, and Chili range from 177 to 28 acres. The distribution of truck crop farms is shown on Map 11.

Table 15

Municipalities Ranked by Acreage in Truck Crops

Municipality	Number of Truck Crop Parcels	Truck Crop Acreage	% of Truck Crop Acreage
Clarkson	14	1406.54	39.11
Parma	15	650.31	18.08
Greece	14	600.14	16.69
Sweden	5	540.54	15.03
Penfield	5	177.71	4.94
Rush	2	121.5	3.38
Pittsford	2	71.4	1.99
Chili	1	28.13	0.78
Riga	0	0	0
Hamlin	0	0	0
Gates	0	0	0
Brighton	0	0	0
Wheatland	0	0	0
Perinton	0	0	0
Mendon	0	0	0
Irondequoit	0	0	0
Webster	0	0	0
Henrietta	0	0	0
Ogden	0	0	0
Rochester	0	0	0
East Rochester	0	0	0
Totals	58	3,596.27	100.00

Source: July, 1997 RPS parcel records maintained by RPTS.

MAP 11 - TRUCK CROP FARMS

Specialty Farms. Forty-six parcels, accounting for .86 percent of the total agricultural acreage, are in specialty farms (Table 16). The Towns of Hamlin, Greece, Chili, Perinton, and Webster range between 200 and 105 acres, respectively. The Towns of Penfield, Parma, Clarkson, Gates, Brighton, Henrietta, Mendon, and Irondequoit, range from 52 to eight acres, respectively. Most of the farms are spread evenly throughout the County as evidenced on Map 12.

Table 16
Municipalities Ranked by Acreage in Specialty Farms

Municipality	Number of Specialty Crop Parcels	Specialty Crop Acreage	% of Specialty Crop Acreage
Hamlin	1	199.80	20.74
Greece	9	171.70	17.83
Chili	5	144.36	14.99
Perinton	4	134.45	13.96
Webster	3	105.92	11.00
Penfield	3	52.20	5.42
Parma	3	42.10	4.37
Clarkson	1	29.70	3.08
Gates	5	28.98	3.01
Brighton	6	21.55	2.24
Henrietta	3	16.85	1.75
Mendon	1	8.05	0.84
Irondequoit	2	7.60	0.79
Rush	0	0	0
Wheatland	0	0	0
Sweden	0	0	0
Ogden	0	0	0
Pittsford	0	0	0
Riga	0	0	0
Rochester	0	0	0
East Rochester	0	0	0
Total	46	963.26	100.00

Source: July, 1997 RPS parcel records maintained by RPTS.

MAP 12 - SPECIALTY FARMS

Site Assessment Factors Measuring Development Pressure

Property Class Code Changes. Table 17 and Map 13 present the distribution of the 4,383 class code changes throughout the County. Of the total number of class code changes countywide, approximately 46 percent (2,018) were code 300, Vacant Land; 42 percent (1,832) were code 200, Residential; 5.7 percent (251) were code 400, Commercial; 3.5 percent (155) were code 100, Agriculture; and the remaining percentage was distributed among codes 500, Recreation and Entertainment, 600, Community Services, 700, Industrial, 800 Public Services, and 900, Wild, Forested, Conservation Lands, and Public Parks.

Property class code changes were grouped by municipality (villages in towns are included in town totals) and municipalities were ranked by total number of class code changes in Table 17. Also listed is the number of parcels in each class code that experienced a change and the percentage these parcels represented of the total number of parcels in the municipality that experienced a class code change.

Geographically, approximately 58 percent, or 2,530 class code changes occurred in the municipalities east of the Genesee River, with 1,853 (42 percent) occurring in municipalities west of the river (see Map 13). (NOTE: The total for Rochester was split evenly east and west of the Genesee River). The Town of Perinton had the largest number of parcels experiencing a class code change, with 738. Next was the City of Rochester, 653; followed by the Towns of Greece, 387; Henrietta, 341; and Penfield, 329. East Rochester had the fewest parcels experiencing a class code change with three. Generally, the municipalities in the central and eastern portion of the County contained the higher number of class code changes; the southern and western municipalities experienced fewer class code changes.

Although the greatest number of class code changes countywide occurred in the 300 (vacant land) class, in 11 out of the 21 municipalities there were more class code changes in the 200 (residential) class than in the 300 class. In these 11 municipalities, changes to vacant land were second. The reverse was true for nine municipalities (East Rochester had one class code change in each category). The number of towns with the greater number of 200 class code changes, as well as those with the greater number of 300 class code changes, were about evenly split east and west of the Genesee River.

Property Class Code Changes by School Districts. Property class code changes occurred in each school district that serves Monroe County. The number of class code changes are depicted on Map 14. They were calculated by identifying the centroids of parcels in a district that experienced a class code change , then counted and classified by class code.

The percentage of changes occurring in towns east of and west of the Genesee River also held true for the school districts east of and west of the river. The Rochester School District had the greatest number of class code changes with 659, followed by Fairport, 588; Webster, 428; Rush-Henrietta, 400; and Hilton, 337.

Table 17
Municipalities Ranked by Number of Parcels Experiencing a Property Class Code Change

Municipality	Municipal Total	Agriculture 100		Residential 200		Vacant 300		Commercial 400		Rec. & Entertainment 500		Comm. Service 600		Industrial 700		Public Services 800		O.S. Parks 900	
		Parcels	%	Parcels	%	Parcels	%	Parcels	%	Parcels	%	Parcels	%	Parcels	%	Parcels	%	Parcels	%
Perinton	738	62	8.40%	200	27.10%	460	62.33%	6	0.81%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	10	1.36%
Rochester	653	0	0.00%	252	38.59%	271	41.50%	109	16.69%	4	0.61%	12	1.84%	2	0.31%	3	0.46%	0	0.00%
Greece	387	3	0.78%	148	38.24%	210	54.26%	9	2.33%	3	0.78%	9	2.33%	2	0.52%	3	0.78%	0	0.00%
Henrietta	341	23	6.74%	105	30.79%	162	47.51%	31	9.09%	5	1.47%	3	0.88%	1	0.29%	11	3.23%	0	0.00%
Penfield	329	3	0.91%	166	50.46%	151	45.90%	6	1.82%	1	0.30%	0	0.00%	0	0.00%	0	0.00%	2	0.61%
Webster	255	1	0.39%	162	63.53%	86	33.73%	4	1.57%	0	0.00%	1	0.39%	1	0.39%	0	0.00%	0	0.00%
Parma	225	7	3.11%	175	77.78%	33	14.67%	9	4.00%	0	0.00%	0	0.00%	1	0.44%	0	0.00%	0	0.00%
Pittsford	214	4	1.87%	97	45.33%	98	45.79%	10	4.67%	0	0.00%	1	0.47%	0	0.00%	4	1.87%	0	0.00%
Ogden	214	8	3.74%	105	49.07%	86	40.19%	11	5.14%	1	0.47%	0	0.00%	3	1.40%	0	0.00%	0	0.00%
Chili	201	5	2.49%	94	46.77%	84	41.79%	10	4.98%	0	0.00%	0	0.00%	5	2.49%	2	1.00%	1	0.50%
Mendon	133	4	3.01%	58	43.61%	65	48.87%	6	4.51%	0	0.00%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Gates	113	0	0.00%	32	28.32%	60	53.10%	16	14.16%	1	0.88%	1	0.88%	2	1.77%	1	0.88%	0	0.00%
Clarkson	109	2	1.83%	32	29.36%	71	65.14%	2	1.83%	0	0.00%	2	1.83%	0	0.00%	0	0.00%	0	0.00%
Riga	106	10	9.43%	55	51.89%	38	35.85%	1	0.94%	0	0.00%	0	0.00%	0	0.00%	1	0.94%	1	0.94%
Rush	71	8	11.27%	19	26.76%	38	53.52%	1	1.41%	1	1.41%	1	1.41%	0	0.00%	1	1.41%	2	2.82%
Sweden	69	3	4.35%	22	31.88%	37	53.62%	5	7.25%	2	2.90%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
Brighton	62	3	4.84%	23	37.10%	19	30.65%	7	11.29%	0	0.00%	3	4.84%	0	0.00%	7	11.29%	0	0.00%
Hamlin	57	4	7.02%	28	49.12%	24	42.11%	0	0.00%	0	0.00%	1	1.75%	0	0.00%	0	0.00%	0	0.00%
Irondequoit	57	0	0.00%	34	59.65%	14	24.56%	6	10.53%	0	0.00%	3	5.26%	0	0.00%	0	0.00%	0	0.00%
Wheatland	46	5	10.87%	24	52.17%	10	21.74%	2	4.35%	0	0.00%	3	6.52%	2	4.35%	0	0.00%	0	0.00%
East Rochester	3	0	0.00%	1	33.33%	1	33.33%	0	0.00%	0	0.00%	1	33.33%	0	0.00%	0	0.00%	0	0.00%
County Total	4,383	155	3.54%	1,832	41.80%	2,018	46.04%	251	5.73%	18	0.41%	41	0.94%	19	0.43%	33	0.75%	16	0.37%

Source: July, 1997 RPS parcel records maintained by RPTS.

MAP 13 - DISTRIBUTION OF PROPERTY CLASS CODE CHANGES

MAP 14 - PROPERTY CLASS CODE CHANGES & SFBP'S BY SCHOOL DISTRICT

Single Family Building Permits Issued by Municipality, 1997, and by School District. Overall, 1,265 permits were issued in 1997 for single family homes; 752 (59 percent) in communities east of the Genesee River and 513 (41 percent) in communities west of the River (similar in percentage distribution to property class code changes; Rochester's were evenly divided between both groups and town totals include villages). As noted on Map 15, Webster issued the greatest number of permits (187), followed by Greece (171), Perinton (160), and Penfield (156). Thus, the eastern-most towns of Webster, Perinton, and Penfield had three of the four highest numbers of permits. Aside from this, however, no other distributional pattern emerged regarding permits.

Building permits by school district are illustrated on Map 14, and were arrived at by estimating the portion of a municipality covered by a school district, then estimating the number of that municipality's building permits that issued in the district. Webster School District had the largest number of permits with 265, followed by Fairport (150), and Hilton (106). No building permits were issued in the East and West Irondequoit School Districts.

Regional and Area or Neighborhood Shopping Centers. The distribution of regional centers is shown on Map 16. As indicated in Table 18, regional centers occupy 706.23 acres. Regional centers are located in eight municipalities, seven of them are in the central part of the County which is the location of the bulk of the County's population (see population discussion below).

Regional centers tend to be located in clusters, and there may be several reasons for this. Municipalities tend to zone contiguous land areas in different parts of the community in which intensive commercial development of this scale is to be permitted versus zoning scattered sites for these facilities throughout the community where they may tend to be incompatible with adjacent land uses, such as residential land uses. Also, the areas zoned for regional centers are typically extensions of existing commercial zoning and land use, and often reflect the historical pattern of commercial development in municipalities. Regional centers are scaled to serve a county wide and intercounty customer base. Therefore, the areas zoned for these facilities are generally adjacent to arterial roads which provide good accessibility for the large population base regional centers are designed to serve. A benefit of clustering centers is that each one may be able to take advantage of the customers already attracted to the area by a competing center.

The Town of Greece has the largest acreage in regional centers with 299 acres, followed by Henrietta, 176 acres, Irondequoit, 100 acres, Gates, 59 acres, Pittsford, 39.5 acres and Perinton, 23 acres.

As shown on Map 16, area or neighborhood shopping centers are also found concentrated in the central part of the County. Neighborhood centers also tend to be clustered due to many of the same reasons that regional shopping centers are clustered. However, area or neighborhood centers are more widely distributed throughout the County than are regional centers and this is due to the fact that area centers are designed to serve a smaller, more local customer base; thus, more of them are needed and they are needed in more locations to serve adjacent population. Because they are not as intense a land use as are regional centers, area or neighborhood centers are often located in less intensive zoning districts which are sometimes used as buffer zones between the more intensive areas zoned for regional facilities and residential districts. This also places area centers closer to their customer base. Area or neighborhood centers may be located on lower classification roads such as collectors but they are also found along arterial roads and

MAP 15 - Single Family Building Permits Issued by Municipality, 1997

MAP 16 - REGIONAL SHOPPING CENTERS & AREA/NEIGHBORHOOD SHOPPING CENTERS WITHIN MONROE COUNTY

near regional centers and, thus, may be able to take advantage of the customer base attracted by the larger centers.

Area or neighborhood centers occupy 958 acres (Table 18). The Town of Greece has the largest acreage in this category with 171 acres, followed by Penfield, 103 acres, Gates, 96 acres, Sweden, 95, acres, and Irondequoit, 90 acres. Only the Towns of Clarkson and Rush do not have at least an area or neighborhood shopping center.

Industrial Operations. Industrially classified parcels occupy 8,909 acres (Table 18). Map 17 shows their distribution. Rochester, Webster, Greece, and Gates range between 1700 and 850 acres, respectively. Chili, Ogden, Parma, Perinton, and Wheatland all have 400+ acres, and Henrietta, Mendon, Penfield, and Sweden all have 300+ acres. Clarkson has the least acreage classified industrial at five acres.

Table 18
Acreage by Municipality of Selected Site Assessment Factors Measuring Development Pressure

Municipality	Regional Shopping Centers	Area/Neighborhood Shopping Centers	Industrial Operations	Sanitary Sewers
Brighton	0	53.81	45.43	7,136.74
Chili	0	33.83	404.04	7,042.52
Clarkson	0	0	5.17	2,270.61
East Rochester	0	24.46	78.12	649.46
Gates	58.88	96.48	851.11	8,376.53
Greece	298.55	170.68	860.41	15,845.00
Hamlin	0	5.45	45.02	1,792.18
Henrietta	175.74	88.08	391.19	12,855.58
Irondequoit	99.72	89.6	5.22	8,009.01
Mendon	0	15.9	375.45	1,656.03
Ogden	0	15.55	443.15	1,660.94
Parma	0	2.1	441.81	1,965.70
Penfield	0	102.67	350.77	5,479.10
Perinton	23.4	31.14	441.95	10,031.49
Pittsford	39.5	29.26	153.89	6,546.65
Riga	0	0.5	18.30	667.56
Rochester	10.44	72.42	1,726.31	15,650.43
Rush	0	0	216.30	0
Sweden	0	94.84	374.07	2,533.19
Webster	0	11.06	1,268.58	12,794.72
Wheatland	0	20.45	413.10	551.36
County Total	706.23	958.28	8,909.40	123,514.80

Source: July, 1997 RPS parcel records maintained by RPTS and mapped data maintained by Monroe County Department of Planning and Development.

MAP 17 - LOCATIONS OF INDUSTRIAL OPERATIONS WITHIN MONROE COUNTY

Properties classified as industrial tend to be clustered for some of the same reasons shopping centers are clustered (with the exception of needing to be near or easily accessible to a customer base). Industrial operations tend to be located near major transportation arteries for ease of employee access and to accommodate goods shipment.

Areas Served by Public Sanitary Sewer**.** As indicated by Map 18, areas served by public sanitary sewers are concentrated in the central and eastern portion of the County (see population discussion below) with scattered areas of service in the southern and western parts of the County. Most of the scattered sites are the Villages of Honeoye Falls (Mendon), Scottsville (Wheatland), Churchville (Riga), Spencerport (Ogden), Hilton (Parma), and Brockport (Sweden) with their own sewer collection, and treatment facilities. Webster and the Village of Webster also have their own collection and treatment facilities. The remaining area served by sanitary sewer is part of the County Pure Waters program. The greater than 123,500 acres (Table 18) served by sanitary sewer represent 29 percent of the County's total acreage.

