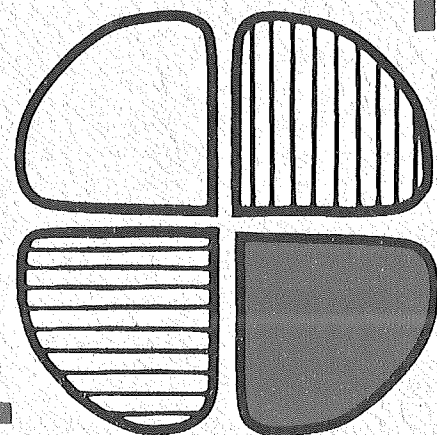




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GROWTH MANAGEMENT



MINNESOTA STATE PLANNING AGENCY
PHYSICAL PLANNING DIVISION

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SECTION A

OVERVIEW

OVERVIEW

Introduction

Study Purpose

Each day, throughout Minnesota, decisions are made about the use of land. They result in the construction of new houses, offices, factories and stores and in the acquisition and development of public uses such as parks, airports and wildlife areas. Individually and cumulatively, these decisions have an impact on agricultural land and other natural resources and on the financial ability of local governments to provide adequate services.

In most instances, counties, townships and cities decide how Minnesota's land will be used through their authority to plan and zone. However, the effectiveness of local land use planning and zoning programs have never been analyzed in a comprehensive manner. Information is sketchy as to what is being done, and where, and whether local efforts are having the intended results.

Prompted by the increasing demand for land and resources, the rising cost of public services and an uncertain energy future, the State Planning Agency initiated a study to assess the techniques used by units of local government to plan for and regulate physical growth and changing land use conditions.

The purpose of the Growth Management Study is:

- A. To determine land use controls being used by local government in managing growth.
- B. To evaluate the effectiveness of the controls and their implementation.
- C. To determine steps the state could take to help local government improve its capability to protect valuable land resources, reduce public service costs and conserve energy.

Advisory Committee

Since the Growth Management Study is an assessment of local government techniques for managing growth, it was important to have the local point of view represented in all phases of the study. Accordingly, the State Planning Agency formed a

technical advisory committee to assist and advise staff in developing a study approach and to review and comment on products. The advisory committee included representatives from:

- League of Minnesota Cities
- Association of Minnesota Counties
- Association of Minnesota Townships
- Minnesota Municipal Board
- RDC representatives
- County Zoning Administrators

In addition, representatives from key state agencies were asked to sit on the committee including:

- Department of Agriculture
- Department of Natural Resources
- State Planning Agency/Office of Local and Urban Affairs

Study Procedures

To accomplish the purposes of the study, the staff and committee representatives identified a number of important issues relating to the management of growth. They are:

1. the relative importance of local land use problems
2. the degree to which local governments have adopted and are implementing local plans and controls
3. local opinions on the effectiveness of various laws and controls for managing growth
4. reasons for ineffective implementation of local controls
5. suggested changes in state laws and regulations to make them more effective.

The Growth Management Study was conducted in two phases.

Phase One: Statewide Survey

To obtain local opinions on these issues, the committee agreed on using a survey technique. Separate questionnaires were designed and sent to local government officials including zoning administrators, planning commission members, and elected officials at the county, township and municipal levels. In all, representatives from over 2,300 units of local government were surveyed with an overall response rate of 64%. Data from this survey is presented in detail in a publication entitled, "Growth Management Notebook" available from the State Planning Agency.

Phase Two: Case Studies

Given the local response to the general survey questions, the State Planning Agency wanted to investigate in more detail several of the major land use issues identified in the statewide survey. These are the loss of agricultural land and scattered development occurring on the perimeter of municipalities, referred to in this study as the "urban fringe." The case studies provided an opportunity to better understand why these problems were occurring on such a widespread basis and what attempts local officials had made at solving them. Four case study sites were selected in which to personally interview a variety of local officials including the city planner or city clerk, the county zoning administrator, planning commission members and township supervisors. In some cases, additional interviews were conducted with state and federal program managers, realtors and major developers to obtain their viewpoint.

The four case study sites are:

1. Otter Tail County and the Fergus Falls urban fringe
2. Isanti County and the Cambridge urban fringe
3. Steele County and the Owatonna urban fringe
4. Rice County and the Faribault urban fringe

The criteria for selecting these sites included geographic location, rate of population growth and the history of their growth management efforts, particularly in reference to protection of agricultural land and scattered urban development.

Statewide Survey Results

The Nature and Importance of Land Use Problems

The statewide survey contained a list of 31 land use problems which local officials could check and prioritize. An "other" category for write-in responses was also provided. The list of problems is diverse, ranging from those pertaining to the actual use of land or the administration of legal authorities to those dealing with the environment or with human health and safety issues. Table 1 summarizes the major land use problems by priority for all levels of local government.

At the county level, the loss of agricultural land, scattered residential and commercial development, and lakeshore development are clearly perceived as the most significant land use problems. One or more of these three problems are regarded as significant in 55 Minnesota counties. This is confirmed by township and RDC staff responses. Moreover,

Table 1

RANKING OF MAJOR LAND USE PROBLEMS

Land Use Problems	Priority Ranking				
	RDC Staff	Counties	Town-Ships	Cities	
	Zon Adm	Plng Comm Chmn	Bd. Chmn		
Loss of Agricultural Land	4	1	1	2	1
Scattered Residential & Commercial Development	1	2	1	2	1
Lakeshore Development	2	3	3	3	-
Faulty On-Site Sewage Disposal Facilities	-	4	4	-	-
Water Quality	3	-	-	-	-
Land Speculation	5	-	-	-	2
Attracting Development	-	-	-	-	1
Orderly Annexation	-	-	-	3	3
Extension of Urban Services Within City Limits	-	-	-	-	2
Incompatible Land Uses	-	-	-	4	-
Strip Commercial Development	-	-	-	-	4

these problems are often interrelated. For example, agricultural land is being lost because scattered residential and commercial development is occurring outside municipalities.

Lakeshore development was regarded as a significant problem at the county level and this concern is reinforced by the RDCs. County officials are also concerned about the health problems caused by malfunctioning on-site sewage treatment systems. One can assume a strong relationship among the problems of lakeshore development, faulty sewage treatment systems and water quality.

Survey results show that townships and cities have somewhat different problems than do counties. The most frequently expressed concern among municipalities was for attracting additional development. The second-ranked problem was the extension of urban services within city boundaries; third was orderly annexation; and fourth was strip commercial development.

The municipal and township responses clearly tell the story of unmanaged urban growth. Townships are concerned about land speculation, which results in scattered residential and commercial development, which displaces and is incompatible with agriculture. Land speculation is probably greatest close to municipalities and may be due in part to city efforts to attract growth. While cities might prefer

new development to locate in town, developers often locate outside city boundaries because of cheaper land, more space, lower taxes and less restrictive controls imposed by either the township or the county. When development reaches a point where it requires city services, pressures are applied on the city to annex. In the process, the township loses the tax base and the original use - agriculture - has been replaced by urban uses. In other cases, the city may attract new development by annexing adjacent agricultural land and servicing it with utilities. Again, the township loses agricultural land.

The above scenarios point to the inter-relationship among land use problems and the need for planning and problem-solving which is comprehensive in scope. Moreover, these scenarios suggest the importance of coordination among local units of government if the type and location of new building construction is to be effectively controlled.

The legislature has provided an agency or level of government with the legal authority to deal with many of these land use problems. But it is obvious from the survey responses that either the law is inadequate or it is not being effectively implemented. Accordingly, State Planning Agency staff sought to evaluate and analyze the status and effectiveness of local land use controls and suggest means to improve the ability of local units of government to deal more effectively with these major problems and issues.

Status and Effectiveness of Local Plans and Controls

The statewide survey was sent to 85 of the state's 87 counties. Hennepin and Ramsey Counties were excluded because they contain little unincorporated land. Planning in the seven county metropolitan area differs from the remainder of the state in that the development of comprehensive plans and the adoption of zoning ordinances has been mandated by the legislature through the passage of the Metropolitan Land Planning Act. Except for lands adjacent to lakes and streams, state legislation enables outstate counties to regulate the type, density and location of land use through official controls if they choose and establishes procedures if counties decide in the affirmative. Zoning adjacent to water bodies is mandatory.

The tools most commonly used by local levels of government to manage the use of land are plans, zoning ordinances and subdivision regulations. The survey, and separate case studies,

investigated in detail the degree to which these plans and regulations are utilized in various parts of the state.

Of the 84 counties responding to the survey, only 62 indicated that they had adopted comprehensive plans and 63 indicated they had adopted county-wide zoning ordinances. Of the 62 adopted comprehensive plans, approximately half are adopted by ordinance as required by law.

The survey was designed to reach a representative sample of the 855 (1980 count) Minnesota cities, drawing on cities of all sizes and geographic locations throughout the state. Of the 124 cities within this sample (excluding Minneapolis/St. Paul and the immediate ring of suburbs) which responded to the survey questionnaire:

44 (39%) not adopted	Comprehensive Plans
71 (57%) adopted	
9 (4%) interim	
9 (5%) not adopted	Zoning Ordinances
113 (91%) adopted	
2 (4%) interim	
33 (28%) not adopted	Subdivision Regulations
85 (68%) adopted	
6 (4%) interim	

Local officials generally felt that implementation tools such as countywide zoning, shoreland zoning and sanitary codes were more effective than the comprehensive plans. For instance, on a 1 to 5 scale with 5 being most effective, county zoning administrators ranked sanitary code (4.18), countywide zoning (4.11), and shoreland zoning (4.07) as being the most effective tools. Comprehensive planning, on the other hand, ranked considerably lower (3.26). Rankings of these tools by other elected and appointed officials also support this viewpoint. This is somewhat surprising since tools such as zoning are meant to implement the goals and objectives of the comprehensive plan. Part of the explanation may be that the existing comprehensive plans are not being used and are in need of revision.

In response to a question about the need to revise local land use controls, county and city officials consistently ranked comprehensive plans, zoning ordinances and subdivision regulations as the controls most often needing revision - or in the process of being revised. This could be interpreted as an indication that local governments view comprehensive plans and these land use controls as dynamic documents which require periodic revision in order to accurately reflect changes in local conditions or community values.

The survey also indicates the counties and municipalities which have adopted sanitary codes, solid waste ordinances, floodplain ordinances, official maps and capital improvement programs. These results are summarized in the "Growth Management Notebook."

Reasons for Ineffective Implementation of Local Controls

The statewide survey - as well as the detailed case studies - identify the following factors as underlying reasons for unmanaged growth and ineffective implementation of local controls. The recommendations proposed in the following section address these factors.

1. Conflicting and confusing planning legislation.

Adequate authority to manage growth exists among units of local government, but there seems to be uncertainty as to which unit of local government should address a problem. Consequently, coordination becomes difficult, if not impossible.

2. Inadequate opportunities for training and education dealing with growth management issues.

Some units of government do not understand the tools and techniques for managing growth or how to effectively use them. Local official responding to the statewide survey consistently ranked lack of education and training as the greatest hindrance to implementation or enforcement of local controls. The four case studies illustrate that some units of local government have used these tools effectively, while others have not. This would suggest a need for further education on the use of such tools and techniques.

3. Lack of consistent and comprehensive state position on the use of land and guidelines dealing with agricultural land, shoreland, forests, sand and gravel resources and other mineral resources.
4. Lack of incentives to bring about better land management.

Many units of government now avoiding responsibilities for managing growth do so because of a lack of public support or interest. In the long run these communities may restrict their continued

prosperity through inflated costs of development and inefficient use of natural resources.

Summary of Case Studies

The case studies are the second phase of the two part study aimed at assessing how local units of government manage growth. The case study approach was used to determine if the state has provided local government with adequate legal tools to manage growth, how effective these tools are, and what administrative problems arise in their implementation.

The case studies focus on two land use problems identified most frequently by respondents to the statewide survey: (1) loss of agricultural land; and (2) development in the urban fringe area around communities. The loss of agricultural land was identified as a major problem in rapid and slow growth counties and on marginally as well as on highly productive soils. A number of additional land use problems affecting townships, cities and counties are evident in the urban fringe. These problems include scattered residential and commercial development, the extension of municipal services outside the corporate limits, annexation, strip development and the loss of agricultural land.

The separate case studies, including detailed summaries of findings for each case study area, can be found in the "Growth Management Notebook."

Otter Tail County and the Fergus Falls Urban Fringe

The reduction of the agricultural land base in Otter Tail County results from three main factors: wildlife production areas, transportation needs and urban development. Cropland will continue to be converted to wildlife management areas and transportation needs. The impact of these programs is unlikely to change because the county has little control over the land acquisition policies, standards, and regulations of federal and state government. These programs are trying to attain valid public goals, but they often conflict with agricultural interests.

Most of the urban development pressure in Otter Tail County is located on lakeshore and other high amenity areas and has not fully impacted agricultural land. Yet the negative effects of increasing non-farm growth are already apparent.

While there is local interest in protecting agricultural land, neither the county nor the townships have land use controls that would be effective in rapid growth situations. Once the high amenity sites become limited and their cost escalates, the agricultural land surrounding Fergus Falls may experience additional development pressures. Local government has the opportunity to develop adequate controls to protect agricultural land before the problem gets out of hand.

Not all growth management techniques have been used in the Fergus Falls urban fringe area. Further, those techniques that have been used have not been effective in controlling urban development. There are a number of reasons for this. First, the county has never sought to apply zoning controls beyond shorelands. Politically, they have said countywide zoning would never be accepted. Rather than push the issue and create additional conflict between local government, they chose to let the townships develop their own ordinances. Second, the townships, though wanting to have control over their own land, had neither the expertise nor the financial resources necessary to develop the kind of ordinance that would be effective in controlling urban-type problems. This is not a criticism of the townships but a statement of fact. Third, the city has not attempted to use all the powers granted to it by existing legislation. For example, they have chosen not to make use of their extraterritorial powers regarding subdivision regulations. Admittedly, this power is greatly reduced when zoning cannot be used to carry out the subdivisions regulations. This is the case in Fergus Falls because all townships, except Aurdal, have their own zoning ordinances. Fourth, the city has not made effective use of the existing orderly annexation agreement with Fergus Falls Township, nor is it having much success in developing a new annexation agreement with Buse and Aurdal Townships.

Whether these obstacles can be overcome in the future is unknown. Orderly annexation offers many possibilities. Extraterritorial zoning and subdivision authority also offers some possibilities. However, these controls will only be effective if coordination between participating governments is achieved. The progress in Fergus Falls has been slow.

Isanti County and the Cambridge Urban Fringe

The problems of protecting agricultural land in Isanti County and servicing growth in the urban fringe of Cambridge are closely intertwined. Both issues involve the basic questions of where and how growth should take place and how and when urban services can be provided. The county has adopted a growth management strategy with worthwhile goals and

objectives. Unfortunately, political pressure and a lack of consensus about the nature of the problem have resulted in regulations that will not achieve desired goals. Isanti County and the City of Cambridge have at their disposal the necessary tools (planning and zoning legislation) to solve most of their problems. It is up to them to use them.

Steele County and the Owatonna Urban Fringe

In summary it can be said that the major land use problems in Steele County such as loss of agricultural land, extension of public services, lack of coordination and annexation are confined primarily to the urban fringe area around Owatonna. Some scattered urban development takes place in other portions of the county but this development is minor and conflicts are few compared to that in and around Owatonna.

In the past there has been very little coordination between the city, townships or the county in dealing with land use problems in the urban fringe area. Longstanding differences between the governing bodies have prevented any meaningful coordination efforts from getting started. The lack of coordination has resulted in the development of conflicting regulations, most of which have not been effective in dealing with the area's land use problems. Moreover, there has been little agreement between the governing bodies on the type and location of new development.

Recently the townships, city and county came together to try and develop a meaningful and effective planning program for the urban fringe area. A number of innovative techniques for dealing with the area's land use problems have been suggested including orderly annexation, policies on extending public services to the urban fringe area, a growth policy and staging plan and common zoning and subdivision regulations for the planning area. These techniques offer many possibilities for the area. The decision to work together and make use of these techniques rests squarely on the shoulders of local officials. Without this commitment, these plans and techniques for improved growth management will certainly be ineffective.

Rice County and the Faribault Urban Fringe

County controls developed during the '60s were not effective in controlling scattered development and resulted in unnecessary losses of agricultural land. Since the preservation

of a farm economy was a primary concern of Rice County, new controls were developed in 1975. These new controls consisted of a density zoning ordinance and the establishment of an urban expansion zone around cities. Density zoning is a technique which limits non-farm development to one structure per forty acre parcel in agricultural areas.

The density zoning controls have proven to be an effective way to regulate non-farm growth on agricultural land. However, pressure to develop non-agricultural areas such as woodland and shorelands is increasing. These areas will require more attention if problems are to be avoided. In addition, the density zoning controls have resulted in additional administrative work for the zoning administrator because of an increase in the number of variances requested. To this point, though, this has not adversely affected the implementation of the ordinance.

Most new development around Faribault, will continue to occur on good agricultural land south of the present city limits. The city believes this to be the logical direction for new growth because the land is relatively flat and public services can be economically provided. To reduce scattered development and minimize the loss of agricultural land, an urban expansion zone, jointly agreed to by the city, townships and the county was established. The county zoning ordinance is enforced in the expansion zone and requires a minimum lot size of 35 acres. This helps to preserve agricultural land until it can be annexed by the city and developed in an orderly manner.

The expansion zone boundary could be an effective way of controlling premature conversion of agricultural land in the urban fringe. However, present administration of the boundary which includes an annual meeting of county and city officials to determine boundary delineation needs to be more strictly adhered to. Changes in the urban expansion zone boundary have occurred without being discussed at the annual meeting.

The city is also employing other controls to assist in managing growth in the urban fringe. These controls include development of an orderly annexation agreement with adjacent townships and establishment of service districts for sanitary sewer, storm sewer and water mains through the city's capital improvement programs. Since these controls are new, their effectiveness cannot be determined at this time.

Conclusions and Recommendations

The following conclusions have been drawn from the findings of the statewide survey and case studies.

1. Urban growth is not a phenomenon unique to the seven-county metropolitan area. It is occurring around municipalities throughout the state and is causing changes in traditional land use patterns.
2. The status and application of local land use controls varies widely. Some local units are aggressively seeking answers to their land use problems and are experimenting with various approaches. In other areas of the state, there are no legally-based growth management controls.
3. It is no longer sufficient to simply refer to "local controls" when "local" encompasses three levels of government (county, city and township); it is often lack of coordination and cooperation among these levels that underlies growth management problems.
4. Focus should be on institutional arrangements for decision making around municipalities. In many cases, agricultural and other rural land uses are being unnecessarily disrupted by unplanned and poorly regulated urban growth. Urban growth can be systematically and efficiently located with minimal disruption in rural lifestyles and change in the economic, fiscal, or political base of an area.
5. There is need to clarify and define the responsibilities of each level of local government with respect to growth management and to consider instances in which those responsibilities should not be equal or in which a multi-jurisdictional approach should be mandatory.
6. There is need to provide learning opportunities, as local growth management tools and plans are not often understood or used effectively by local units of government.

Drawing on the major conclusions of the statewide survey and the findings developed in the separate case studies, the State Planning Agency proposes the following recommendations.

1. Clarify current planning enabling legislation.
2. Provide improved opportunities for training and education.
3. Prepare goals and guidelines to support local land use planning and implementation efforts.
4. Provide incentives for local government and developers that will help them to achieve the goals and guidelines.

Local Planning Legislation

Recommendation: Clarify current planning enabling legislation.

The Minnesota Legislature has enacted enabling legislation that delegates planning responsibilities to counties, cities and townships. The statewide survey indicates that the laws are not well understood because of the confusing, ambiguous way in which they are written. Consequently, there is a lack of uniformity in their application by local units of government. Although well-intentioned, recent attempts to amend and improve the legislation seem to have resulted in broader and more confusing interpretations. For example, M.S. 394, the county planning law, was amended in 1974 to include the statement "comprehensive plan or plans when adopted by ordinance shall be the basis for county zoning ordinances, subdivision regulations or other official controls." Yet, the statewide survey shows that only 26 counties adopted comprehensive plans by ordinance, while 63 counties adopted county-wide zoning ordinances. According to those who helped write the amended legislation, such inconsistent application and interpretation of the law could have legal ramifications.

The Municipal Planning Act (M.S. 462.351-462.364) is equally confusing. It requires adoption of a land use plan before adoption of a zoning ordinance. Yet, of the cities surveyed, 23 had adopted zoning ordinances without having land use plans.

Extraterritorial provisions of the Municipal Planning Act have also created confusion. Cities may extend subdivision controls up to two miles outside their corporate limits

regardless of whether the county has subdivision controls. However, the city may not extend its zoning authority into this area if either the county or township has a zoning ordinance. According to the case studies, some city planners believe that the review and approval of subdivision plats is meaningless without having the authority to zone.

The case studies and statewide survey also showed that townships are becoming increasingly involved in planning and zoning. From 1970-74 only 11 townships adopted zoning ordinances, compared to 57 through the next five years. Townships are involved in planning and zoning because the county is not, or because they do not believe the county or city is doing an adequate job of managing land use. The preparation of adequate zoning controls takes a relatively high level of expertise and experience. As the case studies illustrate, this, as well as confusing legislation, has resulted in many township ordinances that are poorly designed, have little legal supporting basis and are often ineffective in managing growth.

As townships implement ordinances, they often find themselves in conflict with the county zoning ordinances or with city plans. According to the County Planning Law, the most restrictive ordinance must apply. Yet, as shown in the case studies, there are townships which have zoning ordinances that are less restrictive than the county ordinances. This is illegal. In addition, some townships have subdivision regulations even though the law does not appear to grant them this authority.

Training and Education Opportunities

Recommendation: Provide improved opportunities for training and education.

The statewide survey and case studies clearly indicate that additional opportunities for training and education are needed at the local levels of government to improve their ability to deal with land use problems. Zoning administrators, planning commissioners, planners and elected officials identified lack of training and education opportunities as the major hindrance to effective implementation of land use controls (Table 2). Survey results are also supported by findings of the Agricultural Lands Workshop held at Moorhead, Minnesota in November, 1979. At that workshop, over 97% of the people attending agreed with the statement, "Government at all levels should put high priority to the education of citizens regarding their responsibility for stewardship of the land."

The case studies repeatedly illustrate the problems resulting from lack of training and education. Examples range from

townships which need help with the design and implementation of land use controls to a county that is having difficulty developing and administering a complex density zoning ordinance. In between are a number of other issues that, if better understood, would result in more coordination and better management of land resources. These other issues include annexation procedures, policies regarding extension of services, growth management techniques in the urban fringe, joint planning agreements, and improved legal assistance.

In addition, properly trained zoning administrators and planners are needed. Currently, most zoning administrators are trained on the job. The majority of zoning administrators would like to see this changed. Presently, the Association of Zoning Administrators together with the Minnesota Association of Counties are studying ways of training and certifying zoning administrators. The State Planning Agency has also initiated a project to identify training needs of local government and assess the content and availability of current training opportunities. Recommendations on how to improve training and education activities will be available by late spring of 1981.

Goals and Guidelines

Recommendation: Prepare goals and guidelines to support local land use planning and implementation efforts.

It is obvious from the statewide survey and the case study interviews that unmanaged growth is occurring in varying degrees throughout the state. It is also apparent that there is a lack of guidance from the state on how development should be treated in important resource areas such as agricultural land, forested areas, shorelands, sand and gravel areas and mineral lands. This does not mean that mandatory rules need to be developed, but does underscore the need for parameters within which there is flexibility for local units of government to carry out local planning and zoning. It means that the state needs to give some serious thought to the consequences of continued development on major resource areas.

The need for additional state guidance is also supported by statements made at the Agricultural Lands Workshop held in Moorhead in November, 1979. Approximately, 77% of the persons attending agreed with the statement "Under a general federal policy, state government should enact enabling legislation and guidelines for local governments to zone for land use by type of soil to encourage maintaining prime land for agriculture." Approximately 86% of workshop attendees agreed with the statement "government agencies both state and

federal should develop common objectives to preserve and conserve agricultural land."

Providing guidance to local units of government will clarify the state's position on land use development as well as provide support for local decisions. In addition, it will provide the state with a standard to measure how effective local efforts have been in dealing with land use problems and whether additional help is needed and where.

Incentives

Recommendation: Provide incentives for local governments and developers that will help them to achieve the goals and guidelines.

Many units of local government have already recognized the need to manage growth effectively. However, in some cases, local elected officials from these local units of government experience heavy pressure from developers or land speculators to re-zone various parcels of land, often creating conflicts with staff or planning commission recommendations. In some cases these actions are due to short-term benefits officials believe will occur, such as additional tax base or new community growth. In other cases, the actions may be motivated by purely political concerns. In either event, local officials or developers may not have weighed the long-term disadvantages these actions might have, such as premature conversion of agricultural land, the accelerated deterioration of a downtown retail area, or environmental damage to a lake or wetland.

In other cases, there is an apparent lack of interest in planning and zoning and the benefits that can be derived. According to the statewide survey, the lack of interest in planning and zoning was identified as a major hindrance to effective implementation of land use controls (Table 2).

If the state has a long-term interest in the effects that growth will have on major resource areas, energy, transportation and financial resources, then local government will need some additional assistance. Such assistance could include developing incentives to encourage better land management. The incentives should be tied to the statewide goals and guidelines discussed in the previous section. For example, this might include tax or interest rate incentives for homeowners, builders and developers to locate in incorporated areas. Other incentives could include establishment of a priority system for various grant or technical

assistance programs. These incentives would encourage better management of growth by concentrating development in areas where public services are available. Minnesota communities would benefit because local elected officials have acted to control the cost of providing public services.

Table 2

REASONS FOR INEFFECTIVE IMPLEMENTATION - BY PRIORITY

	Counties					
	RDC Staff	ZAs	Plng Comm	Board	Twps	Cities
Need for education/training	1	1	1	1	3	1
Lack of information	2	3	2	3	4	3
Lack of interest	3	2	3	4	1	5
Financial	5	4	5	2	6	2
Lack of gov't. coordination	4	5	4	6	2	4
Conflict of laws	6	6	6	5	5	6

SECTION C

CASE STUDIES

Case Studies

The case studies are the second phase of a two part study aimed at assessing how local units of government manage growth. The first phase was a statewide survey of zoning administrators, planning commission members and elected officials at the county, township and municipal level. The statewide data was used to identify a limited number of prominent issues and problems to be dealt with in greater detail in the case studies.

The case study approach was used to determine if the state has provided local government with adequate legal tools to manage growth, how effective these tools are, and what administrative problems arise in their implementation. Further, this information will identify how the state can help local government deal with growth management problems.

The case studies focus on two land use problems identified most frequently by respondents to the statewide survey: (1) loss of agricultural land; and (2) development in the urban fringe area around communities. The loss of agricultural land was identified as a major problem in rapid and slow growth counties and on marginally as well as on highly productive soils. A number of land use problems affecting townships, cities and counties are evident in the urban fringe. These problems include scattered residential and commercial development, the extension of municipal services outside the corporate limits, annexation, strip development and the loss of agricultural land.

Selection of Case Study Sites

Staff recommended that four counties and four cities be examined to study the issues of agricultural land loss and urban fringe development. Several criteria were established to aid the selection of the case study sites. Those criteria, as well as the final selection of cities and counties, were reviewed by the Growth Management Technical Advisory Committee. The advisory committee includes representation from the Association of Minnesota Counties, League of Minnesota Cities, Minnesota Association of Townships, Minnesota Municipal Board, Minnesota Regional Development Commission staff, a county zoning administrator, Department of Agriculture, Department of Natural Resources and the State Planning Agency.

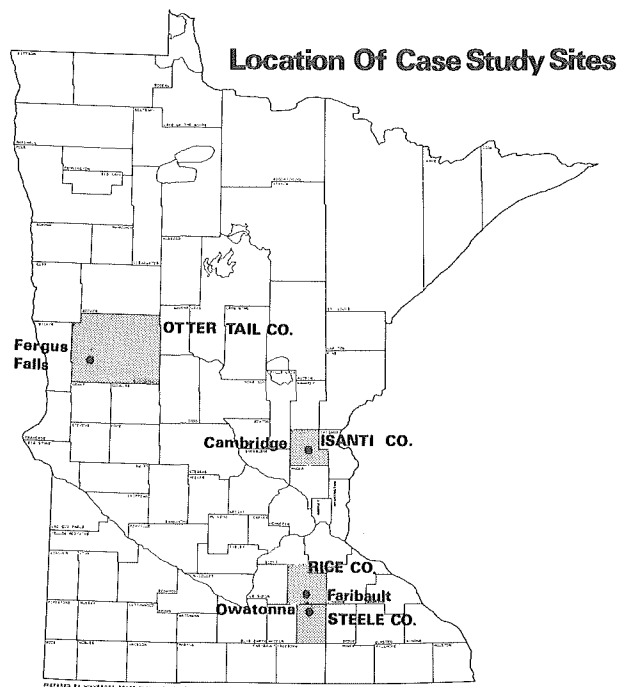
The criteria used for selecting the urban fringe case study areas included the status of planning and zoning regulations, types of intergovernmental relationships, the number of government units involved, opinions of local officials about coordination, size of the city and its rate of population growth. The selection of cities was also coordinated with the county sites to obtain a comprehensive picture of growth management at the local level. Initially 12 cities were identified that met one or more of the criteria. The four cities selected for urban fringe studies were Fergus Falls, Cambridge, Faribault and Owatonna (see figure below).

The criteria for selecting counties in which to study the loss of agricultural land included the status of county planning and zoning controls, the involvement of townships in zoning, soil productivity, the diversity of the local economy and the rate of population growth. Again, 12 potential sites were identified as meeting one or more of the criteria. The final four counties were selected by staff and these choices were reviewed by the Growth Management Technical Advisory Committee. The counties selected for case studies are Otter Tail, Isanti, Rice and Steele.

Interview Procedure

The case studies were developed through a series of personal interviews with a variety of local officials including the city planner or city clerk, the county zoning administrator, city and county planning commission members, and township supervisors. In some cases, additional interviews were conducted with state and federal program managers, realtors and major developers to obtain their viewpoint. A list of primary interviewees is included on the title page of each case study.

After the interviews were completed, staff prepared a written case study in draft form. The draft case study was sent to all interviewees for their review and comment. The case studies were revised and follow up interviews were conducted when necessary. This process was continued until general agreement was achieved regarding the accuracy of the basic content of the study. Finally, the case studies were sent to city and county officials to seek input from city councils and county boards. The case studies were revised based on these comments.



Otter Tail County - Fergus Falls

Interviewees/Reviewers

County Planning Commission	Fergus Falls Township Supervisor
County Board, Chairman	Buse Township Supervisor
County Shoreland Zoning Administrator	Buse Township Clerk/Zoning Administrator
Mayor of Fergus Falls	Aurdal Township Board
City Council	Dane Prairie Township Supervisor
City Planning Commission, Chairman	Soil Conservation Officer (Retired)
City Administrator	U.S. Fish & Wildlife Service, Program Manager
City Planner	

Background

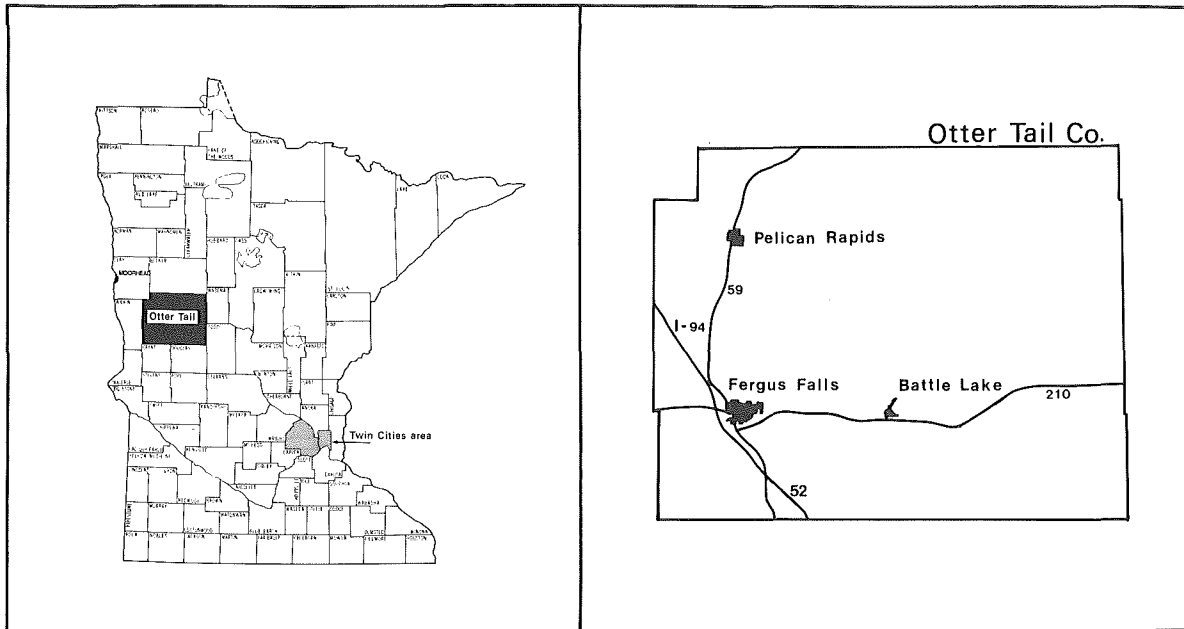
Otter Tail County has an estimated population of 50,300 and is located 50 miles southeast of Moorhead in west central Minnesota (Figure 1). The landscape is extremely scenic, with rolling hills of cultivated farmland dotted by numerous marshes, pot holes and lakes. About 25 percent of the county's population is located in Fergus Falls (13,255) and another 22 percent on lakeshore.

The county is projected to grow slowly over the next 20 years, adding only 2,000 persons. Most of this growth will be related to lakeshore development. Otter Tail County contains 10 percent of Minnesota's 12,000 lakes and it has been estimated to have a peak summertime population of 150,000-200,000. The scenic lakeshore attracts both seasonal and year-round residents from the Twin Cities metropolitan area, Fargo-Moorhead and Breckenridge-Wapeton. Even though tourism is a significant part of the local economy, its primary base remains agricultural.

Fergus Falls, at the junction of State Highway 210, U.S. Highway 59 and U.S. Highway 52, is the largest city in Otter Tail County (Figure 1). Interstate 94 bypasses the city on the south and west. Geomorphically, the city is situated in a transition zone. To the west lies the rich agricultural soils of the Red River Valley, while to the east and north the land is more rolling with a mixture of pasture land, woodland and many lakes.

Economically, the city is a strong retail center serving a broad agricultural area and large seasonal and tourist population. Although not a strong industrial city, Fergus Falls does employ about 950 people out of a total employment force of 7,700 in this segment of the economy. These people are

Figure 1
COUNTY AND CITY LOCATION MAP

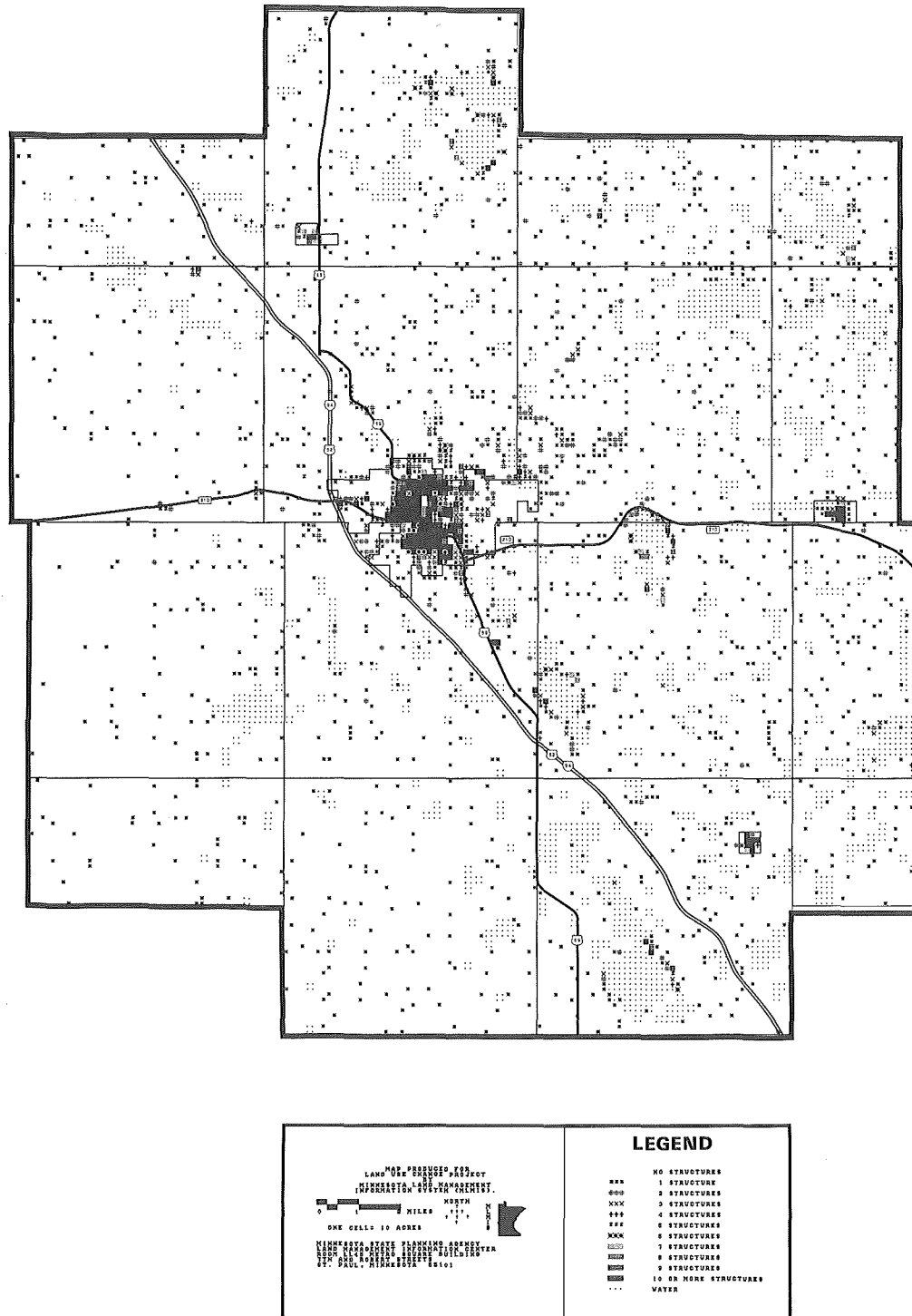


mainly employed in the processing and distribution of agricultural products. The chamber of commerce is actively seeking new industry for the community. Major institutions include the Fergus Falls State Hospital, Lake Region Hospital, Fergus Falls Community College, Hillcrest Academy, Bible College and Seminary and the Fergus Falls public schools.

The city has shown slow but steady growth during the '70s. According to estimates by the state demographer's office the population increased from 12,443 to 13,255 (6.5 percent) between 1970 and 1979. Although population projections are not available, city officials think this slow but steady growth rate will continue.

