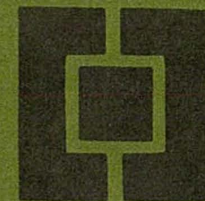


FARMING IN MONROE COUNTY

PROBLEMS AND PROSPECTS



MONROE COUNTY COMPREHENSIVE PLAN

FARMING IN MONROE COUNTY

Problems and Prospects

November, 1972

**Monroe County Planning Council
301 County Office Building
39 West Main Street
Rochester, New York 14614**

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Monroe County Comprehensive Plan Phase II and III

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MONROE COUNTY PLANNING COUNCIL

ROBERT J. GUSTAFSON CHAIRMAN
WILLIAM E. UPTEGROVE DIRECTOR OF PLANNING

January 30, 1973

Mr. Richard Wiebe, Director
Office of Planning Services
488 Broadway
Albany, New York 12207

Dear Mr. Wiebe:

We are transmitting herewith the final report *Farming in Monroe County: Problems and Prospects* as evidence of completion of contract work under the Comprehensive Planning Assistance Program.

The report entails an analysis of the nature of the farm land use problem in Monroe County and sets forth basic directions for dealing with this problem. We feel that the study provides a sound technical basis for the design of planning policies concerning the future use of our farmland.

We appreciate the cooperation of the State Office of Planning Services throughout our comprehensive planning program.

Sincerely,

WILLIAM E. UPTEGROVE
DIRECTOR

WEU:RBD:dab

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SUMMARY

This report examines problems in maintaining farming in Monroe County and sets forth general directions for the development of public policies which deal with these problems. Its purpose is to provide an informational basis for the design of specific policies on farm land use, a task to be taken up in a later report.

The major findings are as follows:

1. Monroe County contains some of the best land resources for farming in New York State, and these resources are capable of sustaining highly productive farming for the indefinite future.
2. Despite the high quality of its land resources, farmland in Monroe County has gone out of production much more rapidly than it has gone into urban uses. This process has resulted in the retirement from farming of approximately 121,000 acres (almost one-third of the total county land area) which have yet to be developed into urban uses. Further, the farming which remains in Monroe County has undergone a significant decline in productivity compared with farming in more rural areas with similar land resources.
3. The principal cause of the decline in farming has been urban expansion and the problems which it has created for local farmers. Urban expansion has had adverse effect on farming for a variety of reasons, among which are the following: it has increased land speculation and brought the price of farmland beyond the reach of farmers; it has resulted in land use conflicts between farmers and nonfarm residents; it has discouraged investments in farm capital facilities; and it has resulted in major increases in farm production costs, most significantly through its effects on property taxes.
4. Despite the decline in farming, many parts of the county still contain sizable areas of viable farming which may be expected to stay in production if (but only if) the adverse effects of urbanization are controlled.
5. Significant public benefits may be derived from maintaining land in farming. Productive farming assures an adequate food supply at a reasonable cost. Combined with related industries, it contributes significantly to employment and incomes. It also provides attractive open

space and assures efficient use of land which is being held for urban development. Maintaining land in farming, if it results in effective controls on the pattern of urban expansion, may also offer large benefits in reduced public servicing costs.

6. If these benefits are to be realized, public policies must be designed and brought into effect to maintain farming in Monroe County, for without such policy all the evidence points to a sustained and rapid decline in farming.

The report sets forth and discusses three major directions for the design of public policy to maintain farming:

1. Policies must be designed to control the adverse effects of urbanization on farm profits, especially by preventing significant increases in farm property taxes, so as to eliminate eventually the competitive disadvantage under which Monroe County farmers are now operating.
2. Policies must be designed to guide urban development away from viable farming areas, so as to reduce land speculation and diminish the opportunities (both real and perceived) for converting farmland to urban uses.
3. Policies must be designed to reserve sizable areas for farm production, for the adverse effects of urbanization cannot be controlled within small farming areas.

The report, finally, discusses the application of the New York State Agricultural Districts Law to the local farm problem and examines some of the limitations of this law which must be overcome through public policy.

Chapter 1

INTRODUCTION

In a report to Governor Rockefeller in 1968 the New York State Commission on the Preservation of Agricultural Land made the following statement: "It is not easy to maintain a vigorous agriculture near cities and suburbs that are growing rapidly. It takes conscious effort and careful planning with the needs of agriculture in mind."¹ Later in the report the Commission commented: "The need for considering agriculture in planning is often overlooked."²

These statements set forth the principal purpose of this report. It is to relate the needs for maintaining farmland to the planning process and to bring this problem into the realm of public policy. In the past, as stated by the Commission, agricultural needs have not been given adequate consideration in land use planning.

This limitation of past planning is readily observed but much more difficult to overcome. Indeed, "it is not easy to maintain a vigorous agriculture near cities and suburbs that are growing rapidly." One would expect such a task to be particularly difficult in Monroe County because its rate of urban growth has been exceptionally high, exceeding that of other metropolitan areas of Upstate New York.

The very difficulty of the task raises a basic question: Will it be worth the effort? The Commission agreed that it will. The benefits to the public from maintaining productive farmland are large indeed, leaving little question of the desirability of public policies which achieve this objective.

The variety and extent of the benefits are indeterminate, but they include the following:

1. Agriculture is a major industry. It includes not only farming but also industries which provide supplies to farmers and which process and distribute farm output. Farming, combined with these industries, employs approximately one-half million workers in New York State and contributes annually about four and one-half billion dollars to the economy of the state.³ A rapid decline in farming, therefore, would set off a chain of economic events which would have serious consequences on employment and incomes.
2. An adequate food supply is essential to our well-being. An excessive decline in farming, even if it is limited to urbanizing areas, would result eventually in increased food prices and potentially in food shortages.
3. Farming provides attractive open space which may be enjoyed by those living in the city as well as those living in the countryside.

4. Farming represents an efficient use of land which is being held for future urban development. By maintaining land in farming until it is needed for urban use, excessive land speculation is curbed and more productive use is made of the land.
5. Maintaining land in farming represents a method of guiding urban development into desirable patterns, which may result in large public savings in the costs of providing roads, sewer and water lines, and other public facilities and services.

The realization of these benefits in Monroe County will require effective governmental policy, which must be initiated and sustained by a much deeper public commitment to the objective of maintaining farmland than we have observed in the past. Both the commitment and the policy will emerge only if there is a growing public awareness of the nature of the farm land use problem in the county.

This report attempts to provide a basis for such awareness and proposes directions to be followed in the design of public policy on farm land use. The report, however, does not attempt to propose specific Planning Council policies on farm land use, as this effort is to be taken up subsequent to an evaluation of the material in this report. It is expected, therefore, that this report will be followed by publication of an additional report by the Planning Council which deals more succinctly and definitively with farm land use policy. Indeed, a major purpose of this report is to provide a technical basis for such a report.

The major questions to be addressed are as follows:

1. What is the nature of soil resources in Monroe County? Are these resources well enough adapted to farming to justify public policies for maintaining land in farming?
2. What have been the past effects of urbanization on farm output and productivity in Monroe County? Have these effects been adverse enough to give cause for public concern and the adoption of policies to mitigate these effects in the future?
3. What are the specific problems which urbanization brings to farmers and which must be redressed in public policies designed to maintain land in farming?
4. What areas of Monroe County show promise for continuing in farm production, given the adoption of appropriate policies?
5. What kinds of public policies will achieve the objectives of maintaining farming in these areas?

These questions are taken up in order in the remaining chapters. Chapter 2 evaluates the quality of soils in Monroe County for farming. The purpose of this evaluation, beyond that stated above, is to provide information to be taken into

account in the delimitation of areas of the county to be maintained in farming. The evaluation also provides a basis for subsequent analysis of certain effects of urbanization on farming.

Chapter 3 is concerned with basic questions of efficiency in the process of converting farmland to urban uses. It examines the effects of this process in Monroe County on farm productivity and on the retirement of farmland. It also examines whether the future needs for urban expansion may be accommodated while maintaining farmland in production.

Chapter 4 focuses more specifically on the variety of problems which urbanization brings to farmers. Its purpose is to set forth the problems which must be recognized in the design of public policies to maintain land in farming.

Chapter 5 examines the viability of farming in various areas of Monroe County. The information in this chapter provides an initial basis for delimiting areas of the county to be maintained in farming.

Chapter 6 considers the policy implications of the previous chapters. It examines the potential of the Agricultural Districts Law, recently enacted by the State of New York, in maintaining land in farming, and it develops guidelines for the design of supplementary policies on farm land use.

Chapter 2

THE SOIL RESOURCE BASE

Soils have become an ever more important factor in farm location. During recent decades many farms operating on poor soils have discontinued production, and an increasing share of our food supply has been produced by farms operating on more favorable soils.

The importance of soils, therefore, must be clearly recognized in planning for farm land use. This chapter provides a basis for such recognition by interpreting the quality of soils for farming in Monroe County. Its principal purpose is to set forth information which should be taken into account in public policies affecting the allocation of land to farming and, by implication, to other land uses. Further, it develops information which is taken into consideration in the analysis of subsequent chapters of this report.

The evaluation of soils in this chapter is based on the configuration of soil associations shown in Figure 1. A soil association is a landscape in which the soils have similar characteristics. Although the soils within a given association have similar properties, these properties still display considerable variation. Thus, within an area which has been mapped and classified as good for farming, one might find small areas which are not well suited for farming because of poor drainage, steep slopes, or other features.

The reader is referred to Appendix A for a description of the properties of the soil associations displayed in Figure 1 and for a detailed analysis of their suitability for various types of farming. The concern in this chapter is limited to presenting briefly the results of that analysis.

The suitability for farming of soils in Monroe County is displayed in Figures 2 and 3. Two categories of farming have been considered: (1) field crops and vegetables and (2) orchards. Field crops in the county consist principally of corn, grains, and various kinds of hay, which may be grown as cash crops or as part of a dairy or other livestock operation. The two categories of farming encompass a large percentage, more than 90 percent, of the farmland in Monroe County. For each category of farming the suitability of soils has been defined in three broad classes: "good", "fair", and "poor".

These evaluations were made on the basis of soil characteristics alone, independent of other factors which determine the desirability of the land for farming. The most significant of these factors is that of competing land use demands. The evaluations do not consider whether the land has been developed by urban uses or whether there is any prospect of such development.

Less apparent are certain physiographic factors which have been outside the scope of the evaluations. Microclimate, which has a significant effect on patterns of orchard production in Monroe County, was not considered, nor was the availability of irrigation water, often an important consideration in the location of vegetable farming.

The evaluations indicate that a large percentage of the land in Monroe County is well adapted to farming (see Figures 2 and 3). Approximately 55 percent of the land in the county is classified as "good" for field crops and vegetables. A somewhat lower percentage, 44 percent, is classified as "good" for orchards.

In actuality these percentages overstate the availability of land for farming, since urbanization has denied much of this land to farming. Nevertheless, one finds large acreages well suited for farming in areas still relatively free of urban development in the eastern parts of Penfield and Perinton, to the south of the New York State Thruway, and to the west of the Gates-Ogden and Parma-Greece town lines.

The percentages also overstate somewhat the availability of land for orchards, which, because of their long growing season, require not only favorable soils but also a favorable microclimate. The latter requirement has led to a concentration of orchards near Lake Ontario, which has moderated the climate in its vicinity, lowering the frequency of late spring and early fall frosts. The combination of favorable soils and microclimate near Lake Ontario, particularly in the western part of Monroe County, will continue to favor highly productive orchard farming in this area.

While the combination of soils and microclimate have restricted orchard production largely to the northern part of Monroe County, these factors have placed fewer restrictions on the location of vegetable and field crop production. Figure 2 indicates that conditions are favorable for such farming not only in the northern part of the county but also in many areas of the southern part of the county which are unsuitable for orchards. In response to these favorable conditions many highly productive dairy farms have located in the southern part of Monroe County.

In general, the soil resources in Monroe County are highly favorable for farming, more favorable than in other metropolitan areas of New York State. Indeed, a previous study, in which agricultural resource regions of New York State were delimited, placed Monroe County within the two most productive agricultural regions of the state: the Central Plain Region, encompassing the southern part of the county, and the Erie-Ontario Lake Plain Region, encompassing the northern part of the county.¹ The unique adaptability to farming of soils in Monroe County provides in itself some justification for the adoption of public policies for maintaining land in farming.

MONROE COUNTY
NEW YORK STATE

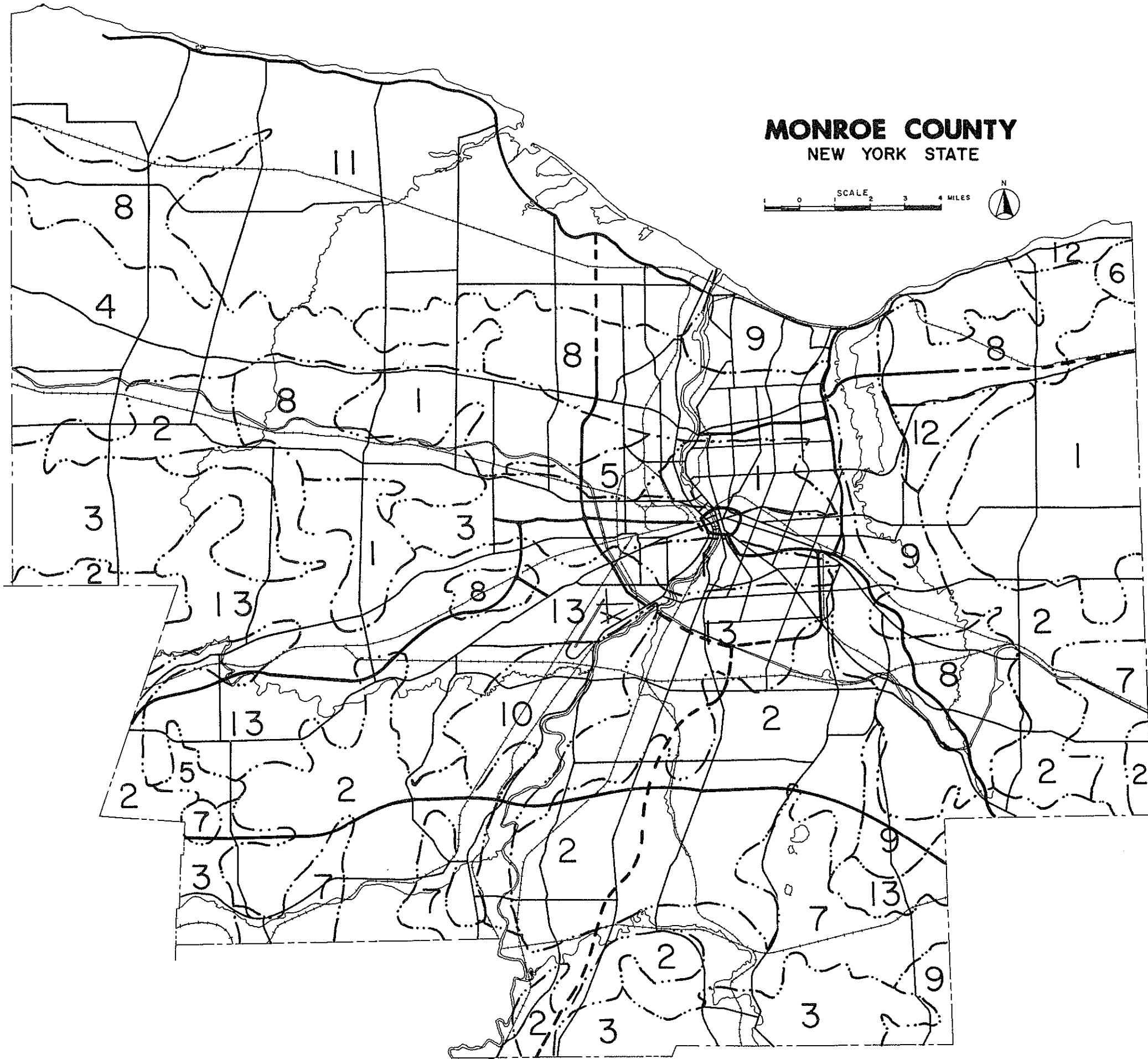
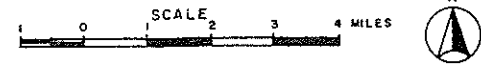