MAP 18 - LOCATION OF AREAS SERVED BY SEWER WITHIN MONROE COUNTY

Arterial Roads and Interchanges. As indicated by Map 19, arterials are found throughout the County but are concentrated in the central portion which, again, is the location of the majority of the County's population (see population discussion below). Generally, arterials become less frequent in the outlying, more rural parts of the County.

Interchanges are located wherever access is provided to an expressway-level road, and where expressways interchange with each other. Again, most of the interchanges are in the central part of the County where the expressway system serves the large concentration of population, businesses, and industries located in this portion of the County.

1990 Population and Population Change, 1980-1990, by Municipality**.** As noted earlier in the plan, the 1990 population of Monroe County was 713,968. Map 20 shows the distribution of population by municipality (town totals include villages). The bulk of the population is located in the central part of the County. In fact, the City of Rochester, with the largest population (231,636), and the surrounding Towns of Greece (90,106), Irondequoit (52,377), Brighton (34,455), and Gates (28,583), contain over 61 percent of the County total.

On a broader scale, 52 percent of the population is located east of the Genesee River and 46 percent west of the River (Rochester's population was divided evenly between east and west of the River). The western part of the County is the more rural part with seven towns west of the Genesee -- Hamlin, Clarkson, Parma, Sweden, Ogden, Riga, and Wheatland -- having populations under 20,000 while only Mendon and Rush on the east side of the River have populations under 20,000.

Population change was obtained by comparing the 1980 and 1990 populations of each municipality (town totals include villages). The percent change is also shown on Map 20. The largest change, 26 percent, was experienced by Mendon, followed by Hamlin, 19.9 percent, Riga, 18.6 percent, Ogden, 15 percent, Perinton, 12 percent, Penfield, 11 percent, Greece, 10.7 percent, Parma, ten percent, Clarkson, 9.9 percent, and Webster, 9.4 percent. Pittsford, Rush, Chili, Wheatland, and Henrietta experienced changes between 8.2 and .7 percent, respectively. Irondequoit, East Rochester, Sweden, Rochester, Gates, and Brighton experienced changes between -9.1 percent to -3.7 percent, respectively (Sweden's loss was the result of a decrease in population in the Village of Brockport).

Average Median Family Income per Census Tract by Municipality, 1990. The distribution of this variable, called income, is shown on Map 21. Incomes are generally higher on the east side of the County than on the west side, and the range of incomes is also greater on the east side of the County (east of the Genesee River).

Incomes on the east side range from $71,600 in Pittsford to $36,800 in East Rochester, a range of almost $35,000. On the west side, incomes range from $49,00 in Ogden to $38,000 in Sweden, a range of $11,000.

School Districts. There are 23 school districts in Monroe County. As noted on Map 14 school district boundaries are not coterminous with municipal boundaries and school districts may include more than one municipality as well as portions of municipalities.

MAP 19 - ARTERIALS AND INTERCHANGES

MAP 20 - 1990 POPULATION & POPULATION CHANGE, 1980-1990 BY MUNICIPALITY

MAP 21 - AVERAGE MEDIAN FAMILY INCOME BY MUNICIPALITY, 1990

Site Assessment Factors Supporting Retention in Agriculture

Wild, Forested, Conservation Lands and Public Parks. As shown on Map 22, these lands are widely distributed throughout the County and account for over 13,000 acres (Table 19). The Towns of Greece, Mendon, Chili, and Penfield range in acreage from over 2,800 to approximately 1,400 acres, respectively. The remaining municipalities all have under 1,000 acres, and East Rochester and Irondequoit do not have any acreage in this classification.

Floodplains. As noted on Map 23, floodplains are located throughout the County. They are found in low elevation areas adjacent to streams and Lake Ontario. Table 19 indicates that there are over 36,800 acres in floodplains in the County. Chili, with 6,061 acres, has the most land in floodplains, followed by Greece (4,646), Henrietta (2,732), Wheatland (2,260), and Rush (2,122). Several other towns have between 1,900 and 1,000 acres in floodplains. Chili's total represents 16 percent of the County's floodplain acreage. East Rochester has no land in floodplains.

Wetlands. As noted on Map 24, wetlands are widely distributed throughout the County. Wetlands are sometimes found in association with floodplain areas. Table 19 indicates that almost 26,000 acres are classified as wetlands. Greece and Chili have over 3,000 acres in wetlands, followed by Sweden and Riga with over 2,000 acres. Penfield, Mendon, Rush, Ogden, Perinton, Wheatland, Clarkson, and Hamlin have over 1,000 acres in wetlands. All remaining communities have under 1,000 acres in wetlands. East Rochester has no land in wetlands.

Protected Farmland, Land in Conservation and Farming Easements. The location of these lands is shown on Map 25. All lands included in this variable are located in four towns on the east side of the County. All of the protected farmland (land in PDR) is located in Pittsford, and all of the conservation/open space easements are located in Penfield, Perinton, and Webster.

There are eight farms (22 parcels) containing approximately 1,225 acres in Pittsford's PDR program (Table (19)).

A total of 206 parcels consisting of 5,349 acres (Table (19)), are enrolled in the conservation easement programs. Perinton has the largest number of parcels, 146, and acres, 4,235, in easements. Webster in next with 36 parcels occupying 676 acres. Penfield has 24 parcels containing 438 acres.

MAP 22 - LOCATIONS OF WILD, FORESTED, CONSERVATION LAND & PUBLIC PARKS WITHIN MONROE COUNTY

Table 19
Acreage by Municipality of Selected Site Assessment Factors Supporting Retention in Agriculture

Municipality	Public Land [1]	Floodplains [2]	Wetlands [3]	Protected Farmland, Land in Easements [4]	Selected Historic Sites, Century Farms [5]
Brighton	288.17	1,072.36	367.19	0	22
Chili	1,761.25	6,060.98	3,213.01	0	7
Clarkson	21.63	1,287.14	1,201.98	0	64
East Rochester	0	0	0	0	2
Gates	82.60	1,151.23	443.70	0	1
Greece	2,872.10	4,646.47	3,241.12	0	22
Hamlin	729.50	1,318.05	1,118.42	0	35
Henrietta	39.82	2,731.56	936.72	0	35
Irondequoit	0	1,187.78	430.07	0	33
Mendon	2,223.30	1,724.11	1,613.46	0	39
Ogden	547.42	1,221.60	1,424.38	0	33
Parma	37.57	1,913.04	891.17	0	125
Penfield	1,381.02	1,511.93	1,803.75	438.00	58
Perinton	446.10	1,412.88	1,435.58	4,235.00	29
Pittsford	563.65	731.29	354.46	1,225.00	20
Riga	850.18	1,356.51	2,169.96	0	31
Rochester	222.51	116.33	1,337.59	0	71
Rush	242.90	2,121.58	1,472.49	0	3
Sweden	589.01	1,374.68	2,324.43	0	2
Webster	110.60	1,760.57	346.91	676.00	28
Wheatland	143.10	2,259.76	1,204.01	0	12
Totals	13,107.43	36,843.52	25,992.81	6,574.00	650

Sources:

[1]July 1997 RPS parcel records maintained by RPTS and mapped data maintained by Monroe County Department of Planning and Development.

[2]Floodplain acreage calculated by Monroe County Department of Planning and Development, 1998, based on data provided by U.S. Department of Housing and Urban Development.

[3]Wetland acreage calculated by Monroe County Department of Planning and Development, 1998, based on data provided by NYS Department of Environmental Conservation.

[4]Data provided by Towns of Penfield, Perinton, Pittsford, and Webster. Acreage for the Towns of Perinton and Pittsford calculated by Monroe County Department of Planning and Development, 1998; based on data provided by Towns of Perinton and Pittsford.

[5]Acreage not available for historic sites. Numbers represent the number of selected sites per municipality as calculated by Monroe County Department of Planning and Development, 1998, based on data on the Department's environmental atlas maps which was provided by the NYS Office of Parks, Recreation, and Historic Preservation, Landmark Society of Western New York, and municipal historians. Century Farms data provided by Cornell Cooperative Extension-Monroe County.

MAP 23 - LOCATION OF FLOODPLAINS WITHIN MONROE COUNTY

MAP 24 - LOCATION OF WETLANDS WITHIN MONROE COUNTY

MAP 25 - PDR, CONSERVATION AND FARMING EASEMENT PARCELS

Of the total acreage in easements, 3,278 acres (61 percent) are in farming easements -- 91 parcels in Perinton containing 3,004 acres, and nine parcels in Webster involving 274 acres -- and 2,072 acres are in conservation easements divided amongst 55 parcels in Perinton, 27 parcels in Webster, and 24 parcels in Penfield.

Selected Historic Sites and Century Farms. Map 26 shows the location of the 650 selected historic sites and four century farms in Monroe County (also see Table 19).

Selected historic sites are located throughout the County, with concentrations in the northwestern and eastern parts of the County (town totals include villages where appropriate). These sites consist of such features as former amusement park sites, lighthouses/lighthouse keeper residences, homes (many of which are cobblestone), school houses, churches, cemeteries, flour mills, and taverns. Parma has the largest number of selected sites with 125, followed by Clarkson, 64, Penfield, 58, Mendon, 39, Hamlin and Henrietta, 35 each, Irondequoit and Ogden, 33 each, and Riga with 31. All remaining towns had less than 30 selected historic sites; Rush, Sweden, and Gates had three, two, and one, respectively.

There are two century farms in Pittsford and one each in Ogden and Wheatland.

Compatibility with Farming

The site assessment factors supporting retention in agriculture have been identified by LESA as being supportive of agriculture because their presence limits or discourages development and, thus, are commonly accepted as features promoting the continuation of agriculture. They may also contain or be part of farming operations. They also can help buffer farm operations from nonfarm neighbors. Thus, these variables are compatible with agriculture and agriculture is compatible with these variables. As a result, since they are commonly accepted as compatible with agriculture, it was not necessary to conduct any statistical analyses of these factors. However, they have been described and mapped so that they can be taken into consideration in future farmland protection efforts.

Therefore, to promote the continuation of agriculture, help provide the contiguous land mass necessary to promote farming viability, and help provide a buffer between farm and nonfarm development, where feasible and as part of an overall community land use strategy, municipalities should consider including these features in areas identified for agricultural use as doing so may help keep land near them, or in them that is being farmed, in farming. This action would also be consistent with recommendations in the Land Use Element of the County Comprehensive Development Plan, referenced in chapter 2, which call for meeting urban development needs in a way that protects farmland and environmentally sensitive features. Further, wetlands and floodplains are identified in the Plan's Environmental Element as two of the sensitive features needing protection (Monroe County Department of Planning, 1978). Thus, protecting sensitive environmental features, as well as those other features identified by LESA as supporting agriculture, may help preserve farming.

MAP 26 - HISTORIC SITES AND CENTURY FARMS

Statistical Analysis of Site Assessment Factors Measuring Development Pressure

Proximity Analysis and Results

Proximity analysis measures the distance between an attribute and a variable to determine how frequently the variable occurs within the given distance. In this case, a proximity analysis was conducted to identify how many property class code changes were occurring within various distances from shopping centers, industrial operations, sanitary sewer, and arterial roads and interchanges -- independent variables representing development pressure on farmland -- in order to determine what farmland within these various distances may be under development pressure. Proximity analyses were conducted by drawing concentric circles around each variable in order to be able to identify the number of class code changes occurring within the following distances from each variable: within 1/4 mile, 1/4-1/2, ½-one, one to two, and two to five miles. The only analysis that was of any significance was the one that indicated that farmland and vacant land within one mile of a shopping center was under development pressure but it was not included in the subsequent regression analysis since it yielded little explanatory power.

Correlation and Regression Analysis

Often times it is difficult if not impossible to determine the exact relationship among observed variables that may be associated with or explain an outcome. For example, even if we know a family's net income, it would be difficult to make an exact prediction as to how much they may save. However, it would be possible to measure how a family's savings varies on average with differences in incomes. In addition, it would be possible to measure the amount of dispersion that exists around these average relationships. On the basis of these relationships, it may be possible to estimate the values of the variables of interest for decision-making purposes (Hamburg, 1979).

In the following analysis, two statistical tools have been employed to estimate average relationships between land use factors (field crops, vacant land, population, etc.), development (property class code changes) and other variables of interest (school districts). First, correlations were conducted to determine the closeness of the association between two or more variables. A correlation assesses the joint variation (movement) of two variables and reports this association using a mathematical number. When an association is determined (using a mathematical procedure), it is characterized in strength (from zero [indicating no association] to one [a perfect association]) and direction (plus (+) indicates a positive association, while negative (-) indicates an inverse association. Usually, the positive sign is dropped, only the negative sign is indicated).

Second, regression analysis was performed to identify and describe combinations of land use factors that describe and assess development. Regression analysis refers to the technique of deriving an equation (a mathematical procedure) that relates a dependent variable (development) with one or more independent/predictor variables (land use factors). This equation considers the frequency distribution of property class code changes while land use factors such as vacant agricultural land are held fixed. The strength and direction is measured the same way as correlations. However, a t-statistic , an R^2 and F-test are also reported that indicate the strength of the overall model as well as the variables. A t-test of each independent variable is performed

to indicate if indeed the variable is significant within the equation. The F-test indicates if the overall equation is statistically significant. And the R^2 indicates how much of the total variation is explained using the independent variables. For example, a R^2 of .8 indicates that 80 percent of the total variation in a dependent variable (development) is associated with the independent variables included in the regression equation.

It is important to note, that once a correlation and a regression model are identified that this in no way indicates a causal link. Correlations and regression analysis or any other mathematical procedure can not establish casualty. These procedures can only measure the nature and degree of association between variables. Statements of causality emanate from underlying knowledge and theories about the phenomena under investigation (Churchill, 1976).

Correlation Results

Site assessment and demographic variables were correlated with each other to identify associations and provide insight into developing an overall regression model to describe development pressure. All variables except for school district variables are measured on a town basis. All variables were measured by a continuous/interval scale. Agricultural land use variables were measured in acres, while population, parcel class code changes, and single family building permits were measured by frequency/count. Average median family income per census tract by municipality and agricultural land values were measured in dollars.

Site Assessment Variables

Based on correlations by town, there is an inverse and weak association between property class code changes and agricultural acreage (-.30) and a positive and very weak relationship with land values (.06) (Table 20). With single family building permits, the relationship is similar for acreage (-.34) and for agricultural land value (.19). When looking at property class code changes by type of agriculture, field crops (-.34) and agricultural vacant land (-.21) have weak associations. As expected, single family building permits also mirror this association with field crops (-.33) and agricultural vacant land (-.29). All others -- truck, livestock, and orchard -- had a weak or no association.

Agricultural vacant land has a positive and strong association with agricultural acreage (.84), and a moderate relationship with field crops (.49) and livestock (.49).Agricultural vacant land has an inverse and weak association with truck crops (-.25) and a weak relationship to orchard land (.14).

Field crops has a positive and strong association with agricultural acreage (.87), orchard (.42) and a very weak association with agricultural land value (.19).