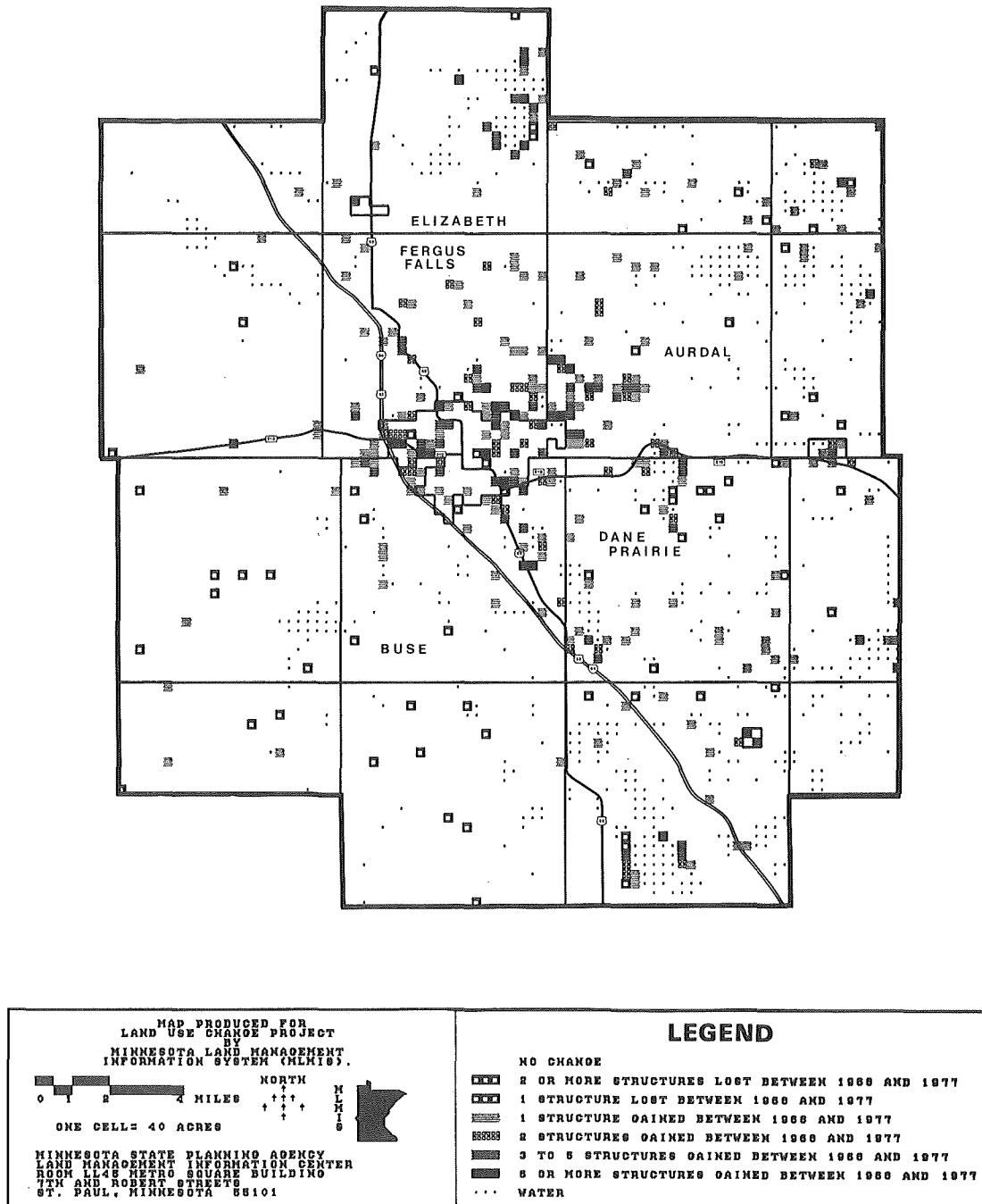
Most new development is occurring north and east of the city in Fergus Falls and Aurdal Townships and, to a lesser extent south and east of the city in Buse and Dane Prairie Townships. Figure 2 shows the location of existing structures by 10-acre parcel in 1977 and Figure 3 shows those 40-acre parcels which gained or lost structures between 1968 and 1977. According to estimates by the state demographer's office, Fergus Falls Township had a population increase of 277 people or 32 percent, between 1970 and 1979. Aurdal Township increased its population by 448 or 56 percent, during this same period. Some high density growth has also occurred to the north of Fergus Falls in Elizabeth Township around Jewett and Long Lakes (Table 1).

Figure 2
LOCATION OF URBAN STRUCTURES SURROUNDING FERGUS FALLS, 1977



Explanation: Figure 2 shows the number of structures in a portion of Otter Tail County in 1977. Data is based on the interpretation of 1977 high altitude aerial photographs. It is displayed at the 10-acre level. No distinction is made between residential and non-residential uses of the structures.

Figure 3
URBAN STRUCTURE CHANGE SURROUNDING FERGUS FALLS, 1968-1977



Explanation: Figure 3 shows change in the number of structures in a portion of Otter Tail County between 1968 and 1977. The data is based on the interpretation of 1968 and 1977 high altitude aerial photographs and is displayed at the 40-acre level. The blank areas on the map are areas which show no change in the number of structures between 1968 and 1977; the symbols indicate the number of structures either gained or lost per 40-acre parcel; a single dot represents water. No distinction is made between residential and non-residential use of the structures.

Table 1

CHANGE IN STRUCTURES IN SELECTED AREAS OF OTTERTAIL COUNTY, 1968-1977

Township (rows)	Change in number of structures per 40-acre parcel, 1968-1977 (columns)									
	2 or more structures lost	1 structure lost	no change ¹	1 structure gained	2 structures gained	3-5 structures gained	6 or more structures gained	water	sum of parcels loss gain	row total
Elizabeth	2 (1) row % (18) col %	2 (1) row % (4) col %	488 (85) row % (8) col %	7 (1) row % (4) col %	0	8 (1) row % (14) col %	4 (1) row % (17) col %	65 (11) row % (10) col %	4 19	576 (8)
Fergus Falls	1 (1) (9)	0	429 (87) (7)	31 (6) (19)	10 (2) (20)	8 (2) (14)	2 (1) (9)	13 (3) (2)	1 51	494 (7)
Aurda1	1 (1) (9)	1 (1) (2)	463 (81) (8)	21 (4) (13)	9 (2) (18)	12 (2) (20)	4 (1) (17)	60 (11) (9)	2 46	571 (8)
Buse	0	5 (1) (8)	448 (85) (8)	19 (4) (12)	8 (2) (16)	5 (1) (8)	2 (1) (9)	39 (7) (6)	5 34	526 (8)
Dane Prairie	3 (1) (27)	9 (2) (16)	464 (81) (8)	23 (4) (14)	5 (1) (10)	5 (1) (8)	0	67 (12) (10)	12 33	576 (8)
All remaining townships in the study area	2 (1) (19)	38 (1) (67)	3,517 (87) (60)	50 (1) (30)	9 (1) (18)	10 (1) (17)	3 (1) (13)	403 (10) (62)	40 72	4,032 (58)
City of Fergus Falls	2 (1) (18)	2 (1) (4)	89 (65) (2)	14 (10) (8)	8 (6) (16)	11 (8) (19)	8 (6) (35)	3 (2) (1)	4 41	137 (2)
column totals	11 (1)	57 (1)	5,898 (85)	165 (2)	49 (1)	59 (1)	23 (1)	650 (9)	68 296	6,912 (100) (100)

Source of Data: State Planning Agency, Land Use Change Project

1. "No change" means either: no net change in number of structures; or each of the 4-10 acre parcels in the 40 contained 10 or more structures in both 1968 and 1977.

Read rows across and columns down the page.

Loss of Agricultural Land

On a countywide basis, the loss of agricultural land is not an overwhelming problem. The county zoning administrator estimates that up to 500 acres of tillable land may be taken out of production each year by urban development. The 500-acre figure (which may be high) represents a very small portion of the cultivated land in Otter Tail County (Table 2).

Table 2
LAND USE IN OTTER TAIL COUNTY 1969

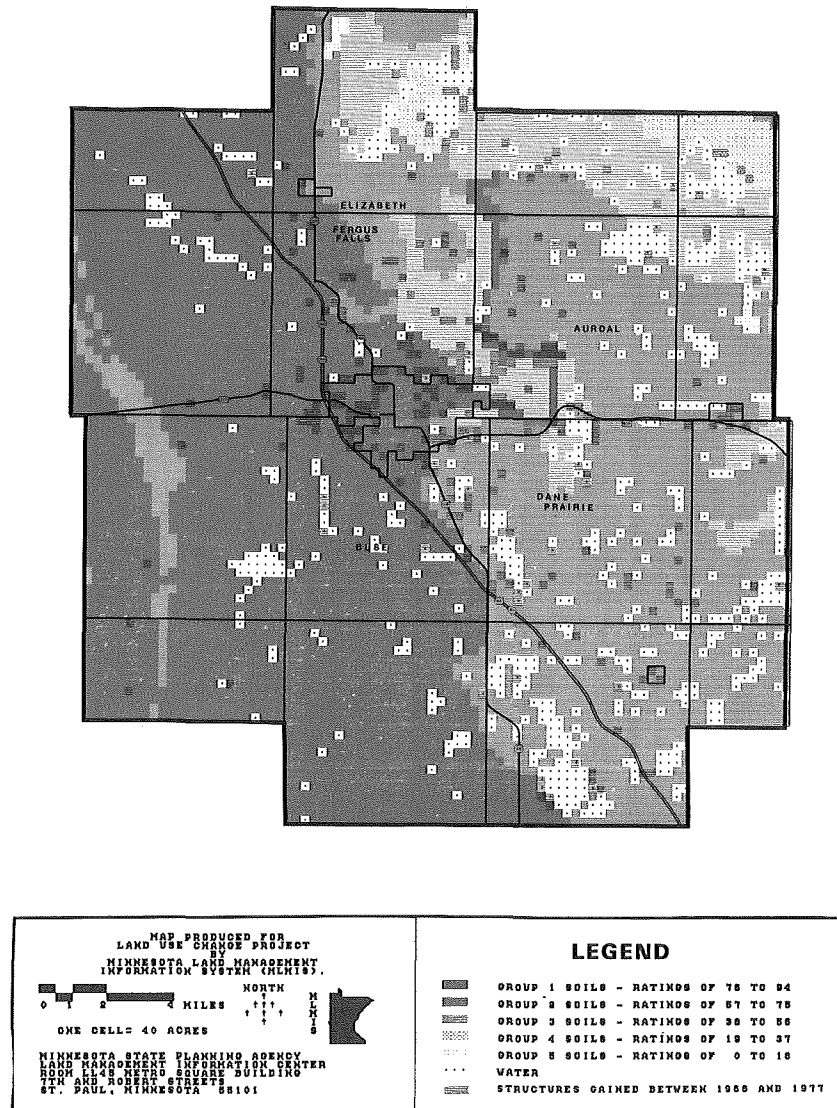
	Acres
Cultivated	822,280
Forested	233,760
Pasture and open	148,960
Water	164,440
Urban	31,360
Marsh	26,720
Extractive	480
Transportation	480 ¹
TOTAL LAND AREA	1,428,480

Source: Minnesota Land Management Information System

In part, the county's location and natural resource base minimize the impact of development on the county's better agricultural land. The demand for residential building lots is limited because the county is not within commuting distance of a large metropolitan area, although the Fargo-Moorhead area does have some influence on the northwestern part of the county. From 1968-1977 most growth has expanded north and east of Fergus Falls, away from the more productive soils (Figure 4). The many lakes and wooded stream valleys in Otter Tail County provide numerous scenic, high amenity areas for development. Table 3 illustrates the relationship between development and proximity to water features. Only one percent of the 6,912 40-acre parcels in the study area are further than 1 mile from a 40-acre parcel containing water. The table also indicates that over 80 percent of all 40-acre parcels experiencing gains in structures between 1968 and 1977 occurred within one-fourth mile of a 40-acre parcel containing lakeshore or rivers or streams.

¹ Acreages are determined by dominant land cover in a 40-acre parcel. Transportation acreage is understated.

Figure 4
RELATIONSHIP OF THE CHANGE IN URBAN STRUCTURES
1968-1977 TO AGRICULTURAL PRODUCTIVITY



Explanation: Figure 4 shows the relative suitability of areas for agricultural production based on soil texture, drainage, color, and slope; depth of the rooting zone, and phosphorous/potassium content. Each 40-acre parcel was given a rating of 0-94 which indicates relative productivity based on these soil characteristics. These ratings are combined into 5 groups, with group 1 representing the most productive soils.

The areas in red indicate 40-acre parcels with gains in the number of structures between 1968 and 1977. Data is based on the interpretation of 1968 and 1977 high altitude aerial photographs. No distinction is made between residential and non-residential uses of the structures.

Source of Agricultural Productivity Data: Minnesota Cropland Resources, State Planning Agency, 1979.

Table 3

COMPARISON OF THE CHANGE IN STRUCTURES SURROUNDING FERGUS FALLS WITH WATER FEATURES, 1968-1977

Water Feature (rows)	Change in the number of structures per 40-acre parcel, 1968-1977 (columns)									sum of parcels		row total
	2 or more structures lost	1 structure lost	no change ¹	1 structure gained	2 structures gained	3-5 structures gained	6 or more structures gained	water		loss	gain	
lake oriented 40 acre parcel containing lakeshore	4 (1) row % (37) col %	14 (1) row % (25) col %	991 (61) row % (17) col %	59 (4) row % (36) col %	17 (1) row % (35) col %	24 (1) row % (41) col %	8 (1) row % (35) col %	517 (32) row % (80) col %		18	108	1,634 (24)
within ½ mile of a lake oriented parcel	2 (1) row % (18) col %	18 (1) row % (32) col %	1,898 (96) row % (32) col %	38 (2) row % (23) col %	6 (1) row % (12) col %	10 (1) row % (17) col %	6 (1) row % (26) col %	8 (1) row % (1) col %		20	60	1,986 (29)
½ mile-1 mile from a lake oriented parcel	1 (1) row % (9) col %	5 (1) row % (9) col %	751 (95) row % (13) col %	16 (2) row % (10) col %	7 (1) row % (14) col %	7 (1) row % (12) col %	2 (1) row % (9) col %	2 (1) row % (1) col %		6	32	791 (12)
permanent and intermit- tant rivers and streams- 40 acre parcel contains river or stream	2 (1) row % (18) col %	7 (1) row % (12) col %	852 (93) row % (14) col %	19 (2) row % (11) col %	11 (1) row % (22) col %	6 (1) row % (10) col %	3 (1) row % (13) col %	18 (2) row % (3) col %		9	39	918 (13)
within ½ mile of river or stream oriented parcel	2 (1) row % (18) col %	4 (1) row % (7) col %	977 (95) row % (17) col %	20 (2) row % (12) col %	6 (1) row % (12) col %	9 (1) row % (15) col %	4 (1) row % (17) col %	6 (1) row % (1) col %		6	39	1,028 (15)
½ mile-1 mile from river or stream oriented parcel	0	7 (2) row % (12) col %	395 (94) row % (7) col %	11 (3) row % (7) col %	2 (1) row % (4) col %	3 (1) row % (5) col %	0	3 (1) row % (1) col %		7	16	421 (7)
beyond 1 mile from 40 acre parcel containing water	0	2 (6) row % (4) col %	34 (95) row % (1) col %	0	0	0	0	0		2	0	36 (1)
islands	0	0	0	0	0	0	0	6 (100) row % (1) col %		0	0	6 (1)
completely covered by water	0	0	0	2 ² (2) row % (1) col %	0	0	0	90 (98) row % (14) col %		0	2	92 (1)
column total	11 (1)	57 (1)	5,898 (85)	165 (2)	49 (1)	59 (1)	23 (1)	650 (9)		68	296	6,912 (100) (100)

Source of Data on Structures: State Planning Agency, Land Use Change Project; Source of Data on Water Features: MLMIS

1. "No change" means either: no net change in number of structures; or each of the 4 10-acre parcels in the 40 contained 10 or more structures in both 1968 and 1977.

2. Figures reflect discrepancies between land use change project and MLMIS water features data.

Read rows across and columns down the page.

The abundance of water-oriented building sites has helped to minimize the pressure to build on agricultural land.

The extent of land conversions surrounding the city of Fergus Falls has been illustrated in a recently completed growth study.

Recent development reveals more agricultural land is being converted to non-agricultural uses than vice versa... Much of the agricultural land in these areas (fringe areas) has a higher immediate dollar value if it is sold for urban type development or wildlife production rather than if it is sold for agricultural uses. ...to put the conflict in perspective, the overall rate at which land is being converted to non-agricultural uses is only about 1,000 acres per year in the fringe area. The fringe area consists of approximately 48,000 acres. Only about 10% of the land being converted to non-agricultural uses can be considered prime agricultural land.²

In effect, about 100 acres of tillable agricultural land is converted to other uses each year. Not all of this reduction is due to urban development. In fact there are many different factors causing agricultural land to be taken out of production in each township surrounding Fergus Falls. The biggest threat to the loss of agricultural land immediately north and east of Fergus Falls is residential growth. To the west, expanding commercial development is a problem and to the south, there is greater concern about state and federal wildlife land acquisitions. In a number of townships, land acquired for transportation needs seemed to be a concern. It is evident that the loss of agricultural land is a multi-faceted problem in Otter Tail County.

It is important to note that while the conversion of agricultural land to other uses has not received much attention at the county level, some planning commission and staff members are becoming concerned. Two underlying reasons seem to be (1) the cumulative impact of small losses on the agricultural land base over time, and (2) the need to expand the city of Fergus Falls in an orderly and efficient manner.

Otter Tail County has subdivision regulations but no county-wide plan or zoning ordinance. The county can regulate some aspects of subdivision design, but it cannot control the intensity or location of development. One exception is

² City Planner, City Engineer, City Administrator, Fergus Falls Fringe Area Growth Study, Fergus Falls, Minnesota, (unpublished manuscript) December, 1977.

shoreland management where statewide standards, adopted by the county, are being implemented. Since countywide land use controls do not protect agricultural land from urban development, the responsibility for planning and zoning is left to the discretion of each township. Otter Tail County has 62 townships, 13 of which have adopted zoning ordinances. Several other townships are considering adopting zoning. However, these regulations are not uniform nor do they address all the agricultural land in the county. There is no central office where information can be obtained on the zoning in all townships.

Township zoning ordinances vary significantly in their provisions to protect agricultural land. Most zoning ordinances in the townships adjacent to Fergus Falls have been developed because of a single issue, such as regulating mobile homes, animal control, commercial or residential development or sanitary landfills. Few township zoning ordinances contain adequate measures to protect agricultural land. In many cases the loss of agricultural land was not a major problem when the ordinances were developed. Several township officials are now becoming concerned and want to find out what can be done.

Local administration and understanding of township zoning seems to vary considerably. Some townships appear to exhibit a strong interest and commitment to the administration of their controls. Other townships rely on their zoning ordinance only when a problem occurs. In effect, the zoning ordinance is used only in a negative manner - to discriminate against certain actions.

A county planning commission member, who is also a township officer, expressed concern about the implementation of township zoning. It was felt that the zoning in some townships may not be legally sound. This may have occurred because the townships were not consistent in the application of their regulations. If so, their zoning could be subject to a serious court challenge.

The county planning commission member felt that if land use controls are going to be successful, they must be understood and supported at the township level. For this to happen, a "selling program" is needed to educate and convince local officials of the need and importance of planning and zoning. It was felt that the state has the resources and manpower to accomplish this. Local officials would also need assistance to learn how to recognize potential problems and find measures to deal with them.

The township officials who were interviewed unanimously agreed that countywide zoning would not fulfill their needs. They felt that planning and zoning should be done on a township basis to reflect different resources and problems encountered by the townships. The county zoning administrator stated that "if a public meeting was held today, countywide zoning would not get 200 votes."

Planning and zoning at the township level has both benefits and drawbacks. On the positive side, it receives grass roots support from the local community, and control is close to the people. A critical problem, however, is the administrative time and expense required to properly enforce a zoning ordinance. The zoning administrator realized this was a problem. When the townships were confronted with the issue, their reaction was either (1) they felt the benefits justified existing costs or expected costs, or (2) they did not realize the costs would be significant. There were different perceptions about how much time and money it would take to properly administer zoning controls.

TOWNSHIP CONTROLS

The city of Fergus Falls is located in the southwestern portion of Otter Tail County and roughly divides the hilly moraine country from the flat prairie land. The four townships adjacent to Fergus Falls illustrate the diversity of the natural resource base and the types of problems facing local government. Different approaches to planning and zoning have been taken by each township and are described below.

Dane Prairie Township

The township of Dane Prairie is southeast of Fergus Falls but does not border the city. Therefore, the township was not subjected to development pressure as early as the other townships surrounding Fergus Falls. However, the township was one of the earliest to address the issue of protecting agricultural land.

The township supervisors became concerned about non-farm development after the county zoning administrator showed them a map which convinced them that growth and development was moving toward their township. As a result, the township officials developed an ordinance to control the anticipated growth. The ordinance established the entire unincorporated area of the township as an agricultural zone. Two single-family dwellings or one two-family dwelling are permitted on a farm. To qualify as a farm, the land must be in agricultural use and at least 20 acres in size. Single-family

dwellings are also a permitted use, but it is unclear where. The way the ordinance is structured these two provisions seem to be in direct conflict.

There are difficulties in interpreting the ordinance. There is no zoning map to identify the location of farm or non-farm areas. If a person bought a 300-acre farm and left the land idle, he would be able to subdivide it into 1 1/3-acre lots because single-family dwellings are a permitted use on lands not defined as a farm. Under these conditions, it is uncertain how the subdivision of farmland can be controlled.

Within two years after adopting the zoning ordinance, Dane Prairie began to experience development pressure. The zoning authority was used to review building permit applications before development problems occurred. Thus far township supervisors feel the ordinance has been useful in protecting their agricultural land. Due to limited development pressure, it is questionable whether the zoning ordinance has been thoroughly tested.

Fergus Falls Township

Fergus Falls Township is directly north of the city of Fergus Falls. In 1969, the township adopted a zoning ordinance primarily because of a single issue: the location of a mobile home park. The township did not experience development pressure from the city until the early '70s. New residents were attracted by lower taxes, scenic river lots, lakeshore and the desire to be in the country. Many residential subdivisions were platted and they have begun to stray from wooded areas onto agricultural land. The township board is concerned about the impact of this development on the local farming economy and would like to keep this land in agricultural production. However, the ordinance was not designed to protect agricultural land by controlling non-farm residential development.

Just as important as the conversion of cropland are conflicts between rural and urban residents. The growing non-farm population has generated new problems including poorly designed roads, uncontrolled pets and increased service costs for fire protection and road maintenance.

The township officials also recognized the possibility that non-farm residents may gain political control. In fact, one supervisor felt that to some extent it has already happened. For example, one subdivision with approximately 60 families was able to influence a township vote on snow plowing services. The urban residents insisted that their roads be

plowed first. The cost of providing services to a non-farm population has been a factor in increasing the township's annual budget from \$7,500 to \$35,000 in four years.

Fergus Falls Township amended their zoning ordinance in the mid '70s, increasing the minimum lot size from 25,000 square feet to two acres. It has not been effective in preventing scattered residential subdivisions. The township supervisors feel their zoning ordinance needs improvement and would like some assistance in determining how to protect their agricultural land.

Buse Township

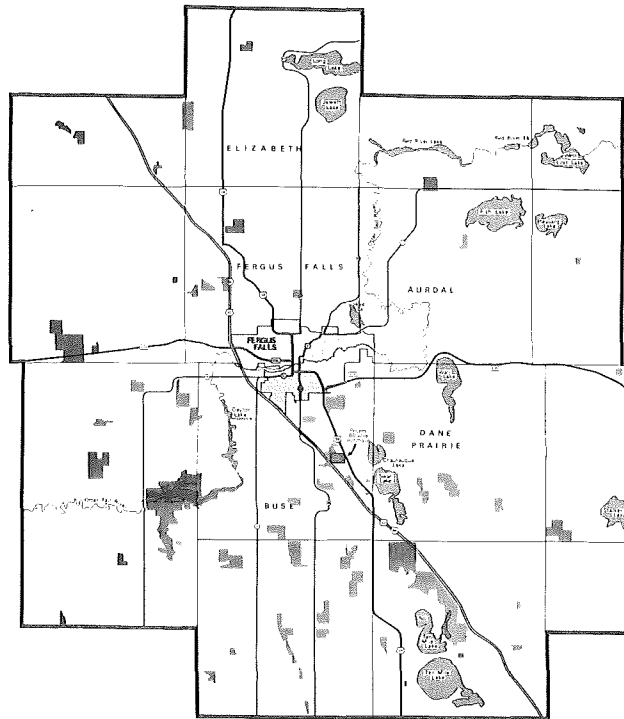
Buse Township lies to the southwest of Fergus Falls and contains some of the county's best agricultural land. Like the other townships, Buse is concerned about protecting agricultural land; however, the reason for the losses are quite different. Land acquisitions for wildlife management and transportation needs are the biggest concerns according to township supervisors.

Government land acquisitions for wildlife management purposes are often controversial. The acquisitions are encouraged by wildlife conservationists and are looked upon with dismay by some farmers. The following case, while not typical of all acquisitions, does illustrate the concerns and frustrations of township officials.

An older couple decided to retire from farming and sell their 80-acre farm. The farm is located in the fringe area adjacent to Fergus Falls approximately 1 1/2 miles southeast of the city between U.S. Highway 59 and Interstate 94 (Figure 5). To some extent, the land may have long-term speculative value for urban development in that commercial and industrial uses have been strung out along U.S. Highway 59 in the past. The farmstead is highly suited for both agricultural use and wildlife production and consists of 65 acres of SCS Class land and 15 acres of wetland. The farm is adjacent to an existing wildlife production area owned by the federal government.

The farm was sold to the highest offer from several interested parties including farmers and the U.S. Fish and Wildlife Service (U.S.F.W.S.). The farmers offered \$1,000 per acre for the farmland and the U.S.F.W.S. approximately \$1,225. The local SCS officer estimated that land in this area had been selling in the \$1,000-\$1,200 range.

Figure 5
FEDERAL AND STATE WILDLIFE LAND ACQUISITIONS, 1980



Farmers are often at a disadvantage when trying to compete with the U.S.F.W.S. in buying farmland. The appraisal of a farm results in an estimated range of value rather than a precise figure. Obviously, individual farmers are under tighter economic constraints than the U.S.F.W.S.

Perhaps the major disadvantage to farmers is in trying to acquire real property (buildings). The buildings on this property were appraised at \$24,000 but represent little practical use to a farmer or even the U.S.F.W.S. Farmers cannot afford to invest \$24,000 in buildings that will not contribute additional revenue. After the land was acquired, the U.S.F.W.S. sold seven buildings for a nominal sum and the best barn was retained on the property for use by the Otter Tail Soil and Water Conservation District.

To acquire land, the U.S.F.W.S. must receive approval from the county board. The Otter Tail County Board contacted the township about the acquisition. The township supervisors objected because they felt that too much agricultural land was being acquired. Some government land managers support this viewpoint. In this case, 80 percent of the land is in the Buse-Barnes soil complex and is rated in the second highest SCS soil capability class. Only 18.5 percent of Otter Tail County is SCS Class II land or better (Table 4). The county board passed a resolution vetoing the acquisition of the wetland. The U.S.F.W.S. appealed the case to the

state land exchange board and after a hearing, the board overruled the veto, allowing the acquisition.

Table 4

COMPARISON OF SCS CLASS CAPABILITY CLASSES TO LAND IN ROTATION AND COUNTY AREA

<u>Class</u>	<u>Acres in Tillage Rotation</u>	<u>SCS Classes % of Tilled Rotation</u>	<u>SCS Classes as % of County Area</u>
I	11,531	2%	1.0%
II	218,763	33%	17.5%
III	212,924	32%	17.0%
IV	135,630	20%	10.8%
V	4,635	1%	.4%
VI	67,820	10%	5.0%
VII	18,761	3%	1.5%
VIII	3,753	1%	.3%
	673,817	100%*	53.6%
			(1,255,680 acres)

*Subject to rounding error

Source: Minnesota Soil and Water Conservation Needs Inventory, 1971

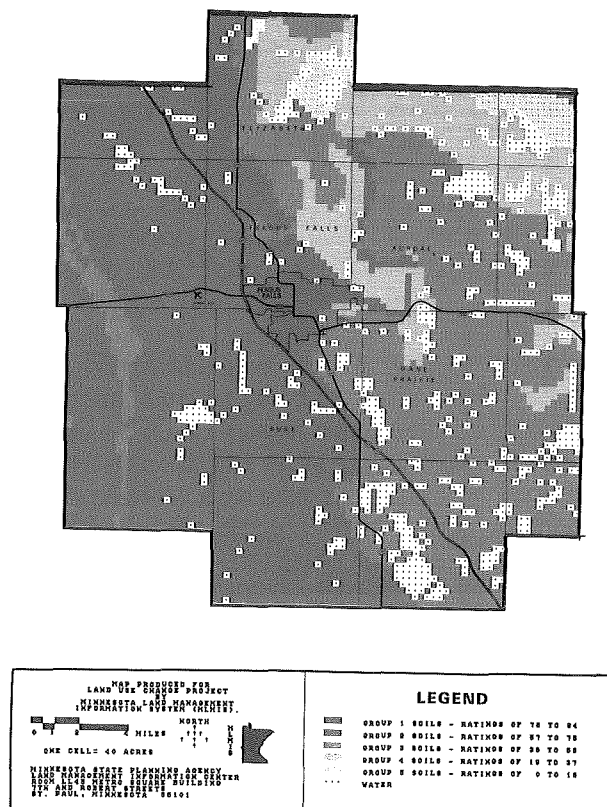
The Fish and Wildlife Service is aware of the problem but is hindered by regulations that make the acquisition process inflexible. For example, the U.S.F.W.S. is required to buy an entire land holding if requested to do so by the owner. This often results in acquiring an entire farmstead or nothing at all. In such cases, valuable cropland is taken out of production. In 1978-79 the U.S.F.W.S. completed four farmland for marshland exchanges to reduce the amount of prime farmland it owned.

Both sides of the controversy have creditable goals. Farmers would like to minimize the loss of agricultural land so they can expand farming operations and maintain a viable farming economy. The U.S.F.W.S. would like to protect wetlands for wildlife habitat and other environmental reasons. Little has been done to prevent the continued draining of valuable wetlands. Unfortunately, an objective discussion of the issues is hindered by mistrust and misunderstanding. Both sides continually meet in confrontation, in the absence of a process where they can negotiate agreements on the type and amount of land that should be acquired.

To put the wetlands issues in perspective, the U.S.F.W.S. has acquired 680 acres in Buse Township (Figure 5). A rough estimate indicates about 360 acres of land which has been farmed at sometime in the past has been taken out of production. Compared to the amount of scattered residential and commercial growth, these losses are quite significant. Further, the U.S.F.W.S. has set a goal of 41,180 acres of significant waterfowl habitat in Otter Tail County. Theoretically, if this acreage is acquired from willing sellers, it would remove 25,000 acres of upland from farmsteads and the majority of the upland may be cropland. Individual townships do not know the total amount, type and location of land to be acquired or its impact on the farming community. This is due to the lack of communication between the township supervisors and the U.S. Fish and Wildlife Service.

Transportation needs are also a concern in the township. The expansion of the Fergus Falls airport will affect 600 acres of land (Figure 6). Only 100 acres of SCS Class II agricultural land will be taken out of production with the remaining 500 acres being leased for agricultural purposes. This appears to be a one-time occurrence for a necessary community facility.

Figure 6
RELATIONSHIP OF AIRPORT SITE TO SOIL PRODUCTIVITY



A more wide-ranging concern is highway rights-of-way which appear to be taking over more land than necessary. The primary reason seems to be state-aid regulations which require rights-of-way of a particular size to qualify for financial assistance. Table 5 shows the relationship between change in the number of structures between 1968 and 1977 and highway orientation in a portion of Otter Tail County. It appears that low density development (a 40-acre parcel with a gain of 1 structure) tends to occur on land where the roads are unpaved, while higher density development (parcels gaining 2, 3-5 and 6 or more structures) is oriented towards two lane roads.

A large percentage (40%) of the parcels of land experiencing gains in structures in the Fergus Falls area in the past decade has occurred on parcels of land which are either not highway oriented, e.g. no road appears on the county highway map, or unpaved. For that amount of low-density development which is non-farm related, there may be pressure for satisfying increasing transportation needs such as the demand for hard surfaced roads.

At present, little agricultural land is being lost to residential subdivisions in Buse Township. There are a few platted areas, but most are located along the Otter Tail River or on lakeshore. There is a small but growing amount of scattered residential development located in wooded areas of the township.

The township adopted a zoning ordinance in 1969 with the intention of protecting agricultural land. The ordinance established the entire township as an agricultural single-family dwelling zone with a 50,000 square feet minimum lot size. Agricultural uses and single-family dwellings are permitted in that zone. Commercial and industrial uses are handled by a special use permit with a public hearing.

The protection of agricultural land seems to be addressed in the ordinance in a section on subdivisions. The zoning ordinance states that the town board shall consider (1) the effect of the proposed conveyance or subdivision of the land on agricultural land resources of the township; (2) the ability of the township to provide needed services; (3) the compatibility of the proposed plat with any and all overall plans of the township; (4) the density and distribution of population; and (5) other environmental concerns.

The township has identified some valid concerns when reviewing subdivisions, but they are unlikely to stand up to a legal challenge. The ordinance does not have a written plan to guide decision-making. If the township board begins to

Table 5

COMPARISON OF THE CHANGE IN STRUCTURES SURROUNDING FERGUS FALLS, 1968-1977 WITH HIGHWAY ORIENTATION

Type of Highway Orientation (rows)	Change in the number of structures per 40-acre parcel, 1968-1977 (columns)									
	2 or more structures lost	1 structure lost	no change ¹	1 structure gained	2 structures gained	3-5 structures gained	6 or more structures gained	water	sum of parcels loss gain	row total ²
not highway oriented ²	5 (1) row % (45) col %	19 (1) row % (33) col %	2,383 (80) row % (40) col %	44 (1) row % (27) col %	13 (1) row % (27) col %	13 (1) row % (22) col %	5 (1) row % (22) col %	497 (17) row % (75) col %	24 75	2,979 (43)
four lane	0	0	120 (88) (2)	10 (7) (6)	2 (1) (4)	0	0	4 (3) (1)	0 12	136 (2)
two lane	3 (1) (27)	9 (1) (16)	930 (87) (16)	35 (3) (21)	17 (2) (35)	22 (2) (37)	8 (1) (35)	46 (4) (7)	12 82	1,070 (15)
unpaved	2 (1) (18)	16 (1) (28)	2,014 (92) (34)	51 (2) (31)	7 (1) (14)	14 (1) (24)	5 (1) (22)	88 (4) (14)	18 77	2,197 (32)
residential	0	2 (3) (4)	48 (65) (1)	7 (9) (4)	8 (11) (16)	5 (7) (8)	2 (3) (9)	2 (3) (1)	2 22	74 (1)
intersection 4 lane/ 2 lane	0	0	11 (85) (1)	2 (15) (1)	0	0	0	0	0 2	13 (1)
intersection 4 lane/ paved	0	0	1 (100) (1)	0	0	0	0	0	0 0	1 (1)
intersection 2 lane/ unpaved	1 (1) (9)	11 (2) (19)	341 (88) (7)	16 (4) (10)	2 (1) (4)	5 (1) (8)	3 (1) (13)	13 (3) (2)	12 26	442 (6)
column totals	11	57	5,898	165	49	59	23	550	68 296	6,912 (100) (100)

Source of Data: State Planning Agency, Land Use Change Project; Highway Orientation: MLMIS

1. "No change" means either: no net change in number of structures; or each of the 4 10-acre parcels in the 40 contained 10 or more structures in both 1968 and 1977.

2. 40-acre parcel neither contains nor is adjacent to a road appearing on the county highway map.

Read rows across and columns down the page.

limit subdividing, it may be accused of making arbitrary decisions even though their intentions are good. Further, it should be noted that M.S. 366.10-366.18 does not allow townships to adopt subdivision regulations.

Thus far the township supervisors feel they have been able to control development from locating on agricultural land. As mentioned earlier, there is limited pressure to build on the agricultural land because of the availability of many scenic building sites. Wooded and amenity areas have seen some development. There are mixed opinions about the increasing non-farm population and the problems it causes. One township officer though new development would not create a problem while another felt that additional non-farm residents would compound the problems of providing urban services. The township's annual budget increased from \$12,000 in 1977 to \$25,000 in 1979.

Aurdal Township

Aurdal Township is located north and slightly east of Fergus Falls and has experienced considerable development pressure. It does not have a zoning ordinance. A number of residential subdivisions are scattered throughout the southern half of the township. There is concern that home sewage systems will not function properly on the heavy clay soils where some development is taking place. In one residential subdivision new homes seem precariously close to being in a floodplain. Most residential developments are located on forested land or along the Otter Tail River. However, newly platted areas are beginning to encroach on agricultural land.

In Aurdal Township, the loss of agricultural land is not a pressing issue and the township supervisors do not seem to have a strong interest in implementing agricultural land protection measures. At present, none of the board supervisors are farmers and only one of the town officials is farming. Most of the town officials work in the city or are retired. When asked how farmers feel about the scattered residential growth, an official who is a farmer responded, "its all right as long as they don't bother me, I live way out ...". Another reacted, "I got out a couple of years ago." One official did indicate that a number of farmers were upset about the urban development near their farms. However, farmers have shown little interest in participating in township government to protect their interests.

The township officials would like to control residential developments, at least to the extent of requiring a minimum lot size. They fear that small lots could create pollution problems. A zoning ordinance was prepared for the township

through the assistance of the West Central Regional Development Commission, but has not been adopted. The new ordinance would require a minimum lot size of 60,000 square feet (1 1/3 acre).

The township has experienced difficulty in trying to adopt zoning. In March 1979, at the annual township meeting, a resolution was passed to adopt zoning. But this is where the confusion began.

Township planning and zoning legislation was passed by the legislature in 1939 and is difficult to interpret. On one hand, M.S. 366.12 seems to call for a 70 percent affirmative vote to authorize building and zoning regulations. In M.S. 366.13, it seems to indicate that only a majority of the votes would be needed to adopt zoning. An opinion of the attorney general (number 441H, dated May 6, 1959), states that only a majority of "yes" votes are needed in order to adopt zoning regulations.

The township voters passed the question by a majority of yes votes but not by a 70 percent margin. The matter was sent to the township's attorney for review and he advised that another township vote would be needed to obtain the 70 percent margin required by township enabling legislation. After being informed that there was an attorney general's opinion on the matter the township supervisors stated, "you know we've been burned on that before. Out here an attorney general's opinion doesn't mean anything. They (meaning the court system) go by what it says in the laws."

This is not the only obstacle the township has to overcome. The ballot adopting zoning requires a specific format. Voters are asked, "Shall the board of supervisors adopt building and zoning regulations and restrictions? The manner in which the question must be stated virtually prevents the township from adopting zoning. The term "building restrictions" is confused with the state building code. Township officials have tried to convince the citizens that they were not voting on the adoption of the building code. The first time a vote was held, zoning was soundly defeated. In the March 1979 vote, the format of the question was changed slightly to eliminate the reference to building restrictions. A majority voted in favor of adopting zoning, but the township attorney decided that the vote was invalid because of the change in wording. The township plans to try again, but 70 percent approval may be difficult to get.³

³ The legislation dealing with this matter was clarified during the 1980 session and now requires only a majority vote.

Ironically, Aurdal Township may not need to vote on the matter in order to adopt planning and zoning. Towns having 1,200 or more people residing in platted areas have been granted the same authority as municipalities by the legislature and do not require voter approval to plan and zone. The state demographer's population estimate for 1979 indicated that Aurdal has a population of 1,243.

It's not known exactly how many persons reside in platted areas, or how a platted area should be defined. Some subdivisions may have been laid out by metes and bounds. It is uncertain whether these areas are considered platted. In fact, state statutes do not identify a process to determine if a town is an "urban town." If a town feels it qualifies, apparently it is just supposed to proceed on its own. There is no agency designated to help them make that decision or to certify that their actions are proper. As long as townships are uncertain about their legal authority to plan and zone, they will be reluctant to adopt controls.

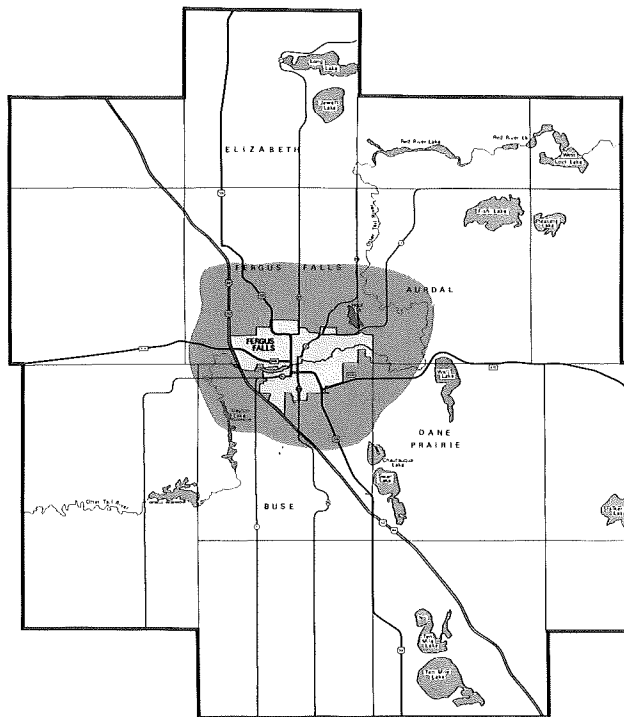
Not only are the planning and zoning laws vague, but the entire township enabling legislation is out of date. One official exclaimed, "a committee should sit down and go over the entire manual of township laws. Many of the provisions come from the horse and buggy era, such as the posting of notices in three different areas of the township. The signs aren't large enough to read from a moving car and most people wouldn't know what they were about anyway. Yet, we are still required to do it. Perhaps, a newspaper notice would be adequate."