FIGURE I
SOIL ASSOCIATIONS

- 1 MADRID-MASSENA
- 2 ONTARIO-HILTON-APPLETON
- 3 LIMA-HONEOYE-BENSON
- 4 LOCKPORT-CAZENOVIA-LAIRDSVILLE
- 5 RIGA-BROCKPORT
- 6 SODUS-IRA-NIAGARA
- 7 PALMYRA-WAMPSVILLE
- 8 COLONIE-ELNORA-MINOA
- 9 ARKPORT-COLLAMER
- 10 CANANDAIGUA-NIAGARA-GENESEE
- 11 COLLAMER-HILTON-NIAGARA
- 12 HUDSON-RHINEBECK-MADALIN
- 13 SCHOHARIE-ODESSA-LAKEMONT

MONROE COUNTY
NEW YORK STATE

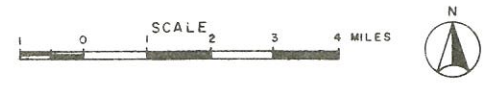
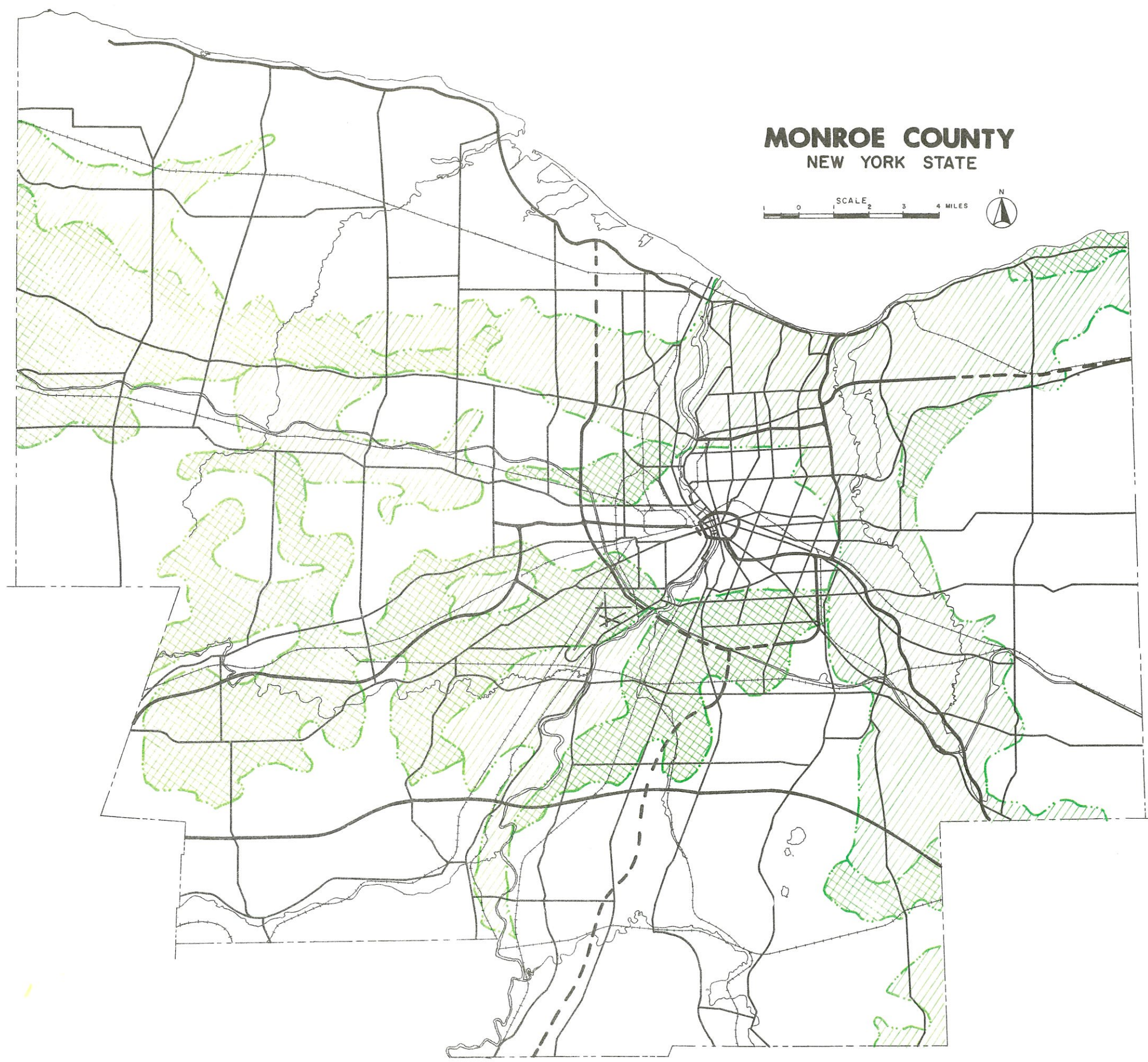





FIGURE 2
SUITABILITY OF SOIL ASSOCIATIONS
FOR FIELD CROPS & VEGETABLES



-  GOOD
-  FAIR
-  POOR

MONROE COUNTY
NEW YORK STATE

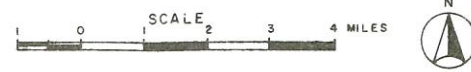
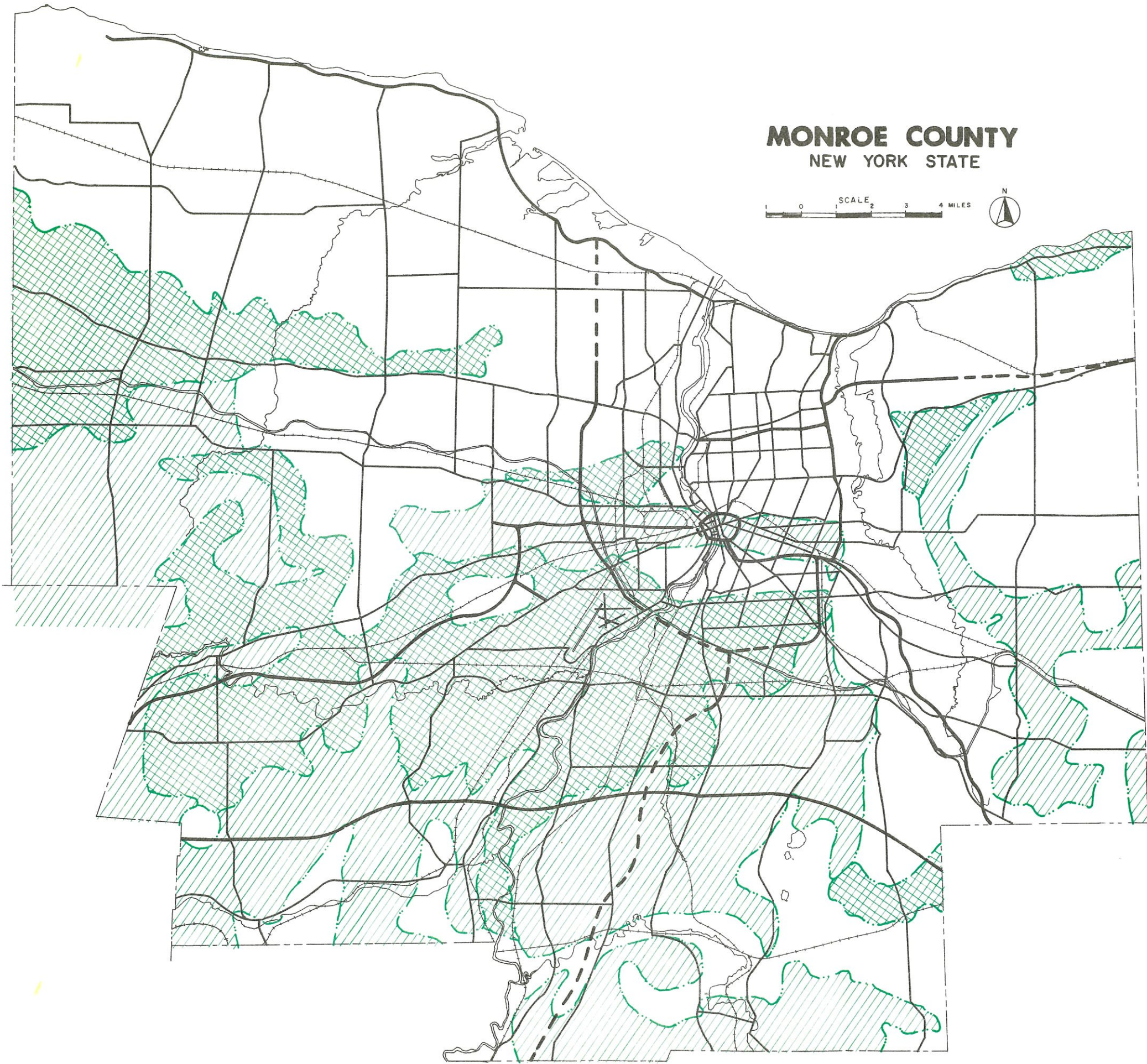





FIGURE 3
SUITABILITY OF SOIL ASSOCIATIONS
FOR ORCHARDS



-  GOOD
-  FAIR
-  POOR

Chapter 3

EFFECTS OF URBANIZATION ON FARM OUTPUT

If the effects of urbanization on farming were limited to converting farmland to urban uses, then maintaining land in farming would not necessarily be a matter for public concern. In this case, farmland would be lost to higher-valued uses of the land, yielding higher tax receipts and increased incomes.

The effects of urbanization, however, may go far beyond this. Urban expansion in a farming area may set off a series of events which lead to the rapid and progressive deterioration of farming.

Farm production costs may rise in areas of urban expansion. Farm property taxes, a large component of production costs, may increase sharply in response to rising land values and the demand by nonfarm residents for costly new public services. Where urban development has progressed far, the farmers' new neighbors may bring into effect municipal ordinances which restrict farming: no roadside selling of produce, curfew hours for the operation of farm machinery, no spreading of manure within certain distances of property lines, and the like. Production costs may also increase in urbanizing areas because of the difficulties in renting or purchasing low-cost land to expand farming operations in keeping with technological demands.

Perhaps more significant are the potential effects on farming of the increasing market price of land within urbanizing areas. Inflationary land prices may not only prevent the eventual sale of farmland to a new generation of farm managers, but it may also give rise to expectations among current farmers (and land speculators) of large capital gains from the eventual sale of their land for nonfarm uses. In such an environment the interests of farmers often turn to real estate speculation, and they lose their incentive to maintain investments in barns, silos, and other fixed capital facilities which require an extended amortization period. The decline in investments will lead eventually to a decline in farm productivity.

With production costs rising and productivity declining, farmland may be forced prematurely into retirement. This process may leave large expanses of once-productive farmland to grow to weeds for many years before it is finally developed by urban uses.

Many of these effects of urbanization on farming will be examined in detail in the following chapter. This chapter is limited to evaluating the general magnitude of these effects in Monroe County.

If urbanization has indeed resulted in an excessive deterioration of farming in Monroe County, then the following statements should hold true:

1. Total farm output in Monroe County has declined relative to that in rural counties.
2. The total farm acreage in Monroe County, one of the components of total farm output, has declined relative to that in rural counties and has undergone a greater decline than is required to accommodate new urban uses.
3. The productivity of farming in Monroe County, the other component of total farm output, has declined relative to that in rural counties. Productivity, in this case, refers to the output per acre of active farmland.
4. Farming, because of rising production costs and declining productivity, has represented a poorer investment in Monroe County than in rural counties.
5. The general decline in farming in Monroe County, as indicated by both acreage and productivity changes, has been in excess of that required to accommodate future needs for urban expansion.

The above five events are examined in order in the remaining sections of this chapter. First, however, it must be noted that each event may be related not only to the pressures of urbanization but also to the quality of physical resources such as soils and climate. To make inferences on the effects of urbanization on farming in Monroe County, therefore, one must compare Monroe County with rural counties with similar physical resources. For this purpose Cayuga, Genesee, Ontario, and Wayne counties have been selected for comparison with Monroe County. These counties are relatively remote from the pressures of urbanization, yet in combination they contain physical resources similar to those in Monroe County. These counties and Monroe County lie predominately within the Central Plain and Erie-Ontario Lake Plain regions of New York State, which are known to be highly favorable for farming and which would support similar kinds of farming if urban pressures within them were identical.¹

Change in Total Farm Output

If urbanization in Monroe County has resulted in the deterioration of farming, then this should be reflected by a relative decline in the total value of products sold by commercial farms in the county. These data, along with other characteristics of farming, are given for the years 1959 and 1969 in Table 1.

In 1969 commercial farms in Monroe County sold 17.5 million dollars of products. This represented a 4.4 percent decline in sales from those in 1959. On the other hand, total farm sales in the rural counties selected for comparison increased by 17.4 percent during the same period, while they increased in New York State by 23.8 percent. Thus total output in Monroe County declined dramatically in comparison with the selected rural counties and New York State.

TABLE 1. SELECTED CHARACTERISTICS OF COMMERCIAL FARMS, 1959 AND 1969¹

	Monroe County		Selected Rural Counties ²		New York State		
	1959	1969	1959	1969	1959	1969	%Change 1959-69
		%Change 1959-69		%Change 1959-69			
Number of Farms	1,206	602	5,388	3,319	56,760	34,405	-39.4
Acres of Cropland Harvested ³	122	73	577	433	5,032	3,836	-23.8
Average Acreage of Farms	160.9	208.6	185.7	233.4	203.0	243.3	19.9
Value of Land and Buildings							
Average per Farm	\$55,110	\$175,242	\$36,470	\$64,578	\$28,004	\$66,675	138.1
Average per Acre	\$354	\$840	\$152	\$277	\$140	\$274	95.7
Value of Products Sold ⁴	\$18.3	\$17.5	\$78.0	\$91.6	\$775.4	\$959.8	23.8
Value of Products Sold per Acre of Cropland Harvested	\$150	\$240	\$135	\$265	\$150	\$250	66.7
Average Profit per Farm		\$6,039		\$12,269		\$6,024	
Average Profit per Acre of Cropland Harvested		\$.50		\$.94		\$.54	
Average Profit per Dollar Value of Land and Buildings		\$.03		\$.19		\$.09	

¹ Because of a change in the Census definition of a "commercial farm", care must be taken in comparing 1959 data with 1969 data. The 1969 definition of a commercial farm excludes many of those farms with gross sales from \$50 to \$2,499 which were included in the 1959 definition. Sources of data: U.S. Bureau of the Census, *U.S. Census of Agriculture, 1959, Vol. I, Counties, Part 7, New York*; and *U.S. Census of Agriculture, 1969, County Data, New York*; and *Monroe County, Cayuga County, Genesee County, Ontario County and Wayne County (Washington, D.C.: U.S. Government Printing Office, 1961 and 1971).*

² Cayuga, Genesee, Ontario and Wayne Counties.