Table 20
Correlations

	Total Ag. Land Acres	Assessed Ag. Value $	Property Class Code Changes #	Single Family Building Permits #	Field Crops Acres	Ag. Vacant Land Acres	Truck Crops Acres	Live-stock Acres
Assessed Agricultural Value	.31							
Property Class Code Changes	-.30	.06						
Single Family Building Permits	-.34	.19	.78					
Field Crops	.87	.19	-.34	-.33				
Agricultural Vacant Land	.84	.31	-.21	-.29	.49			
Truck Crops	.03	-.15	-.06	.05	-.05	-.25		
Livestock	.73	.21	-.17	-.26	.54	.49	.31	
Orchard & Small Fruit	.46	-.06	.03	.03	.42	.14	.36	.59

Overall, several site assessment variables also appear to be associated with one another (see Table 20), suggesting some type of association or relationship. Field crops (.87), agricultural vacant land (.84), livestock (.73) and orchard and small fruit (.46) were positively associated with total agricultural land in the County. Field crops were also associated with agricultural vacant land (.49), livestock (.54), and orchard and small fruit (.42). Also, single family building permits were highly associated with property class code changes (.78).

In summary, livestock, field crops, agricultural vacant lands, and orchard are variables that are positive and range from a strong to weak association with agricultural acreage. This may be expected since these types of classifications represent uses that require vast amounts of acreage, other than vacant land. In addition, agricultural vacant land is positive and moderately correlated with field crops suggesting some sort of support use or periodic production in field crops. Orchard/fruit is also positive and moderately related to field crops and truck crops. Overall, agriculture land use tends to be predominantly livestock operations (pasture), accompanied by field crop operations, and agricultural vacant land as support ground. However, to a lessor degree agriculture land use also tends to be characterized as field crop operations, intertwined with vegetable operations, and orchard/small fruit operations but located in clustered

areas of the County.

Demographic Variables

As indicated in Table 21, population (1990) was inversely associated with total agricultural land (-.45), field crops (-.41) and agricultural vacant land (-.36). Population appeared to be more strongly associated with single family building permits (.55) and property class code changes (.70). When looking at the population change from 1980 to 1990, total agricultural land (.68), agricultural vacant land (.71), livestock (.52), field crops (.43) and single family building permits (.71) were positively associated. Median income did not provide any meaningful results on any of the tested variables.

Table 21
Correlation Table of Demographic Variables

	1990 Population	1980-1990 Population Change (%)	Median Family Income
Total Agricultural (A.)	-.45	.68	.13
Field Crops (A.)	-.41	.43	.05
Agricultural Vacant (A.)	-.36	.71	.22
Truck Crops (A.)	-.10	.07	-.16
Orchard & Fruit (A.)	-.08	.39	-.23
Livestock (A.)	-.32	.52	.05
Single Family Bps (#)	.55	.71	.21
Property Class Codes (#)	.70	.09	.06
Total Vacant Land (A.)	-.22	.37	.01

(A) = Acreage; # = number

Additionally, correlations were also performed between property class code changes by school district and single family building permits by school district to see if there is any association between the perceived quality of a school district and development as measured by property class code changes and single family building permits by school district.

Property class code changes by school district (Table 22) were compared to the school district's composite score to see if there was any association between the perceived overall quality of a school district and the number of class code changes within the district. Based on a correlation

analysis, there is a weak association between school district composite score and property class code changes (-.13).

Next, the number of single family building permits issued for new single family construction in 1997 by school district were compared to school district composite score (Table 22). Based on a correlation analysis, there is a weak association between school district composite score and number of single family building permits issued by school district (.22).

Property class code changes proved to be a more encompassing and discriminating variable than single family building permits. Therefore, property class code changes were used as the dependent variable in the regression analysis.

Table 22
Property Class Code Changes and Single Family Building Permits Issued by School District

School District	Composite Score	Rank	Single Family Building Permits Issued in District, 1997	Property Class Code Changes In District, 1997
Pittsford	83	1	85	288
Honeoye Falls-Lima	76	2	44	136
Fairport	71	3	160	588
West Irondequoit	67	4	0	25
Brighton	66	5	12	42
Penfield	61	6	78	158
Churchville-Chili	59	7	71	254
Webster	57	8	265	428
Spencerport	54	9	82	256
Hilton	48	10	106	324
Gates-Chili	44	11	41	121
Greece	40	12	86	262
East Rochester	38	13	1	64
Brockport	32	14	58	128
East Irondequoit	32	14	0	27
Wheatland-Chili	32	14	37	60
Rush-Henrietta	25	15	84	343
Rochester	10	16	41	659

Regression Results

In order to describe and identify agricultural lands under development pressure both a dependent and independent variables need to be identified. As discussed earlier, the dependent variables of property class code conversions (development) and single family building permits were used as

profiles for development. However, property class code conversions proved to be a more comprehensive measure of development and, therefore, was used as the dependent variable in the regression analysis. Independent variables were identified through the use of both the LESA methodology and classical economic theory. In economic theory, major demand determinants include income, population size and tastes and preferences, while supply determinants include land availability, land values, acreage, institutional constraints/ incentives, proximity to sewers, proximity to shopping centers, quality of school districts, and so forth (Tomek and Robinson, 1990; Pease and Coughlin, 1996).

The regression analysis was based on a synthesis of economic theory and LESA to describe and identify agricultural lands under development pressure. As noted earlier, the data set is a synthesis of RPS records, census data and other mapped and tabular data gathered at the town level. The data set provided factors for characterizing property class code conversions. Property class code conversions consisted of parcels that changed in a major land use. All parcels were included except for parcels changing from an agriculture use to another agricultural use, hence these types of parcels were not included in the analysis. In addition, if a municipality (City of Rochester, Town/Village of East Rochester) did not have any agricultural acreage, it was removed from the analysis.

The following independent variables were considered as possible descriptors for describing and identifying property class code changes: total agricultural acreage, total agricultural land value, field crop acreage, orchard and fruit acreage, truck crop acreage, agricultural vacant land acreage, livestock and products acreage, specialty farm acreage, population, average median family income per census tract, population change (percent), total vacant land acreage, sewer acreage, proximity to shopping centers, proximity to industrial areas, and perceived quality of school districts. Other than perceived quality of a school district, all variables were captured on a municipal basis. Analysis was conducted based on school districts and did not result in any statistically significant findings. In addition, all of these selected factors may describe property class code changes in either a positive or negative relationship that may or may not be significant.

For brevity purposes, only the following model is reported since it yielded the most powerful results in terms of overall statistical significance, individual significance, explained variance (R^2) and theory. All variables were significant at the .10 level except for field crops (Table 23), and all variables were significant at the .05 level except for field crops and total vacant land (.058) that was just over the .05 level. The overall regression model was significant at the .01 level.

All models were subjected to t-tests for each factor and an F-test of the entire regression. In order to ensure that the factors were not closely or perfectly related, a test of covariance was run on the data file in an attempt to detect multicollinearity. There were no correlations close to plus or minus one (+/-1) on the variables reported in the following model. Types of crops (e.g.: field crops, orchard) were divided by total agricultural acreage to get weighted factors for analysis.

Explanation of Selected Factors

Field crops, as indicated by the results in Table 23, was not a significant factor but contributed to the overall significance and explanatory power (R^2) of the model. In addition to its positive

Table 23
Regression Model

Dependent Variable Is Property Class Code Changes
Included observations: 19 after adjusting endpoints*

	Coefficient	Standard Error	T-Statistic	Prob.
Intercept	-.224.5486	78.89472	-2.846180	0.0147
Field Crops	118.6354	84.81119	1.398818	0.1872
Agricultural Vacant	310.4261	93.31513	3.326643	0.0060
Truck Crops	722.3499	315.6302	2.288596	0.0410
Orchards	-955855.9	346799.6	-2.756307	0.0174
Total Vacant	0.020807	0.009959	2.089277	0.0587
Population	0.007502	0.001510	4.969152	0.0003
R-squared	0.801368		Mean dependent var	188.0000
Adjusted R-squared	0.702051		S.D. dependent var	157.5697
S.E. of regression	86.00894		F-statistic	8.06887
Sum squared resid	88770.44		Prob (F-statistic)	
		0.001185		
Log likelihood	-107.2288			

* City of Rochester and Town/Village of East Rochester were excluded from the analysis because they do not contain any land coded as agricultural.

association and relatively large weight, this factor suggests that towns possessing such acreage are likely to have conversions occur. This may be due to the possibility that land producing field crops tends to have lower output values ($). Therefore the opportunity cost in development is much higher.

Agricultural vacant acreage was independently significant and had a positive and large weight on the overall model (Table 23). This may suggest, as with field crops, that these lands tend to have low output values and may be marginal lands that are influenced by commodity prices. As with field crops the opportunity cost for development is much higher than keeping such land in an agricultural pursuit.

Truck crops, as noted in Table 23, was independently significant and had a positive and large weight on the overall model. Typically, in highly developed areas, truck crop acreage (vegetables) is the last to be converted to development. This may be due to medium to high value crops produced on such land, and because these crops are in high demand by the nearby urban population.

Orchard and small fruit was independently significant and had a negative and a very large weight on the overall model (Table 23). This suggests that any minor impact on orchard and fruit acreage will have a major negative impact on property class code conversions. What this means is that orchard and small fruit acreage may deter property class code conversions since such lands tend to produce high value crops, thus, having low opportunity cost for putting such land into development.

Total vacant land was not independently significant at the .05 level but was significant the .10 level and had a positive and small weight on the overall model (Table 23). This may suggest that vacant lands as well as agricultural vacant lands have large opportunity costs associated with them in development as they have very little alternative use in terms of output value.

Population was independently significant and had a positive and small weight on the overall model (Table 23). In accordance with economic theory, population size is proportional to the demand for a good; in this case larger population size would have larger property class code conversions.

The regression analysis appears to exemplify the current economic conditions prevailing throughout the County as well as throughout New York and the northeast United States. Typically, field crops (corn, wheat, beans) in the northeast have lower profits per acre when compared to truck crops and orchard and small fruit crops. This may suggest that the value of product produced on agricultural lands has a major impact as to the long term use of the land in an agricultural pursuit. The regression analysis reflects the opportunity cost (opportunity lost) associated with field crop and agricultural vacant land for development purposes would be relatively high compared to its use in growing corn, wheat, or soybeans. Truck crops lands are usually the last lands left in a developed area due to the potential for profitability in growing vegetables especially for fresh market vegetables. Even though orchard and small fruits have lost considerable land over the last 30 years, it would appear that, at least for now, conversion of orchard and small fruit lands to nonfarm development has slowed down considerably. This may be due to favorable economic conditions for the fruit industry which has resulted in more profitable operations for the last five years.

This being the case, it would be advantageous to increase and maintain a "high" value of product produced on agricultural lands in order to reduce the opportunity cost associated with such lands in development.

Farmland Under Conversion Pressure

The regression analysis has identified field crop land, agricultural vacant land, and truck crop land as the farmland under the most conversion pressure. Map 27 presents the distribution of field crop land, agricultural vacant land, and truck crop land. As indicated by the map, much of this land is located in agricultural districts. Table 24 presents the number of parcels and acres of field crop land, agricultural vacant land, and truck crop land that is located in agricultural districts by municipality. When compared to the total acreage figures listed in Tables 11, 13, and 15 for these three categories of farmland, approximately 76 percent of all field crop land, 73 percent of all agricultural vacant land, and 63 percent of all truck crop land is located in agricultural districts. Thus, the majority of farmland under the most conversion pressure is located in agricultural districts. Additionally, these lands occupy 70,478 acres in agricultural districts. Since, as noted in Table 3, 81,507 acres are classified as agricultural land in agricultural districts, 86 percent of all agricultural land in the districts is under the most conversion pressure.

MAP 27 - FARMLAND UNDER CONVERSION PRESSURE

Table 24
Farmland In Agricultural Districts Under Conversion Pressure
By Municipality

Municipality	Field Crop Parcel Count	Field Crop Acreage	Vacant Ag. Land Parcel Count	Vacant Ag. Land Acreage	Truck Crop Parcel Count	Truck Crop Acreage
Brighton	0	0	0	0	0	0
Chili	23	1,961.98	33	2,054.34	0	0
Clarkson	11	1,041.15	4	208.77	14	1,406.53
Gates	0	0	0	0	0	0
Greece	1	36.48	1	5.70	2	48.13
Hamlin	71	5,762.75	76	4,646.72	0	0
Henrietta	37	2,088.58	0	0	0	0
Irondequoit	0	0	0	0	0	0
Mendon	35	2,380.88	81	4,189.76	0	0
Ogden	36	1,804.03	95	4,555.20	0	0
Parma	33	2,226.56	8	367.49	1	49.92
Penfield	42	1,939.52	25	1,191.30	2	88.96
Perinton	2	63.23	7	434.30	0	0
Pittsford	27	1,317.82	2	94.79	1	48.58
Riga	40	2,734.21	130	7,725.50	0	0
Rush	31	3,107.33	46	2,680.64	1	67.39
Sweden	23	1,784.96	6	490.82	5	540.54
Webster	13	759.23	5	295.62	0	0
Wheatland	78	7,615.23	48	2,663.30	0	0
Totals	503	36,623.94	567	31,604.25	26	2,250.05

Analysis of Soils in Seven Towns

This descriptive analysis involved the digitized soils data for the seven towns identified earlier under LE Factors Rating Soil-based Qualities, to see if productive agricultural soils were being converted to development. Excluding property class code changes from one type of agriculture to another, these towns account for 1,564 property class code changes of the 4,383 changes countywide (36 percent). The majority of the 1,564 changes occurred in Perinton (736), Penfield (319), Ogden (213) and Mendon (130). An analysis of the soil types was done by tabulating the centroid identifying the property class code change and the soil type associated with the centroid. Even though there may be differences and variations of soil types within a parcel, typically the soil types are still closely associated in terms of capability. For example, a parcel may contain a Hilton soil type as well as an Ontario soil type. Even though they are different in terms of texture, tilth, and structure, their capabilities in terms of production, drainage, and development may be quite similar.

A descriptive analysis of Class I soils identifies soils that are the most desirable and have few limitations restricting their use. Second, a description of the top five soil types (other than any Class I soils) are described. Coincidentally these soils are Class II soils and have moderate limitations that reduce the choice of plants or that require moderate conservation practices (USDA, 1973).

Class I Soils

Honeoye (Hn, Ho), Madrid (Md), and Wampsville (Wc) series soils have moderate to high water capacity and are well suited to many different types of crops. Honeoye soils were converted in the Towns of Mendon (2 class code changes on these soils), Ogden (2) and Wheatland (3). Madrid soils were highest of any of the Class I. Madrid soils were converted in the Towns Ogden (38), Penfield (67), Perinton (73), Sweden (5), and Wheatland (2). Wampsville soils were converted in Mendon (8) and Wheatland (9). In summary of the 1,564 property class code changes, 209 (15 percent) were on Class I soils. These soil types are highly desirable for agricultural use, woodland, pasture, and wildlife, and are also well suited for construction, roads, and on-site septic systems except for Honeoye. Madrid and Wampsville soils are deep, generally well drained, and easily worked. All of these Class I soils hold water well and are fairly well supplied with plant nutrients or highly responsive to inputs of fertilizer. These soils are productive and suited to intensive cropping (Klingebiel and Montgomery, 1966).

Class II Soils

Collamer (Cl), Colonie (Co), Hilton (Hl), Ontario (On) and Ontario-Palmyra-Arkport (Op) series soils are best suited for row crops and vegetables. These soils are associated with 534 class code changes that occurred in the seven towns. Collamer soils were converted in the Towns of Hamlin (10 class code changes on these soils), Mendon (4), Ogden (11), Penfield (19), Perinton (28). Colonie soils were converted in Mendon (5), Ogden (7), Penfield (3), and Perinton (46). Hilton soils were converted in Hamlin (16), Mendon (3), Ogden (3), Penfield (27), Perinton (79),

and Sweden (12). Ontario soils were converted in Mendon (6), Ogden (4), Penfield (11), Perinton (175) Sweden (5), and Wheatland (1). Ontario-Palmyra-Arkport soils were converted in Mendon (6) and Perinton (53). The Collamer and Colonie soils are moderately limited for many agricultural practices unless significant management practices are used. However, these soils have been identified as being severely limited for buildings, septic systems, and roads. The rest of the Class II soils, such as Schoharie and Niagara, are somewhat limited in terms of agricultural production of row crops, pasture, woodland and wildlife but are only slightly limited for buildings and roads. However, there are severe limitations associated with these soils for use as septic systems.