Concern was also expressed about the lack of public interest in local government. Annual meetings are held in March and the variability of weather causes problems. Last year, it snowed heavily the day of the annual meeting and the voter turn out was only 10 percent. Township officials do not know how they can be held accountable for their actions if citizens do not express their views.

Fergus Falls Urban Fringe

Several problems affecting the Fergus Falls urban fringe have been identified by township, county and city officials. The urban fringe as used here is defined as the area just outside the corporate limits which is undergoing change from a rural to an urban area (Figure 7). In general, the problems consist of a lack of coordination between governmental units, scattered urban development in the urban fringe area and lack of consistent city, township and county controls.

Figure 7
LOCATION OF FERGUS FALLS URBAN FRINGE



INTERGOVERNMENTAL COORDINATION

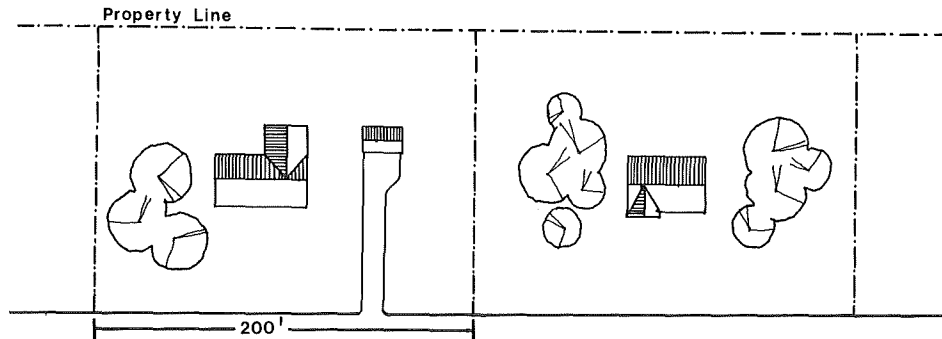
Coordination between the city and county is generally lacking. Because the county does not have a zoning ordinance or comprehensive plan, there is no formal agreement for dealing with problems in the urban fringe except for the city's review of new plats within one mile of the corporate boundary. As will be seen later, the review of new plats has only been partially successful.

When dealing with land use issues in the urban fringe, past coordination between the city of Fergus Falls and two of the three adjoining townships has not been good. Efforts are now underway to improve this relationship through the development of an orderly annexation agreement with Buse and Aurdal Townships. The city has an existing orderly annexation agreement with Fergus Falls Township which was developed in 1974. This agreement was developed because of pressure from developers rather than a willingness on the part of Fergus Falls Township to work with the city in planning for future growth.

Townships continue to feel threatened by the city. They see the city's desire to annex land as a ploy to get a larger tax base rather than an honest attempt to provide necessary services or to prepare for future growth. Fergus Falls, on

the other hand, has been concerned about the development in the urban fringe for some time. They see development occurring there with little regard for the time when it must be included within the city. Streets are developed with improper right-of-way and surface widths; lot sizes are large and developed in such a way that splitting them later on to permit higher density development and allow for economical installation of sewer and water will be impractical (Figure 8 and 9). Yet the city has no real control over these problems until the land is annexed. Current zoning in the urban fringe is done by the townships. The city planning staff thinks that township zoning is not suitable for developing areas that will eventually receive city services. Once these areas are annexed, the city must spend money to bring them up to acceptable standards. These are unnecessary costs that must be passed on to all residents of the city. With more coordination and planning many of these problems could have been avoided or at least made less severe.

Figure 8
ALTERNATIVE SUBDIVISION DESIGNS



Above: Current home siting practice in the urban fringe.

Below: An improved home siting method which is more adaptable to future lot splitting.

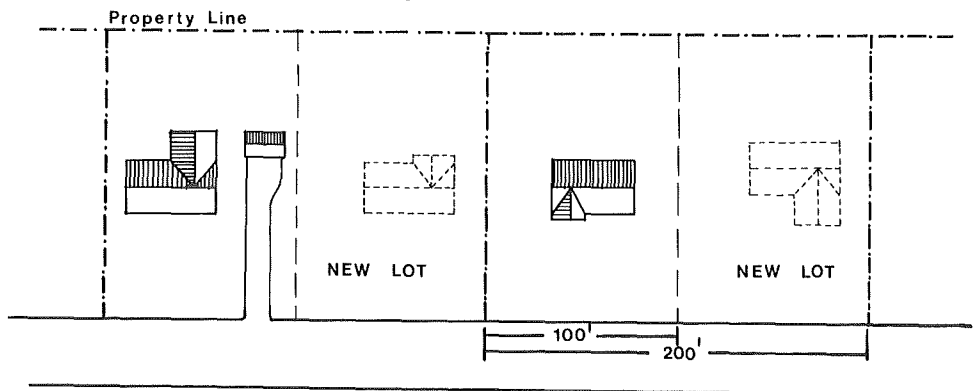
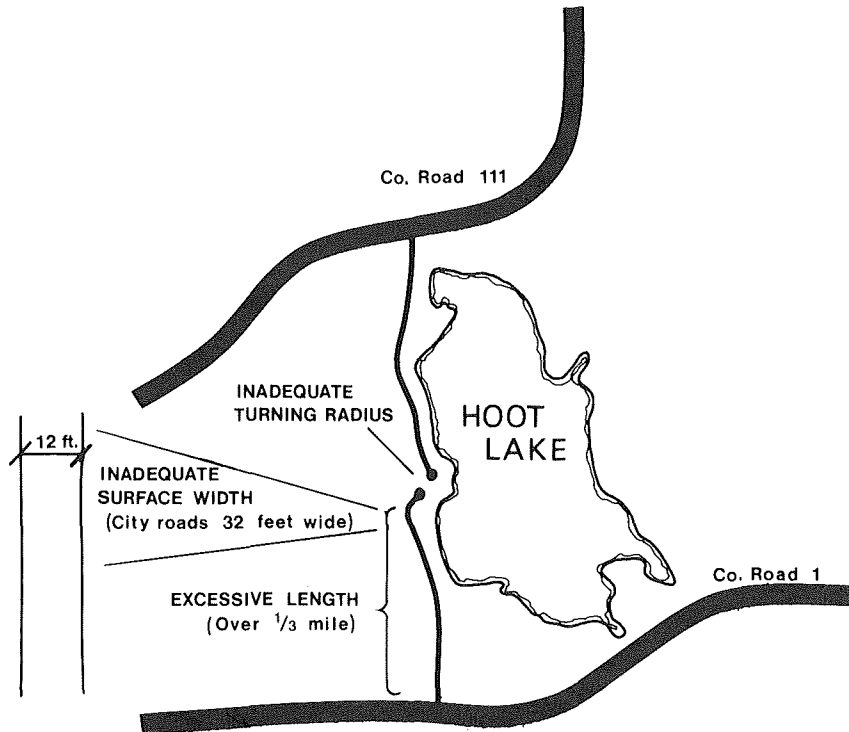


Figure 9
SUB-STANDARD ROAD DEVELOPMENT

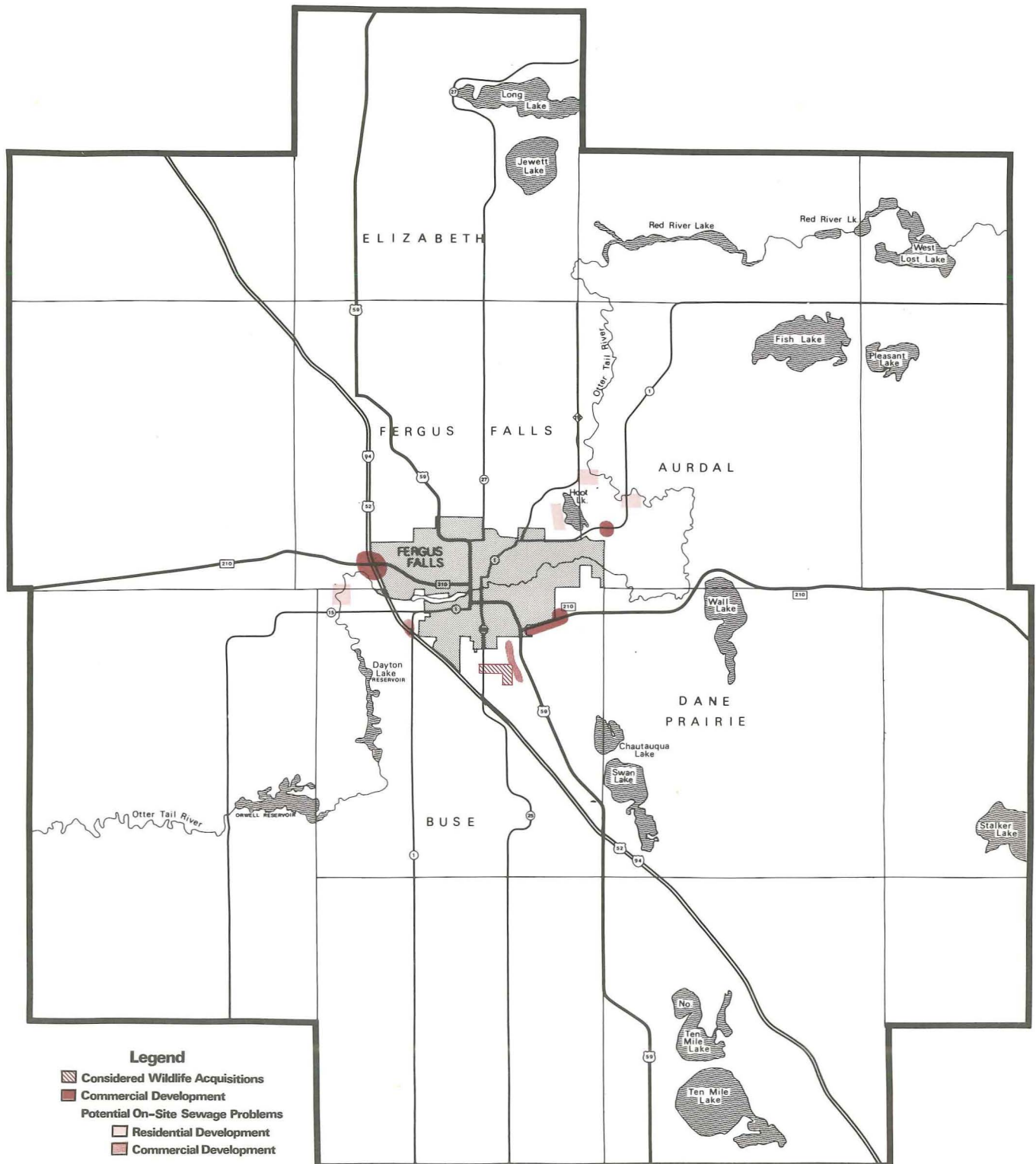


Lack of coordination is not restricted to township and city relations. Cooperation between the city and the U.S. Fish and Wildlife Service (U.S.F.W.S.) is also poor. For example, when the city planning staff was asked recently about proposed waterfowl acquisitions, their response was, "We usually don't hear about these acquisitions until the property has been purchased." On the other hand, the U.S.F.W.S. indicated that they know virtually nothing about the city's plans for annexation or future growth.

The failure to coordinate planning efforts was clearly illustrated recently when the U.S.F.W.S. wanted to purchase some land for a waterfowl production area. The proposed acquisition is located just south of the Fergus Falls corporate limits and adjacent to Highway 59 (Figure 10). More than half of the land is suitable for urban development. The township supervisor knew the U.S.F.W.S. was interested in acquiring the land and assumed that the entire parcel of approximately 120 acres would be taken out of production. Conceivably, this was a possibility if the landowner wanted the U.S.F.W.S. to acquire the entire property. Later, the U.S.F.W.S. stated that they were interested in only a portion of the farmstead amounting to only 20 acres. The city planning staff had no prior knowledge of the proposed acquisition nor was the U.S.F.W.S. aware that the city was in the process of developing an orderly annexation agreement for

Figure 10

LOCATION OF SELECTED FEATURES IN THE FERGUS FALLS URBAN FRINGE



this area. As it turned out, the property was acquired by a farmer and not by the U.S.F.W.S. However, this situation points out the need for better coordination. Had the acquisition gone ahead, it could have disrupted city plans for annexation, sewer and water extensions, street alignment and continuance of orderly development. Many tax dollars may have been spent needlessly to solve problems that could have been prevented.

SCATTERED URBAN DEVELOPMENT

Most new residential development is locating outside the present corporate boundaries, primarily to the north and northeast of Fergus Falls in Aurdal and Fergus Falls Townships. Residential development is attracted to these areas because of lower taxes and natural amenities such as scenic lakeshore, rolling topography and wooded areas. Moreover, people are able to obtain a larger lot, generally one to two acres, for the same price as a standard city lot. A lack of an ample supply of buildable lots within the city is also contributing to the development of outlying areas. The expansion of residential and commercial development in the urban fringe is causing several problems. Some of these will be discussed in the next section, "Inconsistent Controls." In addition there are problems with malfunctioning on-site sewage disposal facilities, encroachment of residential use onto agricultural land and the demand for city-type services that townships are unable to provide.

Table 6 shows change in the number of structures per 40-acre parcel of land between 1968 and 1977 and distance from the corporate limits of the City of Fergus Falls. It appears that the highest percent of parcels with six or more structures gained has occurred within the corporate boundaries of Fergus Falls. The total number of low density gains (1, 2, 3-5 structures gained per 40-acre parcel) decreases in each successively distant zone from the city. The data supports the statement made earlier that more scattered, low-density growth is occurring in the unincorporated areas closest to the city and, furthermore, suggests where urban services may be needed.

Several housing developments are located in Buse and Aurdal Townships adjacent to the Otter Tail River. Soils on these developments are very heavy with slow "percolation rates" and are not conducive to proper functioning of conventional drain-fields. Moreover, none of these areas are expected to be served with city sewer. According to the county shoreland administrator there has been one on-site sewage system failure in the River Oaks subdivision directly west of the city

Table 6

COMPARISON OF THE CHANGE IN STRUCTURES SURROUNDING FERGUS FALLS, 1968-1977 TO DISTANCE FROM CITY

Distance from the corporate limits of Fergus Falls, MN. (rows)	Change in the number of structures per 40-acre parcel, 1968-1977 (columns)										row total
	2 or more structures lost	1 structure lost	no change ¹	1 structure gained	2 structures gained	3-5 structures gained	6 or more structures gained	water	sum of parcels loss	sum of parcels gain	
within the corporate limits	2 (1.5) row % (18) col %	2 (1.5) row % (4) col %	89 (55) row % (2) col %	14 (10) row % (8) col %	8 (6) row % (16) col %	11 (8) row % (19) col %	8 (6) row % (35) col %	3 (2) row % (1) col %	4	41	137 (2)
within 1 mile of the corporate limit	1 (1) (9)	1 (1) (2)	218 (74) (4)	29 (10) (18)	13 (4) (27)	17 (6) (29)	3 (1) (13)	11 (4) (2)	2	62	293 (4)
1-2 miles from the corporate limit	0	2 (1) (4)	287 (83) (5)	20 (6) (12)	5 (1) (10)	6 (2) (10)	4 (1) (17)	21 (6) (3)	2	35	345 (5)
2-3 miles from the corporate limit	1 (1) (9)	3 (1) (5)	394 (86) (7)	13 (3) (8)	6 (1) (12)	2 (1) (3)	1 (1) (4)	39 (8) (16)	4	22	459 (6)
3 miles beyond the corporate limit	7 (1) (64)	49 (1) (86)	4,910 (86) (83)	89 (2) (54)	17 (1) (35)	23 (1) (39)	7 (1) (30)	576 (10) (89)	56	136	5,678 (82)
column totals	11 (1)	57 (1)	5,898 (85)	165 (2)	49 (1)	59 (1)	23 (1)	650 (9)	68	296	6,912 (100)

Source of Data: State Planning Agency, Land Use Change Project

1. "No change" means either: no net change in number of structures; or each of 4 10-acre parcels in the 40 contained 10 or more structures in both 1968 and 1977.

Read rows across and columns down the page.

in Buse Township. More systems may fail as development intensifies. In Aurdal Township on-site sewage system failures have been reported in the subdivision adjacent to County Highway 1 in the northwest quarter of section 29 and in the residential development in the center of section 19 (Figure 10).

There are also several malfunctioning on-site disposal systems in the Hoot Lake area located just northeast of the city. Most of these systems were installed prior to the adoption of county shoreland regulations. Problems near Hoot Lake should be remedied by the installation of city sewer some time after the area is annexed in 1981.

The main problem with the Hoot Lake development and also with development north of Opperman Lake is its relative low-density and the high cost to property owners of providing city sewer. Lots in both areas are relatively large and will require long sewer line runs. Normal city assessment procedures call for assessing property owners on a front-foot basis. Since some lots are more than 200 feet in width, using the above assessment procedures will create financial problems for some homeowners. The city is recommending that property owners subdivide their lots where possible to help reduce costs (Figure 8).

Residential encroachment onto agricultural land is occurring in portions of Fergus Falls and Aurdal Townships. It should be pointed out that in terms of the amount of agricultural land affected the problem is not considered serious at this time. However, as more of the scenic areas near streams and woodlands become developed, pressure to convert more agricultural land to residential use may increase. One concern now is the cumulative impact that the conversion of agricultural land to residential use might have and the lack of adequate controls to deal with the situation.

New rural residents are placing increased pressure on the township to provide urban type services in the urban fringe. Township supervisors stated that the urban fringe residents are requesting better snow plowing service to enable them to get to work on time; hard surfaced roads instead of gravel; better police and fire protection; and improved solid waste collection. Improving these services requires additional money, which usually means higher taxes. Quite often, the tax increase must be passed on to all residents of the township, even though many of the traditional rural residents, like farmers, do not expect or necessarily desire a higher level of service.

Most new commercial development is confined to the western portion of the city in the vicinity of the Highway 210 and I-94 intersection. Other commercial development is located along most of the major highways entering the city. They include Highway 59, to the north and south; County Highway 1 to the east and south; and Highway 210 on the eastern side of the city (Figure 10).

Recently a restaurant was constructed west of I-94 at the junction of I-94 and Highway 210. Other commercial and light industrial uses are planned for this area which will take some land out of agricultural use. Sewer and water service is not now available west of the interstate. The city has stated that it will be extremely expensive to provide sewer and water to this area and has no immediate plans to do so.

Present commercial development in the vicinity of I-94 and County Highway 1 includes an implement dealer and a restaurant. Malfunctioning sewage systems are a problem with both of these uses. Once the Highway 210 bypass route is completed, the County Highway 1 and I-94 area is expected to receive increased pressure for commercial development, further compounding sewage problems in the area. Another restaurant along Highway 59 has similar sewage disposal problems. The malfunctioning systems are due to a combination of poor soils and possibly inadequate standards for sewage disposal. The State Department of Health has authority over commercial and industrial sewage disposal outside of shoreland areas. County staff feels that the standards for the size of soil absorption areas are not adequate to prevent pollution problems. The high failure rate seems to confirm this view.

Some mixing of residential and commercial use occurs along County Highway 1 in Aurdal Township and also north of Opperman Lake in Fergus Falls Township. There is very little control over the placement of this development in Aurdal Township since they have no zoning ordinance or subdivision regulations. Fergus Falls Township has an ordinance, but it has not been effective in controlling development. If these areas are annexed, the city will inherit incompatible land uses they had not part in planning for or controlling.

INCONSISTENT CONTROLS

Inconsistent land use controls present another problem for the city, township and county to solve. Existing county, township and city controls are different. Otter Tail County does not have a countywide zoning ordinance. Its only major

land use control on a countywide basis is its subdivision regulations. Zoning controls only apply to shorelands. Three of the four townships surrounding Fergus Falls each have their own zoning ordinance controlling setback, lot size and land use. The standards established in these ordinances are different. For example, in Buse Township, the ordinance contains a 50,000 square feet minimum lot size and a minimum building setback of 100 feet from the road right-of-way. The Dane Prairie Township ordinance requires a minimum lot size of 60,000 square feet and treats residential, commercial and industrial development as a conditional use. Minimum setback is 40 feet from the road right-of-way. The Fergus Falls Township ordinance requires a two-acre (over 80,000 sq. ft.) minimum lot size for residential structures and a minimum setback of 40 feet.

Commercial and industrial uses are handled under the conditional use provisions of the ordinance. Aurdal Township, located east of Fergus Falls, has no zoning ordinances. Consequently, the only control over development of land in Aurdal Township is through the county subdivision regulations which do not control the intensity, type or location of development. The city's ordinance requires a building setback of 30 feet on local residential streets and 40 feet on major arterials. Minimum lot size in the city varies from 6,000 to 7,200 square feet.

Given the different requirements of the various land use controls operating in the Fergus Falls urban fringe, it is no wonder that problems are expected by the city when annexation occurs. Most of these problems were discussed earlier including excessive cost to provide sewer and water to lots with large frontages, irregular setbacks making it difficult to maintain consistency with existing residential neighborhoods and mixing of residential, industrial and commercial uses which create an undesirable atmosphere for a residential neighborhood. If the city, townships and county are to do a better job of controlling development in the urban fringe, more uniformity in land use controls must be developed.

CURRENT TECHNIQUES FOR CONTROLLING DEVELOPMENT

Until recently, little has been done on a cooperative basis to address the development that is occurring in the Fergus Falls urban fringe. Although the development has been slow in coming, and, on an annual basis is not seen as a serious problem, it is the cumulative impacts that worry the city. In an effort to begin addressing these problems the city, in 1974, developed an orderly annexation agreement with Fergus Falls Township. The agreement has not been nearly as effective as the city had hoped. Part of this, they feel, was due to the manner in which the agreement was initiated. The

township felt pressured to cooperate in the annexation proceedings rather than willingly volunteer. It has been difficult for the city to overcome these initial barriers during the past five years and progress has been slow.

A little background information may be helpful in explaining the above situation more clearly. A developer, owning property in the northeast quadrant of the I-94 and Highway 210 intersection, requested that the property be annexed by the city. The city not only wanted to annex this area but also a much larger area extending across the entire northern portion of the city. Most of the land in the proposed annexation area was undeveloped and in agricultural use. Some scattered commercial development occurred along Highway 59 and scattered residential development occurred north of Opperman Lake and adjacent to Hoot Lake.

Fergus Falls Township did not approve of the city's annexation plans and contested the case. The township felt that far too much land was being annexed to the city at one time. On the other hand, the township knew that the city needed room to expand. They also were concerned that the municipal board might rule against them. Consequently, the township reluctantly agreed to draw up an orderly annexation agreement with the city spelling out specific years for various land areas to be annexed. The township also agreed to let the city apply its zoning ordinance and subdivision regulations to the proposed annexation area. In addition, the orderly annexation agreement called for the establishment of a planning and zoning committee to exercise the city's regulatory power over the area. In effect, the committee was intended to be the governing body which also served as the board of appeals and adjustment within the annexation area. The committee was made up of three members: one appointed by the town board, one by the city council and one by the county board.

In theory, the orderly annexation agreement developed by the city and Fergus Falls Township allows the city to control development in the annexation area. However, in practice this has not happened. Instead of adopting restrictive zoning measures that would encourage contiguous development at urban densities and ensure economical placement of city services such as sewer, water and streets, the city has chosen to apply its residential-agricultural (RA) zone to the annexation area. Unfortunately, the city's RA-Zone does no more to control development in the area than does the current Fergus Falls Township ordinance. Both ordinances treat the area as an agricultural zone but permit residential structures. The city's ordinance calls for minimum lot sizes of 2-1/2 acres while the township ordin-

ance specifies two-acre minimums. Commercial and industrial uses are treated as a conditional use in the township ordinance. Such controls hardly encourage contiguous residential development at urban densities.

Building permits in the orderly annexation area continue to be issued by the township even though the city has supposedly applied its zoning controls to the area. In fact, according to staff, the township virtually never notifies the city of individual housing permits. Also, subdivision plats are frequently unknown to the city before they are approved or else the city receives them with too little time to properly review them.

Another downfall of the orderly annexation agreement is the lack of direction provided by the joint planning and zoning committee. Although on paper this body is given almost autonomous authority over the annexation area, it does not appear that they use it. The committee has no scheduled meeting date nor has it made any attempt to develop plans or policies for the area. The committee does review some rezonings and subdivision plats but does not censure the township or county when they have failed to notify the committee of pending permits or plats.

The orderly annexation process is also being attempted in Buse and Aurdal Townships located in the urban fringe area south and east of Fergus Falls. In the summer of 1977, prior to initiation of the annexation talks with the townships, the city prepared a fringe area growth study.⁴ This study was partially funded by the Minnesota Land Use Planning Grants Program. The study sought to answer the following questions: What are the trends in land development for the fringe area surrounding Fergus Falls? Are the consequences of such trends socially and economically desirable? What are the land use conflicts that are being created and how can these conflicts be alleviated? Which planning tools can be used to achieve orderly growth in the fringe area?

After the study was completed, the planning commission set up a fringe area committee which consisted of three planning commission members. Their task, with the help of staff, was

⁴ City Planner, City Engineer, City Administrator, Fergus Falls Fringe Area Growth Study, Fergus Falls, Minnesota, (unpublished manuscript) December, 1977.

to prepare a map showing possible future urban growth and when and where annexation should most likely occur over the next 20 to 25 years. Their work was based in part upon the urban fringe area growth study, feasible sewer and water extension, transportation corridors and soil conditions. Unfortunately their work did not follow the approach outlined in the urban fringe area growth study for dealing with the annexation issue. The fringe area growth study recommended a number of steps for improving the chances for a successful orderly annexation agreement. First, joint meetings of the township boards, city council, county commissioners and soil conservation board should be held to develop a consensus on how land ought to be used in the fringe area, e.g., long-term agricultural use, short term agricultural use, commercial and residential use, etc. Second, the group should develop goals and policies which could serve as a guide plan for the area. Third, the study recommended that a zoning ordinance be established to see that the goals and policies are carried out.

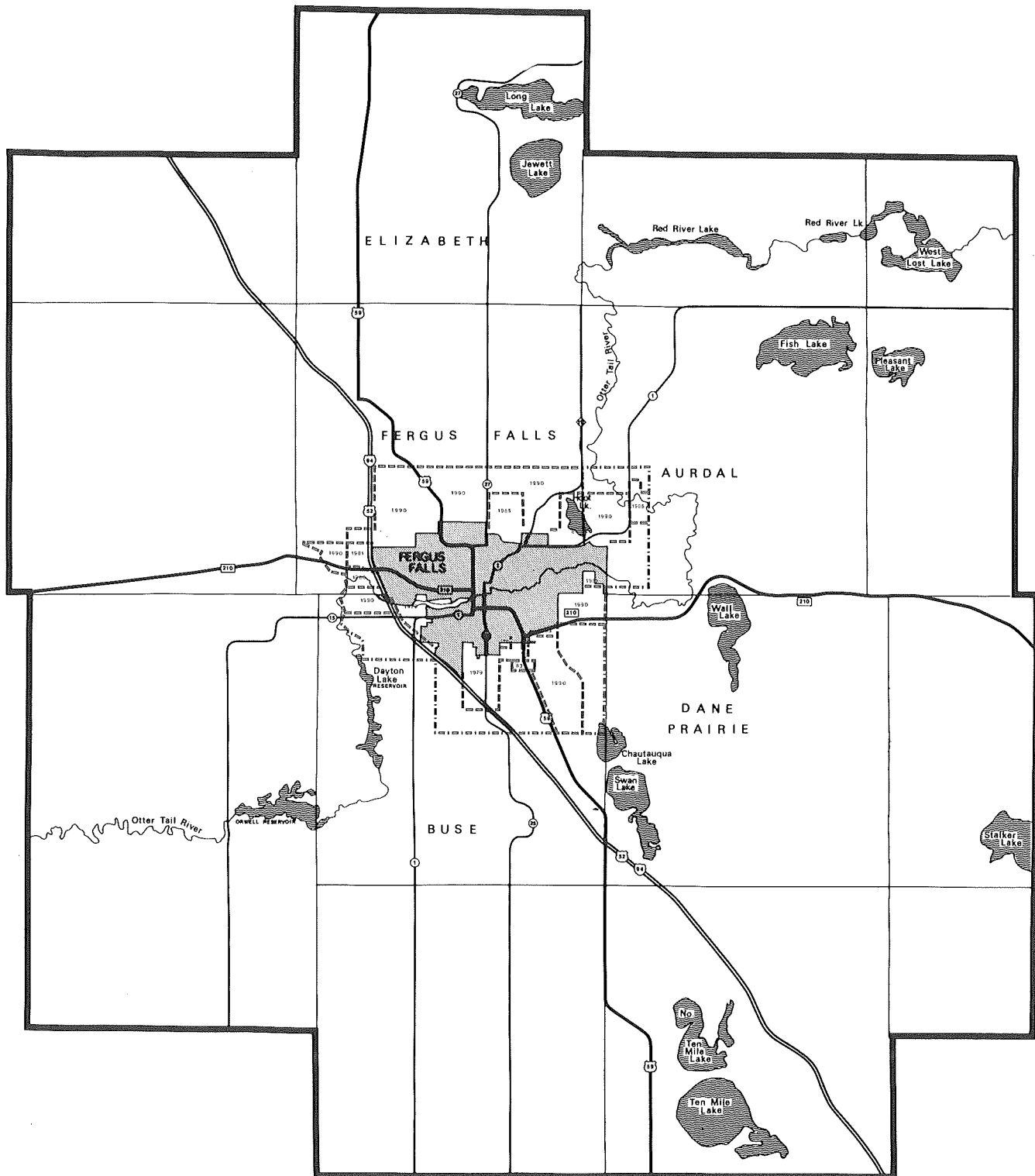
The approach recommended by the fringe area growth study has the advantage of bringing all interested parties together to seek a common solution to their land use problems. Unfortunately, until now Fergus Falls has decided not to use this approach. Instead, the urban fringe committee chose to develop the proposed annexation boundaries to serve as a starting point for later discussion with the townships. Unfortunately the committee developed these boundaries without the benefit of township input or a plan for where development ought to go. They also failed to base the annexation boundary on population growth. As a result, the city ended up with a proposed annexation boundary in Buse and Aurdal Townships that would more than double the area of the city (Figure 11). Moreover, the area includes a large amount of prime agricultural land to the southwest of I-94. Given past population trends, one wonders whether the city will need that amount of space for future development.

Proceeding in this manner has further alienated the townships and has been partly responsible for the breakdown in annexation talks. It seems essential that if the city is to make this an effective process they are going to have to do much more to involve the townships in the decision-making. An atmosphere of trust and cooperation must be developed if the city is going to convince the townships of the benefits of orderly annexation.

It should be pointed out that the urban fringe committee is not responsible for setting up annexation talks with the townships. Its primary function is to prepare annexation information for the city council subcommittee on parks,

Figure 11

PROPOSED AND CONSIDERED AREAS FOR ANNEXATION SURROUNDING FERGUS FALLS



planning and development. This subcommittee is responsible for setting up meetings with the townships to work toward the development of an orderly annexation agreement. While the townships were not involved in the development of the fringe area growth study or in preparing the proposed annexation boundaries, the parks, planning and development subcommittee has recently held meetings with the townships to seek their input on these issues.

According to city staff, township reaction during these meetings has been mixed. Some township officials continue to view the effort as an attempt by the city to gain additional control of township land, particularly land with a high tax base, and are quite reluctant to become involved. Other township officials, though not terribly excited about the approach, have been willing to listen. While city officials are not encouraged by recent meetings with the townships, they do think that over time the latter group can be convinced of the value of orderly annexation and that a workable solution to urban fringe problems can be worked out.

Fergus Falls has not made use of its extraterritorial powers. The use of extraterritorial zoning powers is limited, except in Aurdal Township, because the other townships have adopted their own zoning ordinances. However, the city has not chosen to use these powers in Aurdal Township either. Subdivision regulations have been adopted by the county. The city has the authority to legally extend its extraterritorial subdivision regulations on any land within two miles of the city. Instead the city has an informal arrangement with the county by which they comment on proposed plats within one mile of the city. The city does not feel that these comments are taken very seriously by the county board. The city planning commission has shown some interest in making use of the city's extraterritorial powers. The city council, however, has been unwilling to listen to the planning commission because council members are fearful it will cause more friction with the townships.

Except for shoreland regulations, the only technique the county has for controlling development in the urban fringe is its subdivision regulations. As was pointed out earlier, this has not been an effective tool since the county has no zoning ordinance to back up the subdivision controls. Moreover, even though the county has given the city review and comment privileges on any plat within one mile of the city, this has not worked out very well because of political problems between the city council and the county board.

Three of the four townships surrounding Fergus Falls have adopted zoning ordinances. Initially ordinances in Buse and

Fergus Falls Townships were developed primarily to curb the growth of junk yards, mobile homes and commercial development but not as a way to reduce the loss of agricultural land. Recently both Buse and Fergus Falls Townships have become concerned about the amount of residential development occurring within their townships. Fergus Falls Township has increased the lot size several times to discourage non-farm development, but this has not worked. Both ordinances contain one major zoning district called the agricultural-single-family dwelling zone. Permitted uses within the zone include agriculture, residential, both seasonal and year around and a number of public uses including churches, schools, parks, etc. Commercial and industrial uses are handled as a conditional use.

Dane Prairie Township developed and adopted its zoning ordinance later than the other townships. Although they were not receiving the same pressure for development that was occurring in Buse, Fergus Falls and Aurdal Townships, they knew that they too would be faced with similar problems unless they developed an effective ordinance. Their ordinance contains one district called an agricultural zone. This zone essentially permits only agriculture and residential uses. All other uses are handled by a conditional use permit. The intent of the ordinance is to permit only that residential development which is farm related. However, from the way the ordinance is written it is questionable whether the township could prevent someone from constructing a non-farm residential structure on agricultural land.

According to city officials, the township ordinances have not been effective in controlling urban development in the urban fringe. This is partly due to the limited amount of funds that the townships have for both development and administration of the ordinances. Further, they do not have the expertise or the experience to deal on their own with the complex urban problems that occur within the fringe area.

Some problems with these ordinances have already been discussed, such as the inconsistencies regarding lot size, setback, land use, etc. In addition these ordinances allow residential development in agricultural areas with minimum lot sizes ranging from one to 2-1/2 acres which promote, rather than curb, scattered residential development. The section on conditional uses attempts to address the requirements of M.S. 394.301 which states in part: "Such standards and criteria shall include both general requirements for all conditional uses and insofar as practicable, requirements specific to each conditional use." The ordinances establish very general criteria which must be met by all conditional uses but say nothing about specific requirements. The general requirements would probably be sufficient in an area

not expecting urban development. However, in an urban fringe area where urban development is expected, the omission of specific conditions can result in a proliferation of incompatible land uses, places undue pressure on the town board often causing arbitrary decisions and fails to provide any indication to adjacent property owners or to developers of what they can expect.

In addition to the above, the Buse Township ordinance also contains provisions for regulating subdivisions. For example, the ordinance⁵ states that there will be "no conveyance of land by metes and bounds without the approval of the town board..." It further states that the

town board shall consider ... the effect of the proposed conveyance or subdivision on the land or agricultural land resources of the township, the ability of the township to provide needed services to the proposed plat or tract, the compatibility of the proposed plat or tract with any and all overall plans of the township, preservation of open space, the density and distribution of population ... and other factors.⁶

Current township planning and zoning enabling legislation (M.S. 366.10-366.18) does not provide the authority for townships to prepare subdivision regulations unless they are an urban town. Buse Township is not an urban town. Consequently there is some question concerning the legality of this section of the ordinance. Moreover, the existence of such regulations together with the county's subdivision regulations complicates the situation for developers.

Summary

The reduction of the agricultural land base in Otter Tail County results from three main factors: wildlife production areas, transportation needs and urban development. Cropland will continue to be converted to wildlife management areas and transportation needs. The impact of these programs is unlikely to change because the county has little control over the land acquisition policies, standards, and regulations of federal and state government. These programs are trying to attain valid public goals, but they often conflict with agricultural interests.

⁵ Buse Township Zoning Ordinance 1974.

⁶ Ibid.

Most of the urban development pressure in Otter Tail County is located on lakeshore and other high amenity areas and has not fully impacted agricultural land. Yet the negative effects of increasing non-farm growth are already apparent. While there is local interest in protecting agricultural land, neither the county nor the townships have land use controls that would be effective in rapid growth situations. Once the high amenity sites become limited and their cost escalates, the agricultural land surrounding Fergus Falls may experience additional development pressure. Local government has the opportunity to develop adequate controls to protect agricultural land before the problem gets out of hand.

Not all growth management techniques have been used in the Fergus Falls urban fringe area. Further, those techniques that have been used have not been effective in controlling urban development. There are a number of reasons for this. First, the county has never sought to apply zoning controls beyond shorelands. Politically, they have said countywide zoning would never be accepted. Rather than push the issue and create additional conflict between local government, they chose to let the townships develop their own ordinances. Second, the townships, though wanting to have control over their own land, had neither the expertise nor the financial resources necessary to develop the kind of ordinance that would be effective in controlling urban-type problems. This is not a criticism of the townships but a statement of fact. Third, the city has not attempted to use all the powers granted to it by existing legislation. For example, they have chosen not to make use of their extraterritorial powers regarding subdivision regulations. Admittedly, this power is greatly reduced when zoning cannot be used to carry out the subdivisions regulations. This is the case in Fergus Falls because all townships, except Aurdal, have their own zoning ordinances. Fourth, the city has not made effective use of the existing orderly annexation agreement with Fergus Falls Township, nor is it having much success in developing a new annexation agreement with Buse and Aurdal Townships.

Whether these obstacles can be overcome in the future is unknown. Orderly annexation offers many possibilities. Extraterritorial zoning and subdivision authority also offers some possibilities. However, these controls will only be effective if coordination between participating governments is achieved. The progress in Fergus Falls has been slow.

Findings

LOSS OF AGRICULTURAL LAND

1. Although Otter Tail County has a reputation as a recreational and tourist center, the focus of its economic base is agricultural.
2. At the county level there are no controls to protect agricultural land.
3. There is strong sentiment for handling land use control at the township level of government.
4. At the township level, there is some interest in protecting agricultural land, but town board supervisors often do not know how to go about doing it.
5. The protection of agricultural land was not the intention of most township zoning ordinances when they were originally drafted.
6. Planning and zoning by townships is done on a piecemeal basis. Controls are not adopted or if they are, they are weak and ineffective or improperly designed and difficult to administer fairly.
7. The zoning ordinances adopted by townships are basically untested because of limited development pressure on agricultural land. If challenged in court, many ordinances may not be legally upheld.
8. The laws enabling townships to plan and zone are vague, ambiguous and outdated. In one case the laws are so confusing a township cannot address its own problems.
9. In the past, competition between residential housing and agricultural uses has not been an overwhelming problem because of an abundant supply of scenic and recreational sites for development.
10. As the inventory for prime building sites is reduced, additional development pressure may be focused on the county's agricultural land resources.
11. In effect, little agricultural land has been lost to urban development, but non-farm residences are beginning to interfere with normal farming operations. Problems include different lifestyles of rural and urban residents, the rising costs of services for non-farm population and the loss of political control.

12. Federal and state land acquisition policies are a significant factor in removing land from agricultural production. There is little the county or townships can do to influence the policies of the U.S. Fish and Wildlife Service or the federal and state departments of transportation without a formal procedure for exchanging information and viewpoints.

URBAN FRINGE

1. Conversion of agricultural land to urban development will increase slightly but is not expected to result in a significant loss of agricultural land in this area.
2. Most new residential development in the urban fringe will continue to locate in areas high in natural amenities such as wooded areas, lakeshore and along stream banks. Some of this development will spill over onto agricultural land.
3. Failure on the part of the city and the county to make use of authority granted them by the legislature has contributed to land use problems in the urban fringe, e.g. municipal extraterritorial zoning and subdivision authority and county zoning powers and building code have not been use.
4. The biggest obstacle to successful management of the Fergus Falls urban fringe area is a lack of coordination between the city, the townships and the county. Poor coordination also exists between the city and the U.S. Fish and Wildlife Service.
5. Townships do not have the expertise or the financial resources necessary to plan for and manage development in the urban fringe area. Consequently, township ordinances have not been effective.
6. Poor administration of the orderly annexation agreement between Fergus Falls and Fergus Falls Township resulted in ineffective control of development in the orderly annexation area.
7. The orderly annexation process being developed between Fergus Falls, Buse and Aurdal Townships has not progressed well due to poor communication. Moreover, the process is not based upon any goals, policies or land use plans for the area. Consequently, timing of annexation areas is not well-planned.
8. Present planning enabling legislation for counties, townships, and municipalities is confusing in part and should be amended to provide more effective growth management outside municipal boundaries.