³ Nonpercentage entries expressed in thousands (000's)

⁴ Nonpercentage entries expressed in millions (000,000's).

The decline in itself is not significant, since it may simply be the outcome of the conversion of farmland to urban use. On the other hand, it may reflect the larger effects of urbanization on farm output noted above.

Change in Farm Acreage

Much of the relative decline in farm output in Monroe County was due to a large decrease in farm acreage. (See Table 1.) From 1959 to 1969, 49,000 acres of cropland went out of production in Monroe County, representing a decline of 40 percent. This decline was far in excess of that in the selected rural counties and in New York State.

More complete information on the pattern of active and retired farmland in Monroe County is given in Table 2 for the year 1968. A large portion (about 40 percent) of the total land area of Monroe County (excluding Rochester) was in active farming in 1968. (The distribution of this land among different categories of farming is given in Appendix B.) An almost equally large portion (about 30 percent) had been retired from farming but had not yet been developed by urban uses. About one-half of this land, 62,000 acres, had been "recently retired" from farming; that is, this land went out of farming no longer than about ten years prior to 1968. The remainder, which had grown to brush, had been retired at an earlier date.

Thus, while Table 1 indicates a decline in harvested cropland of 49,000 acres from 1959 to 1969, Table 2 indicates that 62,000 acres of farmland were retired from production during approximately the same period (from about 1958 to 1968) and had yet to be developed by urban uses. The discrepancy results partly from the fact that the sources of the data differ.² It also results partly from the fact that Table 1 includes only harvested cropland, while Table 2 includes harvested cropland as well as other kinds of farmland, such as cropland which is not harvested and pastureland.

The rate of farmland retirement in Monroe County has far exceeded the rate of urban expansion. During the same period in which there was a decline in harvested cropland of 49,000 acres, and in which 62,000 acres were retired from farming without being developed by urban uses, it is estimated that a total of only 23,000 acres were converted to urban uses. (See Appendix C for the derivation of this estimate.) Farmland retirement, then, is a widespread phenomenon in Monroe County, and its rate in recent years has more than doubled the rate of urban expansion.

The excessive rate of farmland retirement may result partly from the pressures of urban expansion, which, as noted, would lead to the premature idling of farmland before the demand for the land by urban uses materializes. The excessive rate may also be due to the quality of the land: the retirement of marginal soils from farming has been an enduring trend during this century and is expected to continue for some years to come.³

To determine which factor lies behind the excessive retirement of farmland, one must examine the geographical pattern of active and retired farmland in Monroe County. This pattern is displayed in Figure 4 for the year 1968.⁴ Two categories of retired farmland are displayed: (1) land which went out of production from 1958 to 1968 and (2) land which went out of production before 1958.⁵

TABLE 2. DISTRIBUTION OF ACTIVE AND RETIRED FARMLAND, 1968¹

	Total Land Area, Acres	Active Farmland, Acres	Retired Farmland, Acres		Percent of Total Land Retired from Farming
			Recently Retired ²	Formerly Retired ³	
Central Towns					
Brighton	9,920	823	1,181	1,811	11.9
Gates	9,920	509	1,220	1,927	12.3
Greece	31,488	5,906	4,295	6,232	13.6
Irondequoit	9,600	244	0	1,430	0
Western Towns					
Clarkson	21,440	8,188	5,570	4,411	26.0
Hamlin	28,416	20,189	4,745	3,579	16.7
Ogden	24,128	9,046	4,898	4,261	20.3
Parma	27,648	11,100	5,953	5,738	21.5
Sweden	21,952	8,524	5,308	1,628	24.2
Southwestern Towns					
Chili	25,664	10,720	4,807	2,176	18.7
Riga	22,720	13,180	2,719	1,687	12.0
Wheatland	19,840	12,600	1,786	2,464	9.0
Southern Towns					
Henrietta	24,960	9,240	2,566	2,156	10.3
Mendon	25,792	12,483	3,102	3,535	12.0
Rush	19,712	12,333	2,201	2,643	11.2
Eastern Towns					
Penfield	24,640	7,956	4,483	3,006	18.2
Perinton	23,232	6,452	2,351	3,982	10.1
Pittsford	15,680	4,977	751	2,584	4.8
Webster	21,888	4,824	4,009	4,923	18.3
TOTAL	408,640	159,294	61,945	60,174	15.2
					14.7

¹ Source: Data are from the "LUNAR" system, developed by Cornell University under contract with the New York State Office of Planning Services, formerly the New York State Office of Planning Coordination. See Roger A. Swanson, *The Land Use and Natural Resource Inventory of New York State* (Albany: New York State Office of Planning Coordination, June 1969). The table is based on computer output made available by the Genesee/Finger Lakes Regional Planning Board.

² "Recently retired" farmland consists of that land which has gone out of farming but has not yet grown to forest brushland. This land was idled within a period of approximately 10 years of 1968, when the aerial photographs used in the LUNAR survey were taken. "Formerly retired" farmland consists of land which went out of farming before this period and which has grown to brush but not yet to mature forest.

In relating the pattern of retired farmland in Figure 4 to the quality of soils for farming (see Figures 2 and 3 of the previous chapter), we observe that soil quality is a significant factor in farmland retirement. Large areas in the vicinity of Ridge Road, where the soils are poor for farming, have been retired from farming. Similarly, much of the retired farmland in Chili and Riga lies in areas where the soils have been classified as poor for farming. Much of the land retired before 1958, except where it is close to urban development, takes on a "string-like" pattern, reflecting the pattern of steep slopes and poor drainage areas.

Much of the idle farmland also lies in areas where the soils are highly favorable for farming and where it appears that a major factor behind the discontinuation of farming has been the pressure of urbanization. Most of the 10,000 acres of recently retired farmland in Greece and Parma lie within areas where the soils are highly favorable for farming. In the eastern part of the county, in Penfield and Webster, one also finds large expanses of retired farmland where the soils are highly favorable for farming. Large tracts of land well suited for farming have also been idled in Sweden and Ogden. The retirement of good land from farming has been less extensive, but still significant, in the remaining towns of the county. All told, approximately three-fourths of all the retired farmland in Monroe County lies in areas where the soils are classified as well suited for farming.

In summary, the relative decline in farm output in Monroe County may be attributed in part to the extensive retirement of land from farming. The pace of farmland retirement in Monroe County has far exceeded the rate of urban expansion, leaving large areas of the county to grow to weeds. Some retirement of farmland may be attributed to poor soils. Most of the retirement, however, appears to have resulted from the pressures of urbanization, for many areas of high-quality soils have gone out of production.

Change in Farm Productivity

The decline in farm output in Monroe County observed earlier may have resulted not only from a decline in the acreage devoted to farming but also from a decline in the productivity (the output per acre) of the land remaining in production. Just as the pressures of urbanization may lead to the premature retirement of farmland, so too may these pressures lead to a decline in the productivity of the land remaining in farming.

Conceptually, the same forces underlie both types of decline. Urban pressures, as noted earlier, may increase production costs and give rise to an interest in land speculation. This process would lead to a disinvestment in farm capital, resulting eventually in a decline in farm productivity. The culmination of this process is the retirement of the farmland from production, but conceptually a decline in farm productivity would precede this event.

A decline in farm productivity (as indicated by sales per acre) may also result in urbanizing areas from changes in the mix of farm commodities produced. Dairy farming, for example, generally yields higher returns per acre than field crop farming. Yet dairy farming requires much larger investments in barns, silos, and other fixed capital facilities than field crop farming, and such investments will be discouraged in urbanizing areas where farmers perceive an opportunity for land

MONROE COUNTY
NEW YORK STATE

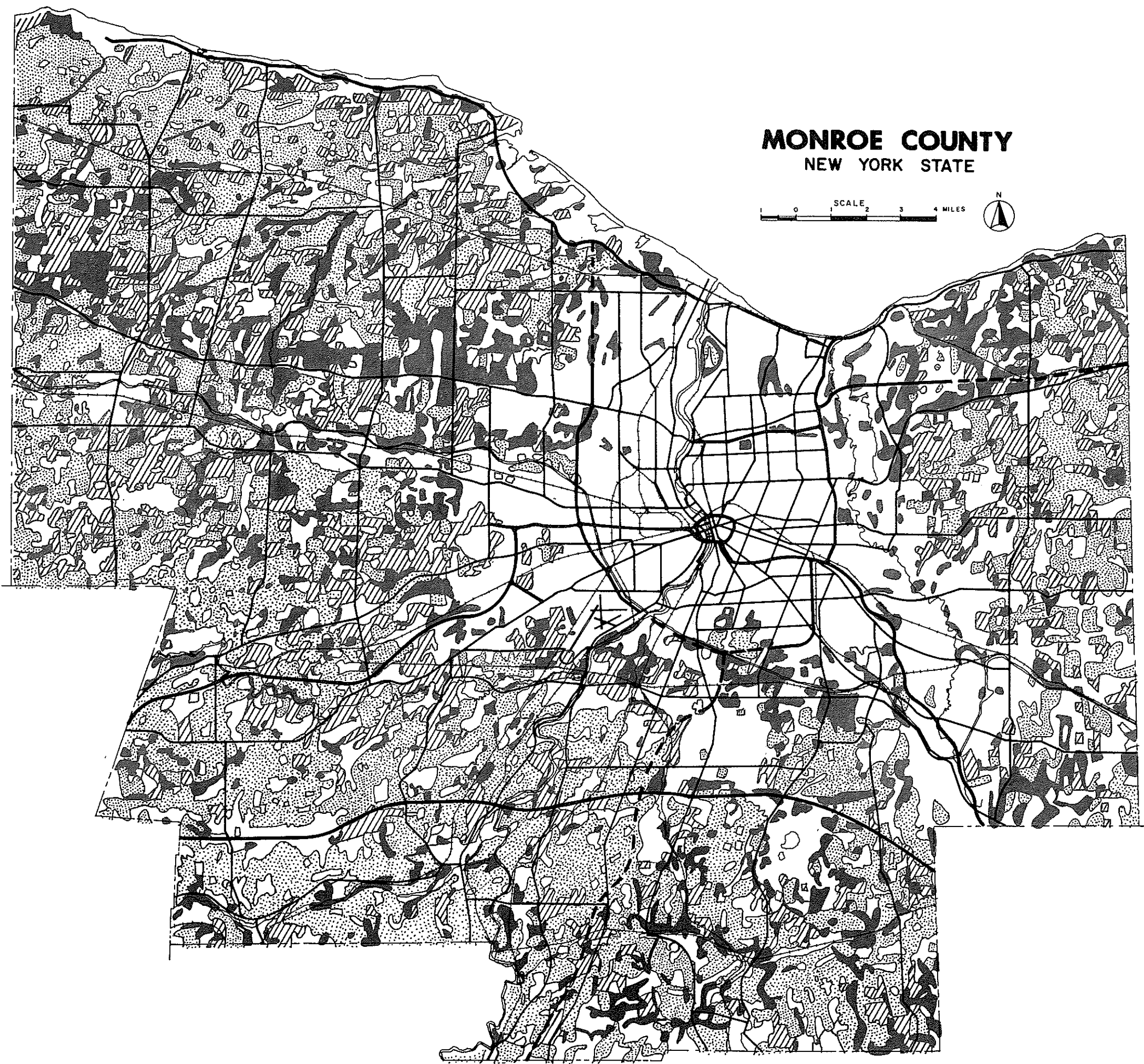
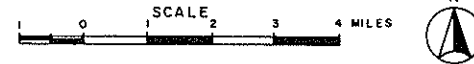





FIGURE 4

ACTIVE AND RETIRED
FARMLAND
1968

-  ACTIVELY FARMED
-  RETIRED FROM FARMING, 1958-1968
-  RETIRED FROM FARMING BEFORE 1958

speculation and development. Often, therefore, urbanizing areas will experience a relative decline in productivity due to shifts from dairy to field crop production.

In actuality, if farms in urban areas are to remain competitive with those in rural areas, their productivity should be higher. This is because production costs in urban areas will be higher, requiring higher returns to realize the same profits.

The productivity of farmland, as indicated by the value of products sold per acre of cropland harvested, is given in Table 1 for Monroe County, the selected rural counties, and New York State. While the productivity in Monroe County exceeded that in the other areas in 1959, it was below that in the other areas in 1969. During the ten-year period, farm productivity in Monroe County increased by only 60 percent, while it increased by 96 percent in the rural counties.

Thus farm productivity, like farm acreage, experienced a significant relative decline in Monroe County during the 1960's, partially accounting for the decline in total farm output.

Farming as a Business in Monroe County

With production costs rising and productivity falling, farming in Monroe County is becoming increasingly a less attractive business than farming in areas more remote from urban expansion. The extent of the competitive disadvantages of farming in the county is indicated by three basic measures in Table 1 for 1969.⁶

The average profit of commercial farms in Monroe County in 1969 (see Table 1) was only \$6,000, less than one-half that of the rural counties. The average profit in Monroe County was similar to that in New York State, but it must be remembered that the quality of physical resources for farming in the state are generally poorer than in Monroe County.

The average profit per acre of cropland harvested was also significantly lower in Monroe County in 1969 than in the rural counties. The profits were \$50 and \$94, respectively.

Finally, the average profit per dollar value of land and buildings in Monroe County was far below that in the rural counties. Whereas the profit in Monroe County was only 3 cents per dollar in 1969, it was more than six times this amount in the rural counties. In Monroe County this represents a return of only 3 percent to investments in farm real estate.

The low return to farm real estate investments in Monroe County results largely from the inflationary effects of urbanization on the value of farmland. Most farmers in Monroe County, of course, purchased their land some years ago, when the price of land was far below its value in 1969. Consequently the 3 percent return on the value of farmland and buildings in 1969 understates the real return which the farmers have derived from these investments. Nevertheless, the low rate of return does suggest the large "opportunity costs" of remaining in farming in Monroe County, where farmers may sell their land to speculators and developers and realize a higher return from alternative investments. One alternative would be to purchase and operate farmland in an area more remote from urban expansion.

The relatively low return to farm investments in Monroe County suggests still another problem: that of holding farmland in production through the sale of this land to a new generation of farmers. Where farm real estate is acquired through

inheritance, this problem may be readily overcome. On the other hand, if farm real estate must be purchased in an inflationary urban land market, then the task of maintaining land in farming becomes far more difficult.

In the long run, farming will continue in Monroe County only if it remains competitive with farming in other areas. The competitive disadvantages to farming in Monroe County, therefore, must be viewed as a matter for serious public concern.

Farming Decline in Relation to Future Urban Needs

Approximately 60,000 acres have been retired from farming during the past decade and have yet to be developed by urban uses. An additional 60,000 acres which have yet to be developed were retired at an earlier date. Still more acres which have remained in farming are undergoing a relative decline in productivity, partly due to anticipation of the demand for converting this land to urban uses. Will this demand materialize?

Projections of the acreage which will be converted to urban uses in Monroe County suggest that the decline in farming has been indeed excessive. During the next twenty years it is estimated that about 43,000 acres will be converted to urban uses, fewer than the number of acres which have been retired from farming and have yet to be developed by urban uses in the last ten years alone. (The derivation of this estimate is given in Appendix C.)

The disparity in these numbers suggests two major conclusions. First, there are very significant inefficiencies in the process of converting farmland to urban uses. Many thousands of acres of farmland have declined in productivity and then have been abandoned from farming long before they are needed for urban uses. These acres serve no useful purpose, either to the farmer or to the community. They are essentially unproductive. Growing to weeds and then to brush, they disturb the visual quality of the countryside.