Class II soils are generally limited in terms of soil structure, less than ideal soil depth, and wetness correctable by drainage. The soils in this class provide the farm operator less latitude in the choice of either crops or management practices than soils in Class I. These soils may require special soil-conserving cropping systems, soil conservation practices, water-control devices, or tillage methods when used for cultivated crops (Klingebiel and Montgomery, 1966). However, favorable climatic conditions make these soils ideal for many of the crops grown in western NY. (For a more in-depth discussion about these soil types refer to the USDA; Soil Survey - Monroe County, New York, 1973, and Klingebiel and Montgomery, 1966.)

Soils Under Conversion Pressure

Based on the regression model results describing lands under conversion pressure, an analysis of field crop, vacant agricultural land, and truck crops was done to identify the soil types associated with these crops under conversion pressure. The top three Towns of Ogden (115), Mendon (97) and Hamlin (88) account for 66 percent of the vacant agricultural acreage. The top five soils for the seven towns were Collamer (36), Hilton (39), Ontario (37), Schoharie, (25) and Palmyra (18) and Niagara (18). These soils account for 173 of the 452 parcels (31 percent) of vacant agricultural land. These soils are Class II soils that with some management practices could be used to grow vegetables and possibly small fruits. The Class I soils Honeoye (5), Madrid (13) and Wampsville (13) account for 31 of the 452 parcels (seven percent) of vacant agricultural land.

Truck crops (vegetables) were associated with the Towns of Penfield, and Sweden. Truck crops were predominantly found on the Collamer (1), Hilton (5), Honeoye (2) Niagara (1) and Wassaic (1) soil series. Honeoye soil is a Class I soil the rest are Class II. These soils represent 100 percent of the parcels engaged in truck crops.

Field crops were found on all soil types with the top three towns being Wheatland (93), Hamlin (80) and Penfield (56). The top five predominant soil types being used for field crops are Collamer (30), Hilton (35), Madrid (17) Niagara (12), Ontario (42), and Wampsville (12). These

soils account for 148 of the 345 parcels (43 percent) of the field crops land. The Class I soils, Honeoye (3), Madrid (17), and Wampsville (12) account for 32 of the 345 parcels (nine percent)

of the field crop parcels.

Soils by Sewered Areas

Class II soils, as described earlier, accounted for 34 percent of the property class code conversions. Since a predominant number of these top five Class II soil types involving property class code conversions are soils that are suited for construction purposes but limited for septic, a query was done to identify where these property class code conversions occurred relative to sewered areas. The result was that over half (57 percent) of the property class code conversions on Class II soils occurred in sewered areas. Of the Class I soils converted to development (209 parcels), 44 percent were in sewered areas.

Soils by Agricultural Districts

A similar query was done to compare property class code changes by soil types within an agricultural district. The result was that only 16 (one percent) property class code changes involving Class I soils and 44 (three percent) property class code changes involving Class II soils were converted to development within an agricultural district.

Land Use Conversion Sequence

The final analysis involved agricultural parcels with changing property class codes. These parcels were analyzed to see how many changed codes and what codes (land uses) they were changing to, to see if any trends could be identified that would be relevant to future farmland protection planning efforts.

Agricultural Parcels with Changing Class Codes

Sixty agricultural parcels experienced a class code change in 1997 according to municipal tax assessor records (Table 25). Forty-one (68 percent) changed from one type of agricultural use to another. The majority of these parcels are located in the Towns of Henrietta and Perinton (Map 28).

Table 25
Agriculture Parcels with Changing Class Codes

Class	Count	Percent
From Agriculture to some other Agriculture code	41	68.3
From Agriculture to Vacant Land	10	16.7
From Agriculture to Residential	7	11.7
From Agriculture to Commercial	2	3.3
Total	60	100

Source: July 1997 RPS parcel records maintained by RPTS.

Nineteen parcels changed from agriculture to a non-agricultural use (Table 25). The 10 parcels that changed to vacant land (that is, the vacant land with a property class code of 300, not the agricultural vacant land which is code 105) were found in the four contiguous Towns of Chili, Henrietta, Rush and Wheatland (Map 28).

The remaining nine parcels went into development. These parcels are not concentrated in any particular town or towns but most of the changes occurred in towns on the west side of the County (west of the Genesee River).

Since a majority of the parcels that converted to a non-agricultural use converted to vacant land, the next step of the analysis was to describe what was happening with parcels with vacant land class codes.

MAP 28 - AGRICULTURAL PARCELS WITH CHANGING CLASS CODES

Vacant Land Parcels with Changing Class Codes

Twenty-six percent of all class code changes (1,155 out of 4,383) in the County went from a vacant land designation to a non-vacant use (Table 26). Not surprisingly, 95 percent went to development, 90 percent of which were residences. Forty-three parcels, (3.8 percent), changed from vacant land to agriculture. These parcels are concentrated in the Towns of Henrietta, Perinton, and Rush (Map 29).

Table 26
Parcels Changing From Vacant Land to Non-Vacant Use

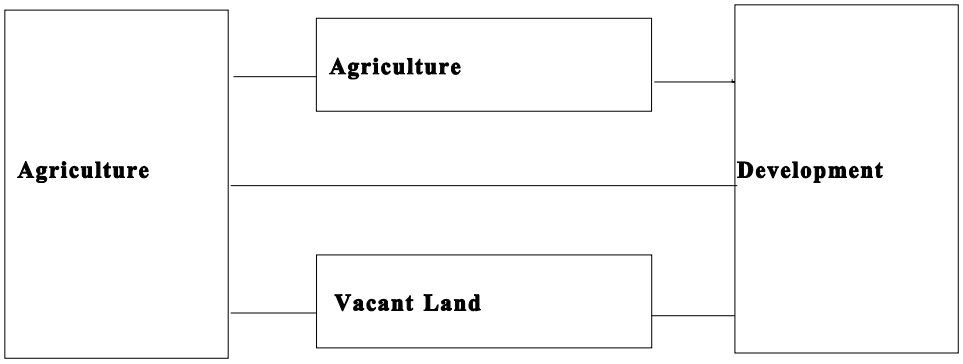
Class	Count	Percent
From Vacant to Residential	1,025	89.9
From Vacant to Commercial	52	4.5
From Vacant to Industry	3	.26
From Vacant to Agricultural	43	3.7
From Vacant to Other	16	1.4
From Vacant to Rec	6	.5
From Vacant to Community	5	.4
From Vacant to Public Service	3	.26
From Vacant to Wild	2	.17
Total	1,155	100*

*Does not equal 100% due to rounding
Source: July 1997 RPS parcel records maintained by RPTS

MAP 29 - VACANT PARCELS WITH CHANGING CLASS CODES

When looking at the results of the agricultural parcels with changing class codes and the vacant land parcels with changing class codes, agricultural land changed from one type of agriculture to another type, to vacant land, and to development, and vacant land also changed to agriculture. These changes are illustrated by the following:

Figure 8
Conceptual Model Illustrating Agricultural Parcel Land Use Changes



Additionally, the vast majority of code changes from agriculture to agriculture, agriculture to vacant land, and vacant land to agriculture occurred in the Towns of Chili, Henrietta, Perinton, Rush, and Wheatland. The changes occurring in each town were:

Agricultural to Agricultural - Henrietta, Perinton, Rush
Agricultural to Vacant Land - Chili, Henrietta, Rush, Wheatland
Vacant Land to Agricultural - Henrietta, Perinton, Rush

All three scenarios occur in Henrietta and Rush. Two of the three scenarios occurred in Perinton. All of the towns are located in the south part of the County and are contiguous with the exception of Perinton which is two towns east of Henrietta.

Another data source may reveal additional information regarding agricultural parcels with changing class codes. This data source is the Assessor's Annual Report (AAR) prepared by each municipal assessor. These reports identify parcels that have been subdivided, and contain the property class code and tax parcel number of the "parent parcel" along with the property class codes of the subdivided parcels and their tax parcel numbers.

This data is entered into the RPS database but the class code of the parent parcel is deleted from the record when the RPS data base in "initialized" or updated at the end of the calendar year.

The RPS database used for this analysis had been initialized and thus, the parent parcel codes had been removed from the records, leaving the AAR as the only remaining source of this data.

Time limitations prevented an inventory of AAR's for 1997. However, the AAR's may indicate that more land went out of agriculture than was indicated by the property class code change data.

Chapter Summary

The use of the LESA methodology, combined with economic theory, provides an exemplary template for descriptive analysis.

Taking steps to conserve large, contiguous areas containing features supportive of agriculture (wetlands, floodplains, public parks and conservation areas, historic sites and century farms, and land in PDR and conservation easements) should also help protect farming operations that are located near or within the boundaries of these features.

The majority of development is single family homes and, thus, single family homes represent the type of development most often involved in the conversion of farmland to a nonfarm use.

Proximity analyses were done on shopping centers, industrial operations, public sewer, and arterial roads and interchanges, to see if the closer farmland was to these features the greater the conversion pressure. Only farmland (and vacant land) within one mile of shopping centers appeared to be under conversion pressure. Thus, with the exception of land within one mile of shopping centers, it appears that development is just as likely to occur elsewhere as it is to occur within or adjacent to industry, sewer, and arterial roads and interchanges. As a result, these features do not create disproportionate development pressure. This conclusion is based on one year's data. Therefore, additional analysis may be required to substantiate this initial finding.

Industrial operations were thought to create development pressure on farmland. However, the proximity analysis indicated otherwise. Additionally, NYSDAM considers industry to be a good neighbor to farming. Therefore, towns may also want to consider locating certain types of industrial uses near farmland when it makes sense to do so as part of an overall community land use strategy.

The perceived quality of a school district is not associated with development as measured by property class code changes and single family building permits. This conclusion is based on one year's data. Therefore, further analysis may be required in order to substantiate this finding.

Average median family income per census tract and assessed land value may be important variables in describing the type of development that will occur. These conclusions are based on one year's data. Thus, further analysis may be required to substantiate these findings and their relevance to agricultural planning purposes.

Population size is positively associated with development. Larger populations incur a greater number of property class code changes.

Property class code changes and the construction of new single family homes are just as likely to occur in any town. Therefore, regarding agricultural land, it is just as likely that farming in any town will experience some level of conversion pressure. The east side of Monroe County (east of the Genesee River) is heavily developed as evidenced by the relative lack of agricultural acreage and the presence of infrastructure. The east side of the County contains field crop land and agricultural vacant land. Therefore, these lands, as suggested by correlation and regression analysis, are likely to be developed. The opportunity costs of the land are reflected in assessed values and suggest that farmers are making a rational economic choice of putting their land in development when compared to the economic returns from such operations.

The statistical model identified in this chapter -- which includes field crop land, agricultural vacant land, truck crop land, orchard and small fruit land, total vacant land, and population -- provides a basis for analysis and description of agricultural lands as they relate to development pressure on a municipal level.

Field crops, agricultural vacant land, and truck crops tend to have low value agricultural output on a per acre basis. Therefore, the opportunity cost in development is higher than in agriculture, meaning that these lands tend to be the farmland most likely used for development. Thus, major changes to these lands may be necessary to increase the value of the product.

The majority of field crop land, agricultural vacant land, and truck crop land -- the farmland under the most conversion pressure -- is located in agricultural districts. Since it also represents the majority of farmland in districts, the majority of farmland in districts is under the most conversion pressure.

Truck crop farms (vegetables) tend to be the last agricultural parcels left in developed areas.

Orchard and small fruit farms have an inverse association with development. Fruit farms may reduce development pressure.

The results of the soils analysis suggest that the best soils of both Class I and Class II are being

used for low to medium value agricultural products (field crops, vacant agricultural land, and truck crops) that are under the most conversion pressure. Of the field crops and vacant agricultural land, close to half of these parcels are on soils that are highly productive in any agricultural use as well as highly desirable for construction purposes. In the seven towns used for soil analysis, the Class I and Class II soil types are being used to grow agricultural crops that are the most likely to be converted to development. Also, agricultural districts appear to have a less incidence of property class code changes on Class I and Class II soil types.

The Class 1 soils and the leading Class II soils should be targeted for both protection and profitability efforts. These are the leading soils for agricultural production and cannot be replaced. To help retain and utilize Class I and Class II soils for agricultural purposes, agricultural landowners and farmers who own property which contain these soils which are currently outside of agricultural districts should be encouraged to enroll their land in an agricultural district at the time of district renewal.

Digitization of the soil survey maps of the remaining towns in the County should be completed in order to continue analysis of agricultural lands converted to development.

Class code changes from agriculture to another form of agriculture, agriculture to vacant land, and vacant land to agriculture, occurred most frequently in the Towns of Chili, Henrietta, Perinton, Rush, and Wheatland. Further study of these towns, which are contiguous or in close proximity to one another, may provide insights to the land use and development process insofar as it is related to agriculture which could then be applied to future agricultural preservation efforts throughout the County.

RPS property class code change data should be obtained before the end of the calendar year in order to be sure that the data contains the class codes of parent parcels along with the class codes of the parcels subdivided from the parent parcel.

Agricultural lands may first change to vacant before they are converted to development.

As a result of the preparation of this plan, a base line database has been established to assess the status of the agriculture industry. However, it must be recognized that it represents only one year's worth of data upon which to base the conclusions and recommendations in this plan. Therefore, the database will need to be periodically updated, and that which is obtained from RPS records will need to be collected at the same time each year for a period of years, augmented by additional data (for example, Assessor's Annual Reports) when necessary, and analyzed along with the rest of the database to conduct time series analyses in order to establish trends in the agriculture industry and to update the findings in this report.

Chapter 9
Conclusions and Recommendations

This chapter presents conclusions and recommendations to achieve the plan's goals of preserving farmland and promoting the agriculture industry. In several instances, following the conclusion statement, a summary of information from earlier chapters in the plan is provided as background for the benefit of the reader.

Since the predominance of the agriculture industry is located in towns (with the exception of a few operations that are located in villages), the success in achieving the goals of this plan will be determined by the actions taken at the town level. This plan provides the background that enables the agriculture industry to receive consideration when towns prepare strategies for future communitywide land use development. Others, such as the County, State, Cornell Cooperative Extension-Monroe County, and Farm Bureau may be in a position to facilitate and encourage implementation of the plan. Ultimately, achieving the plan's goals will require the implementation of the recommendations, and it will also require commitment, compromise, and partnership not only on the part of those identified in this chapter as having an implementation role but also on the part of the entire community.

The conclusions and recommendations that follow are the basis upon which to initiate a farmland preservation and agriculture industry promotion program. All conclusions and recommendations originate from the findings contained in this plan.