Isanti County-Cambridge

Interviewees / Reviewers

Executive Secretary County Board
County Planning Commission Members
County Zoning Administrator
Mayor of Cambridge
City Planning Commission Member
City Clerk/Administrator
School Board Member, District 911

Cambridge Township Supervisor
Isanti Township Clerk
Athens Township Clerk
Waste Water Treatment Project Consultant
Regional Development Commission Member
Pollution Control Agency, Water Quality
Division

Background

Isanti County has a population of approximately 22,160 and is located within an hour's drive of the Twin Cities metropolitan area (TCMA). The county is served by four major transportation routes. The three north-south routes, State Highway 65, State Highway 169 (in Mille Lacs and Sherburne Counties) and Interstate 35 (in Chisago County), provide good access to the Twin Cities. East-west traffic between Cambridge, Princeton, and St. Cloud is carried by State Highway 95 (Figure 1). A significant share of the county's population growth can be attributed to residents who commute daily to the TCMA.

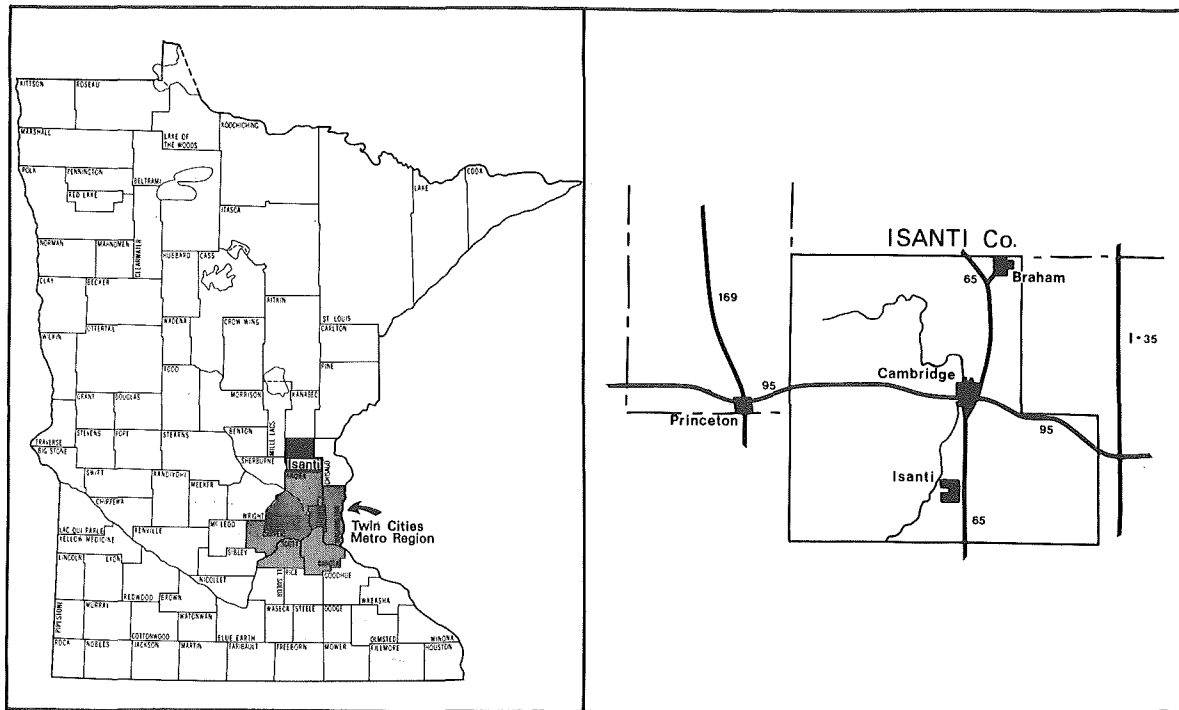
Historically, farming has been the major economic activity in Isanti County. In recent years retail trade, manufacturing and the service sectors have become more important in terms of total employment. Still, in 1974, agricultural sales contributed \$12.6 million to the local economy as compared to only \$2.9 million for manufacturing activities.¹

When compared to other soil resources of the state, farmland in Isanti County is often considered marginal because much of it is light and sandy and susceptible to drought and wind erosion. However, there are areas of heavier clay soils which, with proper land management practices, are quite productive. In addition, many sand plain areas are suitable for irrigation and have great potential for increased agricultural production. For example, farmers can produce 160 bushels of corn per acre or more from irrigated land. The county average for non-irrigated land varies from year to year, ranging from 40 to 95 bushels per acre.²

¹ U.S. Department of Commerce, 1974 Census of Agriculture, Minnesota State and County Data, Volume 1 Part 23 April, 1977.

² Minnesota Crop and Livestock Reporting Service, Minnesota Agricultural Statistics 1978, St. Paul, Minnesota, June, 1979.

Figure 1
COUNTY AND CITY LOCATION MAP



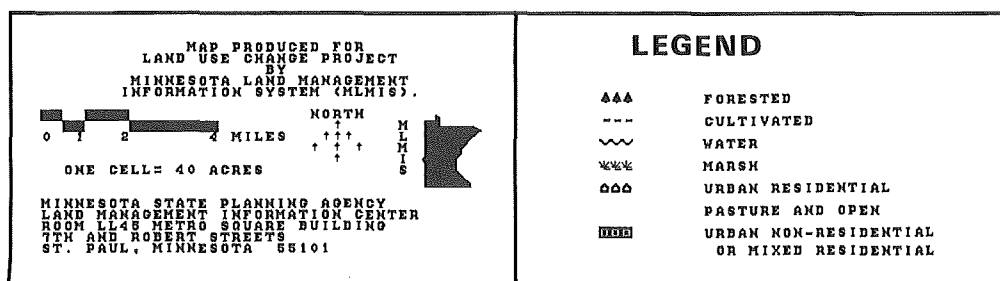
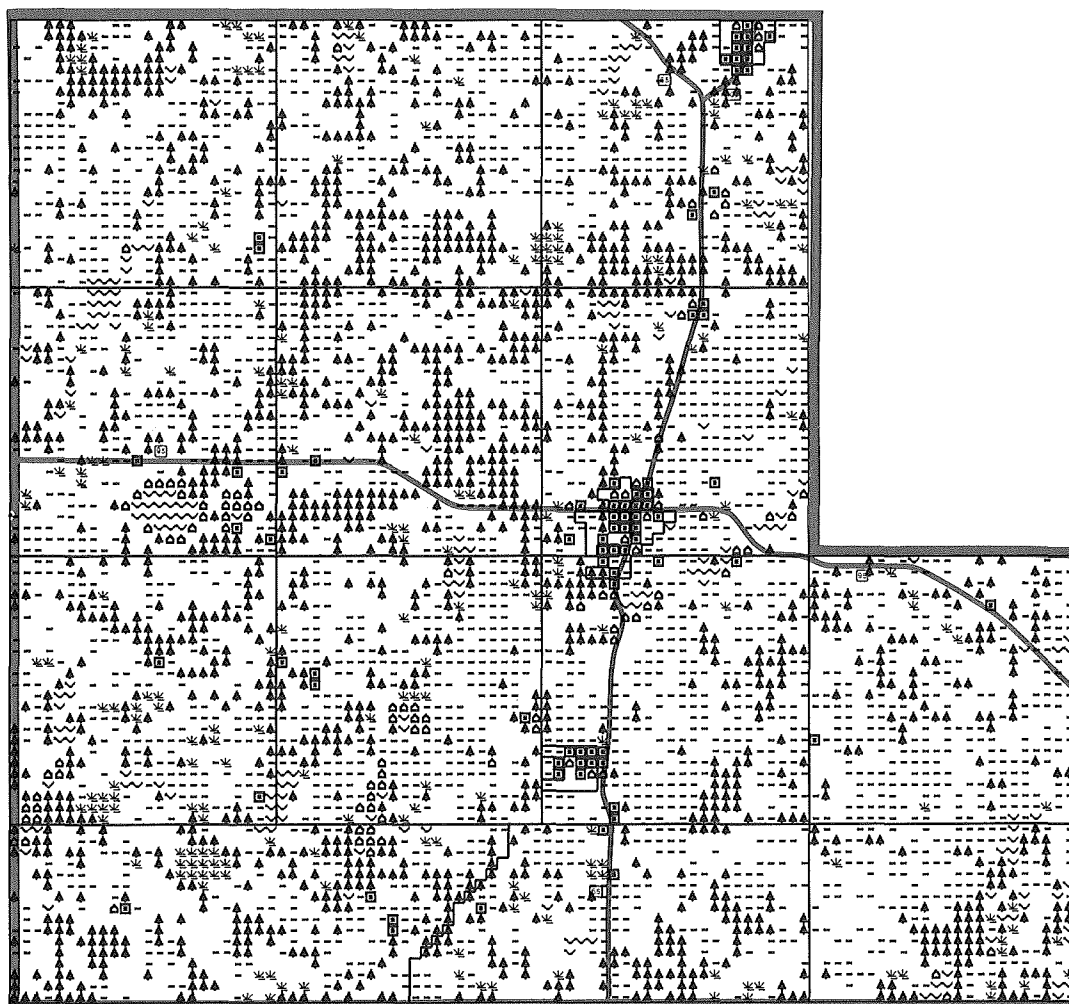
Farms in Isanti County are relatively small, averaging 159 acres as compared to the statewide average of 264 acres. Over 50 percent of the farms have sales of less than \$10,000. Further, the statewide trend towards increasing farm size is not evident in Isanti County. Average farm size remained nearly constant, averaging 160 acres in 1969 compared to 159 in 1977.³ In part, the heterogenous landscape, characterized by intricate mixtures of woods, marsh and cultivated lands, limits farm expansion (Figure 2). In addition, land ownership patterns have been complicated by the extensive subdivision of land.

Although the cost of energy may be a moderating factor, the state demographer has projected that the population of Isanti County will increase rapidly, from 22,160 in 1978 to 37,000 in the year 2000, nearly a 70 percent increase. Yet, there are only three cities in Isanti County: Cambridge (population 3,141⁴), Isanti (population 895) and Braham (population 820).

³ Ibid.

⁴ Office of the State Demographer, Population Estimate, St. Paul, Minnesota, 1980.

Figure 2
ISANTI COUNTY LAND USE/LAND COVER, 1969



Explanation: Figure 2 shows the dominant land use or land cover of each 40-acre parcel in Isanti County, as interpreted from 1969 aerial photographs.

Since 1970 the population in these cities increased only slightly, while unincorporated population grew dramatically. The state demographer has conducted population estimates for Athens, Bradford, Isanti, Oxford, Spencer Brook, Stanford and Wyanett Townships. From 1970-1979 the population of these townships increased from 5,933 to 10,827, an 80 percent increase.

Most of the population increase mentioned above has been in scattered residential developments in the southern half of the county (Figure 3). The density of this development is highest in a wide band running southwest to northeast through the cities of Isanti and Cambridge. The band of development is located just west of State Highway 65, a major transportation link between Isanti County and the Twin Cities. Several lakes in the western part of the county have also served as a focus for recent development. They are Green and Spectacle Lakes in Wyanett Township and Blue Lake in Spencer Brook Township.

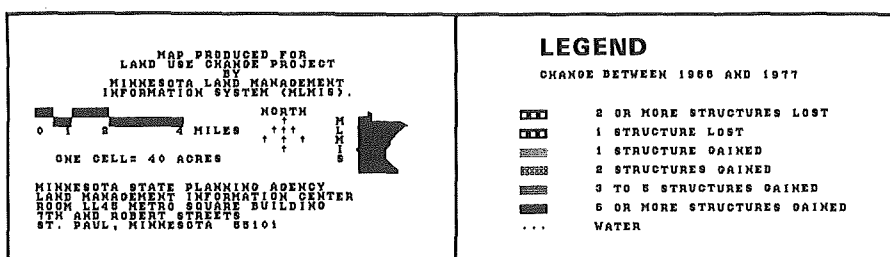
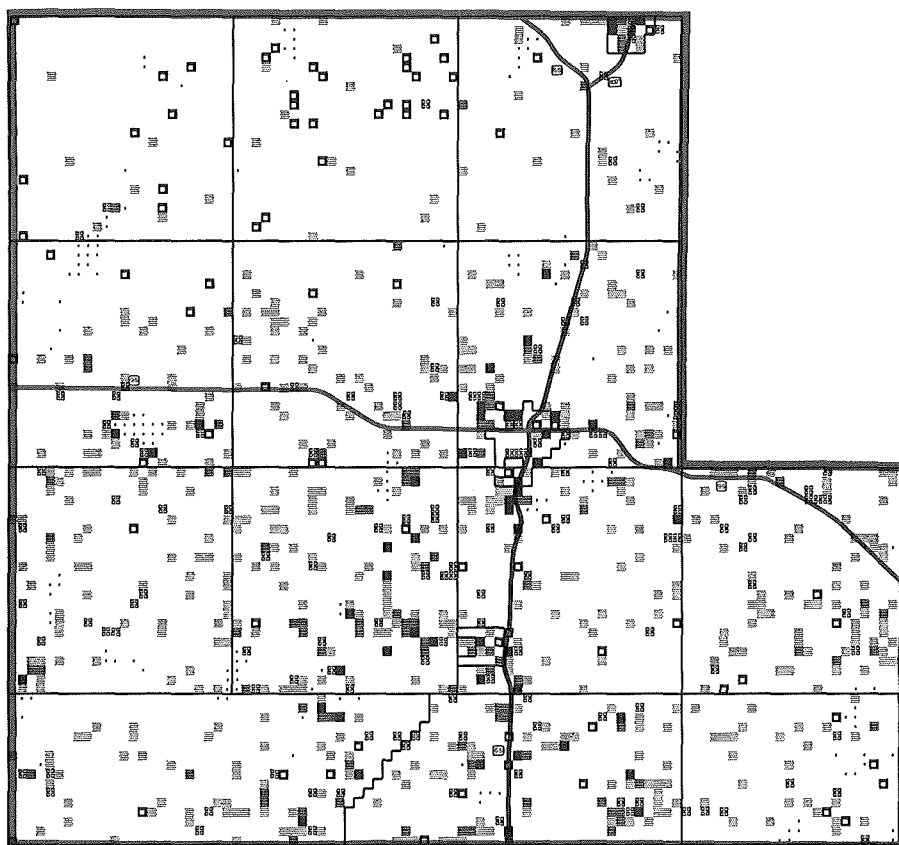
The majority of the 40-acre parcels experiencing a gain in structures between 1968 and 1977 occurred in the southern portion of the county. Bradford Township southwest of Cambridge had the greatest number of parcels experiencing gains in structures with a total of 113. Athens Township, which is closest to the Twin Cities, and North Branch Township also had large numbers of parcels showing gains with a total of 91 and 93 respectively (Table 1).

The majority of 40-acre parcels showing losses are concentrated on the better agricultural soils of the county (Figure 7). This may reflect the fact that most farms sold are purchased by adjacent neighbors. The structures on the newly acquired farms often have limited value to expansion buyers because they are unneeded, in poor repair, or obsolete. In such cases, the land beneath the building may be more valuable if put into agricultural production. As a result, structures are often demolished or removed as farms are consolidated. The location of structures in 1977 by 10-acre parcel is illustrated in Figure 4.

The location of the urban development corresponds closely with the platting of rural land. In 1969 most developable lakeshore had been platted while only two non-lakeshore areas had been platted (Figure 5). By 1972, several more large unincorporated subdivisions were platted emphasizing the shift from lakeshore. The period between 1972 and 1975 saw the most extensive subdivision of rural land. Since much of the platted land has not been built on, it is likely that future growth will continue in the area west of State Highway 65. It is also interesting to note that the large subdivisions are not located on the county's most inherently productive soils.

Figure 3

URBAN STRUCTURE CHANGE IN ISANTI COUNTY, 1968-1977



Explanation: Figure 3 shows change in the number of structures per 40-acre parcel in Isanti County between 1968 and 1977. The data is based on the interpretation of 1968 and 1977 aerial photographs. Symbols indicate the number of structures either gained or lost; single dots represent water; blank areas indicate that either no net change occurred in the number of structures, or change was not assessed due to difficulties encountered in counting structures in heavily urbanized areas. No distinction is made between residential and non-residential uses of structures.

Table 1

CHANGE IN STRUCTURES IN UNINCORPORATED AREAS OF ISANTI COUNTY, 1968-1977

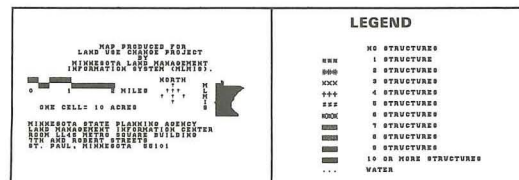
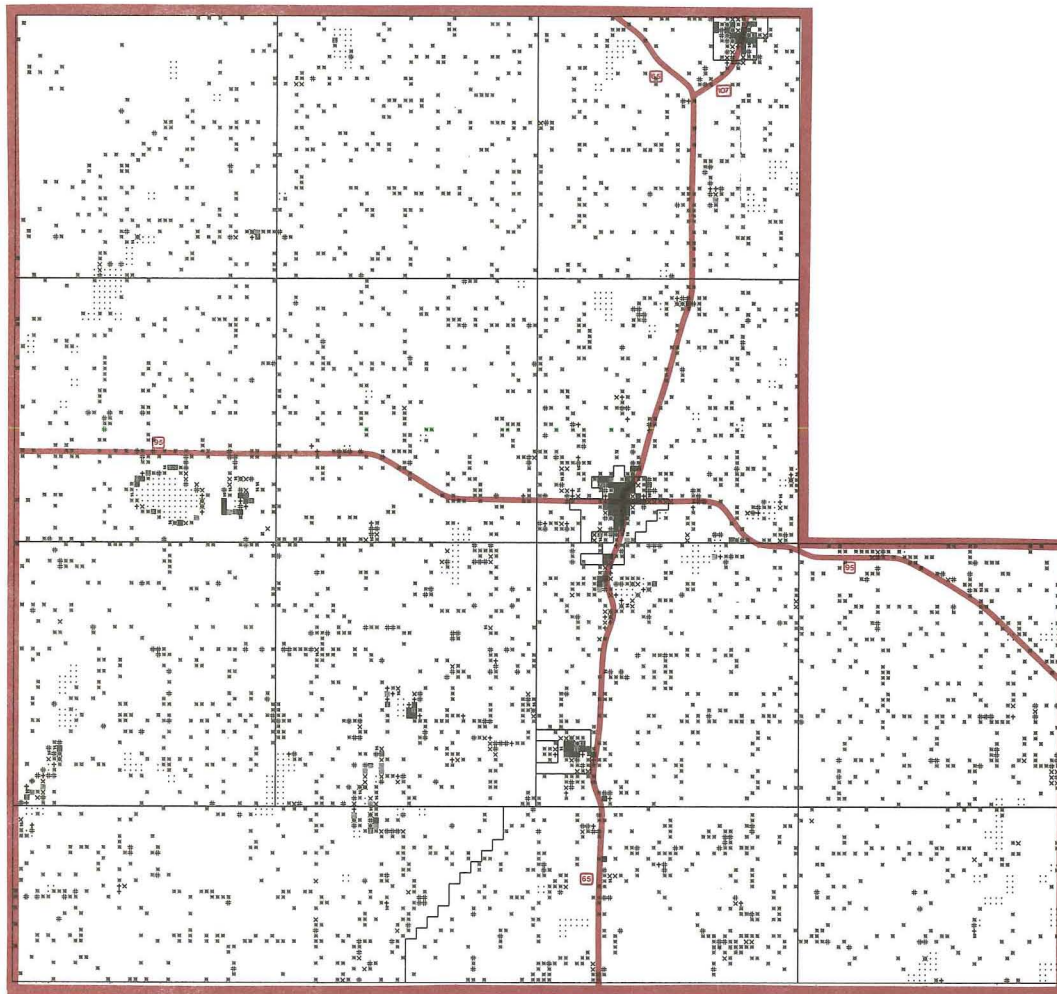
Township	Number 40's in Township	Change in Number of Structures per 40-Acre Parcel			
		Decrease in Structures	1 Structure Gained	2 or more Structures Gained	Total Parcels Showing Gain
Dalbo	576	10	7	3	10
% of change category		(12.7)	(1.3)	(1.1)	(1.3)
Maple Ridge	576	22	12	1	13
% of change category		(27.8)	(2.3)	(0.4)	(1.6)
Stanchfield	558	2	19	6	25
% of change category		(2.5)	(3.6)	(2.2)	(3.1)
Wyanett	576	7	29	15	44
% of change category		(8.9)	(5.5)	(5.5)	(5.5)
Springvale	576	5	45	14	59
% of change category		(6.3)	(8.6)	(5.1)	(7.4)
Cambridge	541	3	51	36	87
% of change category		(3.8)	(9.8)	(13.1)	(10.9)
Spencer Brook	576	1	57	19	76
% of change category		(1.3)	(10.9)	(6.9)	(9.5)
Bradford	576	2	61	52	113
% of change category		(2.5)	(11.7)	(18.9)	(14.2)
Isanti	554	1	47	31	78
% of change category		(8.9)	(9.0)	(11.3)	(9.8)
North Branch	576	4	69	24	93
% of change category		(5.1)	(13.2)	(8.7)	(11.7)
Stanford	643	4	49	26	75
% of change category		(5.1)	(9.4)	(9.4)	(9.4)
Athens	509	6	51	40	91
% of change category		(7.6)	(9.8)	(14.5)	(11.4)
Oxford	384	6*	26*	8*	34*
% of change category		(7.6)	(5.0)	(2.9)	(4.3)
CHANGE CATEGORY TOTAL	7,221	79	523	275	798

*Oxford Township is approximately 2/3 the size of a regular township.

Source of Change Data: State Planning Agency, Land Use Change Project.

Alternatives to building in unincorporated areas are limited. In Cambridge, the largest city, there are very few, if any, residential building sites. The city of Isanti has shown some growth but is relatively small and has been experiencing difficulty obtaining additional land for development. Braham, in the northeast part of the county, presently has limited land for expansion. As a result, there are probably less than 100 building sites with sewer and water in Isanti County, and projected needs indicate that over 4,500 new homes may be constructed by the year 2000. It is likely that the projected increase of 15,000 persons will be forced to locate in unincorporated areas. This may have serious implications for the viability of farming, the cost of public services and the continuance of a rural life style.

Figure 4
LOCATION OF URBAN STRUCTURES IN ISANTI COUNTY, 1977



Explanation: Figure 4 shows the number of structures per 10-acre parcel in Isanti County in 1977. Data is based on the interpretation of 1977 high altitude aerial photographs. No distinction is made between residential and non-residential uses of structures.

Figure 5
PLATTED LAND ($2\frac{1}{2}$ acres or less) IN ISANTI COUNTY, SELECTED YEARS

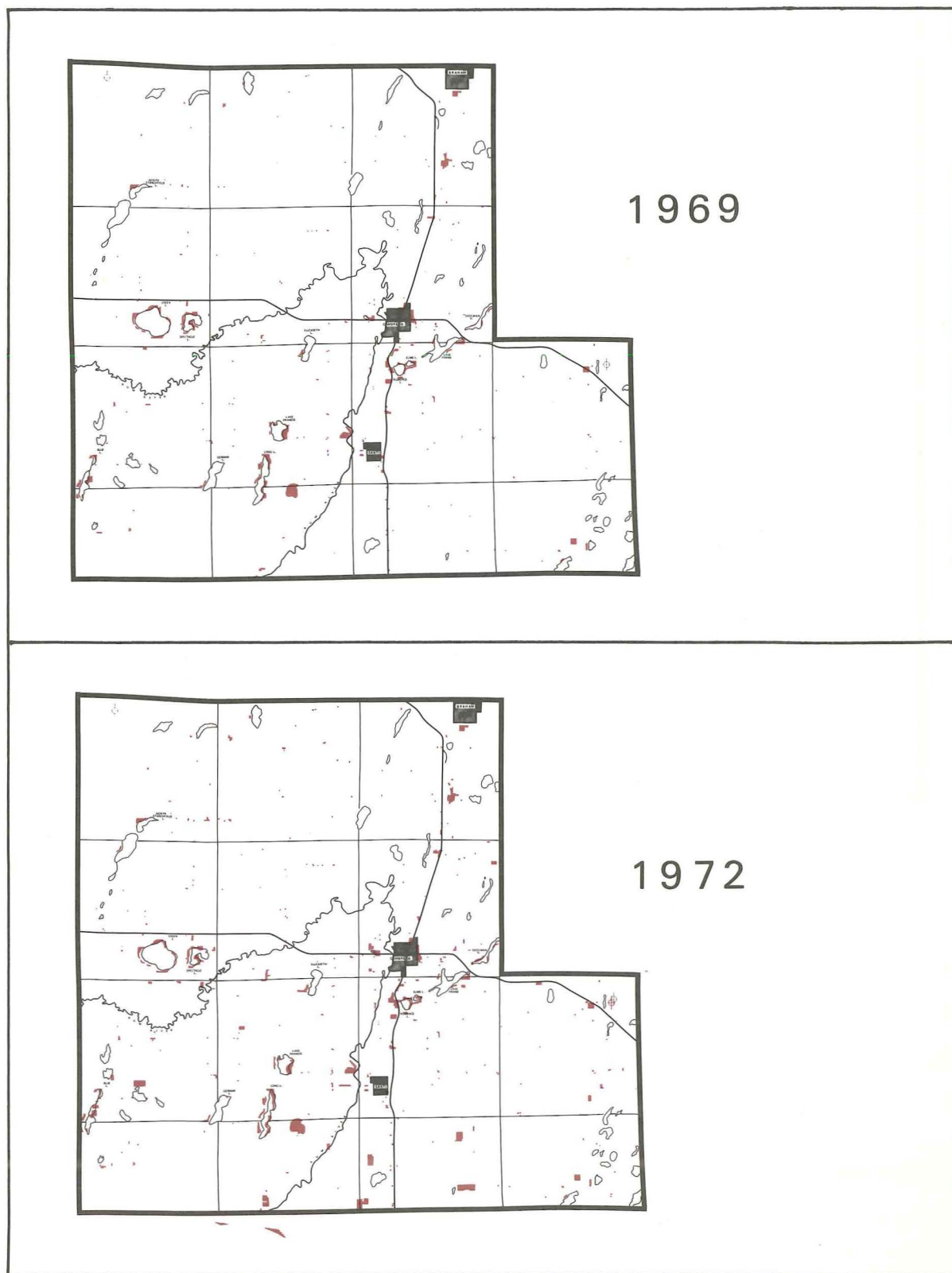
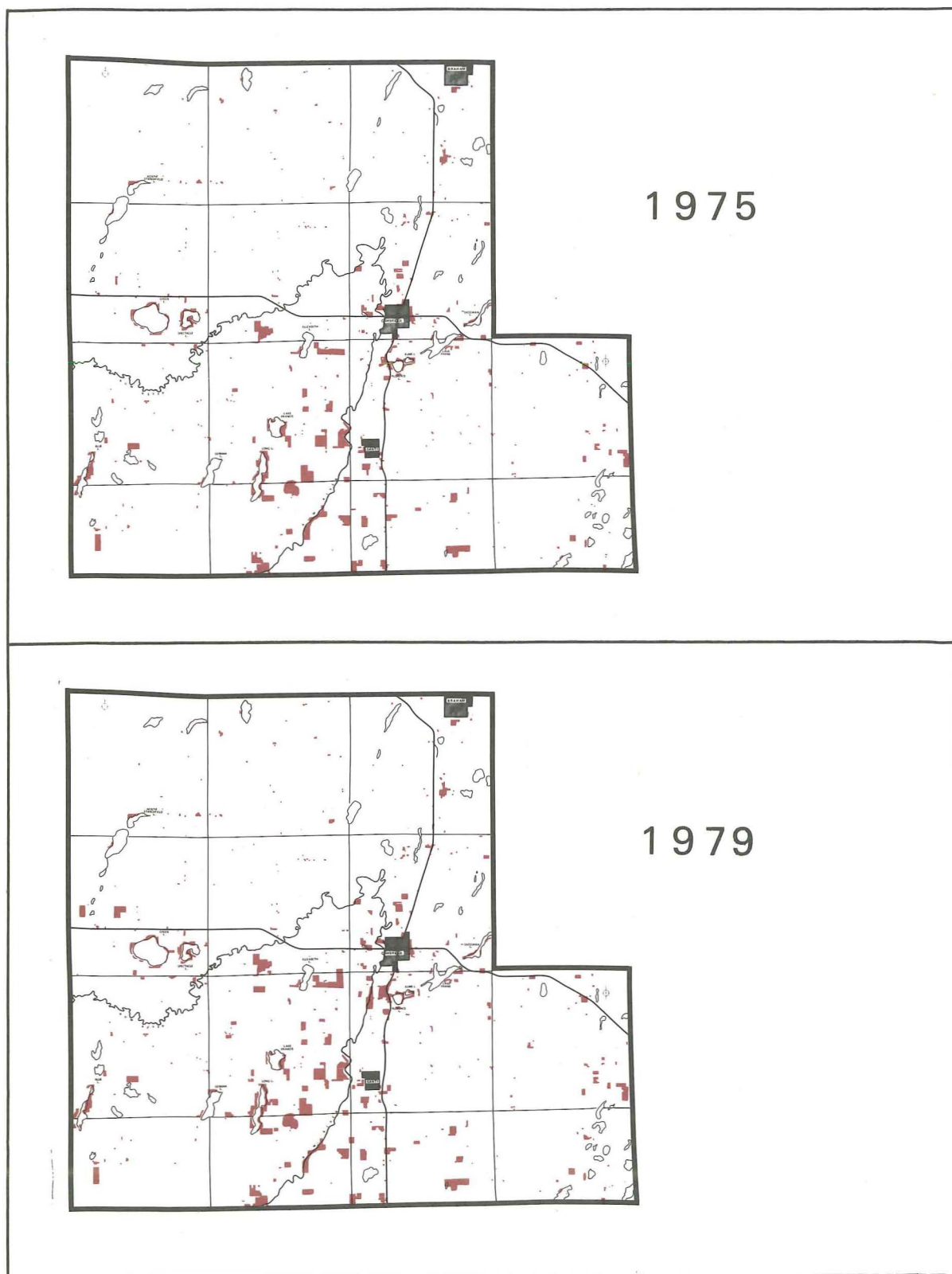


Figure 5 Cont.

PLATTED LAND ($2\frac{1}{2}$ acres or less) IN ISANTI COUNTY, SELECTED YEARS



Loss of Agricultural Land

Growth came slowly to Isanti County, with relatively little land being subdivided between 1965 and 1969. At first, the construction of a few new homes was welcome, but nobody expected the tremendous land speculation that was to follow. Relatively low land costs and good accessibility to the TCMA were major factors influencing growth.

In 1969, the county board adopted an interim zoning ordinance which established a one-acre minimum lot size. This ordinance was replaced in 1971 with the county's first comprehensive zoning ordinance. At that time, it was believed that a large-lot size would slow or discourage scattered residential development in rural areas. Some residents wanted a five-acre minimum lot size while others preferred one acre. Although the county planning commission desired a large-lot size, political pressure resulted in a compromise at 2 1/2 acres.

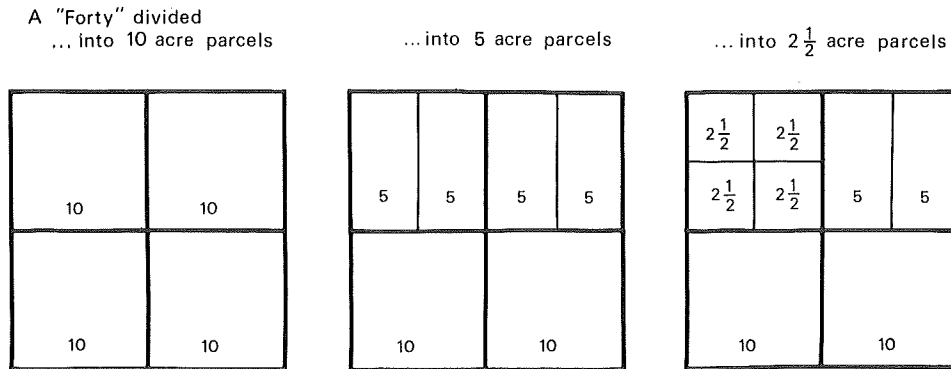
While the intent of the first zoning ordinance was to help preserve agricultural land, in practice, the result was just the opposite. It was not long before land speculators discovered a major advantage in subdividing land into small tracts. Normally, the subdivision of land into small tracts would require a survey. However, in this case a 40-acre parcel can be quartered into 10-acre lots by using a simple legal description. In turn the 10-acre tracts can be divided by legal description into five-acre tracts and then into 2 1/2-acre tracts (Figure 6). In effect, the land could be subdivided easily and at a relatively low cost.

Subdivision regulations were also adopted by the county board in 1971, but weak enforcement of these controls fostered the extensive subdivision of land. Subdivision practices were not reviewed very closely and the county failed to properly administer provisions requiring developers to submit a performance bond. Without a performance bond the county had little control over how the subdivision was developed. In many cases, there was no access to a residential building site. Developers did not build roads even though the lots were for sale. The roads that were built did not always meet county standards. Occasionally, individual landowners had to provide their own access, which resulted in roads that were poorly designed and constructed.

Other programs and policies encouraged the conversion of agricultural land to residential use. One factor was the Farmers Home Administration (FmHA) which promoted rural development by offering reduced interest loans to low income families. Interest rates were as low as one percent and many

Figure 6

PROCESS OF SUBDIVISION BY LEGAL DESCRIPTION



applicants were attracted from the Twin Cities where housing costs and interest rates were escalating rapidly. During the '70s approximately 50-100 new homes were constructed annually through this program. In order for the project to qualify, the developer had to keep housing costs under a specified limit. Unfortunately, the most feasible way to reduce costs was to build on the least expensive land. Also, there was a lack of building sites in incorporated areas. As a result, agricultural land was often used for publicly subsidized housing.

Another factor influencing land speculation and subdivision was state and local tax policy. Platted but unsold residential lots are not taxed as residential land until at least 60 percent of the subdivision is sold. In such cases, the land remains taxed at an agricultural rate even though its intended use is residential. This provision makes it less costly to subdivide on a speculative basis. The tax policy may have also encouraged larger subdivisions than the market could support.

The ease and efficiency of subdividing land had several permanent effects. First, it resulted in many acres of agricultural land being subdivided. The subdivisions range from a few lots to a quarter section of land (160 acres). Agricultural land was particularly vulnerable because it was easy to build on and usually well drained. This is supported by Table 2 which indicates a significant share of new structures were built on 40-acre parcels which had either cultivated (28%) or pasture and open (37%) as a dominant land use in 1969. However, this development has not always taken place on the most productive soils in the county. The majority of new development occurring from 1968-1977 took place in the southern portion of the county on soils with comparatively low agricultural productivity ratings (Figure 7). Second, large parcels of land were often subdivided in their entirety, without giving consideration to topography, soils or accessibility. These problems are reflected in many lots

Table 2
COMPARISON OF CHANGE IN STRUCTURES 1968-1977 TO LAND USE/LAND COVER

Change in number of structures per 40-acre parcel, 1968-1977

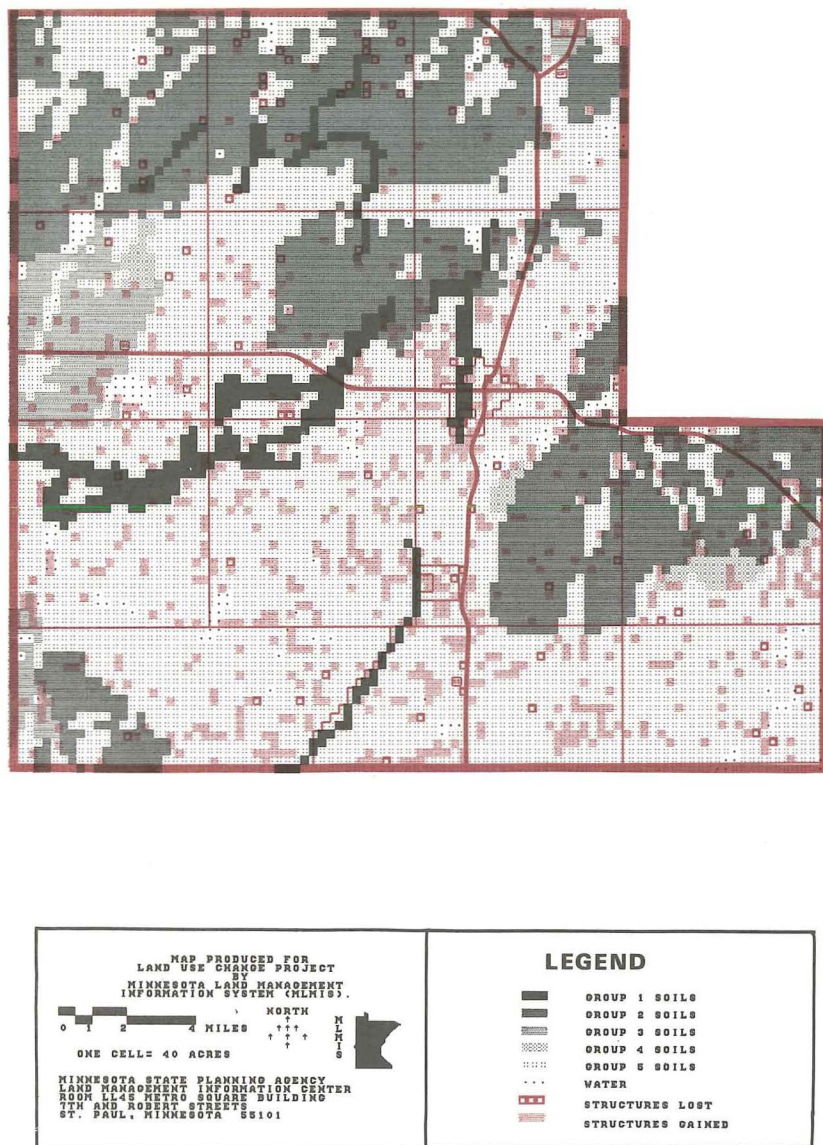
<u>Land Use/Land Cover, 1969</u>	<u>1 or more structures lost</u>	<u>no change*</u>	<u>structure gained</u>	<u>2 or more structures gained</u>	<u>water</u>	<u>Total 40-acre parcels Showing gain</u>	<u>By highway category</u>
Cultivated % of use/cover category % of change category	27 (1.1) (32.9)	2,118 (89.1) (34.0)	158 (6.6) (29.7)	73 (3.1) (24.5)	0	231 (27.8%)	2,376 (32.6%)
Pasture and open % of use/cover category % of change category	39 (1.4) (47.6)	2,370 (87.1) (38.1)	211 (7.8) (30.7)	100 (3.7) (33.6)	0	311 (37.5%)	2,720 (37.3%)
Forested % of use/cover category % of change category	5 (.3) (6.1)	1,440 (88.8) (23.1)	113 (7.0) (21.2)	64 (3.9) (21.5)	0	177 (21.3%)	1,622 (22.2%)
Marsh % of use/cover category % of change category	2 (.9) (2.4)	192 (90.1) (3.1)	17 (8.0) (3.2)	2 (.9) (.7)	0	19 (2.3%)	213 (2.9%)
Water % of use/cover category % of change category	0	0	10 (5.5) (1.9)	11 (6.0) (3.7)	162 88.5) 100.0)	21 (2.5%)	183 (2.5%)
Urban % of use/cover category % of change category	9 (4.9) (11.0)	102 (56.0) (1.6)	23 (12.6) (4.3)	48 (26.4) (16.1)	0	71 (8.6%)	182 (2.5%)
CHANGE CATEGORY TOTAL % of county	82 (1.1%)	6,222 (85.3%)	532 (7.3%)	298 (4.1%)	162 (2.2%)	830 100%	7,296 (100%) (100%)

*"No change" means either: no net change in number of structures: or each of the four 10-acre parcels contained in the 40 contained 10 or more structures in both 1968 and 1977.