Second, the disparity indicates that there is ample land available for both farming and urban development in Monroe County. Indeed, disregarding its locational needs, urban development can be physically accommodated for the next half-century on the current inventory of retired farmland. In actuality, urban uses must displace active farming in certain areas, particularly near the city. Despite this, the needs for urban development may be accommodated for many years to come while keeping in production most of the better farmland in Monroe County.

Chapter 4

PROBLEMS FACING FARMERS IN MONROE COUNTY

The previous chapter indicated that farming in Monroe County has declined relative to that in rural counties. It was suggested that this decline may be largely attributed to the problems which urbanization brings to farmers. This chapter takes a closer look at these problems in order to provide a basis for the development of policies for encouraging the continuation of farming.

As noted, urbanization may bring two major kinds of problems to farmers. First, it may result in increasing production costs and declining profits. Second, it may give rise to an interest in land speculation or in the conversion of farmland to urban uses. Both kinds of problems may lead to the decline in farm productivity and the premature idling of farmland noted previously.

In order to explore the nature and magnitude of such problems, a questionnaire was mailed to a random sample of full-time commercial farmers in Monroe County. After follow-up of the questionnaire was completed, a total of 77 farmers had responded. This represents a sample of about 22 percent of all full-time commercial farmers in the county. A copy of the questionnaire may be found in Appendix D, while further details on the sampling procedure may be found in Appendix E. Supportive tabulations for much of the discussion in this chapter are given in Appendix F.

The chapter first examines problems related directly to the profitability of farming in Monroe County. Next it examines the opportunities for converting farmland to urban uses, and it assesses the potential effects of these opportunities on farming operations. Finally, the chapter examines the attitudes of farmers toward the adoption of certain measures to overcome these problems and encourage the continuation of farming.

Farm Profits

Farm profits are dependent on production costs and farm sales. Farm profits will rise with a decline in production costs, an increase in sales, or a combination of these events. Because farming in Monroe County has become less profitable than farming in rural counties with similar resources, the potential of expanding profits through the adoption of appropriate policies, which either enlarge markets or decrease production costs, must be carefully considered.

While farm sales are dependent on markets, farm production costs are dependent principally on costs of land, labor, capital, and material farm supplies. Farm production costs may also be affected by conflicts with nonfarm residents, as these may lead to municipal ordinances or informal sanctions restricting farming.

Each farmer in the survey was asked to consider a list of nine problems, most of which affect his profits, and to rank these problems according to the degree which they would discourage the farmer from continuing to farm in his current location. (See item 32 of the questionnaire in Appendix D.) The distribution of responses, which is given in Table 3, provides the basic framework for the following discussion.

Land Problems. Because land is the major factor in farm production, it must be obtained and held at a reasonable cost if farming is to prosper. Public policies designed to encourage farming, therefore, must facilitate the acquisition of land for expanding farming operations and must keep down the cost of holding farmland in production.

Problems in acquiring an entire farm unit to continue its operation through a transfer in ownership are considered in a later section. The concern here is limited to problems of holding farmland in production arising from high property taxes and problems faced by current farm owners in acquiring land to expand their operations. Such expansion is necessary to keep pace with competitive demands.

The problem of obtaining land for farm expansion ranks relatively low, sixth, among the nine problems listed in Table 3. Nevertheless, 43 percent of the respondents in the survey felt that this problem would still be significant enough to discourage their continuing to farm in the future.

A far more significant problem, however, relates to the cost of holding farmland in production, which is dependent on property taxes. The problem of high property taxes ranks first among the problems listed in Table 3. More than one-half of the respondents felt that this was the most significant problem listed, and only two respondents felt that it was not significant enough to discourage their continuing to farm.

The problem of acquiring land for farm expansion ranks relatively low, despite the high cost of land in Monroe County, largely because there is a viable rental market for farmland. Speculators and other land owners are often willing to rent their land to farmers at a reasonable price, as this provides for the maintenance of the land and reduces its holding costs. Thus, while most farmers have had problems in purchasing land for the expansion of their operations, they have faced far fewer difficulties in renting land for such purposes. (See Appendix F, Table F1 and F3.)

The difficulties in purchasing land for farm expansion are observed throughout Monroe County, but they increase significantly as the distance from Rochester decreases (Table F4). On the other hand, even near the city most farmers have not encountered problems in renting land for farm expansion, although their problems here have been greater than in outlying areas (Table F4).

This situation has led to a significant increase in the proportion of the land operated by full-time commercial farmers that is rented. In 1970 this proportion reached 40 percent in Monroe County, increasing by 9 percent since 1960. Fully 70 percent of the full-time commercial farmers in Monroe County rented at least some of the land which they operated in 1970 (Table F2). Most of this land was rented from nonfarm owners, many of whom probably had a speculative interest in holding the land (Table F2).

TABLE 3. FREQUENCY OF RESPONSES TO PROBLEMS WHICH MIGHT DISCOURAGE FARMING¹

	"The Most Discouraging Problem"		"2nd Most Discouraging Problem"		"3rd Most Discouraging Problem"		"Also a Discouraging Problem"		"Not a Discouraging Problem"	
	No.	% ²	No.	% ²	No.	% ²	No.	% ²	No.	% ²
High Property Taxes	44	57.1	16	20.8	12	15.6	3	3.9	2	2.6
Difficulty Getting Labor	14	18.2	21	27.3	21	27.3	9	11.7	12	15.6
Selling Land for Development	11	14.3	7	9.1	21	27.3	19	24.7	19	24.7
Difficulty Finding Market	11	14.3	8	10.4	11	14.3	19	24.7	28	36.4
Conflicts with Nonfarmers	5	6.5	10	13.0	9	11.7	17	22.1	36	46.8
Difficulty Expanding Acreage	0	0	6	7.8	8	10.4	19	24.7	44	57.1
Opportunities for Off-Farm Job	2	2.6	4	5.2	3	3.9	23	29.9	45	58.4
Difficulty Getting Supplies and Services	2	2.6	3	3.9	5	6.5	17	22.1	50	64.9
Difficulty Getting Capital	1	1.3	1	1.3	4	5.2	20	26.0	51	66.2

¹ This table gives the frequency distribution of responses to item 32 of the questionnaire. (See Appendix D.)

² Percentages are calculated on the basis of row totals rather than column totals. For columns the percentages may sum to more than 100% because of multiple listings. For example, a respondent may have given a certain ranking, such as "most discouraging", to two or more problems (i.e., row categories).

Thus the role of the rental land market in the expansion of farming operations must be recognized in farm land use policies. In the inflationary land market of urbanizing areas, policies which encourage long-term leases on farmland under favorable terms will go far toward holding land in farming where it otherwise might be retired from production.

The need for such leases becomes apparent upon consideration of the problems which land rental creates for the farm manager. To remain competitive he must often make large investments in fixed capital facilities which require a long period of amortization. If he is uncertain of the availability of land for expanding his operation, he will often be unwilling to make these investments.

While the rental land market has overcome many problems in the expansion of farming operations, the high costs of holding land in farming, arising from high property taxes, remains the dominant concern of farmers in Monroe County. Given the ever-increasing demands for municipal tax revenues, this problem will not be readily overcome unless the public is seriously committed to maintaining its farmland.

Property taxes may rise through an increase in assessed valuation or an increase in the tax rate. Generally it has been the latter kind of increase that has been associated with the rising property taxes paid by farmers in Monroe County.

The assessed value of farmland actually changed very little in Monroe County during the 1960's. In 1970 the average full-value assessment¹ on commercial farmland in Monroe County was about \$200 per acre,² which is reasonably related to the value of this land in farming but far below its actual market value, as influenced by the prospect of urbanization. Thus, much of the farmland in Monroe County is assessed at its present use value rather than its market value.

This is not to suggest that assessments are entirely unresponsive to the changing market value of farmland. Within eight miles of central Rochester the average full-value assessment on commercial farmland in 1970 was \$524 per acre, which is in excess of the value of this land in farming and reflects to some extent the prospects for urban development. On the other hand, the average full-value assessment of farmland from eight to fourteen miles from central Rochester was only \$145 per acre in 1970, and it was still lower (\$107) beyond fourteen miles. Thus the assessments are somewhat responsive to changes in the market value of the land. In each area, however, the assessments lag far behind actual market values.

Recently, however, the towns of Perinton, Pittsford, Penfield, Sweden, Mendon, and Webster underwent reassessments which threatened the preferential tax status of farming. Several more towns are currently considering similar reassessments. In most cases adjustments of the new assessments were made so that the farmers could stay in production. Nevertheless, these events suggest that the pressures for reassessing farmland at higher levels are just beginning and will be increasingly difficult to overcome in the future. It is important that the effects of such reassessments on the competitive position of farming in Monroe County be clearly recognized. Farming in Monroe County, already taxed near its capacity, could not sustain major increases in assessments.

While assessments on farmland until very recently have been slow to change, the tax rate has risen dramatically, resulting in a significant increase in the taxes which farmers actually pay on their land. Between 1960 and 1970, the taxes paid

per acre of commercial farmland in Monroe County more than doubled, increasing by 156 percent.³ These include school taxes and general property taxes but exclude the taxes paid on special assessments for sewer and water services and other purposes.

Tax increases on farmland arising from changes in the tax rate will be more difficult to prevent than those arising from increasing assessments. Increases in the tax rate are due largely to the rising demand for public services within urbanizing areas and the increasing cost of these services.

Thus, to prevent major increases in farmland taxes, it will be necessary to impose significant controls over the process of urbanization in farming areas. Development must either be largely denied to these areas, or it must be guided into patterns which may be efficiently serviced without disrupting the farming community.

Land Use Conflicts. Conflicts between farmers and their nonfarm neighbors are generally demoralizing to a farm community, and they may result in the adoption of restrictions on farming which increase production costs.

Land use conflicts rank fifth in Table 3 among the nine problems which might discourage farming. Approximately 7 percent of the respondents felt that these would be the most discouraging of the problems listed, while 47 percent felt that they would not be discouraging.

Two kinds of conflicts may arise when urban development encroaches on a farming community. **First**, the activities of the farmer may be objectionable to his new neighbors. **Second**, the activities of the new neighbors may be objectionable to the farmer.

Conflicts of the first kind, where the farmer's activities are objectionable to his nonfarm neighbors, were identified by only 17 percent of the respondents in the survey. Almost all the objections which these farmers received related to the noises, insecticide sprays, and odors emanating from their operations.

Conflicts of the second kind, where the nonfarm neighbor's activities are objectionable to the farmer, were identified by about one-third of the respondents. Many of the respondents objected to horseback riders, snowmobilers, and motorcyclists trespassing and causing damage to their crops. Vandalism and pilferage of the farmer's produce by nonfarm neighbors were other common causes of objection. A few of the respondents also objected to the undesirable effects of nearby nonfarm development on natural drainage patterns.

In general, land use conflicts become serious only when urban development has advanced far in a farming community. In such cases, a great deal of discomfort may be experienced by both farmers and nonfarm residents, and often serious restrictions are imposed on the farmers. Thus, in the development of policies for farm land use, it is important to recognize the need for achieving a measure of physical separation of urban uses from farms.

Other Production Problems. Other factors which affect farm production costs are capital, labor, and material supplies. In certain instances the cost of these factors may increase within an urbanizing area.

The difficulties of obtaining adequate farm labor were identified in Table 3 as the second most significant of the nine problems listed. In general, these difficulties

increase in urbanizing areas because urban development expands the opportunities for nonfarm employment. Even in rural areas of New York State, however, farmers have faced major problems in obtaining adequate labor.

The difficulties in obtaining adequate supplies and services for farming ranks eighth among the nine problems listed in Table 3. Where urban development has progressed far, resulting in a significant decline in farming, farm supply and service businesses may become increasingly inaccessible to farmers remaining in production, as the location of many of these businesses depends upon a sizable market of nearby farmers. In the vicinity of Monroe County, however, the decline in these businesses has apparently not been so extensive as to constitute a major problem for farmers. Nevertheless, 35 percent of the respondents still felt that this problem would have a discouraging effect on the continuation of farming.

The difficulties in obtaining adequate capital for farming ranks last among the problems listed in Table 3. Urbanization has mixed effects on the ability of farmers to raise capital for their operations. Urbanization increases the equity of farmers in their land, which might be expected to facilitate the acquisition of capital for farm investments. On the other hand, urbanization may also reduce the repayment ability of farmers by lowering their profits, which tends to counterbalance the increased borrowing power resulting from rising equity in land.

Each of these problems, particularly the farm labor problem, merits some consideration in the development of policies for maintaining land in farming. It must be recognized, however, that these problems lie largely outside the scope of local control and must be addressed at the state and federal levels of government.

Marketing Problems. The problem of finding an adequate market for farm products ranks fourth among those listed in Table 3. Approximately 14 percent of the respondents indicated this problem to be the most significant of those listed, while 36 percent of the respondents felt that it would not be significant enough to discourage their continuing to farm.

The significance of the marketing problem varies with the type of farm product which must be sold. Orchard farmers ranked the problem higher than vegetable farmers, who in turn ranked the problem higher than dairy or field crop farmers.

Much of the land in Monroe County is uniquely suited for fruit and vegetable production. As the local market for fresh fruits and vegetables can absorb only a small portion of the fruits and vegetables currently produced in Monroe County, the future of this type of farming will depend on the viability of food processing industries within the Monroe County region. Such industries have declined within the region in recent years, giving much cause for alarm among fruit and vegetable growers in Monroe County.

Public policies designed to encourage farming in Monroe County, therefore, must also be designed to encourage the food processing industries which provide the major markets for much of the farm output in the county. A major decline in these industries would bring in its wake the demise of many thousands of acres of once-productive farmland.

Alternative Land Use Opportunities

The future of farming in Monroe County may be threatened not only by rising production costs or declining markets but also by increasing opportunities for the sale of farmland to speculators or urban developers. The prospect of such opportunities discouraging farming ranks third in Table 3 among the nine problems listed, exceeded only by the property tax and farm labor problems. About 80 percent of the respondents felt that the prospect of converting their land to nonfarm uses would tend to discourage them from continuing to operate their farms.

The opportunities for converting farmland to urban use are indicated by the market price of this land. The market price of high-quality cropland in areas remote from urban expansion rarely exceeds \$300 per acre. If within an urbanizing area cropland sells for a price far in excess of this level, the price may be viewed as inflated by speculation or by the prospects of converting this land to urban use.

Respondents in the survey perceived the market value of their land to be far in excess of its value in farming. Only 5 percent of the respondents felt that their land would not sell for more than \$300 per acre if it were placed on the market and sold to the highest bidder over a six-month period. (See Appendix F, Table F5.) Only 13 percent felt that their land would not sell for more than \$500 per acre, which may be viewed as an upper limit to the value of the highest-quality cropland (excepting muckland) in Monroe County. One-half of the respondents felt that their land would actually sell for more than \$1,000 per acre.

Perceptions by farmers of an inflationary urban land market extend throughout most of Monroe County (Table F6). Near the city all of the respondents appraised the market value of their land at more than \$1,000 per acre. Although the frequency of such high appraisals declines as distance from the city increases, it is only in the more remote areas of Monroe County (principally in Hamlin and Clarkson) that the appraisals in general are not far in excess of the actual values of the land in farming. Even in these areas, however, there appears to be perceptions of incipient opportunities for land use conversion, as some appraisals are in excess of \$500 per acre.