I. Approve the Monroe County Agricultural and Farmland Protection Plan

With an annual market value of products grown and produced of $2.62 billion (New York State Advisory Council on Agriculture, 1997), agriculture is a significant contributor to New York State's economy. Locally:

- Monroe County ranks in the top 50 counties in the United States in 3 categories and in the top 100 counties in 8 categories regarding the production and value of several commodities (U. S. Bureau of the Census, 1994b):
  - 38th in pounds of apples (39,909,959 lbs.) and 46th in acres (2,197 acres);
  - 49th in pounds of cherries (1,017,540 lbs.) and 61st in acres (161 acres);
  - 60th in value of agricultural products sold directly to individuals for human consumption ($1,050,000);
  - 64th in acres of sweet corn harvested for sale (3,219 acres);
  - 68th in hundred weight of dry edible beans harvested (85,378 cwt.);
  - 75th in value of vegetables, sweet corn, and melons sold ($11,177,000);
  - 77th in acres of cucumber and pickles harvested for sale (451 acres);
  - 86th in acres of vegetables harvested for sale (8,466 acres); and
  - 90th in acres of snap beans harvested for sale (654 acres).

- The high rankings, particularly in value of products sold directly for human consumption, may indicate how important having a fresh, local food supply is to residents of Monroe County.

- Agriculture in Monroe County generates annual sales of $41.5 million resulting in a total economic impact to the County of approximately $128 million. In terms of an economic multiplier (three to seven times), agriculture is the largest industry in the County because it results in the largest value added component.

- Almost 3,000 people are employed full-time, and almost 4,000 total are employed in agriculture. But because the industry is dispersed, unlike other types of industry, it is not recognized as a major employer.

- Unlike some industries, much of the revenue generated by farming stays in the community in the form of locally purchased goods and services including feed, seed, and fertilizer dealers; lumber yards; farm equipment dealers; lending institutions and insurance companies; accountants and attorneys; food processors; and a whole host of retailers. All of these businesses would likely suffer an adverse economic impact if agriculture in Monroe County would cease to be an economically viable industry.

- Agriculture occupies 111,654 acres of land in Monroe County, just over 26 percent of the County's total area.

- Finally, farming brings quality of life attributes to Monroe County -- scenic, pastoral, and historic landscapes; the opportunity to purchase fresh produce at a roadside stand, pick fruit, or enjoy harvest festivals; wildlife habitats; and environmental benefits.

All of these economic and quality of life benefits are at risk of being lost if the land in farms, cropland, and harvested cropland continue to decline. Therefore, in order to save farmland and farm-related employment, retain the positive economic impact agriculture has on the local economy and on local businesses, continue to provide fresh products to Monroe County's population base, improve water quality and retain productive soil, and enjoy the scenic, pastoral, and historic landscapes afforded by agriculture, the first action that needs to be taken is for the Monroe County Legislature to consider approving this plan as a blueprint to be used in building a strong, local agriculture industry. The Legislature should also consider making this plan an element of the Monroe County Comprehensive Development Plan.

In addition to providing the basis for developing a strong, local agriculture industry, there are additional reasons to approve the plan. First, approval by the County and by the State's Commissioner of Agriculture and Markets makes the County eligible to receive State funds to implement the plan. Approval also increases the chances to obtain implementation funds from private and other public sources.

Second, Section 272-a of Town Law, concerning comprehensive plans, requires towns to give consideration to the recommendations of an adopted county farmland protection plan when preparing new comprehensive plans or when amending existing plans (the comprehensive planning statutes for cities and villages contain the same requirement). The statutes also require county planning agencies to review municipal plans prior to adoption. Thus, this plan and the county review process will provide guidance to municipalities insofar as agricultural land use is concerned when municipalities prepare or revise a plan.

Finally, municipal requests to NYSDAM for State funds to implement agricultural land use programs or other agricultural protection projects must be consistent with this plan and approved by the AFPB. Otherwise, municipalities will be required to develop their own agricultural protection plan. Thus, the approval of this plan gives guidance to municipalities concerning the selection of agriculture-related projects and helps to coordinate farmland preservation and promotion of the agriculture industry throughout the County.

Therefore, the plan should be provided to each municipality in the County to assist them to comply with State comprehensive planning statutes and to help them receive implementation funds for local agriculture-related projects.

II. Create and Fund an Agricultural Program Manager Position

In the mid 1980's, important programs to the County such as economic development and water quality management were established. Initially, one or two staff devoted portions of their time to these areas. But as the importance of these programs to the County's economy, vitality, health, well being, and overall quality of life became more apparent, the need to devote full-time resources to these activities became evident. As a result, the County now has several full-time staff dedicated to economic development and water quality management.

Today, the agriculture industry is at a point in Monroe County much like economic development and water quality management were several years ago. The importance of the agriculture industry to our economy and our quality of life is much more apparent. Thus, if the recommendations in this plan are to be implemented, now is the time for the County to devote full-time resources to this important sector of Monroe County's economy and way of life.

Since the County Legislature appropriated funds as the County's match in order to receive a State grant to prepare this plan, and since, under State law, the County Legislature is the local governing body designated to approve the plan, the County appears to be the logical location for this position. Therefore, this plan recommends that the County Administration and County Legislature consider creating and funding the senior/management level position of Agricultural Program Manager dedicated to the overall administration and coordination required to implement the plan, be directly responsible for implementing certain recommendations as described in this chapter, and be responsible for ongoing implementation and maintenance of the plan.

Ideally, the position would be housed in the Department of Planning and Development since a major component of the program is planning which requires working closely with personnel in the Economic Development, Planning, and GIS divisions of the Department.

The Legislature/County Administration should consider seeking the advice and input of the AFPB regarding the qualifications, experience, and skills required for the position of Agricultural Program Manager.

Suggested scope of duties for the Agricultural Program Manager should also include:

- Prepare a comprehensive work program of all the recommendations in this plan that lists them by priority, lead and secondary responsibility for implementation and others who have an implementation role, implementation cost (low, medium, and high), and when implementation should take place (near, medium, or long term). Prepare an annual work program listing the priority tasks to be undertaken during the coming year in order to implement recommendations in this plan. The work programs shall include the recommendations of and shall be approved by the AFPB.

- Prepare an annual report for submission to the AFPB. The report shall identify what has been accomplished on the work program and what remains to be done, what issues have arisen and how they have or will be addressed, and what new tasks will be added to the work program for the coming year. The report shall be submitted to the Board by January 31 of each year, and the Board shall take action on it by March 1.

- Upon the approval by the AFPB, submit the report to the Clerk of the County Legislature.

- As necessary, coordinate with adjacent counties in order to maintain the continuity of farming along county boundaries. Also, coordinate with other counties with adopted farmland protection plans and NYSDAM to share ideas on ways to promote the agricultural industry and preserve farmland.

- Apply for implementation grants and monies as they become available. Seek private funding sources to assist with plan implementation.

- Assist municipalities in implementing the plan, seek municipal input (i.e., an advisory committee or local farmland advisory boards) for tasks to be included in the annual work program, and assist municipalities in obtaining funds for implementing local farmland protection programs that are consistent with this plan.

- Participate in and monitor the progress made on all tasks listed in the annual work program and report on their status in the annual report.

- Attend all AFPB meetings to promote overall coordination and information exchange on agricultural matters (the Manager could also serve as the Planning Director's alternate to the Board if so designated by the Planning Director).

- Carry out all other Planning and Development Department responsibilities related to agriculture such as coordination with NYSDAM and the eight-year review (renewal) of agricultural districts.

III. Focus Preservation and Promotion Efforts on Agricultural Districts

Conclusion: While agricultural districts provide benefits that help keep land in farming, the districts program is considered the "basic" structure for promoting agriculture.

Established in the early 1970's, the agricultural districts program helps preserve farming through benefits such as agricultural assessments on farmland, exempting farmland from sewer and water line extension fees, and requiring consistency of local zoning and plans with the agricultural districts program. NYSDAM supports the formation and expansion of agricultural districts as a farmland preservation mechanism. Five districts have been established in the County at the request of farmers and farmland owners. Respondents to the 1996 survey (King et al., 1997) indicated that renewing agricultural districts is one of the most important things the County can do to promote agriculture because of the benefits the districts provide. Historically, the County and municipalities in which the districts are located have also supported district renewals, and their comprehensive plans identify district areas for agricultural use. Each time a district has come up for renewal, farmers have indicated that they joined an agricultural district for its protection and benefits.

Even though the agriculture industry has declined in Monroe County, agricultural district totals for total acres, acres cropped, number of farms with gross sales of $100,000 or more, acres in farms, acres owned and rented by farmers, and number of farms with recent capital investments of $100,000 or more, have increased during renewals as farmers and farmland owners continue to enroll land in the districts.

Agricultural districts cover 26 percent of the area of the County and contain 73 percent (81,507 acres) of the total acreage coded agricultural by municipal assessors. Eighty percent of the property class code changes occurred in towns with agricultural districts; thus, most of the County's farmland is under development pressure. Typically, single family homes account for the second highest number of property class code changes and the majority of the complaints about farm operations. Field crop land, agricultural vacant land, and truck crop land appear to be under the greatest pressure to convert to nonfarm development (typically residences), and approximately 76 percent of all field crop land, 73 percent of all agricultural vacant land, and 63 percent of all truck crop land is located in agricultural districts. These lands total 70,478 acres in agricultural districts, or 86 percent of all agricultural land in districts. Thus, the majority of land under the most conversion pressure is located in agricultural districts, and the majority of all

farmland in agricultural districts is under the most conversion pressure.

Recommendations: Consider continuing to support and strengthen the agricultural districts program by focusing efforts to implement the following recommendations on farming in agricultural districts, especially in areas where farmland is being converted to nonfarm use. While emphasis in implementing the recommendations should be focused on agricultural districts, the recommendations should be extended to include viable farming operations that remain outside of districts whenever farmers and farmland owners wish to participate in the program.

IV. Farmland Preservation and Protection

Policy Implementation and Evaluation

Conclusion: Historically, County studies involving agriculture only progressed to the draft stage or were not implemented. Only the recommendations in the Monroe County Comprehensive Plan were presented to and adopted by the County Legislature, and the only adopted policy in the Plan concerning agriculture that has been implemented on a consistent basis has been the policy to create and renew agricultural districts. As noted earlier, district totals for key factors such as total acres, acres cropped, number of farms with gross sales of $100,000 or more, acres in farms, acres owned and rented by farmers, and farms with recent capital investments of $100,000 or more, have all increased between the previous and most current renewals. These factors indicate that the agricultural districts program is successful in helping to promote agriculture. Continuing to renew districts also permits farmers with viable farm operations who are not now district members with the opportunity to join the district to obtain district benefits that help keep farmers in operation.

Other policies: (1) called for the County Legislature to not authorize major sewer and water projects in agricultural and rural area unless such projects are urgently needed to protect public health and safety in existing developed areas, nor authorize major highway projects unless they are essential to serving major development outside of farming areas, and (2) the County's Capital Improvement Program should not provide for County investments which would encourage development which is detrimental to farming and rural nonfarm areas. However, no process has been developed that would permit the County Legislature to evaluate the impact of proposed County infrastructure capital improvements on agriculture before approving such projects, and no process has been developed that would permit an evaluation of the impacts of other capital improvement program projects on farming and rural, nonfarm areas.

Recommendations: The Monroe County Legislature should consider continuing to renew agricultural districts.

Municipalities, Monroe County, Monroe County Farm Bureau, and Cornell Cooperative Extension-Monroe County should consider encouraging farmers who are not district members to join districts at the time of their renewal.

The Monroe County Legislature should consider having the Agricultural Program Manager evaluate the continued relevancy of the policies related to agriculture in the County's Comprehensive Development Plan. The Legislature should also assess the need to have a process developed that would identify and evaluate capital improvement project impacts on agriculture so that the impacts are part of the information available to the Legislature for consideration when acting on such projects. Additionally, Town Law Section 272-a requires other government agencies to consider town comprehensive plan recommendations when proposing capital projects within a municipality (this requirement is also found in the comprehensive planning statutes for villages and cities). Thus, the Legislature may wish to consider addressing this requirement as part of any process to be developed which will evaluate capital improvement project impacts on agriculture.

The Monroe County Legislature should consider having the Agricultural Program Manager evaluate the continued relevancy of the recommendations contained in the other agricultural studies done in the 1970's and 1980's, for incorporation into this plan and annual work program.

Promoting Compatible Land Use

Conclusion: Specific design techniques can be incorporated into proposed nonfarm development which will improve the compatibility between farming operations and new, nonfarm development.

Through their state-mandated review of municipal comprehensive plans and zoning and subdivision matters, the Department of Planning and Development recommends to municipalities that they consider incorporating design features that will lessen impacts on agriculture and promote better compatibility between farming operations and adjacent, nonfarm development. Such recommendations include: recommending that proposed new nonfarm development next to farming operations provide buffer landscaping between farm fields and nonfarm development to reduce impacts of farm operations on neighbors; clustering development to place it as far as practical from adjacent farming operations; prevent or minimize disturbance to drainage patterns related to adjacent farmland; and consider the use of detention/retention ponds in development upstream of farmland to help maintain pre-development storm water drainage flows through downstream farm fields. The Department also promotes these and other agriculture-related concepts when it provides assistance to municipalities on local planning matters and comprehensive plans through its local planning assistance program. The decision to incorporate these recommendations in development proposals and planning matters is that of each municipality.

Recommendations: The Department of Planning and Development should consider continuing to work with municipalities by recommending design features in proposed nonfarm development proposals which improve compatibility between farm and nonfarm development, and should continue to promote these design features and promote agricultural awareness through its local planning assistance program on planning projects and comprehensive plans. This information should also be incorporated into the Department's annual local land use decision-making training program for local officials. The recommendations of this plan concerning awareness of

agriculture and the promotion of compatibility between farm operations and adjacent nonfarm development should also be included in the review of development proposals, local planning assistance, and the training program. Municipalities containing agricultural districts, other major farming areas, and comprehensive plans promoting agriculture should consider incorporating these recommendations into development projects, regulations, and comprehensive plans.

Important Agricultural Soils

Conclusion: The results of the soils analysis for seven towns suggest that the best Class I and Class II soils are being used for field crop land, agricultural vacant land, and truck crop land. These are the lands that are also under the most conversion pressure. Close to one-half of the field crop land and agricultural vacant land were on soils which are highly productive for any agricultural commodity in addition to being well suited for nonfarm development. Also, based on the analysis, there appears to be less incidence of conversion pressure on these soils when they are located in agricultural districts.

Recommendations: Class I soils and the leading Class II soils are the leading soils for agricultural production and cannot be replaced. Therefore, they should be targeted for preservation and profitability efforts. To help retain these soils for agricultural purposes, landowners and farmers who own property outside of agricultural districts which contain these soil types should be encouraged to enroll their land in an agricultural district at the time of district renewal.

Municipal Land Use Regulations and Planning Related to Agriculture

Conclusions: Municipalities are prevented by Article 25AA of the State's Agricultural Districts Law from applying zoning regulations to agriculture that restrict farming in agricultural districts unless the regulation directly relates to public health or safety. Yet, there is a great deal of variation in the way municipalities apply zoning regulations to agriculture. Many municipal definitions of agriculture place size limitations on farms, or limit or prohibit certain agricultural practices such as the raising of swine, goats, and fur bearing animals. Other zoning provisions also place similar limitations on agricultural operations. As a result, these definitions and provisions are likely to be found inconsistent with Article 25AA if NYSDAM were to receive a request to review the definition or provision as it applied to a specific farm operation.

There are many zoning districts that regulate land use in State-certified agricultural districts which do not list agriculture or farming as a permitted use. These regulations may also be judged inconsistent with Article 25AA if NYSDAM were to receive a request to review the regulations as they apply to a specific farm. Various municipal comprehensive plans promote agriculture in agricultural districts but, again, the zoning applying to this land prohibits farming, making the zoning potentially inconsistent with the plan's recommendations as well.

Many of the inconsistencies appear to be the result of older, outdated municipal policies being incompatible with more current policies and comprehensive plans and Article 25AA.