SOURCE OF CHANGE DATA: State Planning Agency, Land Use Change Project; Source of land use/land cover data: State Planning Agency, MLMIS

Figure 7

RELATIONSHIP OF CHANGE IN URBAN STRUCTURES
1968-1977 TO AGRICULTURAL PRODUCTIVITY



Explanation: Figure 7 shows the relative suitability of areas in Isanti County for agricultural production. Soil landscape units were given ratings of 0 to 94 based on soil texture, drainage, color, and slope; depth of the rooting zone; and phosphorous/potassium content. Ratings were combined into 5 groups for display purposes, with group 1 representing the most productive soils. Forty acre parcels experiencing gains or losses in the number of structures between 1968 and 1977 are displayed in red. Parcels which gained structures appear as solid red squares. Structure change data is based on the interpretation of 1968 and 1977 high altitude aerial photographs. No distinction is made between residential and non-residential uses of the structures.

Source of agricultural productivity data: Minnesota Cropland Resources, State Planning Agency, 1979.

that do not meet present residential building standards in Isanti County. Finally, the frantic desire to speculate in real estate resulted in the creation of a large inventory of rural lots, many of which have limited attractiveness as building sites. It has been estimated that 1,400 lots smaller than three acres have been platted in unincorporated areas. The highly desirable lots usually sell quickly, but there remain many platted areas that have little or no development. In fact, some of these areas are still cultivated.

By the mid-'70s the county recognized that uncontrolled growth was a severe problem. The platting of land was increasing at an alarming rate. In just three years, from 1969 to 1972, the amount of land subdivided into parcels of 2 1/2 acres or less, doubled, and by 1978 doubled again. The scattered residential development was visibly changing the rural character of the county and increased public service costs were becoming a concern. Local officials felt that the building of new schools and the upgrading of county and township roads placed an added tax burden on the residents. In one case, the bid on a new school in district 911 was nearly \$6,000,000 (plus interest) to accommodate new students resulting from the influx of growth. Also as illustrated by Table 3, a large portion (48%) of the 40-acre parcels experiencing gains in structures are either not highway oriented (i.e., no roads appear on the county highway map) or are served by unpaved roads. This development some of which is high density may result in increased demands for road maintenance and improvement.

In 1976, the county board declared a moratorium on development for one year. The purpose of the moratorium was to give the county time to develop a growth management strategy and improve existing controls to implement it. In effect, the moratorium prohibited the subdivision of land. However, development could continue on existing lots of record and in 1976, building permits were issued for 278 homes. By the end of the moratorium a new zoning ordinance was prepared which allows two single-family non-farm dwellings per quarter/quarter section as a permitted use in the agricultural zone. Non-farm residential unit developments, such as subdivisions, planned unit developments and condominiums, require conditional use permits and could potentially be placed on either traditionally tilled or non-tilled land in varying densities. This ordinance was seen as an improvement because the density of development was limited. One drawback, however, was that subdivisions were still allowed on agricultural land.

The county planning commission wanted to improve the ordinance further. In 1978, Isanti County received a land use grant from the State Planning Agency and contracted with the East Central Regional Development Commission (Region 7E) to assist

Table 3
COMPARISON OF CHANGE IN STRUCTURES 1968-1977 TO HIGHWAY ORIENTATION

Type of highway orientation	Change in number of structures per 40-acre parcel, 1968-1977					
	1 or more structures lost	No change*	1 structure gained	2 or more structures gained	Total 40-acre parcels showing gain	By highway category
Two lane % of orientation category % of change category	22 (1.4) (26.8)	1,278 (82.3) (20.0)	147 (9.5) (27.6)	106 (6.8) (35.6)	253 (30.4%)	1,553 (21.3%)
Unpaved % of orientation category % of change category	29 (1.3) (35.4)	1,988 (86.3) (31.1)	191 (8.3) (35.9)	96 (4.2) (32.2)	287 (34.6%)	2,304 (31.6%)
Intersection 2 lane/unpaved % of orientation category % of change category	19 (2.1) (23.2)	737 (81.0) (11.5)	104 (11.4) (19.5)	50 (5.5) (16.8)	154 (18.6%)	910 (12.5%)
Not highway oriented** % of orientation category % of change category	8 (.3) (9.8)	2,331 (95.1) (36.5)	82 (3.3) (15.4)	29 (1.2) (9.7)	111 (13.4%)	2,450 (33.6%)
Other*** % of orientation category % of change category	4 (5.1) (4.9)	50 (63.3) (.8)	8 (10.1) (1.5)	17 (21.5) (5.7)	25 (3.0%)	79 (1.1%)
CHANGE CATEGORY TOTAL % of county	82 (1.1%)	6,384 (87.5%)	532 (7.3%)	298 (4.1%)	830 100%	7,296 (100%) (100%)

*"No change" means either: no net change in number of structures; or each of the four 10-acre parcels contained in the 40 contained 10 or more structures in both 1968 and 1977.

**"Not highway oriented" means the 40-acre parcel neither contains nor is adjacent to a road appearing on the county highway map. Almost all cells which are not highway oriented and contain structures are adjacent to one or more parcels containing roads.

***"Other" includes: four lane, residential, intersection 4 lane/2 lane, and intersection 4 lane/unpaved.

SOURCE OF CHANGE DATA: State Planning Agency, Land Use Change Project.

them in developing a plan. The original plan was developed by a committee of resource persons, which included representatives from each township and municipality in the county. Meetings were open to any citizens who wished to be involved.

Over a period of several months, the growth controls underwent many revisions and compromises by the county board. The plan started out as a controlled growth plan essentially relying on existing plats in unincorporated areas as building sites for new development and establishing urban growth zones around the three cities. However, this plan was criticized on many fronts.

Some objected because they felt there were not enough alternatives for development. There are few available lots in Cambridge or Isanti with sewer and water. Further, many of the existing subdivided areas were not especially desirable for development. The urban service zones were also criticized because they were excessively large and directed growth towards the county's better agricultural land.

An alternative growth management strategy, suggested by the East Central Regional Development Commission, involved the adoption of density zoning that would further limit development to one residential unit per quarter/quarter section (a 40-acre parcel). Again, urban development would be encouraged to locate in urban service zones where sewer and water could be provided at a future date. In a sense the density zoning and the urban service zones were meant to be mutually supportive. The density zoning would allow low density development in rural areas while higher density growth was encouraged closer to cities.

The attitudes of citizens in Isanti County toward growth and development are complex. As indicated by recent employment figures, the economy is extremely heterogeneous and there is little consensus on what the rate of growth or its location should be. It was clear, however, that a lot of people in land speculation, real estate and construction felt that the proposed controls represented unnecessary limitations on growth. The county planning commission received many letters criticizing the proposed zoning. In one case, a developer took out a full-page ad in the newspaper to express his viewpoint. Yet, these special interest groups did not get involved in the process of developing the plan. Some people feel these groups were excluded, others feel they did not want to be involved.

The growth management plans and proposed zoning and subdivision controls were completed and went to public hearings in April, 1978. As expected, the plan was controversial. The vast majority of discussion centered on density controls and

lot size, while other provisions of the ordinances received little attention.

The county board faced a tough decision. The planning commission was pushing for strong growth controls which much of the public opposed. Some observers believe the county board wanted to pass the new regulations but put it off because of public pressure. After several months of deliberation a new ordinance was prepared, however, the density zoning provision was eliminated while the original purposes of the agricultural district remained the same. The purposes were (1) to allow suitable areas to be retained in agricultural use, (2) prevent scattered non-farm development and (3) control public service costs.

It is not certain that the adopted controls will accomplish any of the objectives mentioned above. The zoning provisions do not offer long-term protection to agricultural land but rather act only to delay conversion of the land to residential use. The zoning regulations allow for two residential units per quarter/quarter section (40-acre parcel) on traditionally tilled land. If tilled land is left undisturbed for five years, it is reclassified non-traditionally tilled. The land can then be used for residential purposes and subdivided into five-acre parcels. Essentially, the county has gone from 2 1/2-acre minimum lot size to a five-acre minimum. Many planners and zoning administrators consider large-lot zoning to be a threat to the preservation of agricultural land because more land is taken out of production than is needed for residential use.

Further, the ordinance is unlikely to have much of an impact in slowing scattered residential development in rural areas. Due to the complexity of the landscape, a 40-acre parcel often consists of a mixture of land uses. When implemented, the ordinance allows for a residential density of between two and eight additional structures, depending on the characteristics of the land in each 40-acre parcel. A 40-acre parcel that is entirely cultivated would have the lowest density, or two additional structures. A 40-acre parcel with a mixture of forest and cultivated land could be subdivided into separate five-acre tracts (Figure 8). While no new subdivisions have been platted in the agricultural district, a scattered residential pattern will continue and new homes built on agricultural land seem likely to remain a common sight.

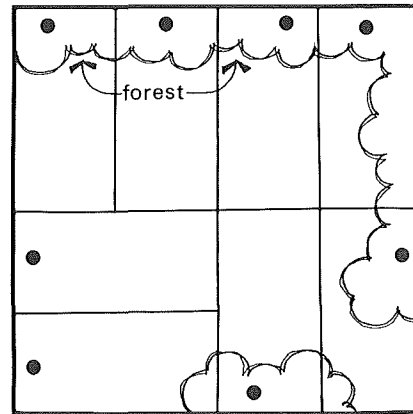
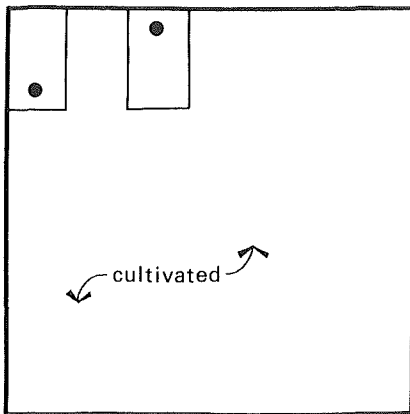
While there is some support to protect agricultural land, especially from the county planning commission, several fundamental questions need to be answered. Is it too late for growth controls to be effective in the southern half of the county? Are there any viable farming areas left? How should they be defined in terms of size? Where are they?

Figure 8

ALTERNATIVE DEVELOPMENT PATTERNS UNDER COUNTY ZONING

Low Density - 2 structures
per 40 acres

High Density - 8 structures
per 40 acres



Further, the public must be convinced that the controls to protect agricultural land will still allow adequate opportunities for growth and development. This implies that there must be orderly expansion of the cities within Isanti County.

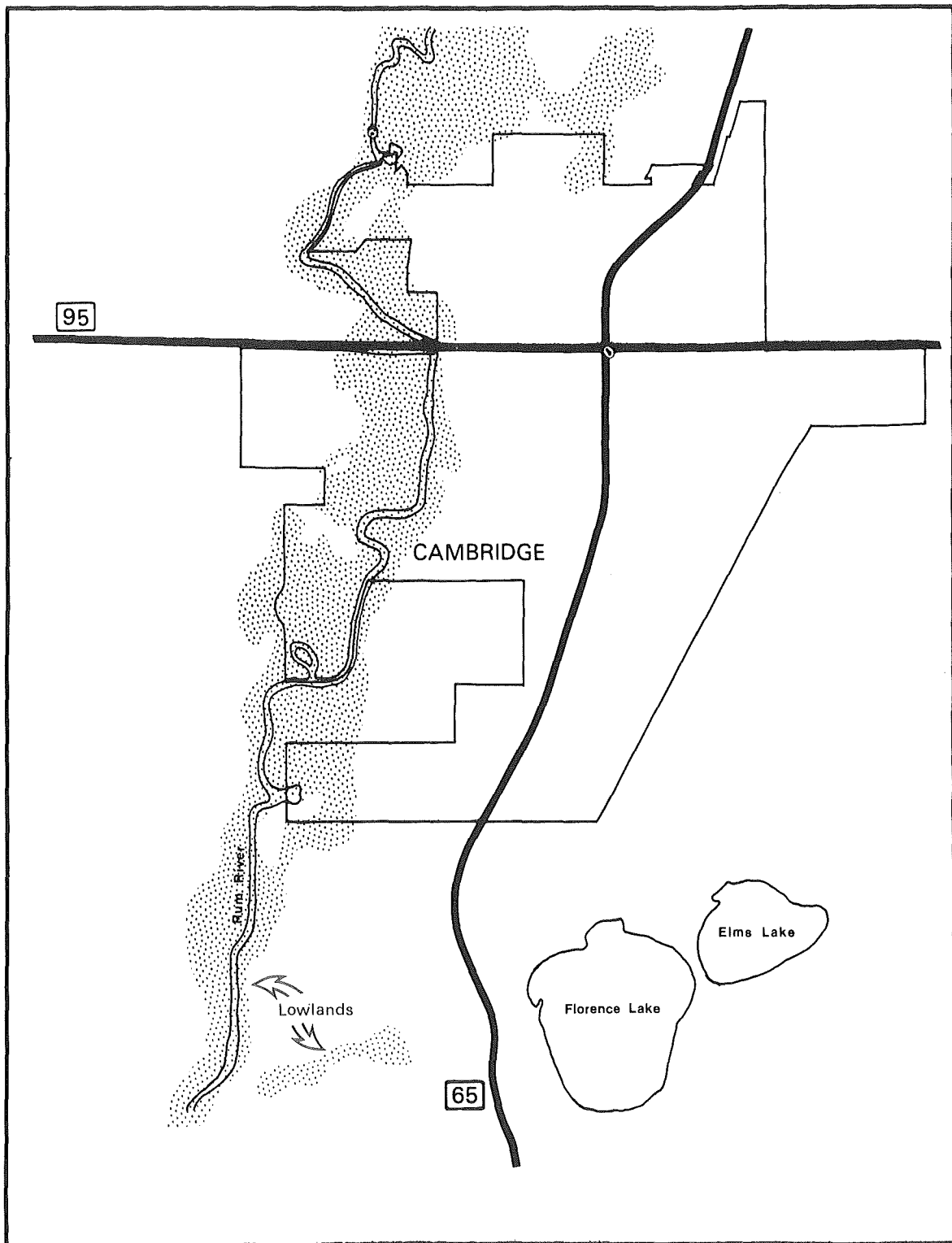
Cambridge Urban Fringe

Cambridge has a population of 3,141 and is located on the east bank of the Rum River at the intersection of Trunk Highways 65 and 95. From 1970 to 1980, the city experienced little, if any, increase in population. A number of factors have slowed population growth, such as smaller family sizes and the declining number of inhabitants at the Cambridge State School and Hospital. Also, natural and man-made barriers have restricted the physical expansion of the city. Significant barriers include the Rum River on the west, Highway 65 on the east, floodplain and lowlands to the north and lowlands to the south (Figure 9).

Cambridge has a prosperous and stable economy based on trade and professional services, especially in the area of health care. About 75 percent of the population is employed in white-collar jobs. Primary industrial employers include Arrow Tank, Control Data, Computer Metal Products and Twin City Tool. The city has approximately 1,200 housing units, of which 60 percent are single-family residences. A number of residents commute daily to jobs in the Twin Cities metropolitan area.

The city has identified two major growth problems. First, there is a lack of industrial development in the community. Second, and more critical, is the shortage of residential

Figure 9
CAMBRIDGE AND SURROUNDING VICINITY



building sites. Some small tracts could be subdivided, but in general, the inventory of developable land is extremely limited. The unavoidable question is: Where and at what rate should the city grow?

The rate of growth has not always been agreed upon, but there seems to be a consensus that the city needs to grow to keep its image as a progressive community. The ultimate direction of growth is more uncertain. City officials indicate that growth could take place in several directions including to the west, southeast and north. Generally, the county would prefer that Cambridge grow westward across the river, because this channels development away from the county's most productive agricultural land. However, growth west of the river would require the costly extension of sewer and water utilities under the river. As a result, the initial development must be large enough to support the expense.

Over the years, a number of projects have been proposed west of the river. The city and county jointly own about a 78-acre site which is incorporated (Figure 10). In the '60s a junior college was proposed for the site, but due to the declining birth rate, the legislature did not appropriate funds for the facility. In the late '60s the site was also considered for a new high school, but the school district preferred to build east of the river. And in the late '70s, the county decided to build a new courthouse, but this too was switched to another location. Any one of these developments would have provided the impetus to expand westward. Now the city is hoping that some private development will consider the site, but the cost of extending utilities is a major drawback.

Since 1970, the city has annexed several parcels of land (Figure 11). This includes the area west of the river and a number of smaller parcels in the north and northwestern part of the city. The major annexation involved 463 acres between the proposed Highway 65 bypass and the city limits. Its purpose was to guide future development through the use of city zoning and subdivision regulations. This annexation was initiated by the city and opposed by many residents of the township. In annexation matters, the city has two policies: First, no sewer and water will be extended to property which is not annexed and platted. Second, the costs for extending utilities will be assessed to the benefitting properties. Obviously, landowners have not been anxious to pay for municipal sewer and water until they have to, which can lead to problems.

The Goldenwood subdivision, immediately south of the city, is one area that may eventually be annexed (Figure 10). It includes 95 homes on approximately one-half acre lots with rural on-site sewage disposal systems and another 148 undeveloped lots.

Figure 10
LOCATION OF KEY FEATURES

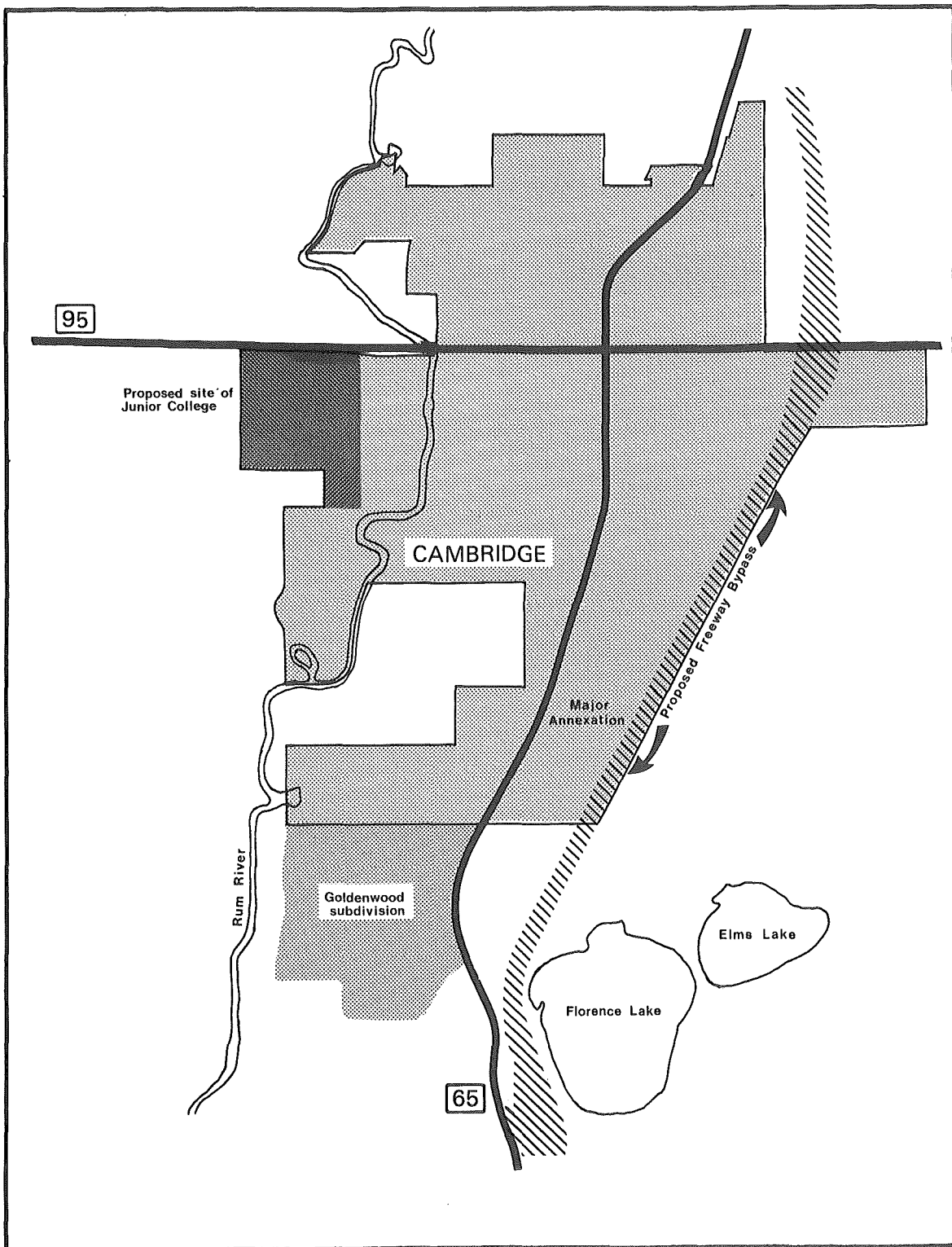
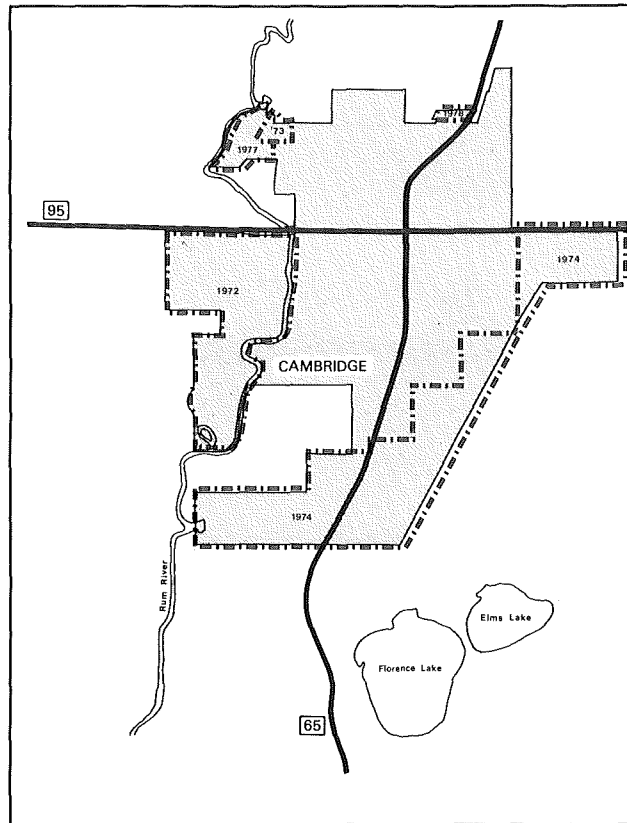


Figure 11
MAJOR LAND ANNEXATIONS TO CAMBRIDGE, 1970-1980



Municipal utilities could have been provided relatively easily when the subdivision was first platted, but without utilities, developers sold the lots at a lower price. This area may be experiencing pollution problems and the county is currently monitoring groundwater conditions. If pollution is evident, the pressure to correct the situation is likely to come from the county and the Pollution Control Agency. Residents may be faced with paying expensive sewer and water assessments in addition to the investments they have made in private wells and on-site sewage systems.

The provision of urban services becomes more complicated in areas where on-site sewage systems and the need for municipal sewers coexist. While the city wants to expand and extend its urban services, the Goldenwood subdivision may or may not need them. Even if groundwater problems are confirmed, the feasibility of upgrading the on-site systems will be considered. Difficulties arise however, because at some point in the future the city will need to extend urban services in order to (1) provide affordable residential building sites, (2) support the county's effort to protect agricultural land by allowing for high density development and (3) service other areas that may need municipal sewer and water. In the Cambridge urban fringe, like many other urban fringe areas statewide, it is unclear how the city and county will coordinate the extension of municipal sewer with existing on-site systems.

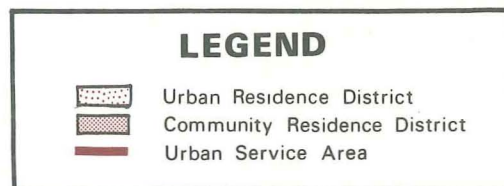
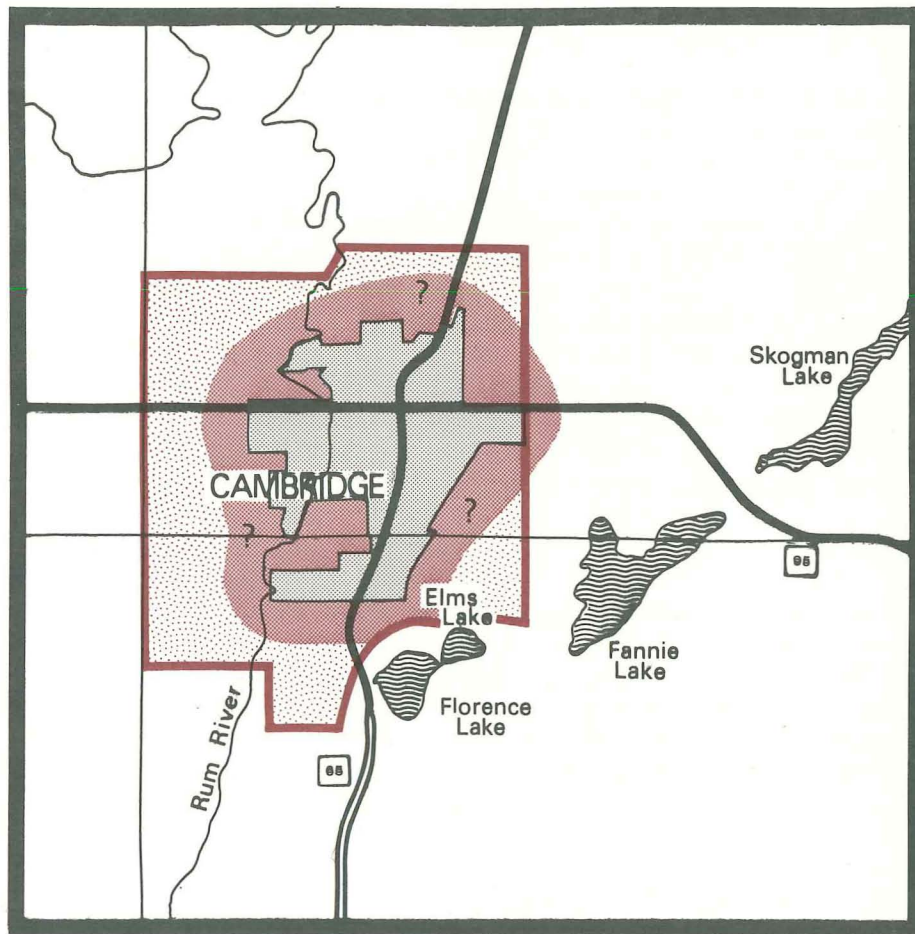
Isanti County's growth management plan calls for the establishment of the urban service areas (also called "residence districts") around each city. The purpose of the residence districts is to allow higher density residential development with temporary on-site utilities in developed areas close to incorporated cities. The urban service area is also intended to allow for future extension of municipal sewer and water facilities. The minimum lot size is one acre with on-site utilities and one-third acre with central sewer and water.

The county planning commission delineated the original urban service area in connection with the proposed density controls. After the one per forty density standard was rejected, the county board reduced the size of the urban service area because it felt that the original area was larger than necessary and contained too much valuable agricultural land. The county's growth management plan indicated that the city, based on its projected land use, should decide how large the urban service area should be. In this case the urban service area was revised by the county, with little input from the city, even though they were contacted several times. The city of Cambridge could have shown more interest in planning for expansion outside its incorporated boundary.

In the urban service area, the county zoning ordinance established two residential districts: (1) a community residence district and (2) an urban residence district. The community residence district has a one-acre minimum lot size (Figure 12). The county board can require that the one-acre building sites be designed to allow for subdivision into one third-acre lots with the house properly centered. This would allow for them to be efficiently subdivided and provided with urban services at a future date. The urban residence district, which is described as being immediately adjacent to the city has a minimum lot size of one half-acre. The urban residence district, which was approved in November 1979, has not been delineated on a map and it is not clear how far it extends from the city (Figure 12). If development proceeds under these regulations, larger lots (one half-acre), will be located close to the city and potentially smaller ones (one third-acre) further away. This could generate orderly annexation problems because the residents with larger lots, closest to the city, might wish to use on-site sewage systems while residential development further away may desire municipal sewer.

Cambridge has adopted a comprehensive plan, a zoning ordinance and subdivision regulations. The county growth management plan also suggested the city establish a procedure for reviewing development proposals in the urban service area. The city does review subdivision plats in the urban service area if they are located in areas that are likely to be annexed in the near future. However, no formal review procedure has

Figure 12
LOCATION OF URBAN SERVICE AREA



been established to review all subdivision plats even though the city may have to provide them with services. Cambridge has not used the authority provided in M.S. 462.358 to extend subdivision controls two miles beyond their incorporated boundary.

The one half-acre minimum lot size in the urban service area was used soon after adoption to plat additional land in the Goldenwood subdivision. This area is being studied in Cambridge's waste water facility planning effort because some private wells may be experiencing pollution problems. However, there are no current plans to annex this area. Local officials indicate some residents may resist annexation. Additional development faces a perplexing question: Should an on-site sewage system be constructed or will the city extend sewer and water in the near future?

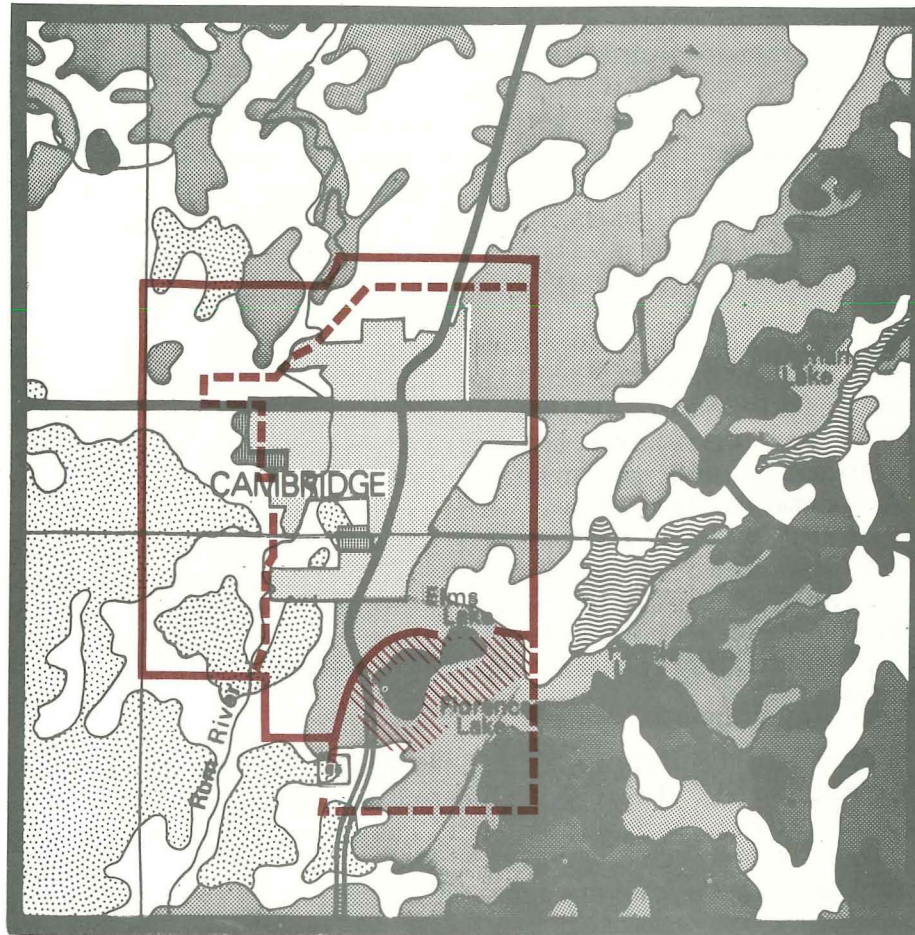
In the spring of 1979, Cambridge applied for and received a Step 1 Waste Water Facility Grant. The grant, which is 75 percent federally, 15 percent state and 10 percent locally funded, was obtained to initiate a study that will determine the capacity and technical specifications for a new or expanded treatment facility. This involves delineating a study area based on the projected growth surrounding Cambridge during the next 20 years. Within the Cambridge study area, the consultant will evaluate unsewered areas and recommend the most cost effective alternative to address the problem (i.e., municipal sewer versus upgrading of on-site sewage systems).

The planning boundary for the waste water facility study does not include all land in the urban service area (Figure 13). If sewer and water utilities are extended west of the river, it seems likely that the area may grow more rapidly. Since this area is part of the urban service area, where development on smaller lots is allowed, it might have been advantageous to include all of the urban service area in the waste water facility planning boundary.

The planning area is approximately five times as large as the city and the vast majority of the developable land is east of the river. This is also the direction of the county's better agricultural land (Figure 13). The city indicated that the least expensive (at least in the short term) direction to grow would be to the east because the costs of running sewer and water across the river would be avoided. Some officials favor expansion in this direction. Several county and township officials would like to see the city expand to the west. Since the planning study may influence the direction of growth, the potential impact on the county's agricultural land should be considered.

Figure 13

COMPARISON OF URBAN SERVICE AREA, WASTE WATER
TREATMENT STUDY BOUNDARY AND IMPORTANT FARM LANDS



The A-95 review process provides regional development commissions (RDCs) with an opportunity to coordinate growth and development. Cambridge applied to the Minnesota Pollution Control Agency (MPCA) for a Step I Grant on May 1, 1979. The RDC, as allowed by the A-95 process, had 30 days to review and comment on the application. They responded on June 1, 1979. However, the application had already been approved by the MPCA on May 22, 1979. This raises the question: How valuable was the RDC review if the decision to approve the grant had already been made?

The RDC gave the grant a positive review but also included a number of recommendations. One recommendation suggested that the MPCA convene a meeting with the city and county to discuss the planning boundary. The MPCA staff indicated that the city and the project consultant are responsible for coordinating the project with other units of local government. In the fringe area this may be hampered by the following situations:

- The county has established an urban service area around the city, but it has not been approved by the city.
- The county has recently established a zoning district that allows one half-acre lots adjacent to the city; some city officials disapprove of this.
- The city has not done much planning for expansion outside its corporate boundary.
- City review of subdivision plats in the urban fringe has been inconsistent.
- The city does not have authority to control zoning in the urban fringe area.

These conditions make it difficult to anticipate the type, location and amount of future growth in the fringe area. Cambridge's waste water treatment planning area was revised by the city and the project consultant to include areas which may be experiencing problems, but it still does not include the entire urban service area. It is unlikely that the project consultant can do much to correct the coordination problems in the short term. While the waste water treatment study can be a highly valuable planning process, its effectiveness may be limited because of the unpredictability of growth in the urban fringe.

In the urban service area, the city and county have different perspectives on how to provide sewer and water to future

development. The county zoning regulations permit relatively high density subdivisions (one-acre lots) with on-site sewage disposal systems. As stated in the zoning regulations, these systems are considered temporary in that municipal sewer and water are to be provided at some point in the future. The county assumes the city will service them.

On the other hand, the city has no plans or commitments for providing services to these areas. The city's policy is to wait until the individual landowner petitions for urban services, but often this does not happen until environmental pollution is evident. The city has not held formal talks about annexation proceedings, which could help establish a time frame for providing services. Growth is being encouraged in this urban service area without the benefit of coordinated planning between the city and county.

The lack of coordinated planning in an urban fringe area can be costly to both the individual landowners and the local community. This could result from (1) residents in the urban service area having to provide on-site sewage disposal systems and private wells and a few years later paying for city sewer and water, (2) the city may be forced to build toward the county's better agricultural land until there is some impetus to expand westward, and (3) the city and county may also face potential problems because development can take place in the fringe area where public utilities may not be available.

Summary

The problems of protecting agricultural land in Isanti County and servicing growth in the urban fringe of Cambridge are closely intertwined. Both issues involve the basic questions of where and how growth should take place and how and when urban services can be provided. The county has adopted a growth management strategy with worthwhile goals and objectives. Unfortunately, political pressure and a lack of consensus about the nature of the problem have resulted in regulations that will not achieve desired goals. Isanti County and the city of Cambridge have at their disposal the necessary tools (planning and zoning legislation) to solve most of their problems. It is up to them to use them.

Findings

LOSS OF AGRICULTURAL LAND

1. Agriculture is important to the economy of Isanti County even though the inherent productivity of the land is less than in other areas of the state. The county should be concerned with protecting its most productive lands.
2. A 2 1/2-acre lot size and the lack of enforcement of subdivision controls led to the extensive subdivision of the rural countryside. The county may continue to experience the negative impacts of this development for years to come.
3. Although Isanti County has adopted a growth management strategy, existing zoning regulations and planning efforts do not support it because:
 - a. existing zoning regulations will not prevent continued scattered residential development; and
 - b. zoning regulations allow agricultural land to be converted to residential use after a five-year waiting period.
4. If Isanti County grows as rapidly as projected, there are no alternatives to having the development occur in unincorporated areas.
5. State and local tax policies and federal housing programs have encouraged scattered residential development and hastened the conversion of agricultural land.
6. There is some local support for protecting agricultural land but:
 - a. the protection of agricultural land should be balanced with the need to provide alternative sites for growth;
 - b. viable agricultural areas need to be identified and appropriate controls such as density zoning set up to maintain them; and
 - c. in other areas, agriculture has been adversely affected by scattered residential growth and density zoning may no longer be an effective tool. In these cases the community should determine whether agricultural and residential uses can exist compatibly and if so, how they can assure that they do.

7. Some special interest groups in the county did not get involved in the development of the growth management strategy until the public hearings. Greater public involvement is needed to develop a plan that is understood by all.
8. There probably are enough vested interests in land speculation that growth controls are likely to be extremely unpopular if applied uniformly to all areas of the county.

CAMBRIDGE URBAN FRINGE

1. Cambridge has few, if any, residential building sites available within its incorporated limits.
2. There is little coordination of planning between the city and the county in the urban fringe area around Cambridge.
 - a. there has been a lack of coordination in establishing the urban service area around Cambridge;
 - b. Cambridge has not adopted the urban service area by resolution as recommended in the county's growth management strategy;
 - c. the city established a planning area for its waste water facility study which does not include all of the land in the urban service area; and
 - d. review of subdivision plats in the urban service area has been inconsistent.
3. Growth can occur around Cambridge, but it is unclear to the public how and when municipal services will be provided.
4. The lack of coordination in the urban fringe can contribute to environmental pollution, higher costs for public services and the loss of valuable agricultural land.
5. Local growth management plans and regional development commission comments were not considered through the A-95 process before approving Cambridge's waste water facility grant.

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Rice County - Faribault

Interviewees/Reviewers

County Board, Chairman
County Planning Commission Member
County Zoning Administrator
County Board of Adjustment Member
Mayor of Faribault
City Council, Chairman
City Planner

Walcott Township Supervisor
Warsaw Township Supervisor
Wells Township Supervisor
Cannon City Township, Clerk
Soil Conservation Service Officer
Real Estate Brokers and Developers

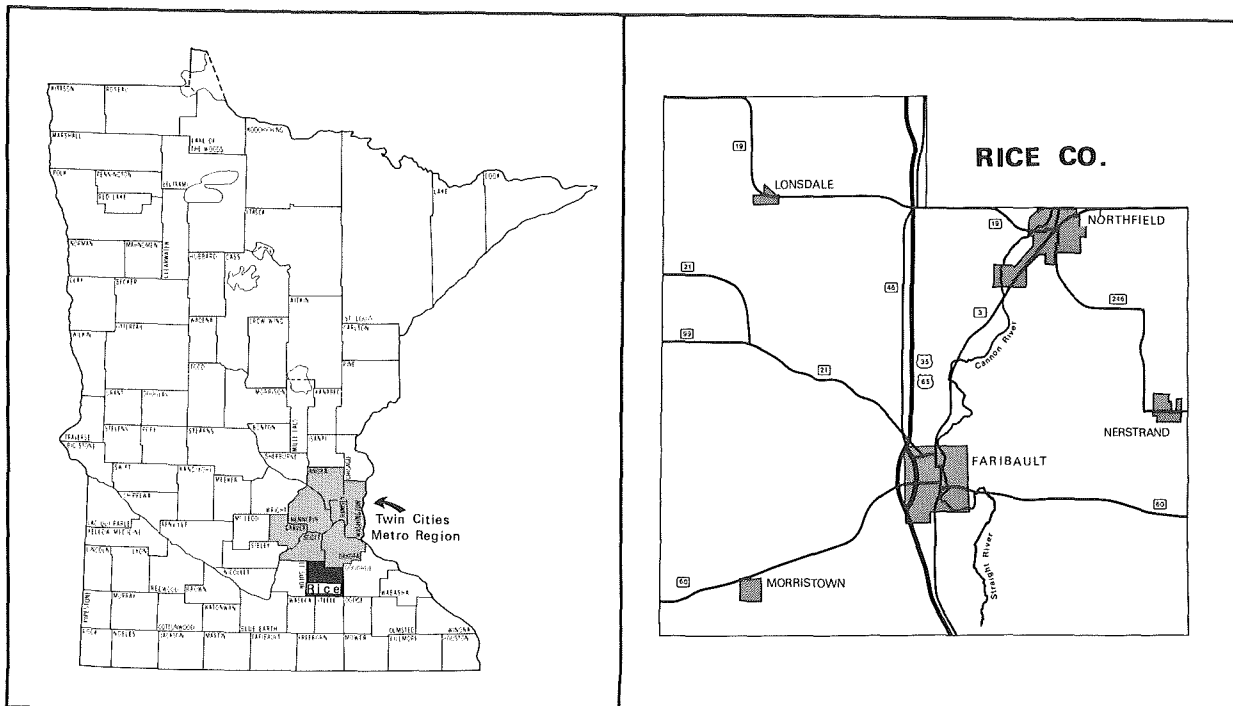
Background

Rice County has a population of 43,500 and is located about 40 miles south of the Twin Cities metropolitan area (TCMA) (Figure 1). The county is projected to show moderate growth, adding another 8,200 persons by the year 2000. This growth will be influenced by its proximity to the TCMA. Interstate 35 which runs through the middle of the county provides good access to its towns and cities. The county has two major cities, Faribault and Northfield, and several smaller incorporated areas. The economy is primarily agricultural, with corn and dairy farming predominant. The landscape consists of a rolling moraine which is about 70 percent cultivated and is interspersed with wooded areas and several lakes.