Perceptions of alternative land use opportunities are more directly conveyed by the plans of farmers on the future use of their land. Many (27 percent) of the respondents, particularly those over 60 years of age, plan to discontinue farming during the next ten years (Table F7 and F8). More significantly, many more respondents intend to sell their land for urban development once they discontinue farming (Table F9). One-half of all the respondents have such intentions. Of those who intend to keep their land in farming after they discontinue operating it, 80 percent expect to achieve this by transferring their land to a member of their family, while only 20 percent expect to achieve this through bona-fide farm sales. Again these intentions reach far from the city: only in the more remote areas of Monroe County do intentions of maintaining land in farming through another generation of farm owners prevail (Table F10).

Thus, appraised land values and expectations on the eventual use of farmland suggest that the future perceived by most farmers in Monroe County lies not in farming but in land speculation and urban development. Further, the perceived opportunities for converting farmland to urban uses appear far in excess of the real

opportunities for achieving this, as indicated in the previous chapter. It will be recalled that during the past ten years alone more acres have been retired from farming than is needed to accommodate urban development for the next twenty years.

If the perceived opportunities for converting farmland to urban uses are greater than the actual opportunities for land use conversion, this will accelerate the decline in farming beyond the rate required to accommodate the needs for urban expansion. This phenomenon, which was pointed out in the previous chapter, arises from the effects of such perceptions on investments in barns, silos, machinery sheds, and other fixed capital facilities for farming. In an inflationary land market, where the future of farming is in question, farmers will generally be unwilling to make large investments in fixed capital facilities, as these require a long amortization period and do not increase the value of the land in nonfarm use. The decline in such investments leads to a decline in productivity and ultimately to the premature retirement of farmland.

During the past ten years farmers in Monroe County, particularly in outlying areas, have actually made sizable investments in fixed capital facilities (Table F11 and F12). The future plans of farmers, on the other hand, indicate that they are entering a period of capital depreciation partly in response to their perceptions of opportunities for land use conversion. Indeed, only 13 percent of all the respondents in the survey indicated that they intend in the future to invest more than \$10,000 in fixed capital facilities for farming (Table F13). This level of investment is far below that which will be required to keep farming in Monroe County competitive with that in outlying areas.

Policies designed to maintain land in farming, therefore, must give forceful direction to the pattern of urban expansion and must diminish the perceived opportunities for land use conversion in viable farming areas such that the perceptions are in line with reality. If farming is to prosper in these areas, the current level of uncertainty in the land market must be greatly reduced, such that farmers will have a clear basis upon which to make the large investments required to keep farming competitive.

Attitudes Toward Measures for Maintaining Farmland

Farmers generally have mixed attitudes toward the adoption of public policies for maintaining farmland within an urbanizing area. The problems which urbanization brings to farmers are indeed significant, and most farmers would welcome some relief from these problems. On the other hand, urbanization expands greatly the farmer's equity in his land. Many farmers would oppose policies which deny to them all opportunities for converting their land to urban uses.

Most of the respondents in the survey actually displayed favorable attitudes toward measures for maintaining land in farming. (See Table F14 in Appendix F.) Almost all of the respondents favored preferential tax assessment of farmland, whereby the land is assessed according to its value in farming rather than in speculative or urban uses. A majority of the farmers favored agricultural easements, which would permit farmers to enter into contracts with municipalities to keep their land in farming for a given period in exchange for preferential tax treatment. A

majority were also in favor of agricultural zoning and public utilities planning (see also Table F15) to guide urban development away from good farmland until this land is actually needed for such development.

The number of farmers in favor of these measures, particularly zoning and public utilities planning, appears quite large in view of the interest which they conveyed in converting their land to urban use. The favorable attitudes may emerge in part from the fact that the respondents may not perceive the policies in question as real possibilities at the present moment. Given the actual adoption of certain measures for holding land in farming, such as agricultural zoning, many of those who displayed favorable attitudes might show opposition, particularly if their own land is affected.

It is believed that the favorable attitudes also emerge from a deep frustration with the scope and complexity of the problems which, as noted in this chapter, urbanization brings to the farm manager. If this is true, then public policies which overcome these problems hold the promise of not only maintaining land in farming but also gaining much support within the farming community.

Chapter 5

VIABLE FARMING AREAS IN MONROE COUNTY

Where in Monroe County should policies to encourage farming be brought into effect? There are two parts to the answer to this question. First, such policies should be applied in areas where urban expansion is not considered desirable. Secondly, such policies should be applied in areas where farming, given appropriate controls on urban development and perhaps certain production incentives, shows promise of continuing. This chapter focuses on the latter part of the answer.

Certain information to be considered in the designation of farming areas has already been presented. The suitability of soils for farming, presented in Figures 2 and 3, should be taken into account. Similarly, the existing pattern of farm land use, given in Figure 4, should also be recognized.

The designation of farming areas, however, requires not only recognition of soil adaptability and the existing pattern of farming but also an analysis of the viability of farming. Faced inevitably by at least some pressures of urbanization, farming in Monroe County may be expected to prosper in the long run only in those areas where it is currently most viable.

The current viability of farming in various areas of Monroe County is interpreted in Figure 5. The interpretations were prepared by Robert E. Linton and Professor Howard E. Conklin of Cornell University. They were based on field work undertaken during the summer of 1971. It is expected that the information presented in Figure 5 will be published soon by the Department of Agricultural Economics at Cornell University.¹

Two classes of farm viability are shown in Figure 5: "high viability" (shown in a cross-hatched pattern) and "moderate viability" (shown in a hatched pattern). A third class, "low viability", was also considered in the survey, but it was not found to be significant enough to be mapped.

To provide a basis for Figure 5 each farm in Monroe County was surveyed and placed in one of the three viability classes. The final pattern of viability was then generalized to yield that shown in Figure 5. Thus, one will find areas within the high-viability areas of Figure 5 where farms are of moderate or low viability or where land is not in farming. In general, however, high viability farming prevails within areas so designated.

The viability appraisals took into consideration many factors, including:

1. Soil and water resources, topography, and climate.
2. Quality of access roads and location with respect to farm input and markets.

3. The level and condition of farm investments, particularly in real estate.
4. The present and most probable levels of farming skills.
5. The feasibility and rates of adopting new technologies.
6. Competition from substitute products, from farming areas outside Monroe County, and from alternative employment opportunities.
7. Patterns of farm ownership and operation.
8. Farm community morale.
9. Governmental policies affecting farming.

The viability classification, however, does not take into account the potential effects of urban expansion on farming, whether the effects are to convert the farmland directly to urban uses or to create excessive pressures on this land, resulting in its decline in productivity and premature retirement. Rather, the viability classes show the potential of land remaining in farming given the adoption of appropriate policies to diminish the adverse effects of urbanization on this land.

The high-viability areas, shown in a cross-hatched pattern in Figure 5, appear capable of supporting highly productive farming throughout the foreseeable future, if the adverse effects of urbanization in these areas are effectively controlled. The pattern of these areas is observed to correspond closely with that of high-quality farm soils displayed in Figures 2 and 3.

The future of farming is far less certain in the moderate-viability areas, shown in a hatched pattern in Figure 5. Although farm incomes in these areas are sufficient to sustain farming for a reasonable period, these areas will be highly susceptible to any adverse effects of urbanization on farming.

Other areas of Figure 5 have largely gone out of farming. One still finds in some of these areas part-time farming and occasional commercial farms, but the pattern of farm uses in these areas is interrupted by much idle land or urban development. It is unlikely that these areas could ever be returned to productive farming under any reasonable body of public policy.

In the designation of areas to be maintained in farming, priority should be given to the high-viability areas in Figure 5. Even within many of these areas, however, we have observed that urban pressures have had adverse effects on farming. If policies are not adopted to diminish these effects, then many highly viable farming areas may be expected to deteriorate in the future.

MONROE COUNTY
NEW YORK STATE

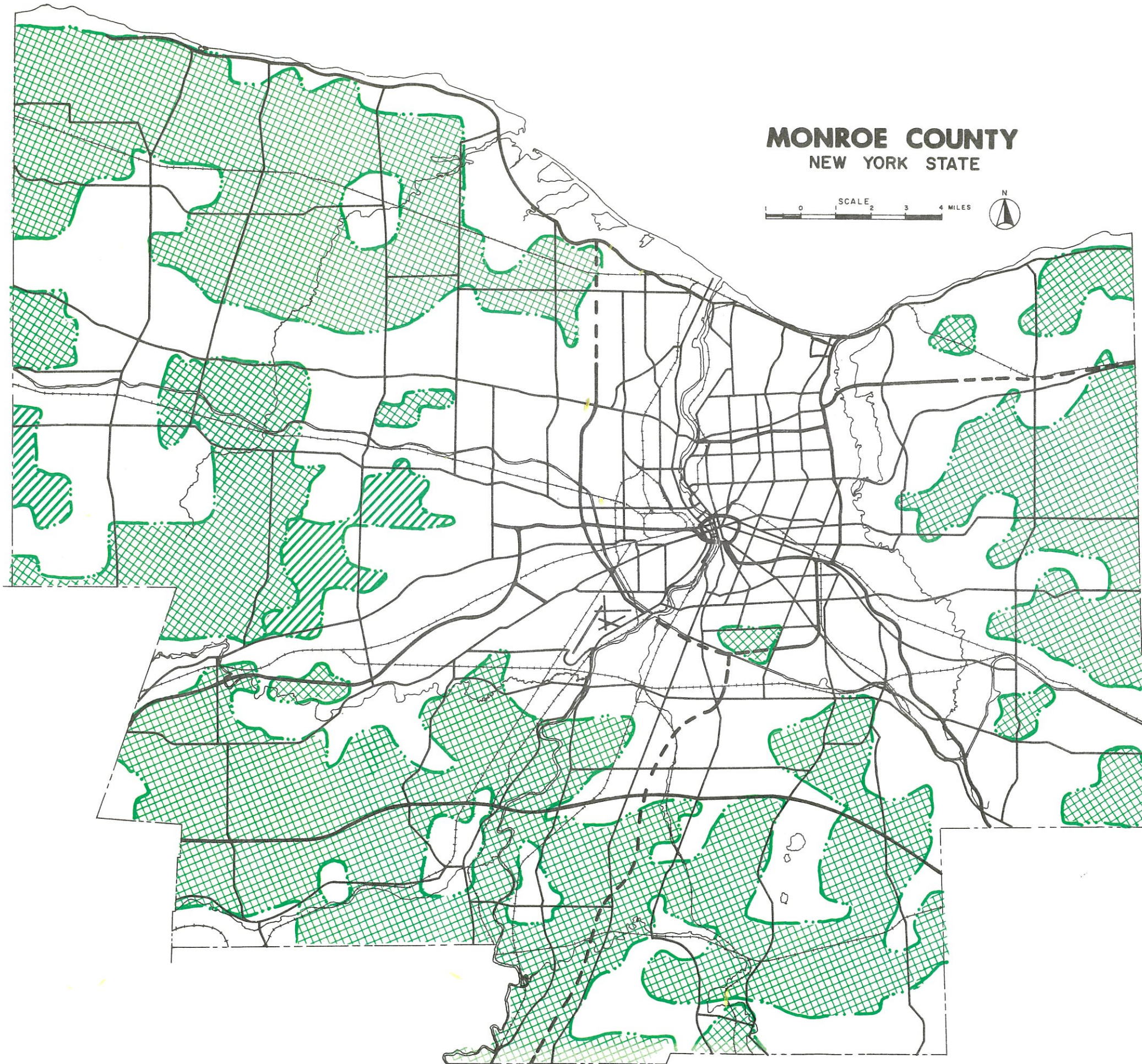
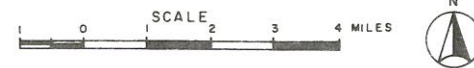




FIGURE 5

VIABLE FARMING AREAS

1971

-  HIGHLY VIABLE
-  MODERATELY VIABLE

Chapter 6

POLICY IMPLICATIONS

This chapter summarizes the need for adopting farm land use policy and considers the directions which such policy must follow. It does not, however, attempt to develop specific policy proposals, as this task will be taken up in an ensuing report.

The Need for Farm Land Use Policy

The previous discussion indicated that the need for adopting public policies to maintain land in farming is indeed significant. Several factors pointed to this need:

1. The public benefits from maintaining farmland are very large. Productive farming assures an adequate food supply at a reasonable cost. Combined with related industries, it contributes significantly to employment and incomes. It also provides attractive open space and assures efficient use of land which is being held for urban development. Maintaining land in farming, if it results in effective controls on the pattern of urban expansion, may also offer large benefits in reduced public servicing costs.
2. The land resources in Monroe County are uniquely suited for farming and are capable of sustaining productive agriculture for the foreseeable future.
3. Many areas of Monroe County remain in highly viable farming, and farming in these areas may continue for many years, given the adoption of effective public policies.
4. Despite the high viability of farming in many areas of the county, the pressures of urban development have had significant adverse effects on farming. These pressures have created a competitive disadvantage to farming in the county. The result has been a significant decline in farm productivity and the retirement of vast expanses of farmland which will not be needed for urban development for many years.
5. Farmers in the county are highly demoralized by the problems which urbanization has created for their operations and are looking increasingly to a future of land speculation and urban development rather than of farming. The increase in production costs and in opportunities for

converting farmland to urban uses, both of which have resulted from urban expansion in the county, have already contributed to a significant decline in farming and may be expected to accelerate this decline in the future.

6. While the problems which urbanization brings to farmers are significant, they are not beyond public control. There is ample land in Monroe County for both farming and urban development, and both uses may be accommodated if effective public policies are adopted. Indeed, such policies will be necessary to prevent the progressive decline of farming in the future and to realize the variety of public benefits to be derived from maintaining productive farmland.

Policy Guidelines

The farm problem in Monroe County has been attributed in this report largely to the adverse effects of urbanization. To maintain land in farming, therefore, it will be necessary to control these effects. Three general guidelines emerge for the design of public policies which serve this objective:

1. Policies must be designed to control the adverse effects of urbanization on farm profits.
2. Policies must be designed to diminish the opportunities for converting farmland to urban uses and bring the perceived opportunities in line with reality.
3. Policies must be designed to reserve sizable areas for farm production.

These guidelines are briefly discussed below.

Farm Profits. If farming is to be maintained in Monroe County, public policies must control the adverse effects of urbanization on farm profits. Profits have undergone a relative decline in Monroe County due largely to rising production costs and a decline in local processing industries which provide markets for fruit and vegetable growers. Production costs have increased principally because of rising taxes. Additional production problems include difficulties in obtaining adequate farm labor and increasing land use conflicts.

While each of these problems requires consideration in the development of public policy, the problem which must be given foremost attention is that of rising farm property taxes. This problem is not only the most significant production problem to current farm operators but it is also the problem which is most immediately affected by conventional policies of local government.

To maintain land in farming, therefore, it will be necessary to prevent major increases in farm property taxes. Because of the growing demand for tax revenues, it is unreasonable to expect an actual reduction in farm property taxes in Monroe County. Nevertheless, the rate of increase in farm property taxes may be reduced

through the adoption of effective public policies. If the rate of increase is reduced below that in competing farming areas more remote from urban expansion, then these policies would eventually eliminate much of the competitive disadvantage under which farmers in Monroe County are now operating.

The rate of increase in farm property taxes may be reduced by controlling either assessments or the tax rate. Although both will require control, it is the tax rate which is of major concern, since this has been by far the more significant factor behind past increases in farm property taxes in Monroe County. Control of the tax rate implies effective control over the pattern of urban expansion, as the tax rate is highly responsive to the increasing demand for public services which results from urban expansion. Thus urbanization must be largely denied to farming areas and must be guided into patterns which can be efficiently provided with public services.