Additionally, State planning law calls for municipalities to consider the recommendations in

county farmland protection plans when adopting new or amending existing municipal comprehensive plans.

Recommendations: Municipalities should consider undertaking the following tasks with assistance from the Agricultural Program Manager:

- Undertake a comprehensive review of all zoning regulations, planning documents, and other municipal policies related to agriculture, remove inconsistent provisions and bring them into conformance with Article 25AA.
- As required by the State's comprehensive planning laws, give consideration to this plan's recommendations (and annual report) when adopting or amending a municipal comprehensive plan.

Farmland Preservation Techniques

Conclusion: All municipalities with land in an agricultural district are using at least one of the following techniques to preserve farmland and promote agriculture, and many are using more than one: comprehensive plans, agricultural data statements (ADS), conservation easement programs, disclosure notices, farmland advisory boards, incentive zoning, cluster development, PDR, and exclusive agricultural zoning. Specifically, the following techniques are currently in use as follows: PDR, exclusive agricultural zoning, incentive zoning, and conservation easements in Pittsford; conservation easements in Penfield, Perinton, and Webster; incentive zoning in Chili and Parma; disclosure notices in Mendon, Riga, Rush, and Sweden; and farmland advisory boards in Mendon and Rush, and all these municipalities are using the ADS. These municipalities are valuable resources to those municipalities that may want to consider implementing the techniques because they can provide information on such matters as legislation enacted to carry out the program, resident receptiveness to program, duties and responsibilities, and effectiveness.

Recommendations: Municipalities that are currently using farmland preservation techniques should consider continuing to make them available to help preserve farmland.

Consideration should also be given to evaluating the potential use of other farmland preservation techniques presented in this plan in order to help preserve farmland and promote agriculture.

The PDR program is promoted by NYSDAM. NYSDAM is currently providing funds to help offset municipal costs involved in PDR. Therefore, municipalities may want to give special consideration to evaluating PDR.

Monroe County may also wish to consider evaluating a PDR program. As part of any evaluation process, the County and municipalities may want to contact Suffolk County officials and officials in Pennsylvania as well as Town of Pittsford officials to determine program receptivity, legislation, implementation procedures, funding sources, and program success. If PDR's are found to be generally feasible beyond current local use, the Agricultural Program Manager could develop a model program that could be used by the County and municipalities.

Field crop land, agricultural vacant land, and truck crop land have been identified as the agricultural land under the most conversion pressure. If PDR programs are established, consider applying them to these lands and to lands involving Class I and the leading Class II soils when the property owner wishes to participate in this program. PDR removes the development pressure and the land remains in farming and open space. Conservation easements are another program that could help retain these lands for farming. Conservation easements reduce property taxes, helping to raise opportunity costs in farming and reducing conversion pressure, and help retain the open space character of the land. Therefore, consideration could also be given to conservation easement programs.

Agricultural Zoning

Conclusions: As identified in the report "Zoning for Farming: A Guidebook for Pennsylvania Municipalities on How to Protect Valuable Farmland"(Center for Rural Pennsylvania, 1995), the type of zoning that is applied to farmland in Monroe County is, in effect, residential zoning and does not preserve or promote farming. There is also a great deal of variation in the way municipalities regulate agriculture. Survey respondents (King et al., 1997) indicated that adopting agricultural zoning is one of the most important things towns can do to promote agriculture. Land in agricultural districts, other major areas of farming, land identified in municipal comprehensive plans for agricultural use, areas of high and medium economic viability for farming, areas identified in this plan for farmland preservation, features identified by LESA as supporting retention of agriculture, and other areas identified through meetings with core farmers in the municipalities, initially appear to be the areas to be covered by agricultural zoning.

Recommendations: Monroe County should consider having the Agricultural Program Manager prepare a model agricultural zoning district for consideration by municipalities. The district should be consistent with Article 25AA. Standard definitions and other agricultural-related provisions should be included in the model. Various agricultural zoning concepts should be evaluated for applicability to Monroe County's agriculture industry and, where applicable, should be included in the model.

Upon completion of the County's tax map conversion project in 1999, parcel base maps of each municipality should be prepared which show the location of all agricultural parcels as well as the locations of all of the features supporting retention in agriculture. This map will give a visual perspective on the extent and contiguousness of agricultural land and supporting features and should be used by towns when considering land to be included in the agricultural zoning district.

Natural Features, Public Open Space, Historic Sites, Lands in Conservation Easements, and PDR

Conclusion: Wetlands, floodplains, public open space land, historic sites, lands in conservation easements, and farms involved in PDR programs have been identified by LESA and this plan as features which tend to support retention of agriculture since they limit or restrict nonfarm development or are a compatible use with agriculture. Some of these features also help provide a buffer between farm and nonfarm development, potentially helping to reduce nuisance

complaints from nonfarm neighbors.
Recommendation: Municipalities: when feasible as part of an overall community planning and land development program, take these findings into consideration when zoning land for agricultural use and when identifying land for agricultural use in comprehensive plans to help "round out' areas for agriculture, and help provide a buffer between farm and nonfarm development.

Industrial Development and Agricultural Operations
Conclusions: There was no evidence to suggest that industrial operations are associated with development pressure on farmland. The development of certain types of industrial uses adjacent to farming areas may be compatible with promotion and protection efforts. This has also been found to be the case in other areas of the State, and has been promoted by NYSDAM as a possible preservation strategy.

Recommendation: Municipalities may want to consider zoning lands adjacent to farming and agricultural operations for industrial uses when it makes sense to do so as part of an overall community planning and land development program. As part of this process, an evaluation should be undertaken to determine the most appropriate types of industrial development for these locations (examples of possible uses include storage and warehousing facilities, moving companies, construction equipment and material storage).

Conversion Pressure Model
Conclusion: The statistical model as identified in chapter 8 which includes field crops, agricultural vacant land, truck crops, orchard and small fruit, total vacant land, and population provides a basis for analysis and description of agricultural lands as they relate to development pressure on a municipal level.

Recommendation: Monroe County and municipalities should consider adopting the use and development of this statistical model for both targeting agricultural lands under development pressure and for general planning purposes. The model should be updated annually to reflect data updates from the RPS records. The Agricultural Program Manager could meet with municipal agricultural advisory groups concerning how the model and the information may be most useful regarding farmland protection and promotion.

Right to Farm
Conclusions: There is a compelling need to adopt a right to farm law (RTF). An RTF law sets forth a process to mediate complaints by nonfarm neighbors about farming operations and practices. Article 25AA includes an RTF provision which requires the Commissioner of Agriculture and Markets to resolve disputes but many might be resolved more quickly and less expensively at the local level through local legislation.

The benefit of having a one law at the local level versus several different laws in each municipality would be consistency and uniformity in application of criteria used to evaluate complaints. Other benefits of a RTF law include a show of support for agriculture and a

resolution of complaints at the local level by local people. Resolving complaints at the local level would reduce the number of complaints requiring the Commissioner's action and, consequently, reduce the time frame currently involved to settle these issues. Those unable to be resolved at the local level could still be submitted to the Commissioner for action.

Recommendation: Monroe County should consider evaluating the adoption of an RTF law. Appendix G contains a sample RTF law.

Property Disclosure Notification

Conclusions: Including disclosure notices in multiple listings provides prospective purchasers of property in an agricultural district with the earliest possible notice that the property to be purchased is subject to noise, odors, and dust created by agricultural operations.

Under State law, a person buying property in an agricultural district is to receive a disclosure notice that the property is in an agricultural district and that the property (and its residents) is subject to noise, odors, and dust from agricultural operations. The purpose of the disclosure notice is to provide advance notification of these conditions to prospective property owners in order to minimize nuisance complaints about farming operations by nonfarm neighbors. The State law formerly required the disclosure notice to be provided at the time of closing but through the efforts of Monroe County's AFPB, was amended in 1998 to require the disclosure notice to be provided at the time of purchase offer in order to give more advance notice of agricultural impacts. The Greater Rochester Association of Realtors has suggested the possibility of including the disclosure notice as part of the information required on a multiple listing for a property. This would provide prospective home buyers with the earliest possible notice that a property is in an agricultural district, helping them make an informed decision at the earliest step in the realty process whether to pursue purchase of the property, thereby increasing the chances of minimizing nuisance complaints.

Recommendations: Monroe County AFPB should consider continuing to work with the Greater Rochester Association of Realtors to have disclosure notices included in multiple listings on property for sale in agricultural districts.

Agricultural Characteristics and Trends

Conclusion: Decreases in agricultural acreage and farm operations were significant between 1910 and 1970. During the 1970's, declines slowed and in certain agricultural categories there were gains. Declines appeared again at the beginning of this decade. However, farm income and overall yields tended to increase during both time periods. Hence, farming operations are becoming fewer but larger in terms of acreage and yields. To encourage agriculture as a predominant land use as well as an industry in Monroe County, it is important to ensure that the supply of agricultural lands is not restricted in order to promote agriculture within a municipality.

Recommendation: Municipalities may wish to meet with core farmers in their municipality and determine what land area is necessary to provide for a viable agricultural industry then

incorporate these recommendations into an overall municipal land use program. Data in this plan that presents the acreage and location of agricultural commodities, agricultural districts, and other agriculture-related data may be helpful in this effort. Coordination should take place with adjacent municipalities to help ensure that adequate, suitable land is made available.

Lands Under Conversion Pressure

Conclusion: Single family building permits and property class code changes by town are highly correlated and appear to be the largest share of development activity throughout the county. Consequently, conversion pressure is occurring on farmland in the form of single family homes.

Recommendation: To protect farmland from this pressure, municipalities should give consideration to developing land use policy that is targeted toward managing such development.

Development and Agricultural Lands

Conclusion: The results of the analysis of RPS data suggests that a large portion of agriculture in the County is associated with a large land base. Also, the positive association between property class code changes with field crops, agricultural vacant land, and truck crop land indicates that this land is being converted for development. Generally, towns with small acreage in field crops, agricultural vacant land, and truck crops are more likely to have property class code conversions than towns with large acreage.

Recommendation: Since field crop land, agricultural vacant land, and truck crop land tend to be under the most conversion pressure, it may be desirable to focus protection and preservation efforts on these lands.

Population

Conclusion: Total population is associated with property class code conversions. Population is proportionally related to development; larger populations will likely have greater property class code conversions.

Recommendation: Municipalities containing agricultural districts, other major farming areas, and comprehensive plans promoting agriculture should consider continuing to use population projections in planning programs. Where projections indicate an increase, the data should be used to help determine areas of future residential growth. Comparing current population to current property class code changes in the different class code categories will yield a ratio of the number of people to a property class code change. Thus, a municipality could get a general indication of how many property class code changes may occur in each category based on the projected population. The population and class code change projections could then be used in land use planning and policy. Analysis of total population and its impact on agricultural lands may provide insight as to the likelihood, magnitude, and location in which agricultural land may be converted to development.

V. Economic Development/Viability/Marketing

Taxes

Conclusions: Taxes have long been a major concern of farmers. Taxes were a major concern in 1971 based on a survey of farmers, and they remain a major concern of farmers based on the farmer and farmland owner survey done in 1996 (King et al., 1997) as part of this plan. Thus, little has been done in the intervening time period to address the concerns. Reducing these "carrying costs" of holding agricultural lands may encourage the use of such lands in an agricultural pursuit and help discourage the selling off of land to pay taxes.

When asked in the 1996 survey what the three most important things towns, the County, and the State can do to promote agriculture, providing tax incentives was first for towns and second for the County, and converting the property tax to an income tax and eliminating the estate tax were first and second for the State.

In 1997, the State Legislature enacted the Farmer's School Tax Credit which permits qualified farmers and qualified land owned by farmers to receive a State income tax credit for paid school taxes. Also, the State Legislature enacted the School Tax Relief (STAR) program which offers a $50,000 homestead exemption to qualifying senior citizens and a $30,000 exemption to all other qualified farm and nonfarm homeowners.

Organizations such as the Monroe County Farm Bureau and the American Farm Bureau Federation have been working on revisions to Federal and State estate, gift, and capital gains taxes which affect not only agriculture but all other businesses and industries as well. In 1997, State estate taxes were reduced to the Federal level, and efforts were underway to further reduce the Federal level.

Recommendations: Monroe County Farm Bureau, New York Farm Bureau, and the American Farm Bureau Federation should consider the following:

- Continue efforts to revise estate, gift, and capital gains taxes;
- Enlist support for changes from other sectors of the economy adversely affected by these taxes;
- Recommend to the State that the Farmer's School Tax Credit be applied to land rented by farmers as agricultural district data indicate that almost as much land is rented by farmers for production as is owned by farmers for production. Thus, rented land is very important to the local agriculture industry and extending the School Tax Credit to rented land may increase the chances that the land will remain in farming;
- Urge the State to continue to seek ways to more equitably finance public school education as, currently, school taxes are the largest portion of property taxes;
- Seek other tax revisions from Federal, State, and local taxing jurisdictions; and
- Consider requesting support for the tax revision program from the Monroe County Legislature, Town Supervisors Association, and Association of Village Mayors.

The County Administration and County Legislature may wish to consider continuing the policy, which has been in effect for the past seven years, of not increasing County property taxes.

Special Assessment Districts
Conclusion: Taxes can be reduced if special assessment districts use the agricultural assessment when assessing land used in agricultural production for improvements.

Fire, fire protection, and ambulance districts may use the agricultural assessment value established in Article 25AA for purposes of assessing land used in agricultural production for improvements. By doing so, these special districts will help reduce farm operating expenses.

Recommendation: If not already doing so, fire, fire protection, and ambulance districts should consider using the agricultural assessment values when assessing land use in agricultural production for district improvements.

Financial Assistance Programs
Conclusion: Several economic development agencies and programs are not structured to serve the needs of agriculture.

A limited number of agencies such as Farm Service Agency (FSA), Small Business Administration SBA), and Farm Credit (FC) have several programs specifically designed to provide financial assistance to farmers for such purposes as land and equipment purchase, and to help farmers meet operating expenses. Programs available through Monroe County, the Genesee/Finger Lakes Regional Planning Council, Empire State Development, and Rural Opportunities Enterprise Center, Inc., list guidelines and eligibility in order to receive assistance. However, most of these programs are generally geared to assisting manufacturing operations and link assistance to job creation and retention, have a minimum dollar amount that must be borrowed that often exceeds the amount needed by a farmer, or limits loan availability to projects in communities below a specified population threshold.

Recommendations: Agencies with programs which are not directly focused on agriculture should consider broadening programs, or establishing new programs, to include agriculture. Farmers need to be made aware of the programs. Programs should be monitored and revised when necessary to insure that they help meet the economic development assistance needs of the agricultural community.

Labor
Conclusions: Farmers rely on the availability of migrant labor to assist them during planting and harvest seasons. Migrant laborers are well trained in the tasks farmers need to have performed by laborers. Farmers have lost migrant labor at the most critical times of the year as a result of Immigration and Naturalization Service (INS) enforcement.

Recent Federal legislation now permits farmers to hire immigrants regardless of legal status for a specific period of time after which they must return home. This program is known as the Guest Worker Program (also referred to as the H2A program). However, in order to have adequate, trained labor, farmers must turn to developing a local labor supply. Training, though, is time consuming, and farmers cannot afford to devote time to training at planting or harvest times.

Recommendation: Monroe County and municipalities: consider supporting efforts to improve the Guest Worker Program, and, if such programs are feasible, support development of local programs to help increase the supply of trained local labor, all for the purpose of helping to ensure that farmers have an adequate labor supply.