The city of Faribault is situated in this rich agricultural area at the junction of Interstate 35 and U.S. Highway 60 (Figure 1). Faribault serves as a major retail trade center for the surrounding rural area as well as for its own residents. Although the city contains a number of manufacturing and industrial firms, including the Faribo Woolen Mills, Butter Kernel Products, several trucking firms and a large seed and bulb nursery, it is thought to be industry poor by some city officials. A significant portion of the city's labor force, more than 900 out of a total of 8,700, are employed by state institutions including the Faribault State Hospital, Minnesota School for the Deaf and the Minnesota Braille and Sight Saving School.

The state demographer's office estimated the 1979 population of Faribault at 16,417, down slightly (1.1 percent) from the 1970 census figures. According to the state demographer the population loss in Faribault can be mainly attributed to two factors. First, family size during the period 1970-79 decreased from 3.1 to 2.7 persons per household. Second, the number of

Figure 1
COUNTY AND CITY LOCATION MAP



residents in state institutions in Faribault decreased by nearly 700 persons between 1970 and 1979. Had household size and state institution population remained at 1970 levels, Faribault would have experienced a population increase of over 2,700 persons. While projections are not available for Faribault, city officials do expect some growth in the city's population in the next 20 years.

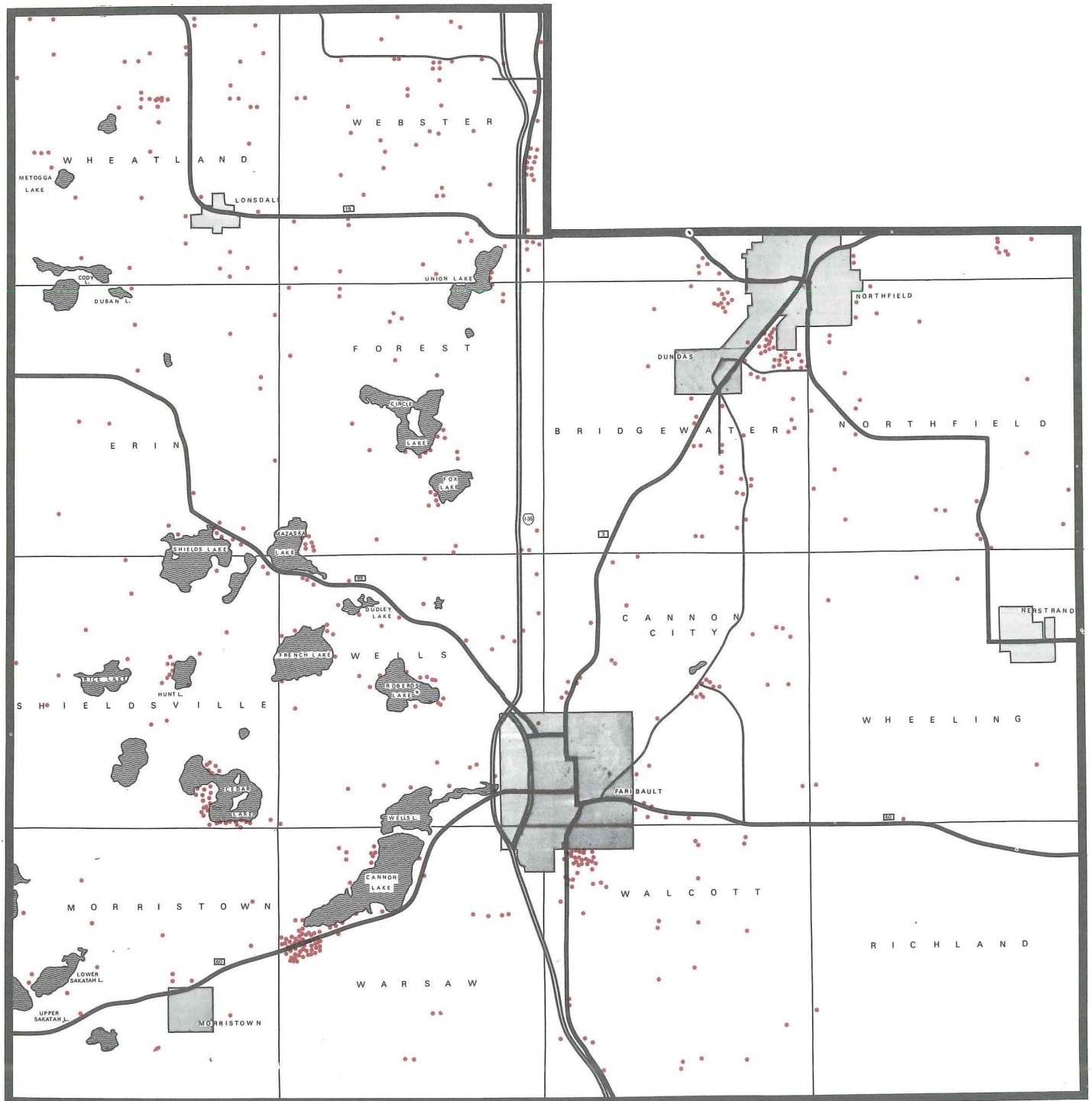
Loss of Agricultural Land

In the early 1970s Rice County discovered it was losing valuable agricultural land. The major cause was scattered residential development resulting from the uncontrolled subdivision of farmland. This scattered development was especially evident in Webster and Wheatland Townships in the northwestern part of the county (Figure 2). Farmers who once farmed this land sold it to developers or became developers themselves. People from the TCMA were attracted to Rice County because land was cheap, they wanted to live in a rural area, and, it was easy to get to.

The loss of agricultural land was a problem for two reasons. One was the conversion of farmland into other uses. In the early '70s it was thought that the nation might have to produce

Figure 2

NON-FARM RESIDENTIAL STRUCTURES 1970-74



enough food to feed the world. While this may not have been a totally realistic outlook, Rice County felt an obligation to manage its land wisely. Although no survey was conducted to measure the actual number of acres lost, any unnecessary loss of land was undesirable.

The second reason was the incompatibility of farm and non-farm uses. Past experience showed that an increasing non-farm population could cause a proliferation of conflicts between farm and residential uses. Farming operations create dust, noise and odor problems for nearby residential development. Residents of newly platted subdivisions often demanded a level of public services not necessary for farm use. The possibility that increased expenses for road maintenance police and fire protection, school busing and snow plowing would raise local taxes was of major concern to local officials. The county generally felt that non-farm development would not be able to pay its own way.

In a sense, the basic issue at stake was the preservation of a farm economy. Scattered non-farm development was viewed as a threat to the livelihood of those who farmed. Further, there was the fear that an increased number of non-farm residents could change the importance placed on agricultural issues by township government. And some townships had found that a growing non-farm population supported issues that further weakened the viability of farming. For these reasons the county felt that the conversion of agricultural land into urban uses could accelerate. The county felt strongly that non-farm development in rural areas had to be limited.

During the early '70s the county had large lot residential zoning with a five-acre minimum. In some cases, the five-acre minimum hastened the conversion of agricultural land because it required five acres of land for residential purposes when one or two may have been all that was needed or desired. Also, the cost of purchasing five acres was not high enough to discourage development. There were other problems with the five-acre minimum too. A five-acre lot was not economical to farm and too large to keep up as a yard. Noxious weeds left unattended on large lots spread and interfered with surrounding farming operations. It was clear that changes were needed. The county's land management controls had to be reviewed.

Farmers were in favor of controlling growth. So was the Rice County Planning Commission; commission members were farm oriented. In 1974, the planning commission hired a consultant to assist it in reviewing the county's growth management controls. The planning commission began by setting forth clearly written policies describing what they were trying to accom-

plish. This documentation, or "policy plan" as it became known, justified the need for regulations. It became the legal basis for adopting restrictive controls and provided support in case they were challenged in court. According to the policy plan, "areas identified as agricultural land should be managed in such a way as to promote that use and prevent a premature decline of the agricultural use."

After reviewing the approaches used in other counties, the planning commission recommended that a density zoning technique be used to protect agricultural land. This technique uses "agricultural districts" in which non-farm development is limited. These agricultural districts or zones were defined by the county as areas containing "historically tilled land." Within these districts, the ordinance provides that only one non-farm structure can be built per quarter-quarter section (40-acre parcel), and that no non-farm structures can be built on SCS Class I, II or III agricultural land that has been historically tilled. These restrictions were designed (1) to keep urban development off good agricultural land, and (2) to keep residential density low enough so that it did not interfere with agricultural operations.

In addition to limiting development in an agricultural zone, the planning commission, with the cooperation of cities and townships, identified urban expansion areas. These are zones adjacent to municipalities where urban development is to be encouraged. There is a formal procedure whereby the county and cities jointly review plans for development in this area. The agricultural land in this zone is preserved for a period of time until it can make an orderly transition to urban development.

A public hearing was held prior to adopting the policy plan and the regulatory controls. About 100 persons attended the hearing, and there was little objection to the controls. Those who did object were usually in real estate or wanted to subdivide their land holdings. The strongest support came from the farming community. The regulations were approved by the county board in 1975.

Individuals from local government and the private sector were asked by the State Planning Agency to comment on the effectiveness of density zoning in protecting agricultural land. Everyone interviewed felt that Rice County was doing a good job in protecting agricultural land from premature development. The county zoning administrator felt that, as a result of the new controls, the loss of agricultural land had practically stopped.

Non-farm residential development for the periods 1970-74 and 1975-79 in unincorporated areas of Rice County is illustrated

in Figure 3. The total number of non-farm building permits in 1970-74 (578) is roughly the same as the five year period after the ordinance was adopted (551) which seems to demonstrate that density zoning controls are not a detriment to community growth. However, the location and density of growth will be guided so that it can be efficiently provided with public services and reduce the loss of agricultural land.

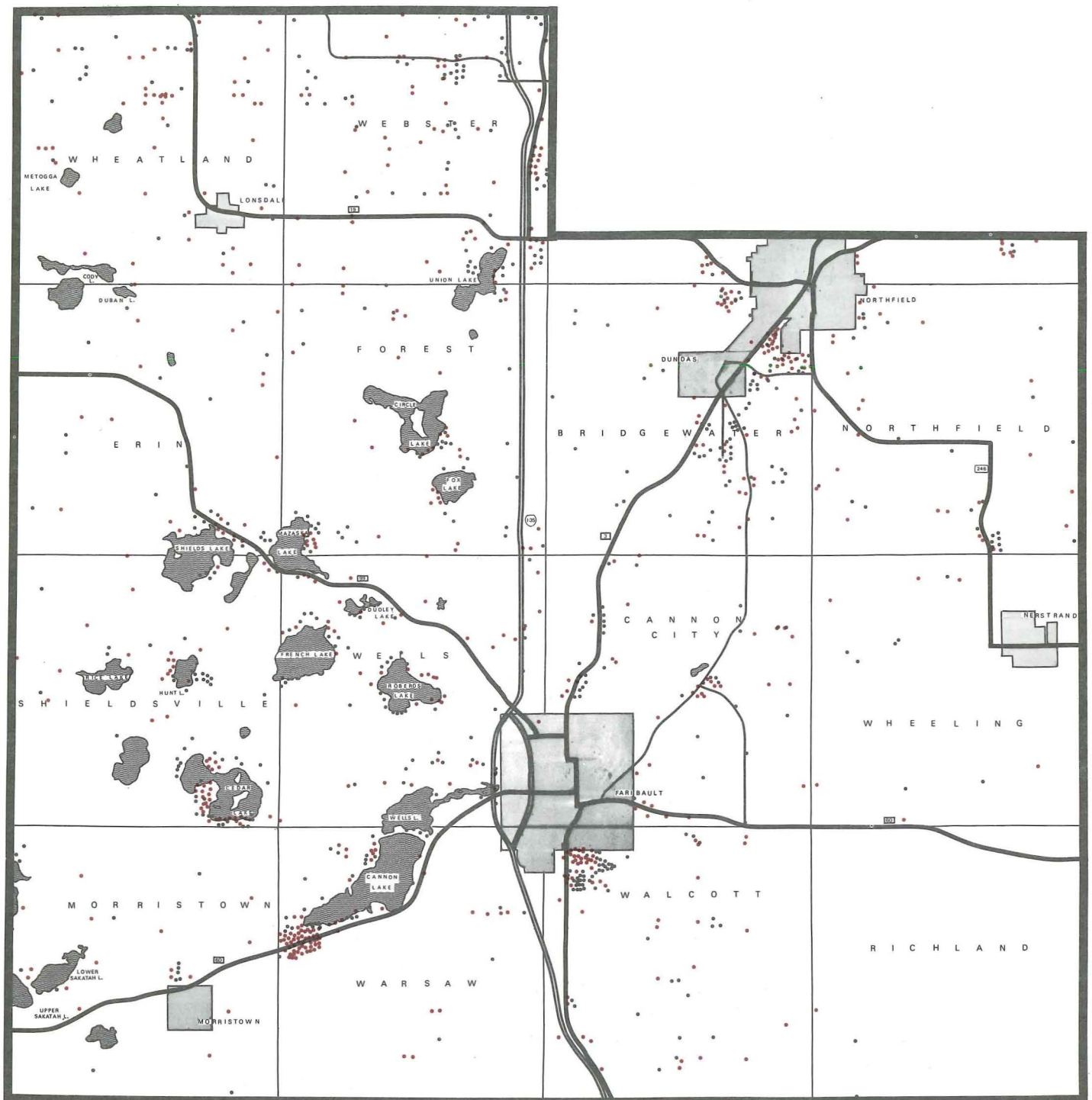
It appears that density zoning has been effective in controlling growth even though the total number of non-farm residential building permits issued after 1975 is nearly the same because (1) some of the development occurred on land that was platted prior to 1975 and therefore was exempt from the regulations; (2) a significant amount of development is occurring on lakeshore, where it is regulated by shoreland standards; and (3) growth is also occurring in the urban expansion zone, which is desirable. While density zoning does allow some urban development in rural areas, it is not allowed on the better classes of agricultural land and because this development is low in density, urban-rural conflicts are minimized. Further, once a non-farm residential structure uses the permitted density of one dwelling unit per 40-acre parcel, future development is not allowed unless a definite hardship is shown. As rural lots platted before 1975 become more scarce it is likely that density zoning will become even more effective in encouraging development to locate in cities.

A planning commission member, who is also on the board of adjustment, indicated the major agricultural concern in the early '70s was increasing non-farm development. Density zoning has been an effective step in limiting non-farm development. Only 10 or 12 cases involving density zoning are appealed each year with perhaps six or seven cases being approved. This amount of development is relatively insignificant. In effect, county zoning is protecting the structure of the farming community.

A number of realtors and land developers were interviewed about the impact of the zoning regulations on their businesses. Surprisingly, the three real estate brokers supported the county's effort to protect agricultural land. Though cautious or perhaps skeptical about the new controls at first, after four years of implementation, they now think they are beneficial to the well-being of the county. Some believe the controls have been a limiting factor on real estate business, especially if one was specializing in rural non-farm properties. However, they felt that this was a sacrifice they were willing to make. The real estate brokers indicated that growth was occurring in the most desirable area -- land adjacent to the cities.

Agricultural land is being lost in the urban expansion zone around Faribault. Both the city and county feel the loss of agricultural land in the expansion zone is acceptable when

Figure 3
NON-FARM RESIDENTIAL STRUCTURES 1970-79



Explanation: Red dots represent non-farm residential structures built between 1970-74. Black dots represent non-farm residential structures built between 1975-79.

weighed against other community values and needs. These include the need to provide low-cost housing for young families, the need to provide publicly subsidized housing for the poor and elderly and the desire to provide economically priced public buildings and utilities.

The city of Faribault is growing primarily to the south, toward the best agricultural land for several reasons (Figure 4). The primary reason may be that sewer and water can be provided at a lower cost on the level agricultural land than it can in other areas surrounding the city. Areas to the north and east of the city are hilly and rocky, and Interstate 35 provides a barrier on the west. There is a strong local market for moderate cost housing for the elderly and land development costs are a significant factor in determining site location.

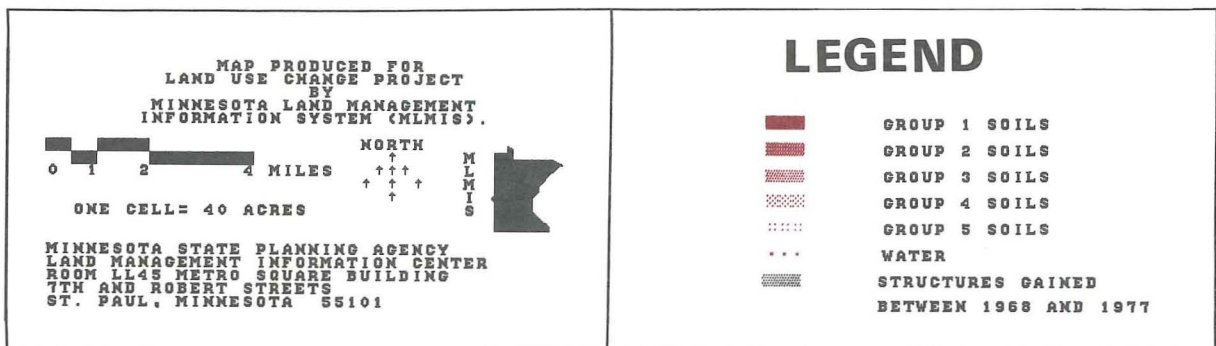
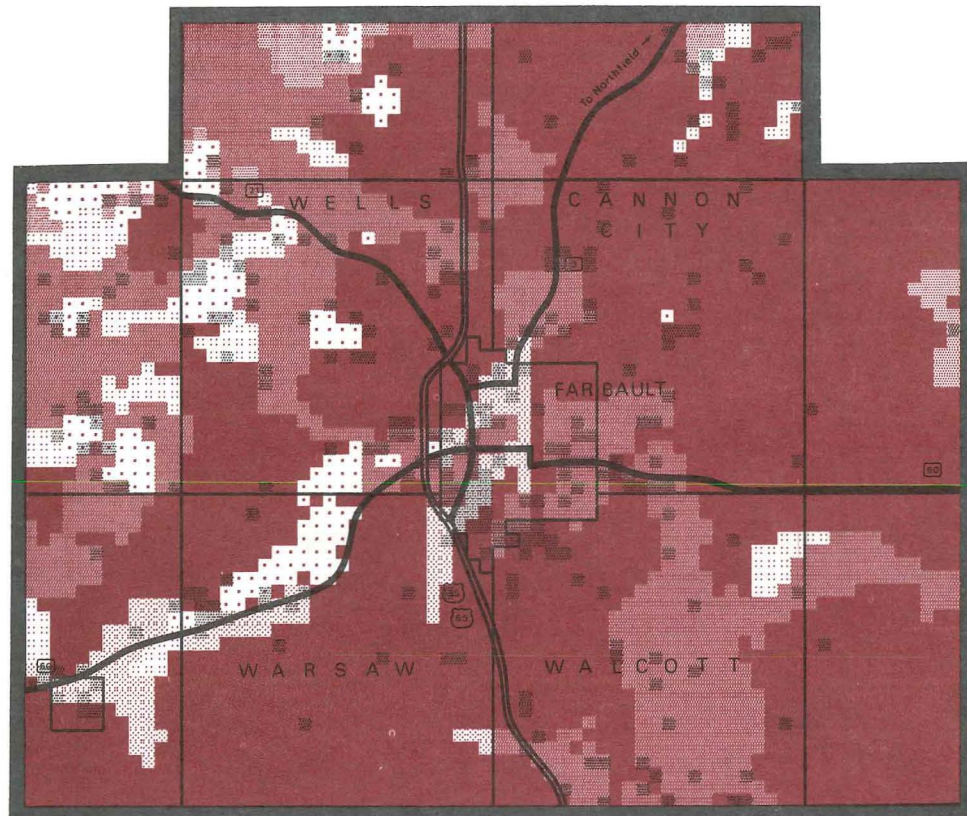
The scheduling and development of capital improvements also played a significant role in determining the direction of Faribault's growth. In 1972, the school district, on its own initiative, purchased 150 acres of land south of the city. This property had a speculative influence on landowners and developers. Public utilities such as sewer and water in this area have a substantial excess capacity, which could serve approximately another 300 acres of developed land. These factors have greatly influenced growth in a southerly direction.

The protection of agricultural land in Rice County has not taken place without some unintended effects. The zoning regulations were not designed to prohibit development but to guide its location and regulate its intensity. Since the better agricultural lands cannot be developed, more structures are being built in areas that are not as restrictively protected. For example, lakeshore and woodlands are receiving more development pressure (Figure 5). However, development on woodlands is limited by the ordinance to one non-farm structure per 40-acre parcel.

In the case of lakeshore, the 1,000 feet surrounding the water body is regulated by the state shoreland standards. These standards are less restrictive than the county's density zoning provisions because they allow platted subdivisions. Nearly all plats in rural areas are located on shoreland and in many cases the county's lakes are subjected to a second, third and even a fourth tier of residential development (Figure 6). Table 1 shows that higher density development in unincorporated areas has occurred on or near lakeshore while low density development was usually not oriented toward lakeshore. Townships are concerned about the potential impact of shoreland development, especially water pollution and the cost of providing additional urban services. The county has recognized the need to modify locally-adopted shoreland regulations but has not determined how to make them conform to state-wide guidelines.

Figure 4

RELATIONSHIP OF CHANGE IN URBAN STRUCTURES
1968-1977 TO AGRICULTURAL PRODUCTIVITY

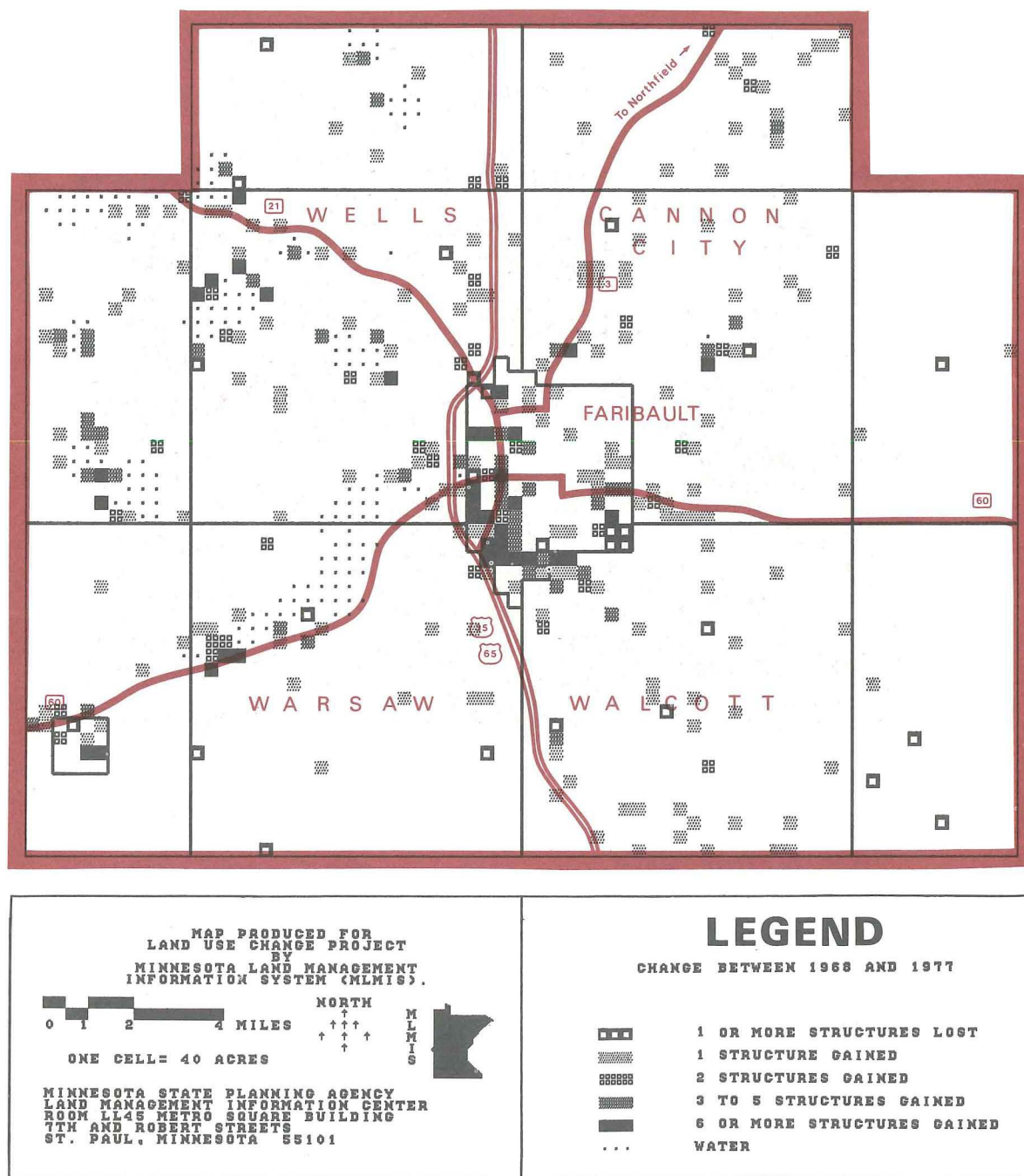


Explanation: Figure 4 shows the relative suitability of areas in Rice County for agricultural production. Soil landscape units were given ratings of 0 to 94 based on soil texture, drainage, color, and slope; depth of the rooting zone; and phosphorous/potassium content. Ratings were combined into 5 groups for display purposes, with group 1 representing the most productive soils. Forty acre parcels experiencing gains in the number of structures between 1968 and 1977 are displayed in black. Structure change data is based on the interpretation of 1968 and 1977 high altitude aerial photographs. No distinction is made between residential and non-residential uses of the structures.

Source of agricultural productivity data: Minnesota Cropland Resources, State Planning Agency, 1979.

Figure 5

URBAN STRUCTURE CHANGE IN RICE COUNTY, 1968-1977



Explanation: Figure 5 shows change in the number of structures per 40-acre parcel in Rice County between 1968 and 1977. The data is based on the interpretation of 1968 and 1977 aerial photographs. Symbols indicate the number of structures either gained or lost; single dots represent water; blank areas indicate that either no net change occurred in the number of structures, or change was not assessed due to difficulties encountered in counting structures in heavily urbanized areas. No distinction is made between residential and non-residential uses of structures.

Table 1

THE NUMBER OF 40-ACRE PARCELS SHOWING CHANGE IN STRUCTURES BY ORIENTATION TO LAKESHORE IN UNINCORPORATED AREAS

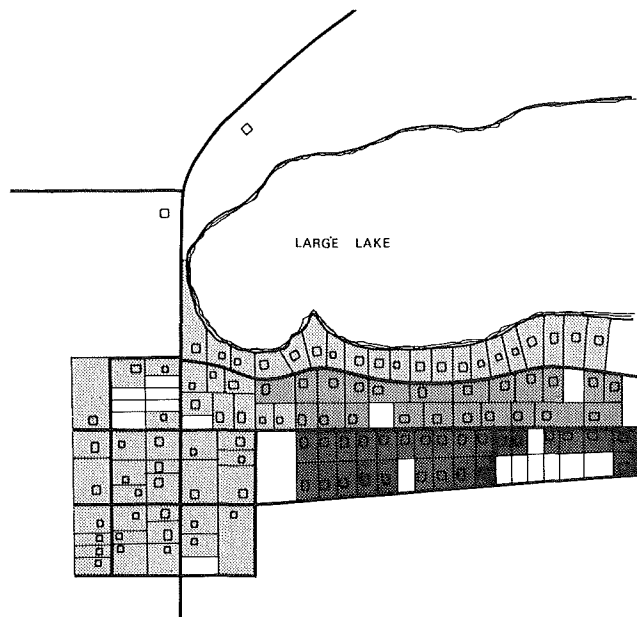
Change in number of structures per 40-acre parcel, 1968-1977									
Orientation to Lakeshore	1 (or more) structures lost	No change*	1 structure gained	2 structures gained	3 to 5 structures gained	6 or more structures gained	Water	Sum of parcels which gained structures	LAKESHORE ORIENTATION CATEGORY TOTAL
Lake oriented - 40-acre parcel containing lakeshore	2	148	20	8	16	8	73	52	275
% of lakeshore orientation category	(0.7)	(53.8)	(7.3)	(2.9)	(5.8)	(2.9)	(26.5)		
% of change category	(11.1)	(4.3)	(13.5)	(27.6)	(51.6)	(53.3)	(48.7)		(7.1%)
Within ¼ mile of a lake oriented parcel	1	356	15	2	5	3	1	25	383
% of lakeshore orientation category	(0.3)	(93.0)	(3.9)	(0.5)	(1.3)	(0.8)	(0.3)		
% of change category	(5.6)	(10.3)	(10.1)	(6.9)	(16.1)	(20.0)	(0.7)		(9.9%)
Beyond ¼ mile from a lake oriented parcel**	15	2,692	113	19	10	4	76	146	3,199
% of lakeshore orientation category	(0.5)	(92.6)	(3.5)	(0.6)	(0.3)	(0.1)	(2.4)		
% of change category	(83.3)	(85.5)	(76.3)	(65.5)	(32.3)	(26.7)	(50.7)		(82.9%)
CHANGE CATEGORY TOTAL	18	3,466	148	29	31	15	150	223	3,857
% of unincorporated study area	(0.5%)	(89.9%)	(3.8%)	(0.8%)	(0.8%)	(0.4%)	(3.9%)		(100%) (100%)

*"No change" means either: no net change in number of structures; or each of the four 10-acre parcels in the 40 contained 10 or more structures in both 1968 and 1977.

**"Beyond ¼ mile from a lake oriented parcel" includes: islands, parcels completely covered by water, and parcels which are greater than ¼ mile from a 40-acre parcel containing lakeshore.

Source of Change Data: State Planning Agency, Land Use Change Project; Source of Water Orientation Data: State Planning Agency, MLMIS.

Figure 6
TIER DEVELOPMENT ON LAKESHORE



Woodlands have been subjected to increased development pressure in recent years. Density zoning applies to all land including woodlands, with only one non-farm structure allowed per 40-acre parcel. Development on historically tilled lands is restricted and, therefore, builders must consider other alternatives. As a result, more woodland building sites are being used for low density development.

Development on these hilly wooded sites often creates erosion. Some individuals prefer that woodlands be cleared and converted to cropland rather than be used as building sites. Others would like to see the restrictions relaxed to allow more non-farm development on rural woodlands. Some landowners feel they are being overtaxed in relation to the use they are allowed. In part, this may be because of misunderstandings about how the land is assessed. Woodlands usually are taxed quite low as compared to productive cropland. The county is in the process of reviewing development patterns and trends to determine if a greater density should be allowed on woodlands.

If the density zoning technique has a drawback, it is in the difficulty of its administration. The county is required to make continual distinctions between what is farm or non-farm development, what is marginal or good agricultural land and where the strict application of the terms of the ordinance

would create legitimate hardships. These issues are rarely black or white and the county must be careful to justify and record its decisions. Counties may have to review each case individually and yet retain an overall view of the cumulative impacts of their decisions. While the meticulous administration of the technique is difficult, it is necessary for it to be effective and fair.

Soil erosion, resulting from poor farming practices, is one facet of agricultural land preservation that is not being addressed. The planning commission as well as a number of other public agencies are concerned about this issue but have not figured out how to solve the problem.

In sum, density zoning has thus far proven successful. Greater tests may lie ahead for the county. Before the ordinance was enacted many rural plats or lots had been approved. Much of the current development is occurring on this inventory of building sites. Once these sites are developed or diminish in availability, pressure may grow to relax restrictions for development in rural areas.

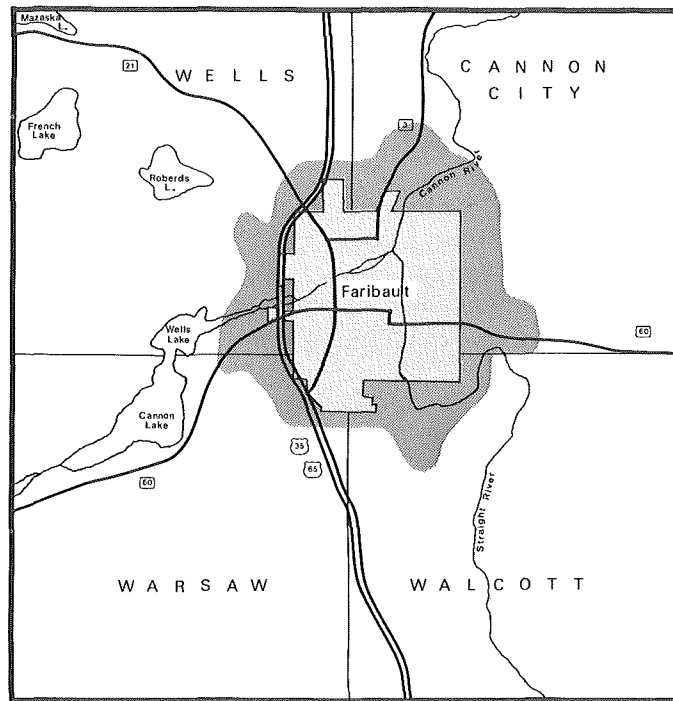
Faribault Urban Fringe

The urban fringe, or area of transition, has long been an area of conflict because rural and urban uses compete for the same land (Figure 7). Traditional rural activities such as farming have to compete with new urban activities like housing, commercial establishments, streets, sewers, schools, etc. This competition forces land prices higher, making it hard for farmers to resist converting the land to a non-farm use. For those that want to continue farming it may be more expensive or it may mean difficulties with adjacent urban property owners. Most high density development has occurred within the corporate limits of Faribault (Table 2). However, there are some scattered high density developments in the urban fringe and on shoreland, especially Cannon Lake in Warsaw Township and Roberds and French Lakes in Wells Township.

GROWTH MANAGEMENT PROBLEMS

Extensive residential platting occurred in Faribault between 1970-1973 and again in 1978. Over 400 residential lots were platted in 1978, primarily in the southern and southwestern portion of the city (Figure 8). There were approximately 900 dwelling units added to the city between 1970 and 1979. Considerable commercial development occurred in the vicinity

Figure 7
FARIBAULT URBAN FRINGE



of I-35 in 1977 and 1978 (Figure 8). This development caused some mixed use problems and exerted pressure on the city to annex the land and extend city improvements.

Scattered residential subdivisions create problems for townships when residents demand services that the townships are not physically or financially equipped to handle. They also create problems for the city. For example, the Glynnview subdivision in Walcott Township, adjacent to the present corporate boundaries of Faribault, is creating a serious pollution problem due to sewage discharge (Figure 8). Approximately 50 homes are discharging sewage through tile lines directly into the Straight River. The remaining homes in the subdivision have on-lot sewage systems that are functioning properly. The residents with inadequate sewage disposal are requesting municipal sewer and water. However, Faribault's policy is that no municipal sewer and water can be extended to an area until the area is annexed. The residents with non-polluting sewage disposal systems feel annexation is unnecessary.

Another problem occurs when sewer and water lines are extended from the city across vacant areas to newly developed subdivisions. This results in unnecessary assessments for the owners of the vacant land in between. Extension of services increases the pressure to develop the vacant land, often much sooner than is desirable. This is because (1) the additional assessments

Table 2

THE NUMBER OF 40-ACRE PARCELS SHOWING CHANGE IN STRUCTURES IN SELECTED AREAS OF RICE COUNTY 1968-1977

Township	Change in number of structures per 40-acre parcel, 1968-1977						Sum of parcels which gained structures	TOWNSHIP TOTAL
	1 or more structures lost	No change*	1 structure gained	2 structures gained	3 to 5 structures gained	6 or more structures gained		
City of Faribault % of city % of change category	7 (4.4) (26.9)	98 (61.6) (2.6)	19 (11.9) (11.2)	4 (2.5) (11.8)	13 (8.2) (29.5)	18 (11.3) (51.4)	54	159 (3.9%)
Cannon City Township % of township % of change category	2 (0.4) (7.7)	453 (91.5) (12.2)	30 (6.1) (17.8)	5 (1.0) (14.7)	3 (.6) (6.8)	2 (.4) (5.7)	40	495 (12.3%)
Walcott Township % of township % of change category	3 (0.5) (11.5)	513 (92.1) (13.8)	31 (5.6) (18.3)	3 (0.5) (8.8)	5 (0.9) (11.4)	2 (0.4) (5.7)	41	557 (13.8%)
Warsaw Township % of township % of change category	4 (0.8) (15.4)	532 (95.0) (14.3)	14 (2.5) (8.3)	5 (0.9) (14.7)	2 (0.4) (4.5)	3 (0.5) (8.6)	24	560 (13.9%)
Wells Township % of township % of change category	3 (.6) (11.5)	479 (89.9) (12.9)	30 (5.6) (17.8)	8 (1.5) (23.5)	7 (1.3) (15.9)	6 (1.1) (17.1)	51	533 (13.2%)
All remaining townships in the study area % of remaining townships % of change category	7 (0.4) (26.9)	1,649 (95.4) (44.3)	45 (2.6) (26.6)	9 (0.5) (26.5)	14 (0.8) (31.8)	4 (0.2) (11.4)	72	1,728 (42.9%)
CHANGE CATEGORY TOTAL % of study area	26 (0.6%)	3,724 (92.4%)	169 (4.2%)	34 (0.8%)	44 (1.1%)	35 (0.9%)	282	4,032 (100%) (100%)

*"No change" means either: no net change in number of structures; or each of the four 10-acre parcels in the 40 contained 10 or more structures in both 1968 and 1977.