Alternative Land Use Opportunities. If farming is to be maintained in Monroe County, public policies must be designed to diminish the opportunities for converting farmland to urban uses. These opportunities give rise to expectations among farm operators of large capital gains from the eventual sale of their land for urban use. Such expectations often lead to the depreciation of farming investments, a decline in farm productivity, and the premature retirement of farmland.

Although the real opportunities for converting farmland to urban uses in Monroe County are quite limited, the perception of these opportunities reach throughout most of Monroe County. Even in areas quite remote from urban development, many current farm operators have intentions of developing their land for urban uses once they discontinue farming. The inventory of farmland which is being held in anticipation of urban development appears to exceed by far the actual amount of land which will be required for urban expansion for many years to come. This imbalance, through its effects on farm investments and productivity, appears to account for much of the premature retirement of farmland in Monroe County.

If farming is to be maintained in Monroe County, therefore, policies must be adopted to eliminate much of the current uncertainty in the farmland market. In order to make the large farm investments which will be necessary to remain competitive, farm managers must be convinced that farming will continue to be the best use of their land and that there is little to be gained from land speculation. This kind of certainty will also be required to assure that farmland will not be priced beyond the reach of a new generation of farm owners.

The policy implications are similar to those for controlling farm taxes. Plans must be developed and brought into effect for guiding urban development away from productive farming areas. Further, these plans must have a significant effect on the course of urban expansion if they are to eliminate the uncertainty which now exists in the farmland market and to renew the confidence of farm managers in the prospective viability of their operations.

Size and Location of Farming Areas. If farming is to be maintained in Monroe County, public policies must be designed to reserve relatively large areas principally for this use. Urban pressures on farming cannot be effectively controlled if urban development is allowed to penetrate extensively a farming area. Similarly, it

assess and submit proposal that you found the viable areas

is difficult to maintain in farming relatively small areas if urban development is allowed to impinge upon these areas.

Public policies must also be concerned with the location of farming areas. In general, policies which maintain farming within a given area will expand urban development pressures outside this area. The greater the development pressures within the area to be maintained in farming, the more they will be expanded outside this area by such policies.

This phenomenon suggests the need for designating appropriate locations for farming to assure that policies for maintaining land in farming will not be self-defeating. If, for example, farmland is to be maintained near the city, where the demand for land by urban uses is great, then this policy may expand the urban pressures on outlying farmland, causing potentially greater disruption to farming than if the policy had not been adopted. Thus, if it is considered desirable to maintain farmland near the city, safeguards may have to be adopted to assure that viable outlying farming areas will not be disrupted.

On the other hand, if urban development is guided into relatively dense patterns in areas remote from viable farming, this will tend to reduce development pressures within viable farming areas and encourage the continuation of farming in such areas. Current development controls do not achieve this result, because they fail to provide sufficient land for multi-family housing and because they permit single family housing on relatively small lots within all of the viable farming areas of Monroe County.

The pattern of highly viable farming displayed in Figure 5 of the previous chapter provides an excellent initial basis for the designation of farming areas. It is fortunate that large areas of Monroe County still remain in productive farming and that urban development pressures in many of these areas have not yet progressed beyond the potential control of public policy. Because of the size and location of many of these areas, it is still feasible to adopt public policies which will effectively maintain farming.

The Agricultural Districts Law

In September, 1971 the New York State Agricultural Districts Law¹ came into effect, providing an initial basis for maintaining farmland in urbanizing areas. This section briefly outlines the major features of this law.²

The Agricultural Districts Law enables counties to designate areas in which to encourage farming. The major intention of the law is to discourage urban penetration in these areas and to offer farmers an incentive to remain in production.

The major steps in the creation of an agricultural district are as follows:

1. Landowners prepare a district proposal and submit it to the Monroe County Legislature. The district proposal may be prepared by an individual or a group of landowners. In either case the applicant(s) must own at least 500 acres of land (which need not be farmland) or 10 percent of all the land proposed to be included in the district, whichever is greater.

2. The legislature refers the proposal to the County Planning Council and the County Agricultural Advisory Committee for their review and recommendations. The Agricultural Advisory Committee, which was recently appointed by the Monroe County Legislature, consists of four farmers, four agribusinessmen, and one legislator.
3. After receiving the recommendations of the Planning Council and the Agricultural Advisory Committee, the legislature holds a public hearing on the proposed district. The legislature may subsequently adopt the proposed district.
4. If the legislature adopts the proposed district, it must submit the proposal to the State Commissioner of Environmental Conservation, who in turn submits it to the State Office of Planning Services and the State Agricultural Resources Commission for their review and recommendations.
5. The Commissioner, upon receiving the recommendations of the state agencies, may modify the district proposal prior to certification or may certify it as it was originally submitted.
6. Upon receiving the proposal as certified by the Commissioner, the Monroe County Legislature may disapprove of the district. If the certified proposal was modified at the state level, the legislature must hold a public hearing prior to approving or disapproving of the district. If the legislature does not disapprove of the district, it comes into effect.

The county legislature is required to review each agricultural district every eight years after its establishment. The recommendations of the Planning Council and the Agricultural Advisory Committee must be considered in the review, and a public hearing must be held. The legislature may then terminate the district, allow the district to continue without modification, or modify the district. If the legislature chooses to modify the district, the same procedures must be followed as in the establishment of the original district.

Once an agricultural district is in effect, five major provisions will apply within the district:

1. Land owners may apply for an agricultural assessment of their land. To be eligible for such an assessment, the applicant must own at least 10 acres and his land must have produced an annual average of at least \$10,000 of farm commodities during the two years preceding the application. A ceiling for agricultural assessments is to be established by the State Board of Equalization and Assessment. If land which has obtained an agricultural assessment is converted to nonfarm use, the owner must pay back-taxes for the previous five years. These back-taxes would equal the difference between the taxes which were actually paid under the agricultural assessment and those which would have been paid if the land has not been preferentially assessed.

2. Local governments are prohibited from adopting ordinances which restrict farming activities within districts, unless these ordinances are necessary to protect the public health and safety.
3. State agencies must adopt the policy of maintaining viable farming in agricultural districts and must revise their administrative regulations and procedures accordingly.
4. Certain procedures must be followed by public agencies in the advancement of funds for utilities or nonfarm development in agricultural districts and in the acquisition of land within these districts where more than 10 acres are to be acquired from a single farm or more than 100 acres are to be acquired from an entire district. In these instances, the public agency must file notice of its intentions with the State Commissioner of Environmental Conservation, who must hold a public hearing on the matter and may delay action for as long as 60 days.
5. Within agricultural districts restrictions are placed on the taxing of farmland for sewer, water, drainage, and lighting services. Unless such taxes are in effect prior to the formation of the district, they cannot be imposed on farmland on the basis of frontage, acreage, or value, except for small areas surrounding dwellings and nonfarm structures on this land.

In September, 1974 the Agricultural Districts Law permits the State Commissioner of Environmental Conservation to create agricultural districts. The districts, in this instance, must encompass a land area of at least 2000 acres and must contain agricultural land which is determined to be unique and irreplaceable. Prior to creating such a district, the commissioner must consult with various state and local agencies, community leaders, and interested individuals, and he must hold a public hearing. Districts created by the commissioner must be reviewed every eight years. The above five provisions apply to districts created by the commissioner as well as those created by the county legislature. In addition, where districts are created by the commissioner the state would be required to reimburse each taxing jurisdiction part of the loss in revenue resulting from agricultural assessments.

Finally, the Agricultural Districts Law provides for an agricultural assessment of farmland outside agricultural districts. To be eligible for an agricultural assessment, landowners outside districts must own at least 10 acres which must have produced at least \$10,000 of farm commodities in the year preceding the application. The owner must sign an agreement to keep his land in farming for an eight-year period, and to retain the agricultural assessment the owner must renew the commitment annually, such that it continues to pertain to an eight-year period. If any land under the commitment is converted to nonfarm use during the eight-year period, the owner must pay a penalty tax equal to two times the taxes determined in the year following the breach of commitment for all land previously under commitment.

Further Policy Directions

The Agricultural Districts Law broadens greatly the power of county government to control land use development. In itself, however, the law does not necessarily provide a sufficient basis for maintaining land in farming. Rather, the law must be applied in conjunction with a broader set of policies which determine the course of urban expansion. This section, following the policy guidelines set forth previously, examines some of the limitations of the law and sets forth additional factors to be considered in the development of farm land use policy.

Size and Location of Farming Areas. One guideline for the development of farm land use policy relates to the size of farming areas. These areas must be of relatively large size if urban pressures are to be effectively controlled within them.

The Agricultural Districts Law sets a lower limit of 500 acres to the size of a district. If a single farm is of this size, then the farm by itself may constitute an entire district in conformance with the provisions of the law. The law, in addition, allows for individual farms outside districts to obtain agricultural assessments, even if these farms are surrounded by urban development and show little promise of remaining in production over the long run.

Because the long-run viability of farming areas will depend on their size, public policy should encourage the formation of relatively large districts under the Agricultural Districts Law. It is likely that districts initially proposed to the county legislature will be of relatively small size. This is because such proposals will require agreement among property owners, and the fewer the number of owners the more readily agreement may be obtained. These proposals, however, are subject to review and modification at the county and state levels, and at this time there is an opportunity for enlarging the proposed district boundaries. In general, where proposed districts lie within areas of highly viable farming, as shown in Figure 5, every effort should be made to encourage the formation of relatively large districts.

Consideration must also be given to the location of farming areas. The Agricultural Districts Law offers in some respects greater advantages to farmers operating near the city, where urban development pressures are great, than to farmers in more remote locations. Because the assessment on farmland is generally much higher in the former locations, farmers here have a greater incentive to take advantage of the agricultural assessment provisions of the law, either by forming districts or by obtaining independent contracts. As noted previously, the establishment of agricultural districts near the city may have adverse effects on outlying farming areas, and these effects must be considered in the application of the Agricultural Districts Law.

Because the incentives for forming agricultural districts in outlying areas are relatively low, the formation of districts in these areas will have to be promoted. The advantages to locating districts in such areas must be clearly recognized. In these areas the urban pressures may be effectively controlled to assure the continuation of farming for a considerable period. Further, the establishment of districts in these areas will assist in containing urban expansion and may bring significant benefits in reducing public servicing costs.

In the designation of agricultural districts priority should be given to the viable farming areas presented in Figure 5. This is not to suggest that the district boundaries should conform precisely with those of the viable farming areas in Figure 5. The latter areas are highly generalized, including some land which is not in farming and excluding some viable farmland. These variations will have to be considered by local landowners in the initiation of district proposals as well as by review agencies. Thus the most appropriate districts may encompass only parts of the viable farming areas in Figure 5, and they may also include some land outside these areas. Despite the need for such variations, the configuration of agricultural districts should conform quite closely with the pattern of viable farming areas in Figure 5, as these are the areas which show promise for continuing in farming.

Farm Profits. The Agricultural Districts Law is designed in part to expand farm profits, providing an incentive for farmers to remain in production. The major features of the law relating to farm profits are its agricultural assessment provisions, its restrictions on the adoption of local ordinances controlling agricultural production, and its limitation on the taxation of farmland for sewer, water, and other services. In containing such provisions, the law recognizes the need for diminishing the relative disadvantage under which farmers in urbanizing areas are now operating.

Although the Agricultural Districts Law provides an initial basis for improving farm profits, additional policies for achieving this objective must be considered. The previous analysis indicated, for example, that farm profits in Monroe County have undergone a relative decline principally due to increases in the tax rate rather than increases in farmland assessments. Because most of the farmland in Monroe County is currently assessed within reasonable limits, the agricultural assessment provisions of the law will have little effect on the current profit margin of most farmers in Monroe County. The major advantage of the assessment provisions is that they may forestall future increases in farmland assessments. They also provide an opportunity for improving profits among the limited number of farmers whose land is currently assessed above its farm value.

It was suggested previously that the tax rate must be controlled principally by preventing urban development within the taxing jurisdiction of viable farming areas or by assuring that this development will assume patterns which may be efficiently serviced. The Agricultural Districts Law does not necessarily assure a beneficial effect on the tax rate in farming areas unless it is consciously applied to achieve this effect. To have a significant effect on the tax rate, large areas should be included in agricultural districts, and these districts must be located so as to guide urban development into efficient patterns.

The previous analysis brought forth other factors affecting farm profits which are not addressed in the Agricultural Districts Law. The most significant of these factors are difficulties in obtaining adequate farm labor and marketing problems arising from the decline in local food processing industries. Although no specific guidelines have emerged for the development of policies to alleviate these problems, the potential of developing such policies requires careful consideration.

Alternative Land Use Opportunities. The Agricultural Districts Law also contains provisions to diminish the opportunities for converting farmland to

nonfarm use in agricultural districts. The most significant of these provisions is the restriction on the taxing of farmland for sewer, water, and other services, which would tend to discourage the extension of such services into agricultural districts. In addition, the law restricts public land acquisition and public funding of nonfarm development in farming districts. An additional provision to discourage urban development in farming areas is the tax penalty imposed on such development where the land has obtained an agricultural assessment. The effects of this provision, however, will be limited because the tax penalty will be relatively small compared with the capital gains which are usually realized from converting farmland to urban uses.

As noted, the effectiveness of these provisions will depend largely on the size of the agricultural districts: the larger the districts the more effectively will these provisions diminish the opportunities for converting farmland to nonfarm use. Because new roads, sewer and water extensions, and other features of urbanization bring development pressures far beyond areas immediately affected, these pressures cannot be effectively controlled within small districts. Thus the Agricultural Districts Law must be applied in conjunction with a broad set of policies concerning the location of public facilities which serve urban development.

The Agricultural Districts Law must also be applied in conjunction with other policies for diminishing alternative land use opportunities in agricultural areas. The law itself is permissive toward development: land owners within agricultural districts are free to sell their land for whatever use the market will support. Thus the effectiveness of Agricultural Districts Law will be greatly enhanced if local land use controls are designed to discourage further urban development in viable farming areas. Agricultural zoning, for example, should be adopted by municipalities in conjunction with the establishment of agricultural districts. Zoning, through establishing large minimum lot sizes or other restrictions on nonfarm development, may be used to control development not only within agricultural districts but also in the vicinity of these districts.

Concluding Comments

Monroe County has reached an important point for public decision concerning the use of its farmland. At stake is the continuation of an attractive and productive use of this land and an important sector of the local economy. The options are clear: (1) either to allow past trends to continue or (2) to attempt to alter these trends in the interest of maintaining the vitality of our farm economy.

Given the first choice, all the evidence in this report points to a very significant decline in farming in Monroe County during the next few decades. The pressures of urbanization on farming — whether through its effects on the land market or on farm production costs — are overwhelming. They are far beyond the control of the individual farmer, no matter how efficient he is as a farm manager or how committed he is to farming as a way of life.

Despite the significant decline in farming in the past, it is not too late to adopt the second alternative: to attempt to alter current trends in order to maintain viable farming in the county. While we have observed a rapid decline in farming, we have also observed that sizable areas of the county still sustain viable farming and may

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continue to do so if (but only if) effective policies are adopted to control urban pressures in these areas.

This report has taken an initial step toward developing such policies. As indicated in the Introduction, it provides a technical basis for the future development of farm land use policy by the Planning Council. It is hoped that the report has also served to increase public awareness of the farm problem in Monroe County. Finally it is hoped that the policy guidelines in this report will prove useful, setting Monroe County on a future course which finds a place for farming as well as urban development.

Appendix A

DERIVATION OF FARM SOIL CLASSES

In Chapter 2 the classification of the suitability of soils in Monroe County for farming was derived from an analysis of soil associations. This appendix gives some of the details of that analysis.