Population, Technology, and Expansion of the Agricultural Industry

Conclusion: Dense and growing populations increase the demand for agricultural products. In addition, such populations have significant infrastructures (roads, sewer, etc.) to serve their needs. Also, the per capita costs associated with establishing and maintaining a strong infrastructure in urban areas are much lower than in rural areas. A strong infrastructure encourages technological and scientific changes in a local agricultural economy, thus, encouraging further investments in land, labor, and capital.

Recommendation: From both an economic development and open space perspective, increases in population size could actually encourage an expansion of the agricultural economy as well as secure open space through the use of agricultural vacant land. Therefore, encourage private sector initiatives and market analysis which would help the agriculture industry expand to meet the food supply demands of the local population and which encourages the purchase of local products.

Cost of Community Services

Conclusions: Farmland, commercial, and industrial development generally pay more in taxes than it costs a municipality to provide municipal services to these major types of land use. The opposite appears to be true for residential development.

Cost of community services studies are designed to determine how much revenue (taxes) is paid by various land uses versus what the municipal costs are to serve the land use. Four studies were reviewed: Town of Pittsford, Town of Ontario in Wayne County, the Towns of Beekman and North East in Dutchess County, and the Towns of Fabius and Manlius in Onondaga County. The results of these studies tend to indicate that costs of municipal and educational services required by residential development exceed the revenue generated by such development while the opposite is true for farms, commercial, and industrial development (a hypothetical example would be for every $1 paid in taxes on residential development, it costs $1.50 to provide municipal services to residential development; for every $1 paid in taxes on farmland, it costs $.50 to provide municipal services to farmland).

The Town of Pittsford and Dutchess County studies recommend that the results of such studies be used in land use planning in an attempt to provide for a more balanced tax base.

None of these studies appear to have taken into account the multiplier effect of each major land use category, and multiplier effects may affect results. For example, residential development generates demand for business and commercial services, which generally “pay their way” but

this fact is not accounted for when determining municipal revenues derived from and municipal costs attributed to residential development.

Recommendations: Consideration should be given to urging NYSDAM to assess the feasibility of including multiplier effects of the major land use categories included in such studies in order to arrive at a "net" cost of services for each category which can be used for land use planning purposes.

Municipalities may wish to consider assessing the benefits of conducting their own cost of services study to determine the association between revenue and costs for different land uses. Before doing so, municipalities may wish to wait to see if a methodology can be developed which includes multiplier effects. At the minimum, it may be advisable to contact one or more municipalities that have completed studies to see how they have used the findings and what the results have been.

Agricultural Districts Benefits

Conclusion: While agricultural districts help retain farming, expanding district benefits may encourage additional agricultural landowners to participate in the program.

Recommendation: NYSDAM should consider evaluating the effectiveness of the existing benefits in Article 25AA to see if they could be improved, and evaluate others for possible addition to the law. Possible revisions to consider include: eliminating the acreage and income criteria currently required for an agricultural assessment value so that all farms are eligible for the preferential assessment, requiring a one time application for the agricultural assessment value unless the amount of land under assessment changes, and more precise definitions of what is considered support land (ie., what's eligible and what's not) to ensure more consistent application of agricultural assessment benefits from town to town.

"Locally Grown" Labeling

Conclusions: Agricultural products carrying labels identifying them as "locally grown" may help promote sales of local products.

Cornell Cooperative Extension-Genesee County is working on a project to develop a campaign and a label to promote agricultural products produced in Western New York. Therefore, rather than create a label and program for Monroe County products exclusively, it would be more beneficial and less confusing to consumers if there was just one program.

Recommendation: Cornell Cooperative Extension-Monroe County should assist Cornell Cooperative Extension-Genesee County in developing a "buy local" label program and campaign involving Western New York counties.

Agri-tourism

Conclusion: Agri-tourism could help promote the County's agriculture industry.

Several Monroe county farms are currently listed in New York Seaway Trail, Inc. publications as places Seaway Trail travelers can visit to see agricultural history and sample Monroe County products. Additionally, in response to a growing interest in agri-tourism, the College of Agriculture at Cornell is offering a program on "Enterprise and Entrepreneurship" to teach about ways for farmers to add value to their operation. Agri-tourism appears to be most successful on farms located near urban and suburban consumers. Thus, agri-tourism would seem to be worth pursuing in Monroe County.

Also, tourists and visitors to the Monroe County area have told the Greater Rochester Visitors Association of their interest in visiting local farms.

Recommendation: Monroe County: consider evaluating the development of an agri-tourism program. Resources to tap in conducting the evaluation are other counties that have established programs, the College of Agriculture at Cornell University which offers the program on Enterprise and Entrepreneurship which is related to agri-tourism, and the Greater Rochester Visitors Association, the Resource Conservation and Development Council, and the Seaway Trail, Inc.

Niche Markets

Conclusion: The Monroe County Farm Bureau and Cornell Cooperative Extension-Monroe County have identified a need for a greenhouse specialist to improve the economic viability of the vegetable and fruit industry, helping to increase the profit per acre. Greenhouse operations are increasing. However, operators here appear to seek advice from Ohio and Canada and also face stiff competition from greenhouse industries in Ohio and Canada.

Recommendations: In conjunction with the Monroe County Planning and Development Department's Economic Development Division , Cornell Cooperative Extension-Monroe County should complete the greenhouse marketing feasibility study to support the greenhouse specialist position, and fill the position by April 1, 1999 to provide the services needed by Monroe County's greenhouse industry.

The specialist should provide education, technical assistance, and researched-based information on environmental issues, business management, and other activities which improve the economic position of this sector of agriculture. The specialist should also help farmers, especially field crop and truck crop farmers, enter the greenhouse sector as a way to increase their opportunity for profitability in farming.

Cornell Cooperative Extension-Monroe County: work with the agricultural community to increase the profits per acre and the overall economic viability of the vegetable and fruit industry as well as increase the potential for niche markets.

Orchard/Small Fruit/Vegetables

Conclusion: Orchard, small fruit, and vegetables may prove to be highly desirable crops in terms of potential profit that can be generated on a per acre basis. By converting field crop and

agricultural vacant lands to these crops, the "large" opportunity costs associated with development may be significantly reduced, thus, helping to reduce conversion of agricultural lands to development.

Recommendation: Cornell Cooperative Extension-Monroe County and Monroe County Farm Bureau: take the lead to establish both economic and educational programs for encouraging the conversion of field crop and agricultural vacant lands to nursery, orchard, small fruit, and vegetable farming operations through the County. Maintain and consider increasing incentives and favorable policy to existing vegetable and fruit operations.

Organic Farming

Conclusion: Organic farming may also prove to be a niche market for continuing the use of agricultural lands in farming. This is a significant and growing sector of the agriculture industry. Such operations may thwart development pressure since consumer desire and loyalty to organic crops has been reported to be well established.

Recommendations: Cornell Cooperative Extension-Monroe County: take the lead in providing access to economic and educational programs for encouraging organic farms.

Government: consider maintaining and increasing incentives and favorable policy to existing organic farm operations.

Property Class Code Changes and Agricultural Lands

Conclusion: Property class code changes and the construction of new single family homes are just as likely to occur in any town. Therefore, it is just as likely that any town will experience development pressure. The east side of Monroe County (east of the Genesee River) is heavily developed as evidenced by lack of agricultural acreage and the presence of infrastructure. The land on the east side of the County is primarily field crops and agricultural vacant land and, as suggested by correlation and regression analysis, the most likely to be developed of any of the agricultural class codes. The opportunity costs of the land are reflected in assessed values and suggest that farmers are making a rational economic choice of putting their land in development based on the economic returns from such operations.

Recommendation: Field crops tend to be the lowest value operation as far as commodities go in Monroe County. In order to discourage the trend of selling land into development, the opportunity cost for keeping this land in agriculture must be raised. This can be done by switching operations to vegetable and fruit operations that promise to have higher value crops. The capital required for switching over might possibly come from a government sponsored program. The training could come from Cornell Cooperative Extension-Monroe County and agri-business. This would be a rational choice since previous Federal government market intervention effectively distorted the field crop industry and effectively generated excess capacity. In essence, the monies derived by a farm family from a government program could be used for investment into higher value production practices.

Coordinate Planning Efforts with Agriculture-related Agencies
Conclusion: The Farm Service Agency, Natural Resources Conservation Service, and the County's Soil and Water Conservation District play a significant role in helping to preserve farmland and promoting the agriculture industry through the use of technical assistance. They provide a variety of services including ones focused on maintaining and improving the environment and resources critical to the continued viability of farming, and assistance to farmers who apply for agricultural assessment values.

Recommendation: Coordinate farmland protection and agricultural promotion efforts undertaken as part of this plan's implementation with these agencies, and include them in the plan update process.

Agricultural Assessments
Conclusion: Assessing farmland based on its value for agricultural production increases its opportunity costs in farming which increases the chances that the land will remain in farming and not be converted to a nonfarm use.

Recommendation: The Monroe County Soil and Water Conservation District should continue to provide technical support and assistance to farmland owners on preparing agricultural land assessments and maintaining viable agricultural enterprises.

VI. Education

Agricultural Education, Farm and Nonfarm
Conclusion**:** Education provides a critical component in the preservation of farmland and promotion of the agriculture industry. The following points highlight the need for agricultural education and awareness in Monroe County:

- The public is generally unaware of the environmental and economic benefits of agriculture, why agriculture operates the way it does, and what will happen if it ceases to be an industry in Monroe County.
- Farmers and farmland owners need to be made more aware of the benefits and regulations of the agricultural districts program and the agricultural assessment value program.
- Farmers need assistance on estate and business planning in order to provide for intergenerational transfer of farms and to maintain economically viable operations.
- More classroom education on agriculture is needed, which, if provided, would promote awareness and perhaps generate interest in agriculture as a career.
- More research is needed to help farmers compete with other areas and to provide them with the most current methods of conducting farming operations and growing crops.
- Efforts to preserve and promote agriculture should be made known to community residents by municipal officials.

Recommendations**:**

Cornell Cooperative Extension-Monroe County and Monroe County Farm Bureau: these two organizations were identified by survey respondents as the top two organizations for education regarding farming. Cornell Cooperative Extension-Monroe County and Farm Bureau should consider developing and offering educational programs on the following topics on an annual basis and, as much as possible, programs directed at farmers should be offered at the time of year that is most convenient for them -- after fall harvest and before spring planting.

Agriculture Awareness. A coordinated, integrated educational program should be developed to inform and increase the awareness of County and municipal officials and the general public regarding the overall environmental and economic benefits (including municipal tax benefits) of the agriculture industry. Additional benefits of an awareness program could include: (1) a better understanding on the part of nonfarmers of why it is important for farmers to conduct various activities, potentially leading to a better understanding of the needs of farming and a reduction in nuisance complaints; and (2) an increased awareness of the level of specialization and sophistication characterized by today's agriculture -- which has evolved into a highly scientific, research-based industry -- and the expertise, knowledge, and education required of today's farmers to successfully operate in this highly competitive industry.

Foster Relations with the Environmental Community. Maintaining environmental quality and proper use of environmental resources are important to both the agricultural community and the environmental community. Such a program could increase each group's awareness of the other group's environmental program and encourage agriculture and environmental groups to work together to achieve common objectives.

Compatible Highway Development. Farmers depend on highways for movement of goods and equipment. Farmers are also impacted by highway development. Highway improvements and development should take into consideration the needs of farming. This program could be targeted to municipal, County, and State highway officials and municipal planning boards, and address such matters as notifying farmers of proposed highway projects and meeting with them at the preliminary design stage when changes can be made; adequate road widths and adequate bridge widths and strength to accommodate today's large farm equipment; highway signs to indicate presence of slow moving farm vehicles; the need to consider farm field drainage patterns and tiling when

designing, constructing, and cleaning roadside drainage ditches; and the need for access from the highway to farm fields.

Good Neighbor Relations. It is just as important for farmers to be considerate of neighbors as it is for neighbors to understand the needs of farming. A program should be offered which provides advice on what farmers can do to be good neighbors. Being a good neighbor may help to reduce nonfarm neighbor complaints and increase nonfarm neighbor understanding of the need for and timing of certain farming operations. Good neighbor relations can go a long way in helping to make farming successful.

Farmland Preservation Techniques. Provide education for municipal officials, farmers, and landowners that rent land to farmers about the various techniques that are listed in this plan to preserve farmland. This could be offered prior to any efforts to develop agricultural zoning or the implementation of other preservation techniques to help insure a good understanding of these measures in order to increase the potential for municipal adoption of the techniques. The program could include representatives from such organizations as the Genesee Land Trust, Mendon Foundation, the Finger Lakes Land Trust, American Farmland Trust, and other nonprofit organizations to describe what they can do to help preserve farming.

Agricultural Districts and Agricultural Assessments Programs. Survey results (King et al., 1997) indicated that the primary reason farmers joined an agricultural district was to reduce property taxes. However, district membership does not automatically reduce property taxes. Farmland must qualify for agricultural assessments, and the land does not have to be in a district to qualify. Thus, it appears that farmers are not well informed about the differences between agricultural districts and agricultural assessments programs. This educational effort needs to address the benefits of and differences between the two programs.

Estate and Business Planning. The fact that over 70 percent of the survey respondents were unsure whether a family member would continue farming the land while 66 percent said they would not sell their land for more than it was worth in farming (King et al., 1997), indicates a lack of long range estate planning on the part of the farmers who want to see their land remain in farming. Additionally, Federal agriculture price supports will be phased out by 2002 (chapter 1), requiring farmers to be better business managers than was the case with price supports. Ideally, it would be most beneficial if knowledgeable, local experts that the farm community is familiar with were used to present information on these subjects.

Economic Development. Representatives of local and State economic development agencies could describe the economic development programs available to the agriculture industry.

Cornell Cooperative Extension-Monroe County: consider expanding educational programming in the areas of agriculture in the classroom and agricultural education for youth. As appropriate, coordinate programming efforts with the agricultural literacy curriculum being developed as a statewide pilot program for middle school students by the Cayuga Nature Center in Ithaca and the New York Sustainable Agriculture Working Group in Rochester. Provide more in-depth programming in the commodity areas addressed by the regional teams.

Also, consider continuing to participate on vegetable, fruit, and dairy regional teams which provide education on insect disease, weed management, cultivar and seed selection, production practices, integrated pest management practices, soil and water conservation practices,

harvesting, and handling and marketing of products. Continue to provide assistance on other agriculture-related matters such as zoning, road construction, education for elected and appointed officials, and water quality through membership on the County's Water Quality Coordinating Committee.

Cornell University: provide more in-depth research in the commodity areas addressed by the University and the agricultural experiment stations.

Monroe County Soil and Water Conservation District: consider continuing to offer resource conservation and management education to the youth of Monroe County.

The District should also consider continuing to provide assistance on such programs as the Conservation Reserve Program, Wetland Reserve Program, Wildlife Habitat Improvement Program, and Agricultural Environmental Management, and technical assistance on contouring, grading, grass waterways, stormwater management, and ways to minimize soil erosion and nonpoint source pollution to waterways.