Source of Change Data: State Planning Agency, Land Use Change Project; Source of data on township location: State Planning Agency, MLMIS

Figure 8
LOCATION OF KEY DEVELOPMENTS

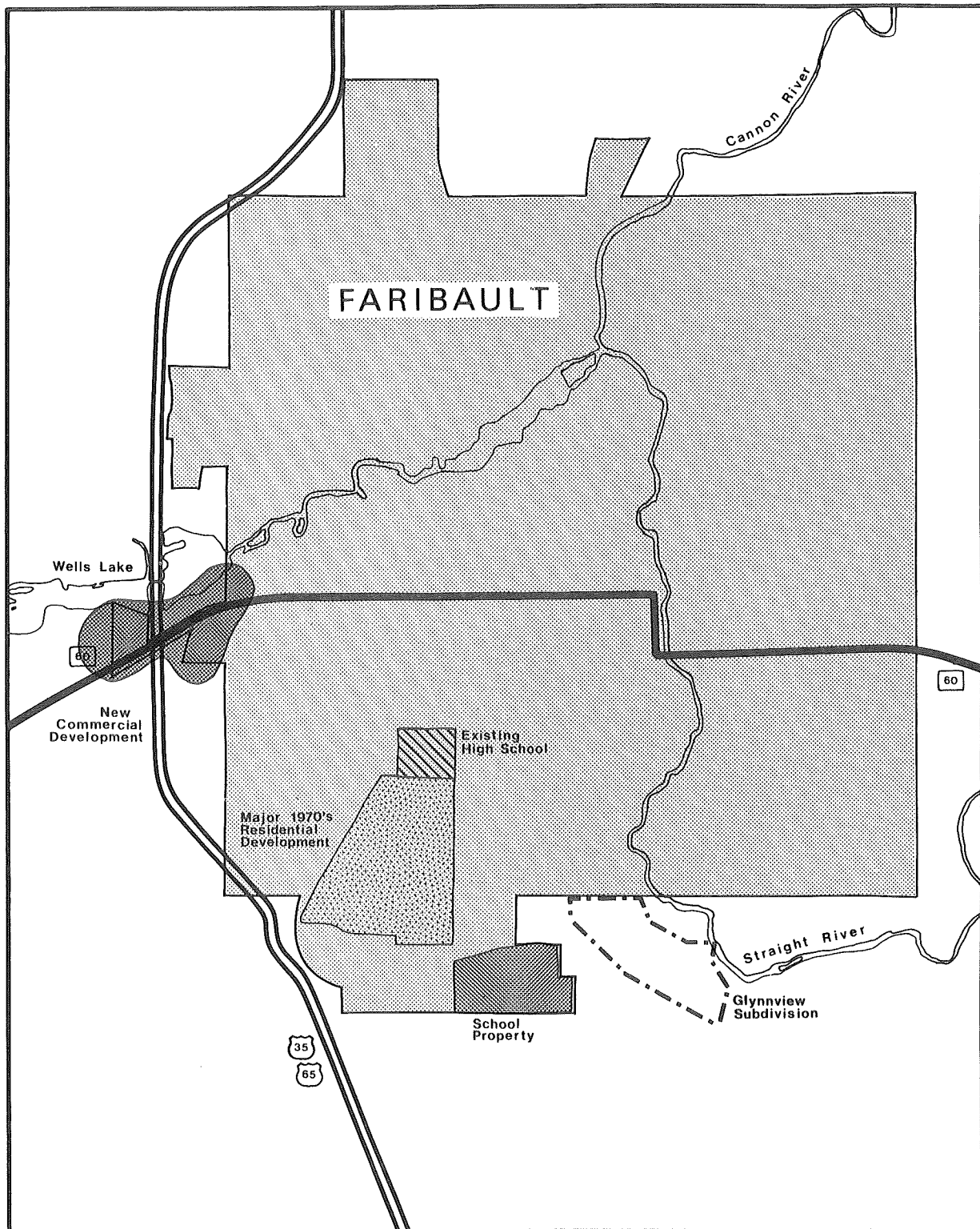


Table 2

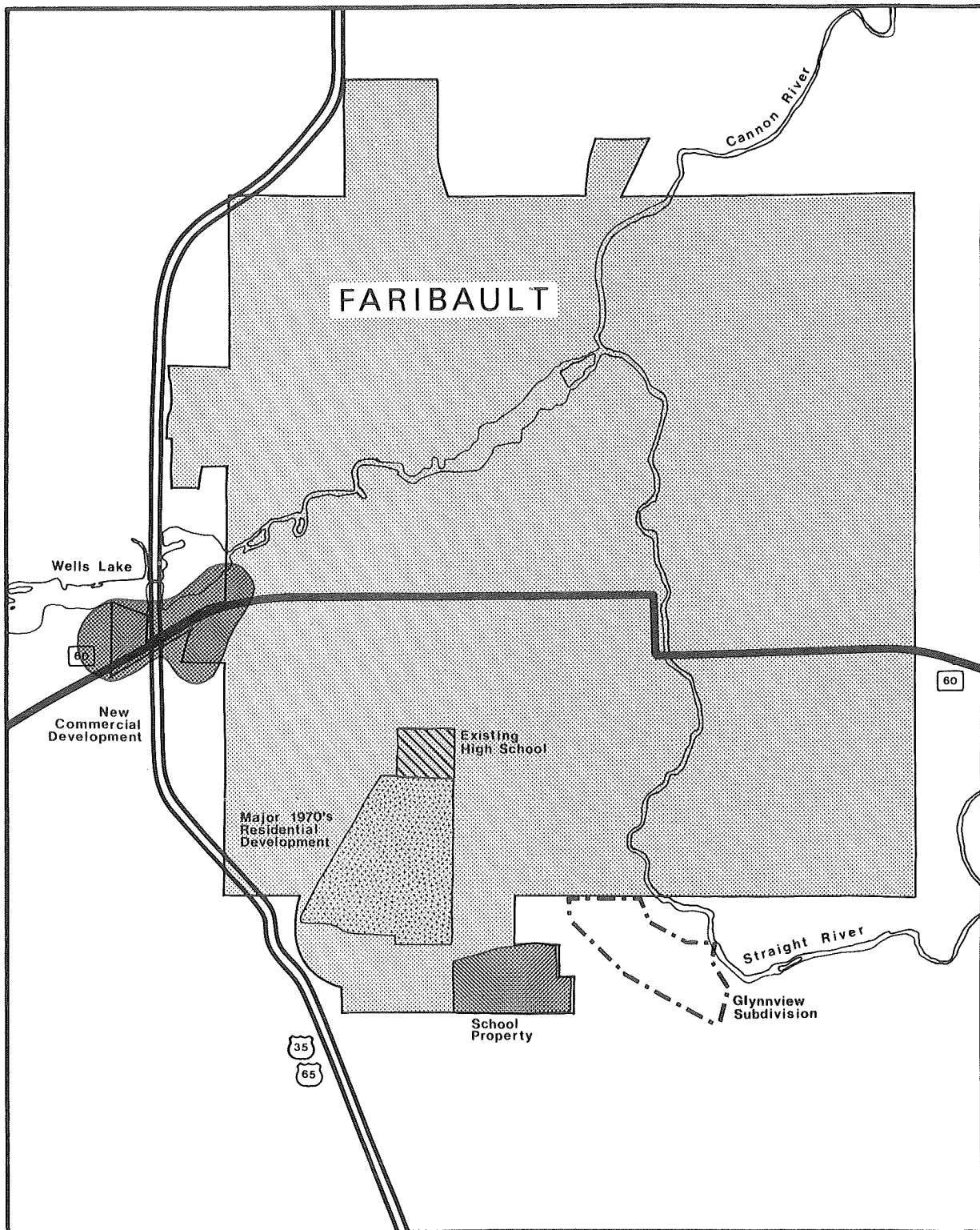
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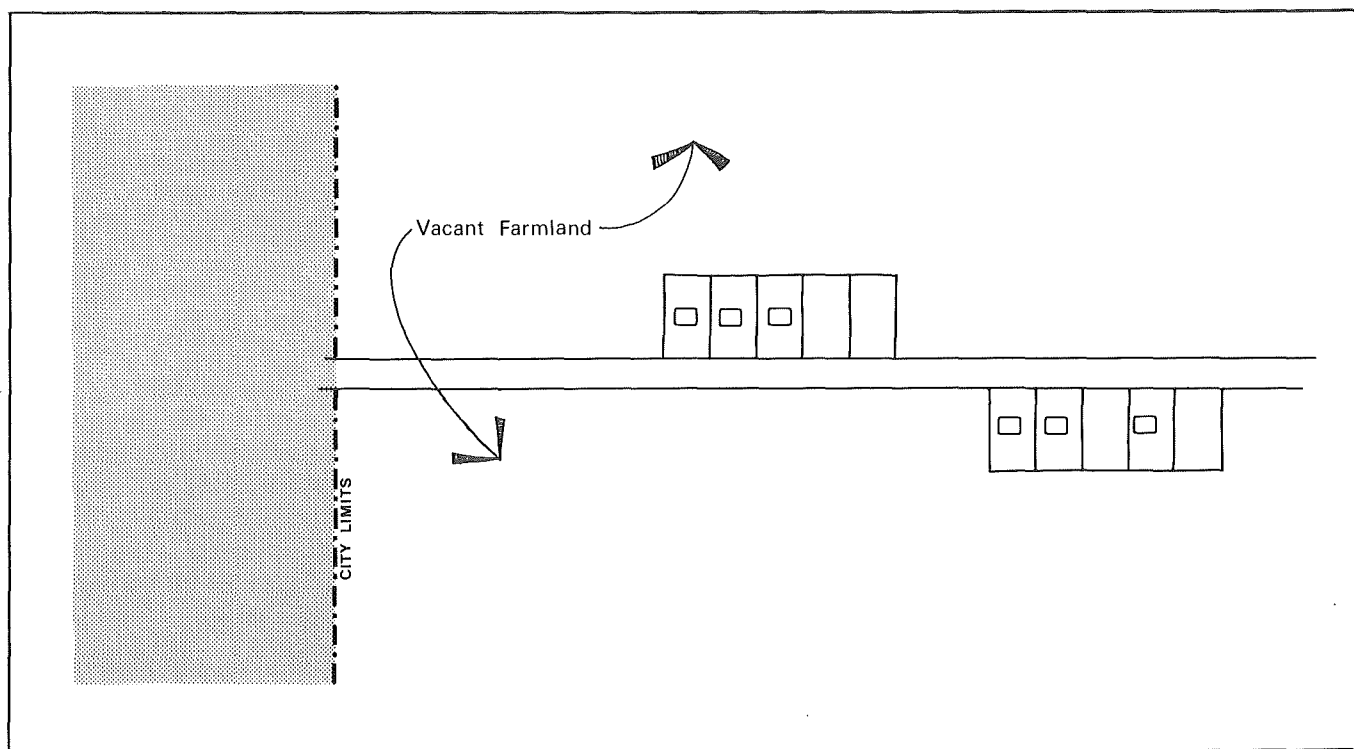
Figure 8
LOCATION OF KEY DEVELOPMENTS



sometimes require the owner to sell; (2) the land is considered more valuable for development and offers to buy are more frequent; (3) the land will bring a higher price and (4) the land is often taxed at a higher rate, reflecting its value for development, which forces the owner to sell.

Several small subdivisions, south of the Glynnview subdivision along County Highway 45, could create premature land conversion problems such as those discussed above. Moreover, the lots in these subdivisions are larger than those in the city (Figure 9). Consequently, the cost of providing services to these lots will be much higher when annexed by the city. The potential financial burden to homeowners may also decrease their willingness to be annexed. Occasionally, property owners blame the city for these problems. Yet the city had no say in determining the size of these lots because they were outside the corporate limits beyond the city's zoning jurisdiction.

Figure 9
SCATTERED SUBDIVISIONS



In addition to sewer and water service, placement of schools is another major public development that greatly influences the location of residential development. The current high school, located in the south central portion of the city, is a good example. Once the school was completed, residential development virtually exploded in the vacant area south of the school (Figure 8).

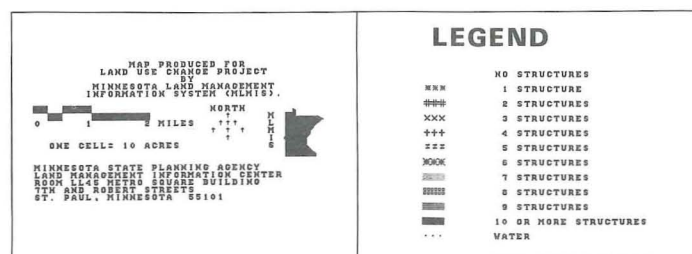
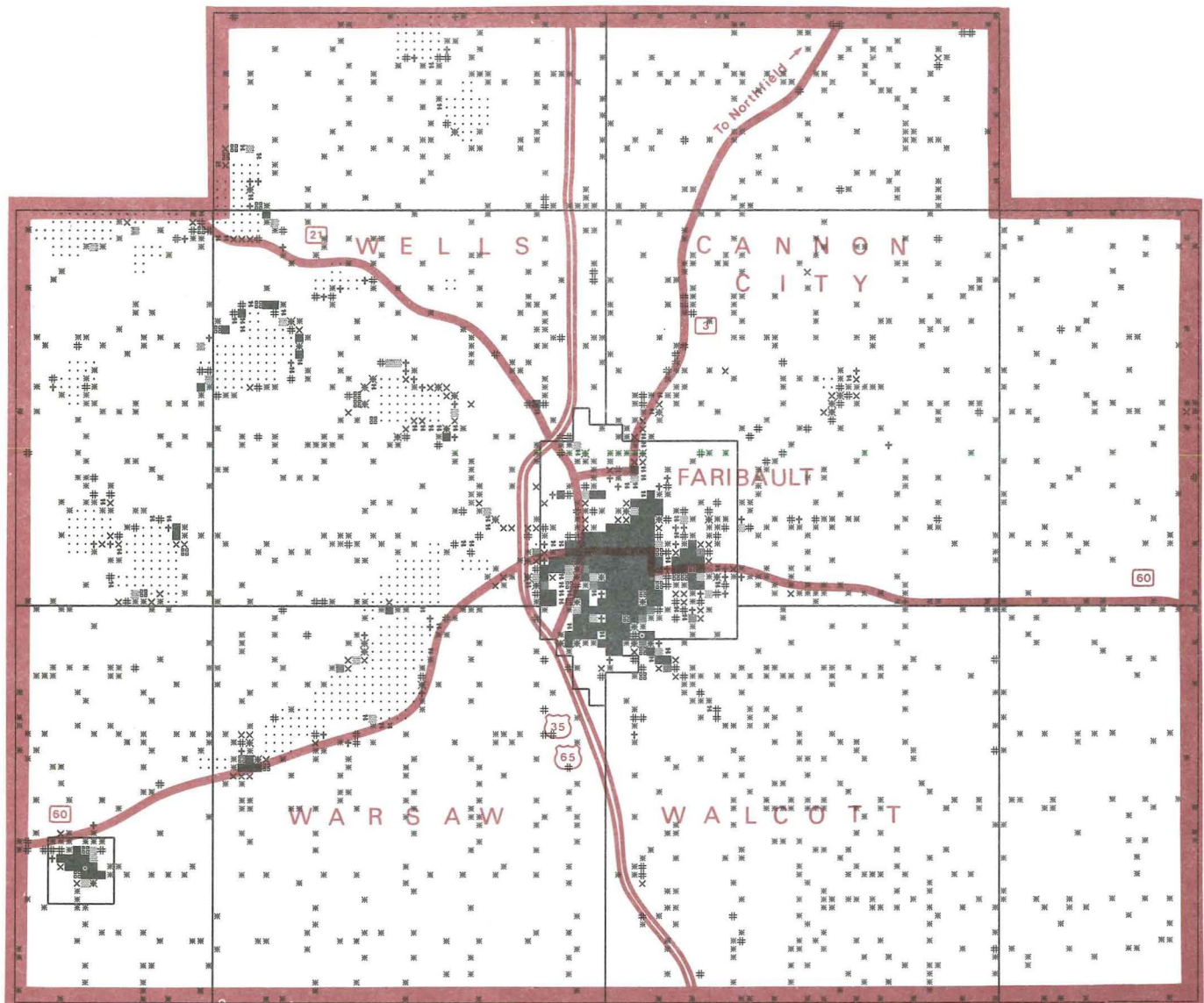
As mentioned earlier, the school board recently purchased 150 acres of land just south of the city for a possible new high school. There was little coordination between the school board and the city regarding this purchase, and there has been little coordination between these two bodies regarding other school plans. Because of the impact school development has on adjacent parcels of land, the city thinks it is essential that better coordination exist. It also realizes that both the city and the school board are to blame for the lack of coordination in the past.

Most new development in the Faribault area has occurred and is continuing to occur in the southern portion of the city and the northwestern part of Walcott Township. This is an area of SCS Class I and II agricultural soil. The loss of agricultural land to residential development is a concern of the county planning commission and the adjoining townships of Warsaw and Walcott. However, the Faribault city council and planning commission have not viewed the loss of agricultural land in this area to be a significant problem. Rather, they feel, this is the logical direction for new growth because it is cheaper to develop and to provide with utilities and also because it is contiguous to existing development. Other areas within the city are being developed but these areas are more expensive to develop because of their physical characteristics (rolling terrain, low areas with high water table, wooded areas, poor access, etc.). To a great extent, good agricultural land will be lost regardless of the direction the city expands.

Urban expansion into what were formerly agricultural areas is perceived to be a problem by the townships and the county planning commission for several reasons. First, while the total acres of agricultural land lost in any one year may not be very large, the accumulation of these losses over an extended period of time may be significant. Figure 10 shows the location of 10-acre parcels that contained at least one structure in 1977 (this figure includes both farm and non-farm structures). Second, this development may require services such as road improvements, sewer and water, snow plowing, school busing, etc., which create a financial burden for the county and townships. Third, this development increases the non-farm population of the township which could eventually lead to a political imbalance on the township board in favor of urban people. Township officials believe this would be undesirable because the bulk of land within the township is agricultural.

Figure 10

LOCATION OF URBAN STRUCTURES IN RICE COUNTY, 1977



Explanation: Figure 10 shows the number of structures per 10-acre parcel in Rice County in 1977. Data is based on the interpretation of 1977 high altitude aerial photographs. No distinction is made between residential and non-residential uses of structures.

The above issues were a more serious concern of local officials prior to Rice County's adopting density zoning controls in 1975. Most officials are now confident that the new density ordinance will curb the scattered development that led to the above problems. Today these issues are more the result of old plats being "grandfathered"¹ than the lack of effective controls.

Another issue that adds to the problems in the urban-fringe is the desire of some farmers, who live adjacent to the city, to sell their land for development rather than selling it to someone who will continue to use it as farmland. Farms close to Faribault can bring more money if they are sold to developers than if they are sold for agricultural use. There is a big temptation to sell to developers, particularly for farmers who are about to retire and want to get as much for their land as possible. The county's zoning controls limit subdivisions to areas within the city and shorelands. Consequently, there is less agricultural land that can be developed in the fringe area.

GROWTH MANAGEMENT CONTROLS

Planning efforts conducted by the city resulted in the completion of subdivision regulations, a zoning ordinance and a comprehensive plan in 1963. All of these studies were conducted under the Department of Housing and Urban Development's 701 program. Although the city planning commission was interested in planning during the '60s, there was little support from the city council. The council did, however, adopt zoning controls and subdivision regulations. They did not adopt a comprehensive plan at the time because they were not convinced of the benefits of the plan nor did they have a staff to implement the plan. Finally, in the early '70s, because of concern for losing federal funds, the city began to develop a new comprehensive plan. The plan was adopted by the council in 1975 and a staff was hired to help implement it. According to staff, even though the council does not put as much stock in the comprehensive plan as they would like, their general attitude about planning and cooperation is improving.

Prior to the development of the county's initial controls in the late '60s, Warsaw, Walcott and Wells townships developed their own zoning ordinances. Their concern was to protect agricultural land that was being lost to development in the urban fringe. However, they lacked adequate staff and technical expertise to prepare an ordinance that would effectively control the loss of agricultural land. As a result, these ordinances

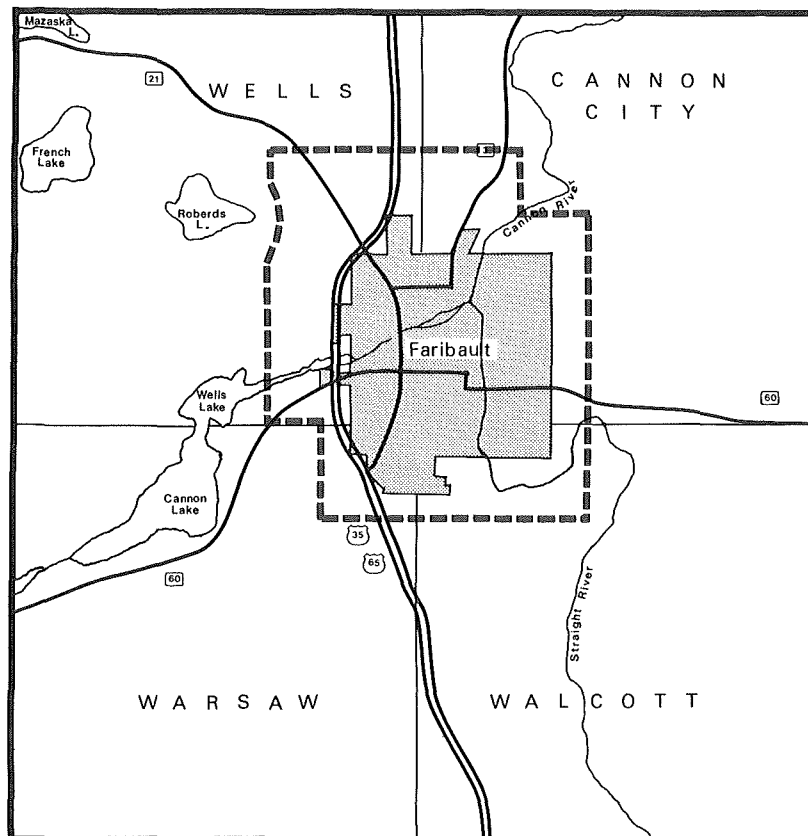
¹ Grandfathered plats are plats that were approved under a previous ordinance and, though they do not conform to the requirements of the new ordinance, are allowed anyway.

were not effective. Through the county planning commission, the townships brought their problems to the attention of the county. Since the county, too, had been concerned about this issue, they listened to what the townships had to say.

As a result, the county developed its first zoning ordinance which established a five-acre minimum lot size. As discussed earlier, this ordinance was not effective in controlling scattered development and reducing the loss of agricultural land in the urban fringe.

In 1974, Rice County began to address the urban fringe problem around Faribault. Since the loss of agricultural land was due in part to urban uses locating outside of Faribault, the city, county and townships established an urban expansion zone around the city (Figure 11). This expansion zone was adopted as part

Figure 11
FARIBAULT URBAN EXPANSION ZONE



of the Rice County Zoning Ordinance in 1975. The zone is intended to encourage more contiguous development and prevent premature conversion of agricultural land and the costly servicing of scattered development. The urban expansion zones requires a minimum lot size of 35 acres, thus preserving agricultural land until it can undergo an orderly transition to urban development.

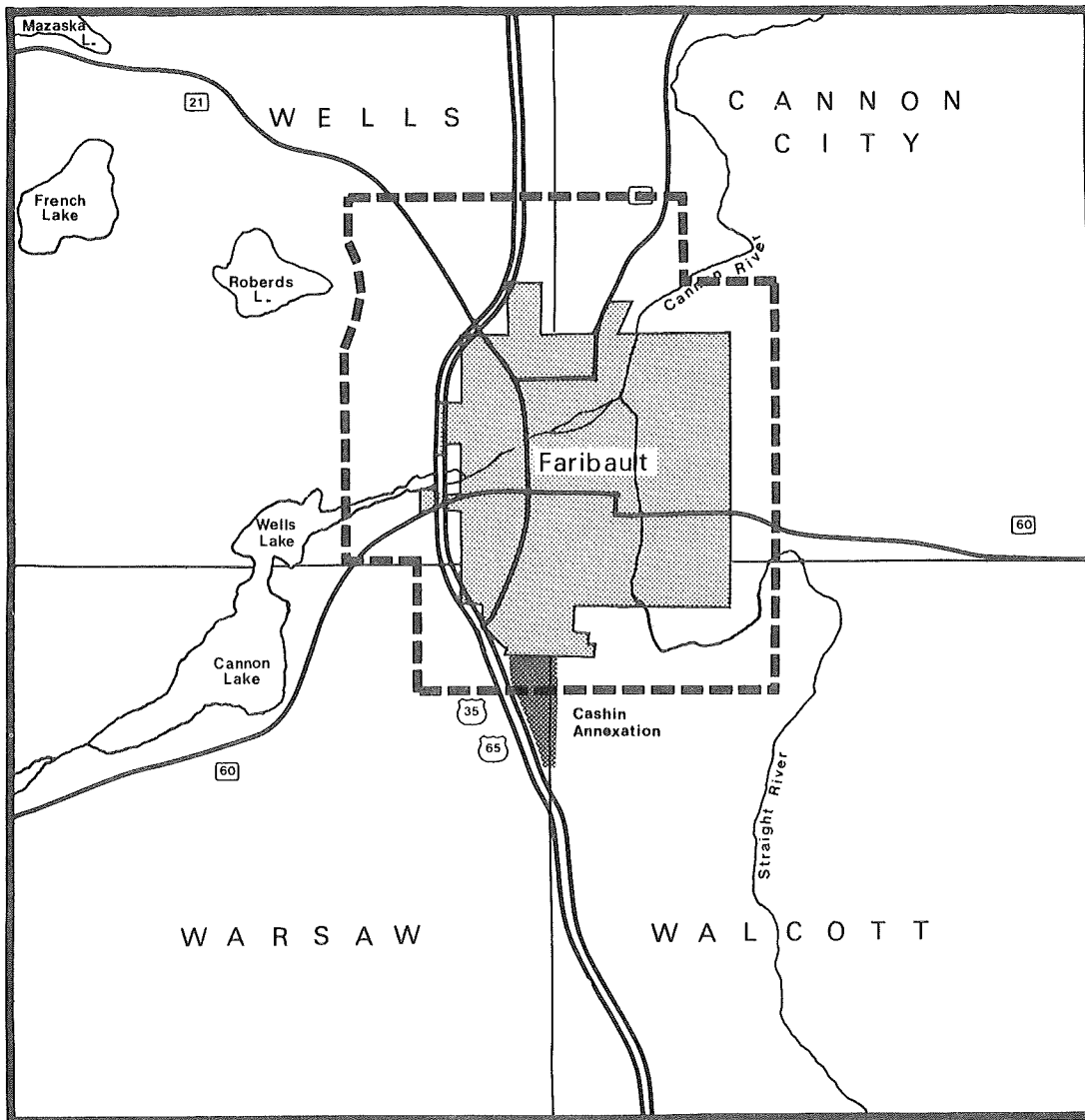
The effectiveness of the urban expansion zone is unclear. As it stands now, there is a formal procedure whereby the city and county planning commissions meet annually to discuss development in this area and decide whether or not boundary changes are necessary. The townships see this as a constructive effort but think there should be more coordination than presently exists. At present, the townships are not involved in the annual meeting of the city and county to determine the urban expansion zone boundary.

One weakness in the urban expansion zone is the delineation of the boundary. The boundary seems to be arbitrarily drawn and does not take into account property lines or growth patterns. This situation causes the boundary to be adjusted in annexations involving properties bisected by the urban expansion zone boundary. For example, the city recently annexed the Cashin property, a portion of which is located outside the urban expansion boundary (Figure 12). This was done in spite of the fact that this boundary was found to be adequate at the last annual meeting. If the boundary is so easily changed, one wonders how effective it is in confining growth to a specific area near the city.

Warsaw Township was also concerned about the Cashin annexation, which took place before the completion of orderly annexation agreements, because the property was very good agricultural land. The township indicated that it would prefer to see development occur in the northeastern part of the city first, since there is not as much good agricultural land there as in the south. The township also felt that cooperation during the Cashin annexation should have been better between Faribault and the township. Warsaw Township wanted to be involved in the earlier stages of the annexation process in order to have a greater effect on the final decision. On the other hand, the city thought that the township had essentially made the final decision on the annexation request. According to city staff, it is city policy that the developer or property owner requesting annexation secure a "waiver of objection" from the township before the city will consider the request. The township essentially decides whether an annexation is to proceed. In the Cashin annexation, Warsaw Township signed the "waiver of objection," indicating that they had no objection to the annexation request.

Figure 12

CASHIN ANNEXATION AND RELATIONSHIP TO URBAN EXPANSION ZONE



Faribault also makes use of its extraterritorial subdivision powers (M.S. 462.358). Through these powers the city reviews all platting requests within two miles of the city limits and makes recommendations to the county. Before the county's adoption of its new density zoning ordinance, it is questionable whether the procedure had much effect on development. Without a zoning ordinance compatible with the subdivision regulations, and the old county zoning ordinance was not, there is little that can be done to control the location, type and intensity of development.

Since the adoption of the new county density zoning ordinance, which is compatible with city and county plans for the urban fringe area, the review of subdivision plats has resulted in better control of land development in the urban fringe. Initially, the townships did not look favorably on this procedure. They were concerned that the city had too much authority in an area that was predominantly rural. Moreover, they felt that they should have more say over development proposals in this two-mile area. After establishment of the urban expansion zone and initiation of annexation talks with the city, the townships were more receptive to this arrangement.

The orderly annexation process is being used by Faribault, the county and surrounding townships to deal more effectively with growth management problems in the urban fringe. The city contracted with a planning consultant in 1978 to evaluate growth problems and recommend specific ways to resolve them. The consultant recommended the adoption of policies to guide growth and a process for orderly annexation. The city, townships and county were all involved in the development of this study.

The orderly annexation process is intended to be staged over a long period of time, probably 20 years, and provides the framework within which city, township and county can make decisions regarding development. The city and the townships are planning to hold regular meetings to discuss jointly the consultant's recommendations regarding growth policies and also to work out the specifics of the orderly annexation agreement, including when a particular parcel will be annexed, how the tax revenues will be distributed, what the tax rates will be, timing of sewer, water, park and street improvements and proposed zoning for the area. The orderly annexation process encourages cooperation since each governmental unit involved must sign an agreement before it becomes official. The city hopes to conclude its work on the annexation agreements by the end of 1980. However, because the process is complex and new to the city and the townships it may require more time.

The orderly annexation process appears to be a step in the right direction. Other than the establishment of the urban expansion zone, there has never been a formal arrangement that enabled the city and the township to prepare for growth and annexation in the fringe area. This process should also help townships protect good agricultural land and allow the city to handle urban expansion in an economical manner. Both the township and city are encouraged by the other's willingness to sit down and talk about growth problems.

Faribault is also proposing a technique that would establish service districts for sanitary sewer, storm sewer and water mains. This technique would be included in the city's capital improvement program and would establish district boundaries within which these services would be provided during the coming five-year period. This will provide developers and the city with some predictability regarding the location and timing of these services. This technique should assist the city in confining development to areas where the city wishes it to locate. Such a technique will require close cooperation among developers, the city and township officials.

Summary

County controls developed during the '60s were not effective in controlling scattered development and resulted in unnecessary losses of agricultural land. Since the preservation of a farm economy was a primary concern of Rice County, new controls were developed in 1975. These new controls consisted of a density zoning ordinance and the establishment of an urban expansion zone around cities.

The density zoning controls have proven to be an effective way to regulate non-farm growth on agricultural land. However, pressure to develop non-agricultural areas such as woodlands and shorelands is increasing. These areas will require more attention if problems are to be avoided. In addition, the density zoning controls have resulted in additional administrative work for the zoning administrator because of an increase in the number of variances requested. To this point, though, this has not adversely affected the implementation of the ordinance.

Most new development in Faribault, will continue to occur on good agricultural land south of the present city limits. The city believes this to be the logical direction for new growth because the land is relatively flat and public services can be economically provided. To reduce scattered development and

minimize the loss of agricultural land, an urban expansion zone, jointly agreed to by the city, townships and the county was established. The county zoning ordinance is enforced in the expansion zone and requires a minimum lot size of 35 acres. This helps to preserve agricultural land until it can be annexed by the city and developed in an orderly manner.

The expansion zone boundary could be an effective way of controlling premature conversion of agricultural land in the urban fringe. However, present administration of the boundary which includes an annual meeting of county and city officials to determine boundary delineation needs to be more strictly adhered to. Changes in the urban expansion zone boundary have occurred without being discussed at the annual meeting.

The city is also employing other controls to assist in managing growth in the urban fringe. These controls include development of an orderly annexation agreement with adjacent townships and establishing service districts for sanitary sewer, storm sewer and water mains through the city's capital improvements program. Since these controls are new, their effectiveness cannot be determined at this time.

Findings

LOSS OF AGRICULTURAL LAND

1. The loss of agricultural land to scattered development was a problem before the county developed a new zoning ordinance in 1975.
2. The county now uses a variety of tools including density zoning provisions and urban expansion zones to protect agricultural land.
3. Local support from the county planning commission, county board, and public seem to be a key factor in developing and implementing the controls.
4. A strong homogeneous farming economy may be advantageous in getting local support for agricultural land preservation.
5. While the density zoning techniques are effective in reducing the loss of agricultural land, they have contributed to increased development on lakeshore.

6. The regulatory controls used by the county are well justified by a policy plan.
7. The administration of the density controls is difficult and time consuming but appears to be done fairly and in a manner consistent with adopted regulations.
8. The loss of agricultural land to scattered development has been minimized.

FARIBAULT URBAN FRINGE

1. Some good agricultural land will continue to be lost to urban development in the Faribault urban fringe area. The loss of agricultural land should be minimized because of increased efforts by local government to plan and control development through the orderly annexation process, establishment of service districts for public utilities and development of sound zoning procedures.
2. Residential development in the urban fringe is a concern of townships because agricultural land is lost and the political balance could shift in favor of urban interests.
3. Townships alone have neither the expertise or financial resources to deal effectively with the complex urban problems that occur in the urban fringe.
4. Problems with scattered development in the urban fringe have been reduced by establishing an urban expansion zone and adopting strict zoning controls, jointly agreed to by the city and the county.
5. The urban expansion zone could be more effective in guiding development in the urban fringe if the expansion zone boundary reflected property lines and by ensuring that the boundary be changed only through the process agreed upon by the city and the county.
6. Coordination between county and city staff in dealing with land use problems in the urban fringe has been good except for the Cashin annexation. Coordination among townships and city officials has been less than satisfactory but is improving through participation in an orderly annexation process.
7. Good coordination between all levels of government is the key to effective land use management in the urban fringe.

Steele County-Owatonna

Interviewees/Reviewers

City Council, Chairman
City Planning Commission, Chairman
City Planner
County Zoning Administrator
County Board, Chairman

County Planning Commission, Chairman
County Planning Commissioners
Owatonna Township Supervisors
Clinton Falls Township Supervisors
Soil Conservation Officer(Retired)

Background

Steele County is located in south central Minnesota on the northern perimeter of the nation's corn belt (Figure 1). Outside of Owatonna, the county economy is predominantly agricultural with corn and soybeans the top cash crops. Most manufacturing and industrial use in the rural areas is primarily agriculturally related including grain and feed milling, grain storage and the handling and storage of bulk fertilizer and specialized agricultural produce. The topography of the county is level to gently rolling. Over 77 percent of the county is cultivated. Average farm size was 180 acres in 1977 compared with a statewide average of 264 acres.¹ Soils in the county are among the state's richest. Approximately 93 percent (255,100 acres)² of the county's soils are rated U.S. Soil Conservation Service Class I, II or III, generally considered prime agricultural land.

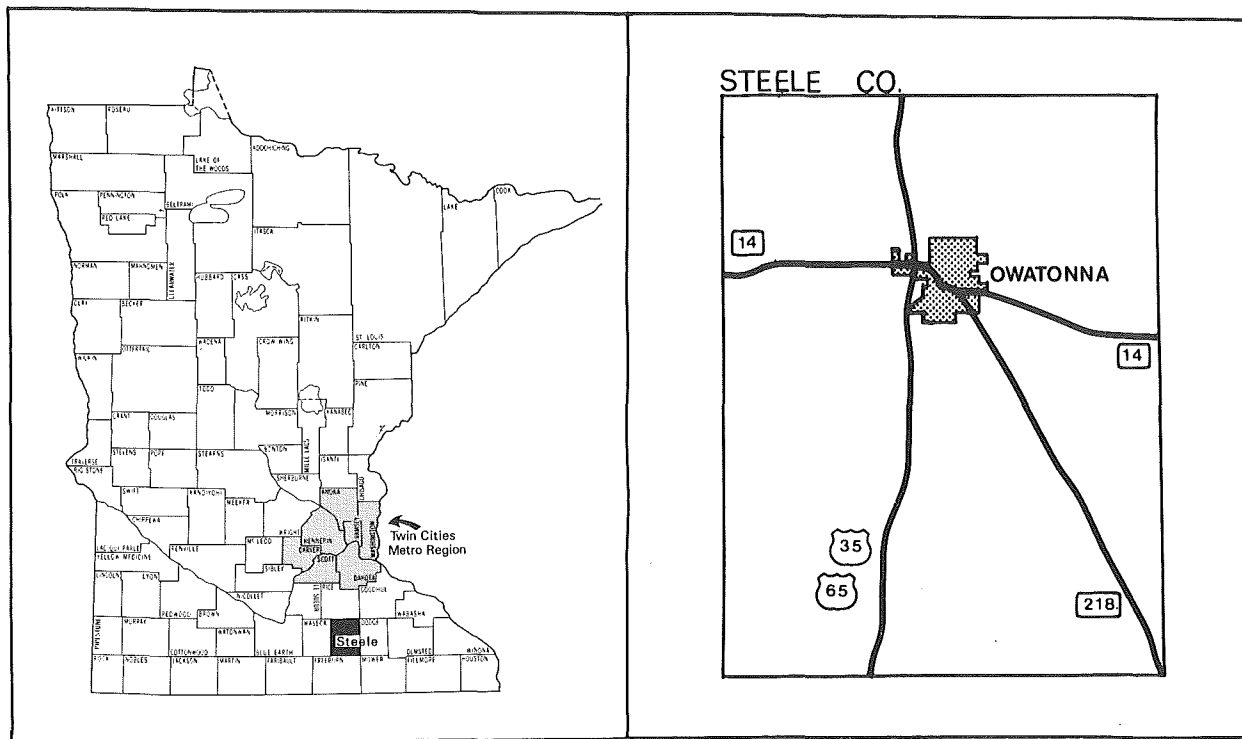
Population in the county has continued to increase and in 1978 was estimated to be 30,700. The state demographer has projected that by the year 2000, the county's population will be 32,700. As in the past, the major population increase is expected to occur in Owatonna.

Owatonna is situated at the junction of I-35 and U.S. Highways 14 and 218 midway between Mankato and Rochester (Figure 1). Owatonna is the county seat and serves as the primary shopping area for all of Steele County and the eastern portion of Waseca County.

¹ Minnesota Crop and Livestock Reporting Service, Minnesota Agricultural Statistics 1978, St. Paul, Minnesota, June 1979.

² Soil and Water Conservation Service, Minnesota Soil and Water Conservation Needs Inventory, August 1971.

Figure 1
COUNTY AND CITY LOCATION



Although an important retail center, Owatonna's greatest strength is in its industrial and manufacturing base. According to the Minnesota Department of Economic Development, over 41 percent (4,577) of Owatonna's labor force is employed in manufacturing. There are nine manufacturing companies who employ more than 200 employees and one company employing 1,350 people. These companies are involved in the manufacture of hydraulic equipment, farm equipment, hardware, vegetable canning and glass processing to name a few. Since 1972, the city has averaged from three to four million dollars per year in industrial and commercial development. In 1978, over 250,000 square feet of new industrial space was constructed.

According to estimates made by the State Demographer's Office, the population of Owatonna increased from 15,241 in 1970 to 18,271 in 1979, an increase of 19 percent. Population estimates were not available for Clinton Falls and Owatonna Townships. Visual field checks indicated that most new residential development was occurring within the city limits of Owatonna and consequently these townships, though experiencing some growth, have not experienced the rapid growth that is occurring in Owatonna. Figure 2 and Table 1 verify information collected during the visual field surveys. It should be noted that although there were only 72 40-acre parcels in Owatonna which gained structures, 47 40-acre parcels had gains of three structures or more. City officials

Table 1

THE NUMBER OF 40-ACRE PARCELS SHOWING URBAN STRUCTURE CHANGE IN SELECTED AREAS OF STEELE COUNTY 1968-1977

Township	Change in number of structures per 40-acre parcel, 1968-1977						Sum of parcels which gained structures	TOWNSHIP TOTAL
	1 or more structures lost	No change*	1 structure gained	2 structures gained	3 to 5 structures gained	6 or more structures gained		
Medford Township	2	255	17	4	2	3	26	283
% of township	(0.7)	(90.1)	(6.0)	(1.4)	(0.7)	(1.1)		
% of change category	(5.6)	(5.2)	(14.3)	(12.9)	(5.7)	(8.6)		(5.5%)
Clinton Falls Township	1	271	10	4	2	0	16	288
% of township	(0.3)	(94.1)	(3.5)	(1.4)	(0.7)			
% of change category	(2.8)	(5.5)	(8.4)	(12.9)	(5.7)			(5.6%)
Owatonna Township	5	394	22	2	4	5	33	432
% of township	(1.2)	(91.2)	(5.1)	(0.5)	(0.9)	(1.2)		
% of change category	(13.9)	(8.0)	(18.5)	(6.5)	(11.4)	(14.3)		(8.3%)
City of Owatonna	1	71	13	12	23	24	72	144
% of city	(0.7)	(49.3)	(9.0)	(8.3)	(16.0)	(16.7)		
% of change category	(2.8)	(1.4)	(10.9)	(38.7)	(65.7)	(68.6)		(2.8%)
City of Medford	0	2	0	0	1	2	3	5
% of city		(40.0)			(20.0)	(40.0)		
% of change category		(0.1)			(2.9)	(5.7)		(0.1%)
All remaining townships in the study area	27	3,935	57	9	3	1	70	4,032
% of remaining townships	(0.7)	(97.6)	(1.4)	(0.2)	(0.1)	(0.1)		
% of change category	(75.0)	(79.8)	(47.9)	(29.0)	(8.6)	(2.9)		(77.8%)
CHANGE CATEGORY TOTAL	36	4,928	119	31	35	35	220	5,184
% of study area	(0.7%)	(95.1%)	(2.3%)	(0.6%)	(0.7%)	(0.7%)		(100%)

*"No change" means either: no net change in number of structures; or each of the four 10-acre parcels in the 40 contained 10 or more structures in both 1968 and 1977.