A soil association refers to a landscape within which the soils have similar properties. Ordinarily a number of different types of soils, or "soil series", will be found within a given soil association. The name of the soil association is taken from the major soil series within it. Thus, for example, the soil association Sodus-Ira-Niagara is dominated by soils in three series, principally the Sodus series (the first series given in the association name) but also the Ira and Niagara series. Soils in other series will also be found in this association, but they will be less extensive.

In Monroe County there are thirteen different soil associations. The location of these associations was presented in Figure 1 of Chapter 2. The more significant properties of soils within the associations is given in Table A1.

Soils in Associations 1 through 6 were formed primarily in glacial till and are composed predominantly of clay. These associations encompass about 45 percent of the area of Monroe County, mostly to the south of Ridge Road. Although the soils in these associations display some differences in their properties (see Table A1), they are generally deep and present a gently rolling topography. The principal distinctions lie in their drainage, which in some cases is poor while in others it is excellent, and in their subsoil texture, which varies from fine to moderately coarse.

The soils in Associations 7 and 8 were formed primarily in sandy or gravelly glacial water deposits. These associations, which encompass about 20 percent of the area of the county, have slopes that are generally more level than those of the associations formed in glacial till, although in some areas steep slopes are found. The subsoil texture, although variable, is predominantly coarse, providing good drainage.

Soils in the remaining five associations were formed primarily of post-glacial lake deposits of silts and clays. These associations, which encompass some 35 percent of the area of the county, lie predominantly in the northern part of the county, to the north of Ridge Road. Here the associations were formed in Lake Iroquois, a post-glacial lake which receded eventually to form Lake Ontario. The alignment of Ridge Road approximates the shoreline of Lake Iroquois and serves as a significant divide in the soil formations of Monroe County. As a result of erosion by Lake Iroquois, the soils in the vicinity of Ridge Road are shallow. To the north, where the eroded silts and clays were deposited, the soils are deep and nearly level. Although most of these soils have good drainage, some areas, because of fine subsoil texture, present serious drainage problems.

Thus the geological history of Monroe County, particularly during the glacial period, has had much to do with the character and pattern of its soil associations. Whether the association was formed in glacial till, in glacial water deposits, or in post-glacial lake deposits, in turn, has had an effect on its suitability for various types of farming.

The suitability for farming of the soil associations in Monroe County is interpreted in Table A2. These interpretations, combined with the configuration of soil associations in Figure 1 of Chapter 2, provide the basis for the mappings in Chapter 2 of the suitability of soils for farming.

Certain of the soil characteristics which led to disparities between the evaluation for orchards and those for field crops and vegetables are itemized in Table A1. Orchards require deeper, better-drained soils than field crops and vegetables. Sandy and gravelly soils (those of coarse texture in Table A1), which provide excellent drainage, are well suited for orchards. These soils, however, are often more poorly suited for field crops and vegetables because they are too well drained and may be low in nutrients. Thus, in comparing Tables A1 and A2, one observes that the Colonie-Elnora-Minoa association, because of its large sand and gravel composition, has been rated as "good" for orchards and only "fair" for field crops and vegetables. Conversely, certain associations formed in glacial till, because of their higher clay content, have been rated "good" for field crops and vegetables but only "fair" for orchards.

Some of the disparities in the classification are not apparent from the characteristics itemized in Table A1. It was necessary, for example, to use considerable judgment in combining the properties listed in Table A1 to derive a general evaluation of the suitability of the soils for the two categories of farming. Further, certain soil characteristics which are not given in Table A1 were taken into account in the evaluation. The most significant of these are the pH-level (a measure of acidity) and the organic content of the soil. In general, neutral soils, with pH-levels varying from 6 to 7, are better suited to field crops and vegetables than to orchards, which require somewhat more acidity. Similarly, for field crops and vegetables soils of high organic content are desirable, while organic content is a less significant factor in orchard production.

Despite the large percentage of county land which is designated as well suited to farming, much of this land presents problems which require special attention by farm management. (See Table A2.) Where these problems are not severe, they may be overcome by proper management practices.

Associations 1 through 6 display problems common to soils formed in glacial till. Erosion generally presents a problem in steeply sloping areas, and partly for this reason most of the farmland in such areas has been retired. In addition, drainage problems are common in these associations, particularly in lower areas where surface drainage accumulates. Other common problems include droughtiness where the soils are shallow and cultivation difficulties resulting from significant amounts of stones and boulders in the soil.

The farm management problems in Associations 7 and 8 are related largely to the coarse texture of the soils in these associations. Droughtiness, resulting from excessive drainage, is often a significant problem, particularly for vegetable production. In addition, soils in Association 7 are often difficult to cultivate because of their coarse textures, while those in Association 8 are often low in nutrients.

In Associations 10 through 13 the most serious problem for farm management is that of poor drainage. Because of this problem all of these associations except 11 are poorly adapted to orchards. The drainage problem and texture in Associations 12 and 13 make these associations generally poorly suited for all categories of farming. Farming, to be successful in these associations, requires the highest quality of management.

Most of the land in Monroe County, however, is well suited to farming, presenting only minor problems which may be overcome by proper management practices. As was pointed out in Chapter 2, soils and climate favor highly productive orchard farming in the northwestern part of the county. In other parts of the county large areas are well suited for field crops and vegetables. Many areas which are quite remote from intensive urban development are physiographically well adapted to supporting highly productive farming for many years to come.

TABLE A1. THE CHARACTERISTICS OF SOIL ASSOCIATIONS IN MONROE COUNTY

Association	Percent of County Land in Association	Dominant Composition	Depth to Bedrock	Subsoil Texture	Drainage	Dominant Slopes
1. Madrid-Massena	10	Glacial till	Deep	Medium to moderately coarse	Somewhat poor to good	Nearly level to steeply sloping
2. Ontario-Hilton-Appleton	18	Glacial till	Deep	Medium to moderately coarse	Somewhat poor to good	Nearly level to steeply sloping
3. Lima-Honeoye-Benson	8	Glacial till	Shallow to deep	Medium to moderately coarse	Fairly good to excessive	Nearly level to steeply sloping
4. Lockport-Cazenovia-Lairdsville	6	Glacial till	Moderately deep to deep	Fine to moderately fine	Somewhat poor to fairly good	Nearly level to gently sloping
5. Riga-Brockport	1	Glacial till	Moderately deep	Fine to moderately fine	Somewhat poor to fairly good	Nearly level to gently sloping
6. Sodus-Ira-Niagara	1	Glacial till	Moderately deep to deep	Moderately fine to moderately coarse	Somewhat poor to good	Nearly level to gently sloping
7. Palmyra-Wampsville	6	Gravel or sand (outwash deposits)	Deep	Moderately fine to moderately coarse	Good to excessive	Nearly level to steeply sloping
8. Colonie-Elnora-Minoa	14	Sand (water deposits)	Deep	Moderately coarse to coarse	Somewhat poor to excessive	Nearly level to steeply sloping
9. Arkport-Collamer	5	Lake-laid silts, very fine sands, loamy sands	Deep	Moderately fine to moderately coarse	Fairly good to good	Level to steep
10. Canandaigua-Niagara-Genesee	2	Lake-laid silts, very fine sands, loamy sands	Deep	Moderately fine to medium	Very poor to good (flooding)	Level to nearly level
11. Collamer-Hilton-Niagara	13	Lake-laid silts, very fine sands, loamy sands, glacial till	Deep	Moderately fine to medium	Somewhat poor to fairly good	Level to gently sloping
12. Hudson-Rhinebeck-Madalin	1	Lake-laid clay	Deep	Fine	Very poor to fairly good	Level to gently sloping
13. Schoharie-Odessa-Lakemont	14	Lake-laid clays	Deep	Fine	Very poor to fairly good	Level to gently sloping

TABLE A2. SUITABILITY OF SOIL ASSOCIATIONS IN MONROE COUNTY FOR FARMING

Association	Field Crops and Vegetables	Orchards	Problems to Be Overcome by Farm Management
1. Madrid-Massena	Good	Good	Erosion in sloping areas; drainage in lower areas; droughtiness; stones and boulders may interfere with cultivation
2. Ontario-Hilton-Appleton	Good	Fair	Erosion in sloping areas; drainage in lower areas
3. Lima-Honeoye-Benson	Good	Fair	Erosion in sloping areas; drainage in lower areas; droughtiness where shallow to bedrock
4. Lockport-Cazenovia-Lairdsville	Poor	Poor	Erosion in sloping areas; droughtiness where shallow to bedrock; general problem of drainage and cultivation
5. Riga-Brockport	Poor	Poor	Erosion in sloping areas; droughtiness where shallow to bedrock; general problem of drainage and cultivation
6. Sodus-Ira-Niagara	Fair	Good	Erosion in sloping areas; drainage in lower areas; droughtiness where shallow to bedrock; acidity; fragipans
7. Palmyra-Wampsville	Good	Good	General problem of droughtiness; general problem of cultivation due to gravelly and cobbly surface textures
8. Colonie-Elnora-Minoa	Fair	Good	Erosion where sandy areas are exposed without protective covering; drainage in lower areas; general problem of droughtiness; low nutrients
9. Arkport-Collamer	Fair	Good	Erosion in sloping areas; drainage in drainway areas
10. Canandaigua-Niagara-Genesee	Fair	Poor	General problem of drainage and flooding
11. Collamer-Hilton-Niagara	Good	Good	Erosion in even gently sloping areas; drainage because of seasonal wetness in flatter areas
12. Hudson-Rhinebeck-Madalin	Poor	Poor	General problem of drainage because of seasonal wetness; general problem of timely tillage because of puddling and clodding
13. Schoharie-Odessa-Lakemont	Poor	Poor	General problem of drainage because of seasonal wetness; general problem of timely tillage because of puddling and clodding

Appendix B

TABLE B1. ACRES IN VARIOUS KINDS OF FARMING, 1968¹

	Orchards	Vineyards	Horticulture and Floriculture	Specialty Farms	High Intensity Cropland	Cropland & Cropland Pasture	Permanent Pasture
Central Towns							
Brighton	0	0	10	22	0	672	119
Gates	0	0	175	119	0	215	0
Greece	573	0	114	67	96	4,826	230
Irondequoit	0	7	173	0	0	64	0
Western Towns							
Clarkson	400	0	2	0	0	7,388	398
Hamlin	1,902	0	27	22	0	17,312	926
Ogden	467	0	25	30	0	8,013	511
Parma	1,205	0	22	72	0	9,233	568
Sweden	277	0	0	0	0	7,726	521
Southwestern Towns							
Chili	22	0	5	89	141	9,465	998
Riga	20	0	12	37	0	11,854	1,257
Wheatland	0	0	0	158	0	11,150	1,292
Southern Towns							
Henrietta	0	0	15	72	37	8,457	659
Mendon	0	0	89	148	0	11,409	837
Rush	7	0	0	0	0	10,782	1,544
Eastern Towns							
Penfield	395	59	42	62	161	6,602	635
Perinton	5	0	37	121	15	5,098	1,176
Pittsford	0	0	0	190	0	4,503	284
Webster	415	22	72	0	69	3,942	304
TOTAL	5,688	88	820	1,209	519	138,711	12,259

¹ Source: Data are from the "LUNAR" system, developed by Cornell University under contract with the New York State Office of Planning Services, formerly the New York State Office of Planning Coordination. See Roger A. Swanson, *The Land Use and Natural Resource Inventory of New York State* (Albany: New York State Office of Planning Coordination, June 1969). The table is based on computer output made available by the Genesee/Finger Lakes Regional Planning Board.

Appendix C

DERIVATION OF ESTIMATES OF URBAN LAND NEEDS

In Chapter 3 it was estimated that 23,000 acres in Monroe County were converted to urban uses from 1958 to 1968 and that from the present until twenty years in the future an additional 43,000 acres will be converted to urban uses.

The estimates were based on a coefficient which relates increases in urbanized land area to increases in population. By the coefficient, .153 acres of land are converted to urban uses to accommodate each individual added to the population. The coefficient was derived for use in a report by David J. Allee, et. al., *Toward the Year 1985: The Conversion of Land to Urban Use in New York State* (Ithaca, N.Y.: New York State College of Agriculture, 1970). The coefficient was based on an interpretation of aerial photographs showing the development pattern in Monroe County in 1954 and 1963. It includes all land which goes into residential, commercial, industrial, and institutional uses, but excludes land going into rural residential estates where these estates encompass more than three acres.

The population increment to which the coefficient was applied to determine the land area urbanized from 1958 to 1968 is the increment which actually occurred (based on the U.S. Census) in Monroe County, excluding Rochester, from 1960 to 1970. The population increment for the estimate of the area urbanized from the present until twenty years in the future is the increment in population in Monroe County from 1970 to 1990 projected by the New York State Office of Planning Services.

Appendix D
FARM QUESTIONNAIRE

The following is a copy of the questionnaire which was sent to a sample of farmers in Monroe County.

1. Please indicate with a check mark whether your farm is an individual or family operation, a partnership, a corporation, or another kind of operation:
 - a. Individual or family operation
 - b. Partnership
 - c. Corporation
 - d. Other (specify kind):

PLEASE FILL OUT THE REMAINING QUESTIONS FOR YOUR ENTIRE FARM. FOR EXAMPLE, IF YOUR OPERATION IS A PARTNERSHIP OR A CORPORATION, ANSWER THE QUESTIONS FOR THE ENTIRE OPERATION, NOT JUST THAT PART WHICH YOU YOURSELF OWN OR OPERATE.

2. Indicate the total value of the farm products which you sold last year (1970):
 - a. Less than \$10,000
 - b. \$10,000 to \$19,999
 - c. \$20,000 to \$29,999
 - d. \$30,000 to \$49,999
 - e. \$50,000 or more

IF YOU SOLD LESS THAN \$10,000 OF FARM PRODUCTS LAST YEAR, DISCONTINUE FILLING OUT THIS QUESTIONNAIRE AND MAIL IT IN THE RETURN ENVELOPE. IF YOU SOLD MORE THAN \$10,000, PLEASE FILL OUT THE REMAINDER OF THIS QUESTIONNAIRE BEFORE YOU MAIL IT IN THE RETURN ENVELOPE.