Municipalities with Land in Agricultural Districts, Other Major Farming Areas and with Comprehensive Plans Promoting Agriculture: consider undertaking the following programs as part of the overall agricultural education program:

> Inform Community Residents, Farmers of Municipal Activities and Programs Related to Farmland Preservation. Almost one-half of the survey respondents stated they were unaware of whether their municipality was conducting any activities to promote agriculture. Municipal officials could develop programs to educate farmers and other community residents on what the municipality is or plans to do to promote agriculture. Consider "packaging" techniques into a coordinated, proactive program to preserve farmland and promote the agriculture industry and inform the farmers and other community residents about the program.
>
> Promote Agriculture and Public Awareness of the Presence of Agriculture. Help make the general public aware that active farming takes place and is promoted in the town by placing signs at municipal boundaries which note that "Agriculture is Welcome Here," or "An Agriculture-Friendly Community." The Town Supervisors Association and the Farm Bureau might be appropriate partners to develop a uniform slogan to be used by all municipalities. Monroe County may be able to assist with sign preparation and installation.
>
> Encourage Assessors to Attend Education and Training Programs Related to Agriculture Assessments. Almost 50 percent of the farmer survey respondents (King et al., 1997) indicated a need for more equitable assessment practices. The New York State Assessor's Association holds the annual Institute of Assessing Officials which provides training on appraising and related topics. A variety of courses are offered that relate to agriculture such as agricultural economics, land appraisal, and assessment

methodologies. Education may facilitate more uniform assessments applied to land eligible for assessment value under Article 25AA.

Municipalities, Monroe County, and Monroe County Farm Bureau: consider supporting efforts to develop training opportunities for assessors to improve agriculture-related assessment practices.

Monroe County in Cooperation with Cornell Cooperative Extension-Monroe County: consider expanding educational opportunities at the County-owned Springdale Farm as the County's agricultural education center. Provide family and school programs to promote the importance of agriculture, to educate about agriculture practices and where our food comes from. The facility could also provide information and encourage interest in agricultural careers. At a minimum, the agriculture education display materials at the facility should be updated and expanded.

VII. Database Maintenance & Development

Baseline Data Set

Conclusion: A baseline database for agricultural planning and programming purposes has been established by the County's Planning and Development Department with assistance from Cornell Cooperative Extension-Monroe County as part of the effort to prepare this plan. The database includes: number, location, acreage, and type (commodity) of agricultural parcels by town; location and acreage of farmland in agricultural districts by town that is under conversion pressure; land value per acre of farmland by town; the location and acreage of parcels under conservation and farming easements by town; the location of land in PDR by town; and the number, type, and location of property class code changes by town. Prior to this, no such database for agricultural planning purposes existed at the County or municipal level. Now that it has been established, it is important that this database be maintained, updated, and augmented so that it can be used in continuing agricultural planning and programming. The database should also be made available to all municipalities.

Recommendation: The Agricultural Program Manager should maintain and continue to develop the comprehensive agricultural planning and programming database that contains all of the data needed to update this plan and to determine local agricultural industry trends. The list of data required from RPTS should be coordinated with the Director of RPTS to identify the best time to obtain the data as various types of data are submitted to RPTS by municipal assessors at different times throughout the year. The information should then be obtained at the same time each year in order for it to be used for comparison purposes. Data obtained from RPTS should include property class code change data and Assessor's Annual Report data related to parcel subdivisions. All data should be obtained at least on an annual basis so that time series analyses can be conducted to determine trends in the local agriculture industry.

On a periodic basis, towns could receive an "agricultural data update." The report would be

prepared on a town basis and could include number of parcels and acreage by commodity and number of property class code changes by type and location, and all of this information could be placed on a tax parcel base map. Towns could add data to this such as assessed values; location of new residential, commercial, and industrial development based on issued building permits; infrastructure development; and other available data that is periodically collected by each town. This data could then be used for planning and administrative purposes at the municipal level.

RPS Data

Conclusion: The RPS database is a useful tool for agricultural as well as general land use planning purposes.

The RPS data collection and management system was designed for tax assessment and record keeping purposes versus land use planning purposes. However, it does include many of the characteristics of parcels that are useful in land use planning. It is also a uniform database in that the same information is provided for all municipalities and tax parcels. The records are also automated, updated periodically, and accessible by computer. For these reasons, this database was used in this planning effort to provide data related to agricultural planning on a county and municipal basis.

Recommendation: RPS data should continue to be used as part of the database for agricultural planning purposes and should also be used for general land use planning purpose.

LESA

Conclusion: Although attempts in the 1970's to implement a LESA system in Monroe County were abandoned, the use of the LESA methodology, when combined with economic theory, provides an exemplary template to describe agriculture and identify lands under development pressure. Using the RPS data, key variables yield a common ground for discussing agriculture both on a town level as well as on a countywide level.

Recommendation: There has been a long time need to provide a common ground among municipalities in order to plan and document agricultural activities. LESA provides an adequate methodology and the RPS records capture the necessary data to do this. The Agricultural Program Manager should continue to use this template to help with planning, taxes, and economic issues related to agriculture at both the town and County level.

Shopping Centers

Conclusion: Even though not included in the overall regression model, statistical analysis did suggest that agricultural lands within a mile of a shopping center were associated with property class code changes. This may suggest that such lands are under development pressure.

Recommendation: This finding is based on one year’s data. Therefore, the Agricultural Program Manager and municipalities may wish to consider tracking the establishment and major expansions of shopping centers over time in areas near agriculture to see if this is indeed the case in order to determine the usefulness of this data for agricultural planning purposes.

Industrial Operations, Public Sanitary Sewer, and Arterial Roads and Interchanges
Conclusion: Statistical analysis (chapter 8) did not indicate that industrial operations, sewers, and arterial roads and interchanges were significant factors in describing property class code changes.

The findings regarding industrial operations may indicate that industrial development does not, as suggested by LESA, create conversion pressure on farmland. Locating certain types of industrial uses near farming may prove to be compatible nonfarm uses with farming.

The findings regarding sewer and highways are contrary to popular belief as noted in chapter 3, that sewers and highways are primary causes of development. The analysis suggests that development is just as likely to occur in other areas as it is to occur within or adjacent to where these features exist; thus, these features do not create disproportionate development pressure. With regard to sewers, they may have attracted development during the era of Federal and State subsidies for establishing sewers but today, these subsidies are not as prevalent or no longer exist. Therefore, it may be the case that, today, sewers are installed after a given level of development has occurred which can support the installation, operation, and maintenance costs.

Recommendation: These findings are based on one year's data. As with shopping center development, the Agricultural Program Manager should track property class code changes by sewer areas and arterials and interchanges and conduct time series analyses in an attempt to provide more evidence in support of these conclusions. Future analysis might also track the location and type of building permits to see how this data relates to the findings in this plan.

Assessed Values and Average Median Family Income per Census Tract
Conclusions: Towns on the east side of Monroe County (east of the Genesee River) tend to have higher assessed agricultural land values than do towns on the west side. The reason for these higher assessed values may result from the development and infrastructure associated with these towns as well as the opportunity costs of agricultural land in development. There is evidence to suggest that a large disparity exists between higher assessed agricultural land values of "small agricultural acreage" towns versus significantly lower assessed agricultural land values of "large agricultural acreage" towns. Residential development also appears to be associated with average median family income per census tract. Higher average median family incomes per census tract are found in towns east of the River versus towns west of the River.

Average median family income per census tract may be a key variable in identifying the nature of the type of development that occurs. Higher assessed values coincide with higher average median family incomes within towns; therefore, protection and profitability policy could be structured to account for these key variables when identifying trends in development.

Also, assessed values do not appear to reflect agricultural output value. Lands with higher assessed values tended to be field crop land and agricultural vacant land which have low agricultural output value. Therefore, development pressure will continue on such lands as the

opportunity costs in development are much higher than they are in the manner in which these lands are currently used.

Recommendation: These results are based on one year's data. Information on these variables should be obtained and analyzed for a period of years to conduct time series analyses to see if the data is useful for land use planning purposes.

School Districts

Conclusion: The analysis of the perceived quality of school districts indicates that there is a weak relationship between school district rank and single family building permits and an even weaker and inverse relationship between school district rank and property class code changes. Thus, the perceived quality of a school district as a determining factor as to where new single family homes and nonresidential development will occur does not appear to be a determining factor for measuring development pressure.

Recommendation: These conclusions are based on one year's data. Therefore, data on school districts should be obtained and analyzed for a period of years in order to conduct time series analyses to determine if the perceived quality of school districts is or is not a significant indicator of development pressure for purposes of targeting lands for agricultural protection.

Digitize Soil Survey Maps

Conclusion: The results of the soils analysis for seven towns indicated that the best soils for farming -- the best soils in both the Class I and Class II soils -- are being used for field crops and truck crops or are agricultural vacant land, and the regression analysis indicated that field crop land, agricultural vacant land, and truck crop land are the most likely to be converted to nonfarm uses.

Recommendation: Complete the digitization of the soil survey maps for all remaining towns in order to continue the analysis of lands converted to development.

Agricultural Parcels with Changing Class Codes

Conclusion: The analysis of property class code changes indicated that the Towns of Chili, Henrietta, Perinton, and Wheatland were the towns in which agriculture parcels changed from one type of agriculture to another type of agriculture, from agriculture to vacant land, and from vacant land to agriculture. These towns are located together in the southern part of the County and are contiguous except for Perinton which is one town removed.

Recommendation: The Agricultural Program Manager may wish to conduct a study to determine what is unique about these towns such that they are virtually the only ones in which these changes occurred. The findings may be useful for making recommendations concerning agricultural land use and preservation.

The Land Development Sequence

Conclusion: There may be a progression or sequence occurring on a countywide basis where

land is converted from agriculture to vacant land then to development.
Recommendation: This finding is based on one year's worth of data. The Agricultural Program Manager should collect this data for a period of years to conduct time series analyses to see if it bears out this finding and then determine its further usefulness in agricultural planning efforts.

Land Going Out of Agriculture
Conclusion: The analysis of property class code changes indicated that in 1997, 19 parcels changed from agriculture to a nonagricultural use. This number may be low as the RPS data file used for the analysis was "initialized" or updated before it was obtained for this analysis. Initialization removes the "parent" parcel class codes, leaving only the class codes of the parcels subdivided from the parent parcel. Data in municipal Assessors's Annual Reports identify the property class code of the "parent" parcel and the codes of all parcels divided from it, and are the only remaining source of this information for 1997.

Recommendations: The Agricultural Program Manager should consider compiling data from municipal Assessor's Annual Reports to verify how many parcels changed from farming to a nonfarm use in 1997 and to identify the extent, location, and purposes for which farmland is changing to nonfarm uses.

Obtain RPS reports on property class code changes prior to the end of each calendar year before the RPS file is initialized as this data includes the class codes of parent parcels along with the class codes of parcels subdivided from the parent parcel. Determine the usefulness of this information to future agricultural planning efforts.

Chapter 10
Compliance with Article 25AAA

Section 324 of Article 25AAA of the Agriculture and Markets Law, titled Agricultural and Farmland Protection Plans, lists elements that must be addressed by farmland protection plans. The following presents a response to each of the elements for the purpose of complying with Article 25AAA.

1. The location of any land or areas proposed to be protected.

This plan recommends that the farmed land in the County's agricultural districts be the focus of land preservation efforts for the following reasons:

- The County already supports farming in these areas through its action to renew each district each time it comes up for review.
- The municipalities in which the districts are located have indicated support for the continuation of the districts at renewal time, and identify these areas for agriculture in their comprehensive plans.
- Each district review has resulted in a net increase in the district's acreage, and the increase has been land owned by farmers or by landowners who rent land to farmers.
- Districts contain 73 percent of the agricultural parcels in the County, or 81,507 acres, and most of the area identified as having high to medium viability for farming.
- While acres farmed and cropped have declined county wide (chapter 3), in the districts, overall total acres, acres cropped, acres in farms, acres owned and rented by farmers, farms with gross sales of $100,000 or more, farms with capital investments of $100,000 or more all increased between each district's most recent review and previous review, indicating an interest by farmers and landowners in preserving farming.
- The regression model (chapter 8) identified field crop land, agricultural vacant land, and truck crop land as the farmland subject to the most conversion pressure. Seventy-six percent of the field crop acreage, 73 percent of the agricultural vacant acreage, and 63 percent of the truck crop acreage is located in the districts. Thus, the majority of farmland under conversion pressure is located in agricultural districts. Additionally, this land represents 86 percent (70,478 acres) of all farmland in agricultural districts, indicating the majority of farmland in agricultural districts is under the most conversion pressure.
- Descriptive analysis (chapter 8) has indicated that Class I and the leading Class II soils -- the most productive farming soils -- are much more frequently converted to nonfarm use outside of districts than in districts.

For these reasons, and to reinforce the benefits already provided to farming by the districts, this plan recommends that PDR, agricultural zoning, conservation easements, and all other techniques and programs to preserve land and promote the profitability of agriculture be initially focused on agriculture in the agricultural districts. However, farmers and farmland owners outside of districts wishing to participate in any aspect of the program should be able to do so upon request. Additionally, farmers and farmland owners outside of districts, especially those

with land containing Class I and the leading Class II soils, should be encouraged to join a district.

2. Value to the agricultural economy of the County.

The agricultural lands and operations in the agricultural districts are important to the County's agricultural economy. Since 73 percent of the total agricultural land in the County is in districts, it is estimated that a similar percentage of the gross annual sales generated by agriculture, and a similar percentage of agriculture's total economic multiplier are the result of farming operations in agricultural districts. These figures amount to $30,295,000 in annual gross sales and $94,440,000 in total economic impact, respectively. Similarly, 73 percent of the estimated employment in agriculture can be tied either directly or indirectly to farming in the districts -- 2,070 full time and 730 part time employees. Additionally, the districts contain most of the land that has been identified as having a high to medium economic viability for farming.

3. Open space value.

The 81,507 acres of agricultural land in the districts (almost 20 percent of the County's total area), including the 70,478 acres under the most conversion pressure, represent 73 percent of the open space provided by farming operations in Monroe County. This land contributes greatly to the scenic, pastoral, and historic landscapes in the County and to the rural character that is enjoyed by all residents of the County. These lands provide for wildlife habitat, and contain floodplains, wetlands, and woodlots which are important to the overall environmental quality of the County.

4. Consequences of possible conversion.

The consequences of possible conversion are: the loss of jobs and an adverse impact on the County's economy; a loss of a significant portion of the fresh market produce that is currently available to the County's urban population; a potential increase in prices of certain foods; a loss of open space, wildlife habitat, and a possible reduction in and/or adverse impact to environmental features such as floodplains, wetlands, and woodlots; a loss of scenic and historic landscapes; and a loss of the County's rural character and a way of life. Conversion to nonfarm development may also result in increased taxes to pay for infrastructure and services required by the nonfarm development, and in an increase in nonfarm neighbor complaints which sometimes may pressure farmers to take land out of production.

5. Level of conversion pressure on the lands or areas proposed to be protected.

Projections indicate that the County will experience about a one percent increase in population during each of the ten year periods until 2030. Most of the increase is projected to occur in the towns containing agricultural districts. Additionally, based on the review of land use patterns during district reviews, much of the conversion that has and continues to occur is single family road frontage development and, to a lesser extent, subdivisions scattered throughout the farming

community. This scattered development pattern may pose detrimental effects on developing and maintaining the large, contiguous areas of farming that are necessary in order to maintain its viability. And, it can also lead to nonfarm neighbor complaints and their resulting consequences. Thus, although population projections are low, the increases are mainly expected in the farming communities. Further, the projections represent the type of development (residential) which most often comes in conflict with farming operations.

6. A description of the activities, programs and strategies intended to be used by the County to promote continued agricultural use.

Chapter 9 presents the recommendations that should be implemented to help retain farmland and improve the economic viability of agriculture. It will require commitment, compromise, and partnership to achieve the plan's goals of preserving farmland and promoting the agricultural industry, not just on the part of those who are identified in chapter 9 as being primarily responsible for implementation but on the part of the entire community.

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