3. Enter your age:
4. Enter the total number of acres which you now own:
5. Of the land which you own, enter the total number of acres which you devoted to crops and pasture last year (1970):

6. Enter the total number of acres which you rented from other persons for farming last year:
7. If you operated in your current location in 1960, enter the number of acres which you rented and owned in that year:
 - a. Acres rented from others for farming in 1960:
 - b. Acres which you owned and devoted to crops and pasture in 1960:
8. If you rented land for farming last year, check the kinds of land owners from whom you rented land:
 - a. Farmers who still operate their farms on a part-time or full-time basis
 - b. Farmers who have discontinued operating their farms
 - c. Nonfarm owners who reside by the land which they are renting
 - d. Nonfarm absentee owners who reside away from the land which they are renting
 - e. Other (specify):
9. If you rented land for farming last year, check the average rent that you paid per acre:
 - a. Less than \$5.00
 - b. \$5.00 to \$9.99
 - c. \$10.00 to \$14.99
 - d. \$15.00 to \$19.99
 - e. \$20.00 or more
10. Indicate the number of acres (both rented from others and owned) which you devoted to the following crops last year:
 - a. Tree fruits:
 - b. Vine fruits:
 - c. Vegetables and ground fruits:
 - d. Grains (corn, wheat, alfalfa, oats, etc.):
 - e. Horticultural and floricultural products:
 - f. Pasture and range land:
 - g. Other crops (specify types of crops and number of acres devoted to their production):
11. If you were involved last year in poultry or livestock farming, indicate the average number of poultry or livestock in your operation:
 - a. Laying hens:
 - b. Pullets:
 - c. Other poultry:
 - d. Milk cows:

- e. Dairy heifers:
 - f. Beef cattle:
 - g. Other livestock (specify number and kind):
12. Check below the estimated total cost of new farm structures which you have added to your farm since 1960. Include in the estimate the costs of additions to or improvements in your barns, silos, machinery sheds, milking parlors, storage structures, and other fixed farm structures. Do not include the costs of additions to or improvements in your residence, land, or tractors and other movable pieces of farm machinery.
- a. Less than \$5,000
 - b. \$5,000 to \$9,999
 - c. \$10,000 to \$24,999
 - d. \$25,000 to \$49,999
 - e. \$50,000 or more
13. Do you feel that your current property taxes are so high that largely because of them you must now consider discontinuing operating your farm (check either "yes" or "no")? Yes No
14. Do you expect that property taxes during the next 10 years will become so high that largely because of them you will have to consider discontinuing operating your farm? Yes No
15. Check the statement which better expresses your attitude toward the provision of public sewer and water lines in the vicinity of your farm:
- a. I prefer to have these facilities near my farm because they will increase the value of my land by making it more desirable for urban use.
 - b. I prefer not to have these facilities near my farm because they will increase my property taxes.
16. Have you received from your nonfarm neighbors any objections to your farming operations, such as manure spreading, spraying, farm odors, and so forth? Yes No
17. If the answer to 16 is "yes", specify the kinds of objections which you have received:
18. Have any of the activities of your nonfarm neighbors been objectionable to you or detrimental to your farming operations? Yes No
19. If the answer to 18 is "yes", specify the ways in which their activities have been objectionable:

20. Do you feel that there would be in the present or near future any difficulty in renting additional land near your farm to expand your operation, if you wanted to do this? Yes No
21. If the answer to 20 is "yes", specify the nature of the difficulty:
22. Do you feel that there would be in the present or near future any difficulty in buying additional land near your farm to expand your operation, if you wanted to do this? Yes No
23. If the answer to 22 is "yes", specify the nature of the difficulty:
24. Check the statement which best describes your current plans for the next 10 years:
- a. Continue operating your current farm
 - b. Discontinue operating your current farm and begin farming in a different location
 - c. Discontinue operating your current farm and begin nonfarm employment
 - d. Discontinue operating your current farm and retire
 - e. Other (specify):
25. Check the statement which better describes your current plans for the use of your land from now until you discontinue farming it:
- a. Continue with the same kind of farm operation
 - b. Shift to a different kind of farm operation (specify kind):
26. Check the statement which best describes your plans for future investments in your farm structures:
- a. Make no new investments in farm structures to expand your operation
 - b. Make only minor new investments (totaling less than \$10,000) in farm structures to expand your operation
 - c. Make major new investments (totaling more than \$10,000) in farm structures to expand your operation
27. Do you intend to expand your farm acreage before you discontinue operating your current farm? Yes No
28. If the answer to 27 is "yes", indicate how you intend to expand your farm acreage:
- a. By both renting and buying additional land
 - b. By renting, but not buying, additional land
 - c. By buying, but not renting, additional land

29. Check the statement which best describes your plans for the use of your land after you discontinue farming it:

- a. Hand it over to a son or other member of the family to continue to farm it
- b. Sell it to another farmer to continue to farm it
- c. Sell it to a nonfarmer for eventual development
- d. Other (specify):

30. Check below the average price per acre which you feel you could get if you were to put all your land, except your house lot, on the market and sell it to the highest bidder over the next six months:

- a. Less than \$300 per acre
- b. \$300 to \$499 per acre
- c. \$500 to \$749 per acre
- d. \$750 to \$999 per acre
- e. \$1000 or more per acre

31. Assume for the moment that it is considered desirable to encourage good farm land to remain in production in Monroe County. Listed below are several methods for doing this. Please check whether you personally would favor or oppose each method.

- a. Preferential assessment (that is, assessing farm land according to its value for farming, not its value for speculation or urban uses). Favor Oppose
- b. Agricultural zoning (that is, zoning to discourage good farm land from going into urban use before other suitable land goes into such use). Favor Oppose
- c. Public facility planning (that is, planning for the location of roads, sewer and water lines, and other public facilities so that they would tend to guide urban development away from good farm land). Favor Oppose
- d. Agricultural easements (that is, contracts between farmers and local government to keep farm land in production for a certain period of time in return for lower property taxes). Favor Oppose

32. Listed below are a number of prospects which might affect your farming operation. We are interested in finding out which of these prospects would be likely to discourage you from continuing active farming in your current location. Place a "1" by the prospect which you feel would be most likely to do this, a "2" by the prospect which would be second most likely to do this, and a "3" by the prospect which would be third most likely to do this. Place an "X" by those prospects which would not be likely to discourage you from continuing active farming in your current location.

- a. The prospect of high property taxes
- b. The prospect of conflicts with nonfarm neighbors
- c. The prospect of selling your land to a speculator, developer, or other nonfarm buyer
- d. The prospect of taking on a higher paying job off your farm
- e. The prospect of difficulty getting adequate land to expand your farm operation
- f. The prospect of difficulty getting adequate farm labor
- g. The prospect of difficulty getting adequate capital and credit for your farm operation
- h. The prospect of difficulty getting adequate supplies and services for your farm operation
- i. The prospect of difficulty finding an adequate market for your farm products

33. Please indicate any other factors which might discourage you from farming in your current location:

Appendix E

SAMPLING PROCEDURES

Much of the background material for the discussion in Chapter 4 was obtained from the questionnaire in Appendix D. This questionnaire was sent to a random sample of farmers in Monroe County. The sample was drawn, with the aid of a table of random numbers, from the mail list of the Monroe County Cooperative Extension Service.

The intent of the survey was to include only full-time commercial farmers. Extension agents who assisted in drawing the sample were instructed to exclude those farmers whose gross annual sales were under \$10,000 in 1970. This resulted in an initial sample of 110 farmers to whom the questionnaire was sent.

Fourteen farmers were subsequently eliminated from the sample as they had either discontinued production or grossed under \$10,000 in 1970. Of the 96 farmers remaining in the sample, 77 had filled in and returned the questionnaire upon completion of follow-up by telephone and personal visits. All questionnaire returns were received during the early spring of 1971.

Data are unavailable for determining precisely what percentage the sample represents of the farmers in Monroe County who grossed more than \$10,000 in 1970. Agricultural census data indicate that the number of such farmers has declined dramatically in Monroe County during recent years. In 1954 the number of farmers grossing more than \$10,000 was 1000. This number declined to 701 in 1959, 473 in 1964, and 355 in 1969. It is probable that by the spring of 1971, when the survey was conducted, the number had declined from the 355 farmers enumerated in the 1969 census. If it is assumed, however, that there was no further decline, then the 77 farmers in the sample would represent 22 percent of all farmers in the county grossing over \$10,000 in 1970.

Appendix F

TABULATION OF RESPONSES TO SELECTED QUESTIONS

This appendix gives the frequency distributions of responses to selected questions from the farm questionnaire in Appendix D. The tabulations here provide much of the supportive material for the discussion in Chapter 4.

TABLE F1. DIFFICULTIES IN ACQUIRING LAND FOR FARM EXPANSION
(Question 20 and 22)

	Number	Percent
Difficulties Buying Land		
Yes	62	80.5
No	14	18.2
No Response	1	1.3
TOTAL	77	100.0
Difficulties Renting Land		
Yes	21	27.3
No	54	70.1
No Response	2	2.6
TOTAL	77	100.0

**TABLE F6. ESTIMATED AVERAGE PRICE PER ACRE IN
RELATION TO DISTANCE FROM ROCHESTER
(Question 30)**

	Distance from Central Rochester					
	Under 8 Miles		8-14 Miles		Over 14 Miles	
	No.	%	No.	%	No.	%
Less than \$500	0	0	1	3.2	13	48.1
\$500 - \$999	0	0	9	29.0	3	11.1
\$1,000 or More	16	100.0	21	67.7	11	40.7
TOTAL	16	100.0	31	99.9	27	99.9

**TABLE F7. PLANS FOR NEXT TEN YEARS
(Question 24)**

	Number	Percent
Continue Operating Current Farm	56	72.7
Begin Farming in Different Location	5	6.5
Begin Nonfarm Employment	4	5.2
Retire	12	15.6
TOTAL	77	100.0

**TABLE F8. PLANS FOR NEXT TEN YEARS IN
RELATION TO AGE OF RESPONDENT
(Questions 3 and 24)**

	Age of Respondent							
	Less than 40		40 - 49		50 - 59		60 or More	
	No.	%	No.	%	No.	%	No.	%
Continue Farming	9	90.0	22	84.6	18	72.0	6	42.9
Discontinue Farming	1	10.0	4	15.4	7	28.0	8	57.1
TOTAL	10	100.0	26	100.0	25	100.0	14	100.0

**TABLE F9. PLANS FOR THE USE OF THE RESPONDENT'S
LAND AFTER HE DISCONTINUES FARMING
(Question 29)**

	Number	Percent
Give to Family Member to Continue Farming	27	35.1
Sell to Another Farmer to Continue Farming	7	9.1
Sell to Nonfarmer for Eventual Development	38	49.4
Other	3	3.9
No Response	2	2.6
TOTAL	77	100.1

**TABLE F10. LAND USE PLANS IN RELATION TO
DISTANCE FROM ROCHESTER
(Question 29)**

	Distance from Central Rochester					
	Under 8 Miles		8-14 Miles		Over 14 Miles	
	No.	%	No.	%	No.	%
Keep Land in Farming	4	30.8	13	38.2	17	68.0
Sell Land for Urban Use	9	69.2	21	61.8	8	32.0
TOTAL	13	100.0	34	100.0	25	100.0

TABLE F11. TOTAL NEW INVESTMENTS IN FIXED CAPITAL FACILITIES, 1960-1970
(Question 12)

	Number	Percent
Less than \$5,000	21	27.3
\$5,000 - \$9,999	14	18.2
\$10,000 - \$24,999	21	27.3
\$25,000 - \$49,999	8	10.4
\$50,000 or More	10	13.0
No Response	3	3.9
TOTAL	77	100.1

TABLE F12. TOTAL NEW INVESTMENTS IN RELATION TO DISTANCE FROM ROCHESTER
(Question 12)

	Distance from Central Rochester					
	Under 8 Miles		8-14 Miles		Over 14 Miles	
	No.	%	No.	%	No.	%
Less than \$10,000	11	68.8	12	38.7	12	44.4
\$10,000 - \$24,999	3	18.8	11	35.5	7	25.9
\$25,000 or More	2	12.5	8	25.8	8	29.6
TOTAL	16	100.1	31	100.0	27	99.9

TABLE F13. FUTURE PLANS FOR INVESTMENTS IN FIXED CAPITAL FACILITIES
(Question 26)

	Number	Percent
No New Investments	32	41.6
Minor New Investments (under \$10,000)	35	45.5
Major New Investments (over \$10,000)	10	13.0
TOTAL	77	100.1

TABLE F14. ATTITUDE TOWARD MEASURES FOR MAINTAINING LAND IN FARMING
(Question 31)

	Number	Percent
Preferential Tax Assessment		
Favor	71	92.2
Oppose	3	3.9
No Response	3	3.9
TOTAL	77	100.0
Agricultural Zoning		
Favor	49	63.6
Oppose	23	29.9
No Response	5	6.5
TOTAL	77	100.0
Public Facility Planning		
Favor	52	67.5
Oppose	19	24.7
No Response	6	7.8
TOTAL	77	100.0
Agricultural Easement		
Favor	51	66.2
Oppose	19	24.7
No Response	7	9.1
TOTAL	77	100.0

TABLE F15. ATTITUDE TOWARD SEWER AND WATER FACILITIES
(Question 15)

	Number	Percent
Prefer Facilities near Farm Because They Will Increase Land Values	29	37.7
Prefer Facilities Not near Farm Because They Will Increase Property Taxes	47	61.0
No Response	1	1.3
TOTAL	77	100.0

FOOTNOTES

Chapter 1. Introduction

1. New York State Commission on the Preservation of Agricultural Land *Preserving Agricultural Land in New York State* (Albany: January 1, 1968), p. 8.

2. *Ibid.*, p. 11.

3. Olan D. Forker and George L. Casler, *Toward the Year 1985, Summary Report: Implications, Issues and Challenges for the People of New York State* (Ithaca, N.Y.: New York State College of Agriculture, 1970), pp. 11-12.

Chapter 2. The Soil Resource Base

1. Kenneth C. Nobe, Ernest E. Hardy, and Howard E. Conklin *The Extent and Intensity of Farming in Western New York State*, Economic Land Classification Leaflet 7 (Ithaca, N.Y.: New York State College of Agriculture, 1961).

Chapter 3. Effects of Urbanization on Farm Output

1. See Kenneth C. Nobe, Ernest E. Hardy, and Howard E. Conklin, *The Extent and Intensity of Farming in Western New York State*, Economic Land Classification Leaflet 7 (Ithaca, N.Y.: New York State College of Agriculture, 1961); and Howard E. Conklin, *et. al.*, *Maintaining Viable Farming in Areas of Urban Expansion* (Ithaca, N.Y.: New York State College of Agriculture, 1969), p. 1-51.

2. While Table 1 was based on U.S. Census data, Table 2 was derived from data in the "LUNAR system." See footnote to Table 2.

3. Recent projections indicate that from 1965 to 1985, 4.4 million acres in New York State will be retired from farming, while only 1.8 million acres will go into urban uses. See Olan D. Forker and George L. Casler, *Toward the Year 1985, Summary Report: Implications, Issues and Challenges for the People of New York State* (Ithaca, N.Y.: New York State College of Agriculture, 1970), p. 10.

4. The figure is based on data in the "LUNAR system." See footnote, Table 2.

5. It should be pointed out that the allocations to the two categories of retired farmland in the figure are estimations based on two "LUNAR" categories: "retired farmland" and "brushland." Land retired from farming between 1958 and 1968 in the figure consists of all land identified as "retired farmland" in the "LUNAR" system. Land retired from farming prior to 1958 consists of all land identified as "brushland" in the "LUNAR" system. The categories in the figure were set up because it takes approximately 10 years for retired farmland to grow to brushland, and virtually all of the 1968 inventory of brushland was once actively farmed.

6. Data are not available in the Agricultural Census for determining the extent of the disadvantages in previous years.

Chapter 4. Problems Facing Farmers in Monroe County

1. Obtained by dividing the actual assessed value by the equalization rate.

2. This estimate is based upon the tax records of 56 of the 77 farmers in the survey.

3. This estimate is based upon the tax records of 56 of the 77 farmers in the survey.

Chapter 5. Viable Farming Areas in Monroe County

1. A description of the conceptual and empirical basis of the farm viability classes may be found in: Howard E. Conklin and Robert E. Linton, *The Nature and Distribution of Farming in New York State* (Albany: New York State Office of Planning Coordination, currently the Office of Planning Services, 1969).

Chapter 6. Policy Implications

1. Agriculture and Markets Law, Article 25-AA, as amended by Chapter 712 of Laws of 1972.

2. The outline here follows closely a discussion of the Agricultural Districts Law in: Robert E. Linton, Howard E. Conklin, and K. L. Robinson, *Legislation to Permit Agricultural Districts in New York State*, A. E. Ext. 595 (Ithaca, N.Y.: New York State College of Agriculture, 1971). A copy of the full text of the law may be obtained upon request from the Monroe County Planning Council.

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