Source of Change Data: State Planning Agency, Land Use Change Project; Source of Data on Township Location: State Planning Agency, MLNIS

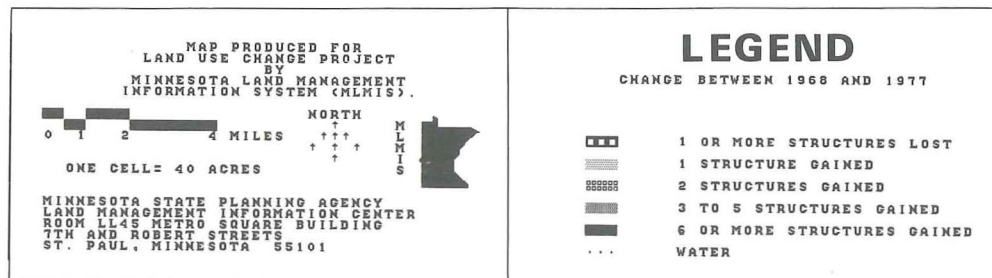
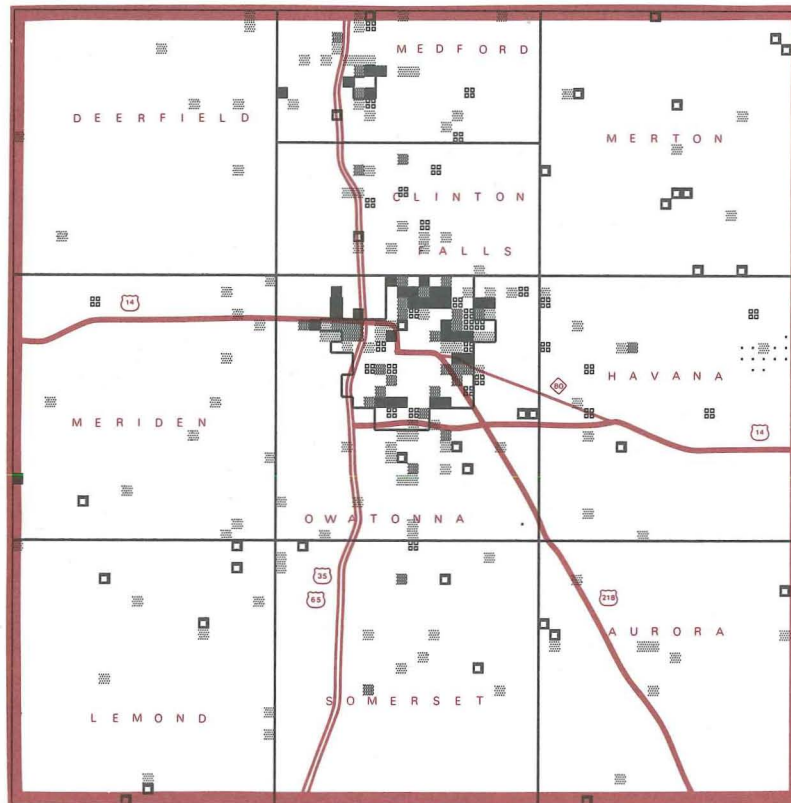
are convinced that Owatonna will continue to increase rapidly because of new commercial and industrial growth and have projected the city's population to be 36,000 by the year 2000. The State Demographer has projected the city's population to be 22,900 and the county's population to total 32,700 by the year 2000.

Loss of Agricultural Land

The loss of agricultural land to development was considered to be the major land use problem by the county zoning administrator and town board supervisors in Owatonna and Clinton Falls Townships. The county and township officials are concerned about the loss of agricultural land for several reasons. First, though the loss of agricultural land in any one year has not been large, it is the cumulative impact which worries local officials. They believe that if farmers are to provide crops for food and energy, the accumulation of these ag-land losses over a number of years will eventually reduce total production. Second, township officials are concerned about having to provide urban services such as sewer, water, roads, etc., for residential development that locates in the township. Initially, they see this development as beneficial because it provides additional tax base. Later, however, as requests are made for public services that the township cannot provide, problems arise causing friction between residents and town board members. Third, rural non-farm residents often become unhappy with unexpected dust, noise and odor produced by nearby farming operations. For example, a farmer in Clinton Falls Township has a feedlot which is near a number of residences. One nearby resident who overlooks the feedlot operation is opposed to it because he does not like the way it looks or smells. The feedlot was there long before this neighboring homeowner, yet the homeowner wants the farmer to change the way he works. Unfortunately, most people who move to the country are unaware or simply don't care about these problems before they decide to move.

According to county and township officials, the loss of ag-land occurs primarily in the urban fringe around Owatonna where there is substantial pressure to develop the land for urban uses (Figure 3). In the Owatonna urban fringe, west of I-35, U.S. Soil Conservation Service Class I agricultural land is being lost to industrial development. Additional agricultural land is being lost to industrial and commercial development in the I-35 corridor between Owatonna and Clinton Falls Township and to residential development in the eastern and northeastern parts of the city. According to a former SCS officer, the agricultural soils being used for residential development are not as good as those being converted

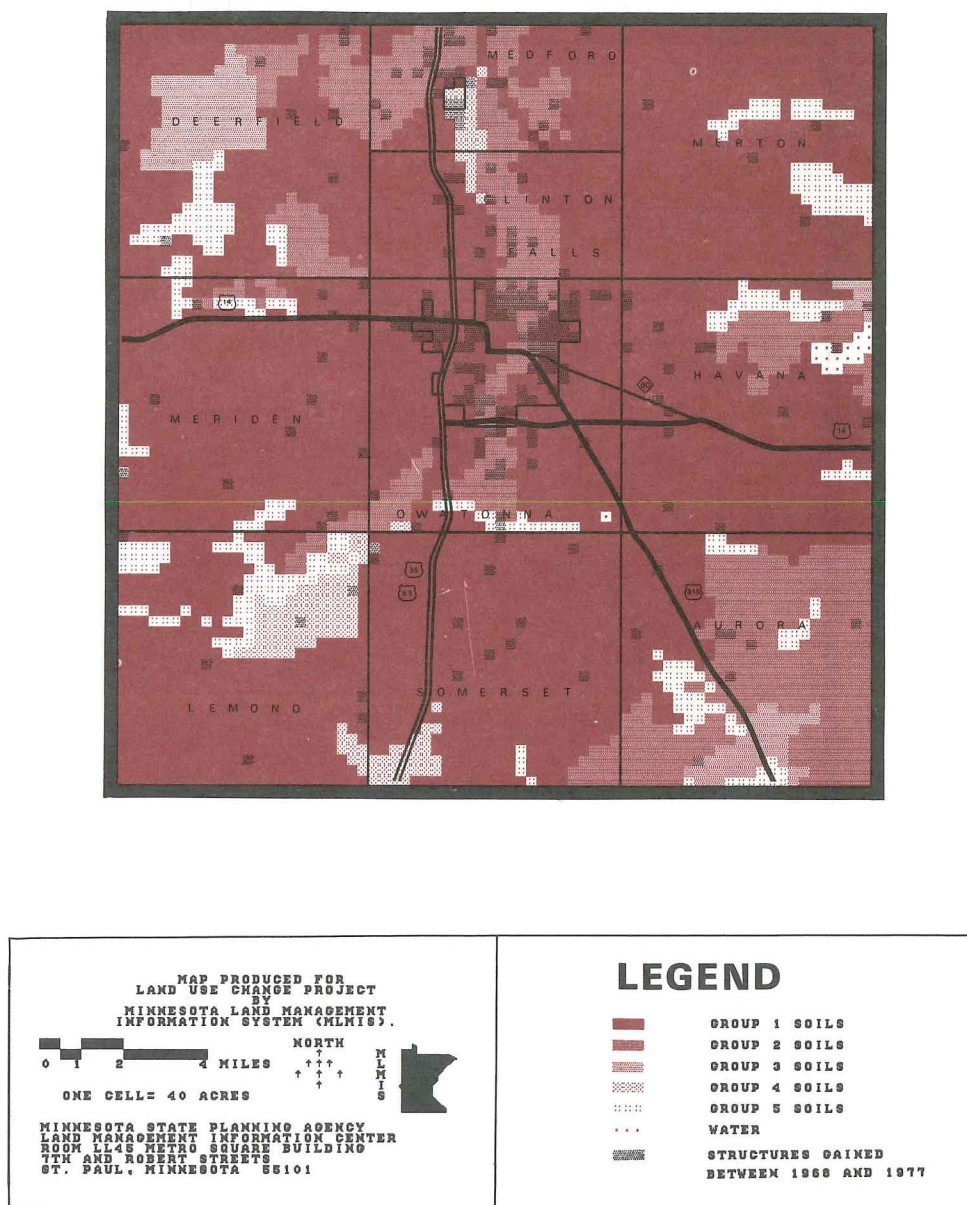
Figure 2
 URBAN STRUCTURE CHANGE IN STEELE COUNTY, 1968-1977



Explanation: Figure 2 shows change in the number of structures per 40-acre parcel in a portion of Steele County between 1968 and 1977. Data is based on the interpretation of 1968 and 1977 aerial photographs. Symbols indicate the number of structures either gained or lost; single dots represent water; blank areas indicate that either no net change occurred in the number of structures, or change was not assessed due to difficulties encountered in counting structures in heavily urbanized areas. No distinction is made between residential and non-residential uses of structures.

Figure 3

RELATIONSHIP OF CHANGE IN URBAN STRUCTURES 1968-1977 TO AGRICULTURAL PRODUCTIVITY



Explanation: Figure 3 shows the relative suitability of areas in and around Owatonna for agricultural production. Soil landscape units were given ratings of 0 to 94 based on soil texture, drainage, color and slope; depth of the rooting zone; and phosphorous/potassium content. Ratings were combined into five groups for display purposes, with group one representing the most productive soils.

The areas in black indicate 40-acre parcels with gains in the number of structures between 1968 and 1977. Data is based on the interpretation of 1968 and 1977 high altitude aerial photographs. No distinction is made between residential and non-residential uses of structures.

to industrial development. Scattered non-farm development throughout the county also contributes to the loss of agricultural land but is not considered a serious threat. The location of structures in 1977 by 10-acre parcel is illustrated in Figure 4. According to data in Table 2, between 1968 and 1977, most development surrounding Owatonna occurred on parcels where the dominant land use was cultivated. Parcels with a dominant land use of forest and pasture and open experienced substantially less development. According to the zoning administrator, this trend has reversed recently and now a high percentage of development occurring outside the urban fringe is occurring in wooded areas.

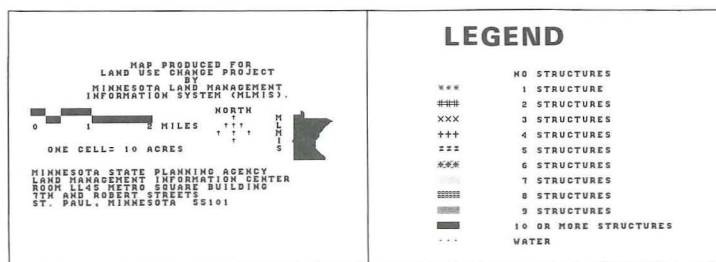
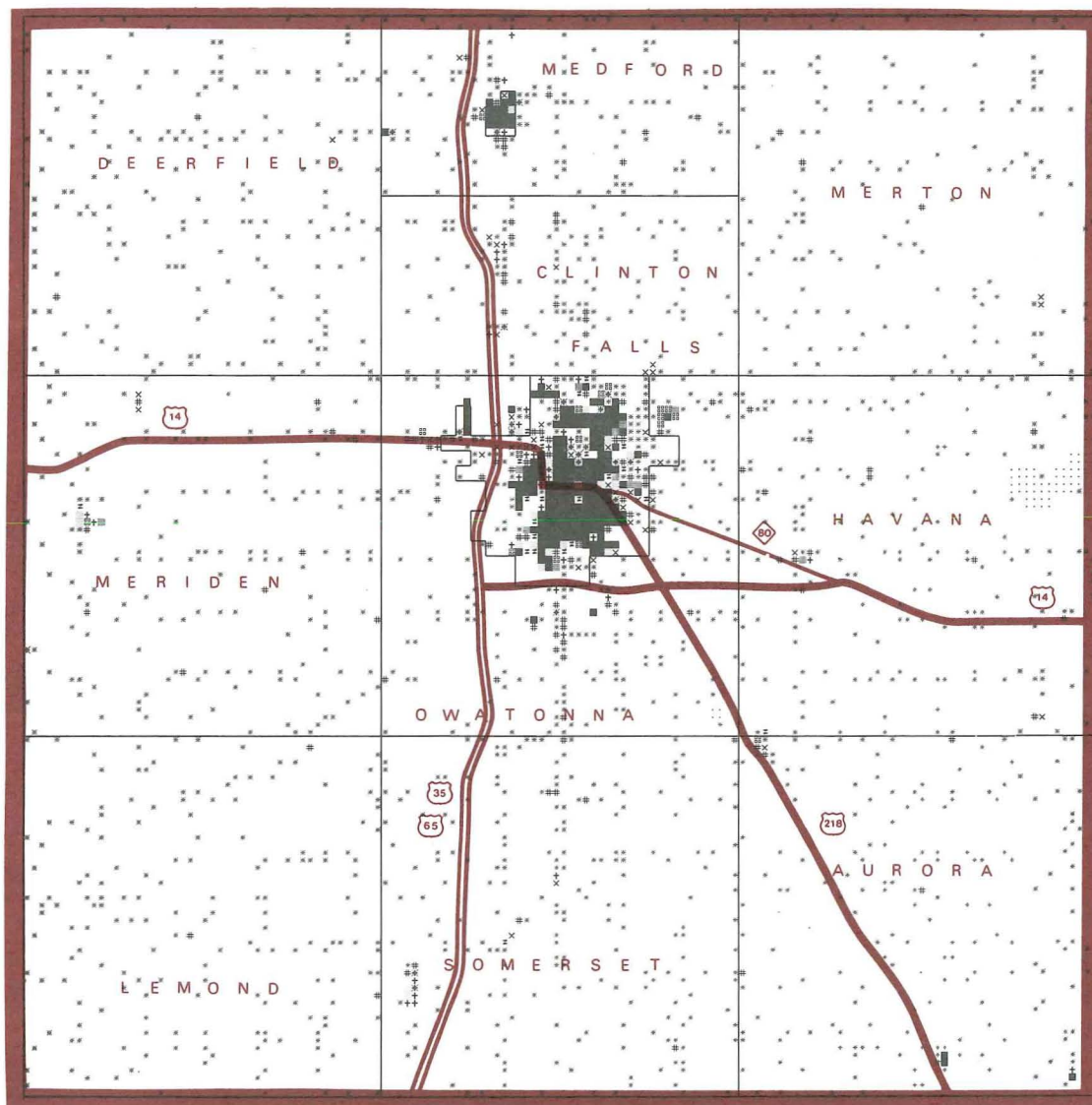
GROWTH MANAGEMENT CONTROLS AT THE TOWNSHIP LEVEL

The loss of agricultural land to urban development was first recognized as a problem in Steele County during the 1950's. When township officials approached the county about a solution to the problem, Steele County officials indicated that they did not wish to be involved in land use controls at that time and encouraged the townships to adopt their own controls. Originally, all nine townships in Steele County adopted zoning ordinances. Later, after the county adopted controls, only two - Clinton Falls and Owatonna Townships - continued to enforce their ordinance. Clinton Falls and Owatonna Township enforce their ordinances because they believe theirs to be more effective than the county's in dealing with the encroachment of urban development. These townships are most directly affected by urban uses because of their proximity to Owatonna (Figure 5). Owatonna Township surrounds the city of Owatonna on three sides and Clinton Falls Township is located just to the north of the city.

The township ordinances are intended to provide a means for controlling the location of urban development thus reducing the loss of agricultural land. However, the terms of the ordinances are likely to produce results directly contrary to this intent for a number of reasons. First, both ordinances contain similar provisions and four land use districts: industrial district, commercial district, residential district and an open space district. Neither ordinance includes a map showing the location of the four land use districts. Both ordinances provide a narrative description of the industrial district but the location of the other three districts (commercial, residential and the open district) is unknown and left entirely to the discretion of the town board at the time a developer makes a request. Consequently, even the most considered decisions of the townships on development proposals which threaten agricultural land could be labeled as arbitrary by opponents or proponents and challenged in court.

Secondly, the industrial district, as defined, promotes conflicts between industry and agriculture. The industrial

Figure 4
LOCATION OF URBAN STRUCTURES IN A PORTION OF STEELE COUNTY 1977



Explanation: Figure 4 shows the number of structures per 10-acre parcel in a portion of Steele County in 1977. Data is based on the interpretation of 1977 high altitude aerial photographs. No distinction is made between residential and non-residential uses of structures.

Table 2
THE NUMBER OF 40-ACRE PARCELS SHOWING CHANGE IN STRUCTURES BY TYPE OF LAND USE/LAND COVER 1968-1977

Land Use/Land Cover, 1969*	Change in number of structures per 40-acre parcel, 1968-1977						Sum of parcels which gained structures	USE/COVER CATEGORY TOTAL
	1 or more structures lost	No change**	1 structure gained	2 structures gained	3 to 5 structures gained	6 or more structures gained		
Cultivated	25	3,918	72	13	7	13	105	4,048
% of use/cover category	(0.6)	(96.8)	(1.8)	(0.3)	(0.2)	(0.3)		
% of change category	(69.4)	(79.5)	(60.5)	(41.9)	(20.0)	(37.1)		(78.1%)
Pasture and open	8	774	18	5	7	0	30	812
% of use/cover category	(1.0)	(95.3)	(2.2)	(0.6)	(0.9)			
% of change category	(22.2)	(15.7)	(15.1)	(16.1)	(20.0)			(15.7%)
Forested	0	101	10	4	1	0	15	116
% of use/cover category		(87.1)	(8.6)	(3.4)	(0.9)			
% of change category		(2.0)	(3.4)	(12.9)	(2.9)			(2.2%)
Urban	2	78	17	9	20	21	67	147
% of use/cover category	(1.4)	(53.1)	(11.6)	(6.1)	(13.6)	(14.3)		
% of change category	(5.6)	(1.6)	(14.3)	(29.0)	(57.1)	(60.0)		(2.8%)
Other***	1	57	2	0	0	1	3	61
% of use/cover category	(1.6)	(93.4)	(3.3)			(1.6)		
% of change category	(2.8)	(1.2)	(1.7)			(2.9)		(1.2%)
CHANGE CATEGORY TOTAL	36	4,928	119	31	35	35	220	5,184
% of study area	(0.7%)	(95.1%)	(2.3%)	(0.6%)	(0.7%)	(0.7%)		(100%)

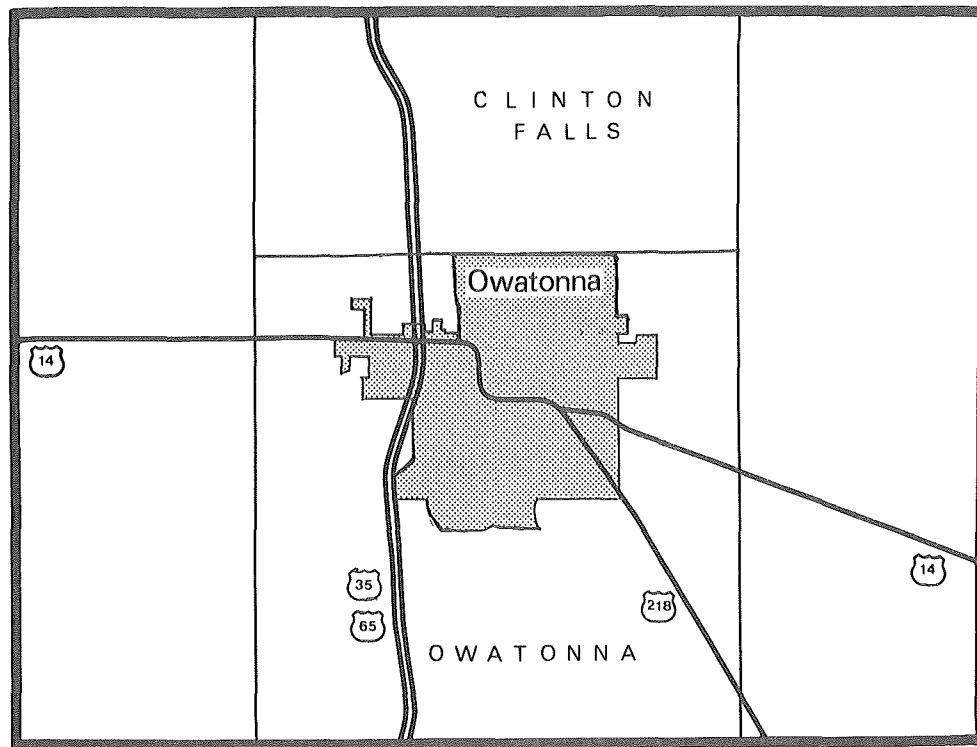
*"Land Use/Land Cover" refers to the dominant use or cover for each 40-acre parcel.

**"No change" means either: no net change in number of structures; or each of the four 10-acre parcels in the 40 contained 10 or more structures in both 1968 and 1977.

***"Other" includes: water, marsh, extractive, and transportation.

Source of Change Data: State Planning Agency, Land Use Change Project; Source of Land Use/Land Cover Data: State Planning Agency, MLMIS.

Figure 5
OWATONNA AND SURROUNDING TOWNSHIPS



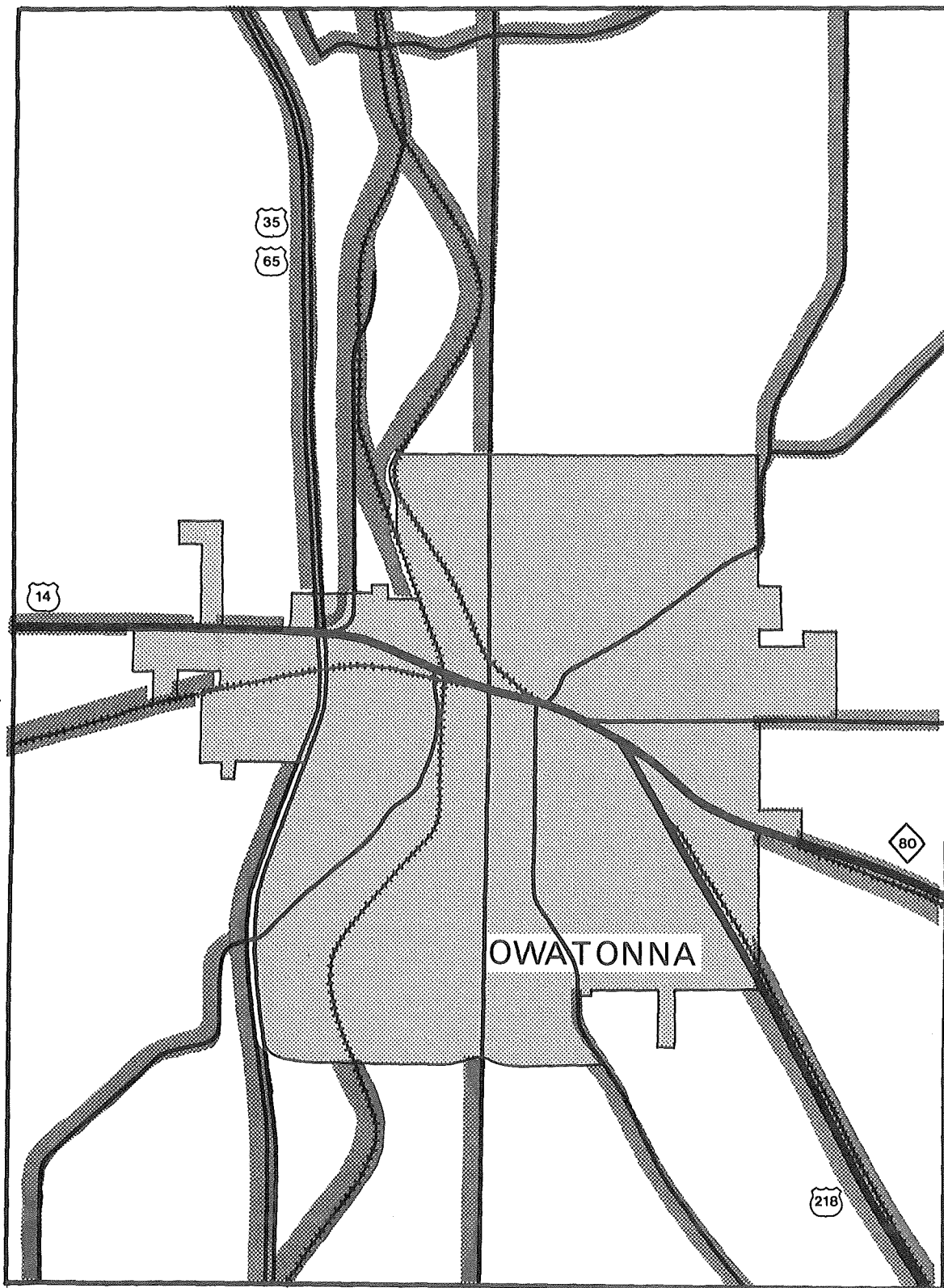
district is defined as being that area lying within 400 feet of the right of way of each railroad in the township and within 200 feet of every county, state and federal highway in the township. (Figure 6). By permitting industry to locate along any railroad or major road, the township ordinances do not provide protection against the conversion of agricultural land to industrial uses.

Furthermore, the ordinances contain a provision which seems to permit a wide variety of uses to occur within the industrial district. The provision states that all buildings and land may be used for any purpose not prohibited by law.³ It then lists those uses that would be allowed only if a special use permit was obtained. Presumably then, residential uses, and all the commercial uses listed as permitted uses in the commercial district, as well as industrial or manufacturing uses not listed as requiring a special use permit, would be allowed in the industrial land use district. Consequently, what the township appears to have is an all inclusive land use district adjacent to all railroads and highways. This approach poses a serious threat to agriculture, is likely to cause conflicts between many uses and will result in enormous expenditures if public services are required at a future date.

³ Clinton Falls Township, Clinton Falls Township Zoning Ordinance, 1955 amended 1977.

Figure 6

LAND ZONED FOR INDUSTRY-OWATONNA AND CLINTON FALLS TOWNSHIP



Township officials in Owatonna Township expressed the desire for limited agricultural industrial development that would not require public sewer or water. However, their ordinance permits a number of uses that probably would require municipal sewer because of state or federal standards, e.g., restaurants, motels, and certain manufacturing processes. In addition, municipal services may be necessary because of physical constraints. According to a former SCS Official, 90 percent of the soils in Steele County have moderate to severe limitations for on-lot sewage disposal systems requiring drainfields.

Finally, the provisions of the residential district have not effectively controlled scattered residential development in agricultural areas. The residential district in Clinton Falls Township requires a minimum lot size of five acres while the minimum lot size in Owatonna Township is only 10,000 square feet. A town board official in Clinton Falls stated that the five acre minimum is an increase in lot size over two acres the township previously had in order to discourage scattered residential development. The increase in lot size has not been effective in doing this. For example, about four years ago, a realtor bought a 50-acre farm near the Owatonna city limits and subdivided it into 10-acre parcels. The people who bought the 10-acre parcels subdivided them into 5-acre parcels. There are four other property owners just north of the city boundary who currently want to sell their land for future development. Because of this, the townboard is considering the adoption of density zoning controls.

Summary of Township Controls

Although Clinton Falls and Owatonna Townships have indicated that the loss of agricultural land is a big concern, their existing zoning ordinances do little to prevent this problem from occurring. The ordinances promote strip commercial and industrial development in the rural area of the townships rather than concentrating it where it is desirable and can be served with public utilities. Moreover, there is no provision for controlling scattered residential development either through the establishment of a residential district or some type of density zoning measure except for the arbitrary decision of the town board at the time a request is made. It should be pointed out that Owatonna Township has recently hired a consultant to revise their present zoning ordinance, review annexation issues and to help the township establish an agricultural protection district.

GROWTH MANAGEMENT CONTROLS AT THE COUNTY LEVEL

As stated previously, the townships started zoning back in the middle 50's. Around 1968, the county felt it necessary to provide more consistent enforcement and control than what they

felt the townships were providing. Steele County received HUD 701 planning funds for the preparation of a comprehensive plan, zoning ordinance and subdivision regulations. The County's first zoning ordinance was adopted in 1971. It was designed to control scattered residential development in rural areas but proved ineffective in doing so. The ordinance required a minimum lot size of 10 acres. Planning commission members lacked confidence in the 10-acre minimum lot size requirement as an effective means of controlling development in the agricultural area of the county. They reasoned that 10 acres in the rural areas would not cost anymore than a city lot. Consequently, land cost was not seen as an effective means of discouraging people from purchasing and developing agricultural land. Moreover, since many of those who wish to locate in the country choose wooded areas instead of good agricultural land, the planning commission felt that they were placing unnecessary restrictions on these people by requiring a minimum lot size of 10 acres. The large lot size requirement did have the effect of causing wooded areas to develop faster than was desirable.

After four years of experience with the 1971 ordinance, the county planning commission determined that the ordinance was not effective, and, in 1975 requested that the county board appropriate money for a new ordinance.

A new ordinance was prepared by a consultant in 1976 but it was hard to understand and difficult to administer. In 1978 the county planning commission recommended that it not be used. The planning commission set up a subcommittee of five people to revise the county's 1971 ordinance. The subcommittee consisted of the zoning administrator, the sanitarian and three planning commission members. The revised ordinance, adopted in January 1979, contains seven use districts including: (1) Agricultural District; (2) Flood Plain District; (3) Shoreland District; (4) Conservation District; (5) General Business District; (6) General Industrial District; and (7) Single Family Residential District.

Like the townships, Steele County is concerned with controlling urban development and minimizing its impact on agriculture. The strengths and weaknesses of their approach is discussed in the following sections.

Density Zoning Provision

Steele County has taken what appears to be an effective step with regard to the protection of agricultural land. Their new ordinance creates a new density zoning provision within the agricultural district. Under this provision no more than one non-farm dwelling unit shall be allowed per quarter of a quarter section of land (40 acres) and no non-farm dwelling unit will be allowed on land tilled within the past five years and classified as a Class I or

II soil by the Soil Conservation Service. On any one farm, the ordinance allows one additional mobile home in addition to the main farm residence provided the mobile home occupants are associated with the farm operation. The required minimum lot size in the Agricultural District is one acre for both farm and non-farm residential structures.

According to the Steele County zoning administrator, there have been some exceptions granted to the ordinance. For example, there's the case where a farmer wishes to give a lot to a son or daughter so that they can remain on the farm. This is consistent with the ordinance as long as the son or daughter is involved in the farming operation. Often times however, the son or daughter works in town and has nothing to do with the farming operation. His or her residence is a non-farm residence, and according to the ordinance, should not be allowed in the Agriculture District because it would exceed the allowable density of one dwelling unit per quarter of a quarter section. Exceeding the density provision of the ordinance is only allowable if the dwelling units are farm related, and then, only by one additional dwelling unit. Another problem with the farm related residence is that when the occupants wish to sell, they are limited to selling the property to someone who will be engaged in the farming operation, since selling it to anyone else would classify it as a non-farm residential structure which is not allowed by the current ordinance. A couple of exceptions to the density provision have also been granted on SCS Class III soils and in wooded areas. There is some question about allowing higher density on SCS Class III since this is relatively good farmland. Often times the only difference between this and SCS Class II soils is that Class III soils have a greater slope.

Lack of Zoning Map

While the county ordinance contains several land use districts, there is no zoning map at this time to determine where in the county these land use districts are located. The county zoning administrator has indicated that he is working with the sanitarian and several planning commission members to prepare a zoning map for presentation to the planning commission later this year. The zoning administrator stated that the county applies the agricultural district throughout the unincorporated portions of the county, yet nowhere in the ordinance does it specify that this is so. Other uses such as commercial and industrial are handled as a conditional use. This is an unusual practice in view of the fact that there are specific districts listed for these uses in the narrative portion of the ordinance. In addition, such a practice places the county in the position of arbitrarily determining uses without specific criteria to guide its decisions as required by M.S. 394.301. It also increases the possibility for incompatible land uses and fails to provide any indication to adjacent property owners or to devel-

opers of what they can expect. This issue is particularly critical in the urban fringe where development is imminent. Spot zoning of developments in the urban fringe can seriously hamper efforts by the city, township and county to develop and implement a meaningful management plan for the area.

Conflicting Land Use Regulations

The Steele County ordinance applies to the same land as the Clinton Falls and Owatonna Township ordinances. Problems result because the ordinances zone the land for different uses and establish different standards. Developers must obtain two building permits - one from the county and one from the township - and somehow satisfy the conflicting regulations. For example, the township ordinances require a building setback of 35 feet from the right-of-way of a public road, while the county ordinance requires a setback of 100 feet from the center line of the road. The ordinances also differ in minimum required lot sizes. Clinton Falls Township requires a five acre minimum lot size in its residential district while the minimum lot size in Owatonna Township is only 10,000 square feet. The county requires a one acre minimum in its agricultural and residential districts. In addition, the county also requires a density of only one unit per 40-acre parcel in the wooded areas and on soils other than SCS Class I or II. Only residents who are engaged in farming are allowed to construct a residential structure on historically tilled SCS Class I or II soils.

Lack of Coordination

The other major control the county has for managing development is its subdivision regulations. This control is more effective in the urban fringe than in the rural areas of the county primarily because there are few subdivisions in the county. Since the subdivisions regulations do not control the type, location or intensity of development, their major contribution toward regulating growth is in terms of ensuring compatibility of such things as block lengths, street widths, and street arrangement with existing subdivisions. There has been little chance to evaluate how effective this has been since virtually all subdivisions have occurred within the city limits except for Echo Heights. Echo Heights was subdivided before subdivision regulations had been adopted by the county or the city.

Summary of County Controls

In Steele County, there is general agreement among county and township officials that the loss of agricultural land is the major land use problem. There is also general agreement that conflicting regulations, annexation procedures and the lack of coordination among local levels of government, have contributed to this loss.

While the county zoning ordinance contains a strong density zoning provision aimed at preventing unnecessary losses of agricultural land to urban type development, the granting of variances for non-farm residences and arbitrary rezonings have weakened this provision somewhat. Fortunately, there has not been substantial pressure for development in the rural areas of the county outside the urban fringe. Also, some of the development occurring in the rural area is locating in wooded areas instead of on the good farm land. The ordinance could be an effective mechanism for dealing with the loss of agricultural land, but improved enforcement, a zoning map and plans agreed upon by county, townships and the city, to base the ordinance on are necessary. Given current conditions, the ordinance could be subject to a legal challenge.

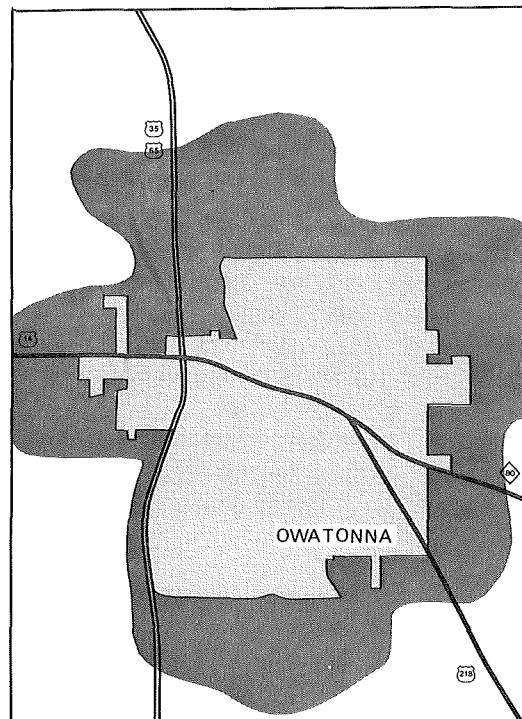
Owatonna Urban Fringe

The Owatonna urban fringe is where most of the major land use problems affecting the city occur. The urban fringe is defined as the area just outside the corporate limits which is undergoing change from a rural to an urban area (Figure 7). The city and adjacent townships have identified a number of issues that are either land use problems or contribute to land use problems in the urban fringe. These issues include conflicting regulations, annexation, scattered urban development and poor coordination.

CONFLICTING REGULATIONS

As was pointed out in a previous section there are three zoning ordinances each with different standards controlling growth in the urban fringe. In addition, the city of Owatonna, through the extraterritorial provisions of the municipal planning act (M.S. 462.358) is allowed to review and approve subdivision plats within two miles of its boundary. However, since the county and the townships have zoning ordinances, the city is not allowed to extend its zoning authority into the two mile area (M.S. 462.357). Without zoning authority the city cannot control the type, intensity or location of specific land uses. Moreover, extending city subdivision regulations to an area controlled by three separate zoning ordinances makes it extremely difficult if not impossible to review subdivision plats in a consistent manner since lot size, setbacks, road width are all different. According to the city staff, this makes the review of subdivision plats almost worthless and contributes nothing to the city's ability to manage development in the urban fringe.

Figure 7
OWATONNA URBAN FRINGE



Besides creating problems for persons responsible for administering the land use controls, conflicting controls also create difficulties for developers who are uncertain about which controls apply. In addition, as land is annexed by the city, it could be faced with providing public services such as streets, sewers and water mains at excessive cost because of large lot frontages. Many of these problems could probably be avoided if more uniform controls were in place in the fringe area.

ANNEXATION PROCEDURES

Past annexation procedures of the city of Owatonna have alienated Owatonna Township. According to township officials, on several occasions in the past, the city has simply gone ahead and annexed the land by ordinance whenever a developer has asked for it without making any effort to involve the township. For example, in the early 70's there was a piece of industrial property of about 25 to 30 acres located in Owatonna Township for which the owner requested annexation. The property was bordered by the city on over 60 percent of its perimeter but was not completely surrounded by the city. According to M.S. 414.033, the city is required to notify the township of its intent to annex under these circumstances. According to Township officials this did not occur. In fact, the township didn't learn of the annexation until they received a copy of the annexation ordinance passed by the city council.

In other cases, the township was notified of the requested annexation and given 90 days to file objections. Many of these situations involved small parcels of vacant land, usually less than 50 acres. There were over 15 of these small annexations during the early and mid 70's and the townships viewed this activity as piecemeal and without much thought to overall development (Figure 8). However, in many of these annexations, the township did not voice their objection during the 90 day period they were allowed by law, and consequently, most of these annexations were ordered by the Municipal Board. Township reluctance to voice an objection might be due to several reasons: (1) the township did not have the expertise to prepare a suitable objection; (2) the township was reluctant to spend the money necessary to hire an attorney to prepare a formal objection; and/or (3) the township didn't think their objections would make any difference in the final decision. Later, as is discussed below, Owatonna Township did hire outside help.

Another annexation issue which caused misunderstanding between Owatonna Township and the city occurred in 1977. At that time the city proposed to annex approximately 300 acres of land near its southwestern boundary just west of I-35 (Figure 9). This annexation was somewhat unique in that it was initiated by the city rather than by a property owner and was state owned land. Owatonna Township had no knowledge of the annexation until they received the city's notice of intent to annex which allowed them 90 days to file objections to the annexation. The township was angered because the city had not taken the time to discuss the annexation before it had gone that far, even though the city's procedures were perfectly legal. The township hired an attorney to fight the city's requested annexation. The township claimed that far more land than would be necessary for immediate development was being requested for annexation by the city. Moreover, there was no specific development plan for the annexation area. As a result the city withdrew its request for annexation of this property.

Another annexation conflict between Owatonna Township and the city is the Owatonna Manufacturing Company. The company is located in Owatonna Township and is causing pollution problems because of an inadequate on-site sewage disposal system (Figure 9). Consequently, the company wishes to be annexed to the city so that they may receive city sewer and water service. Owatonna Township has been reluctant to let this happen since approximately seven percent of the township's tax base is represented by the company. On the other hand, the city has stated that unless the land is annexed, it will not provide city services. Recent talks between the city and Owatonna Township have resolved this problem.

Figure 8
OWATONNA ANNEXATIONS 1957-1979

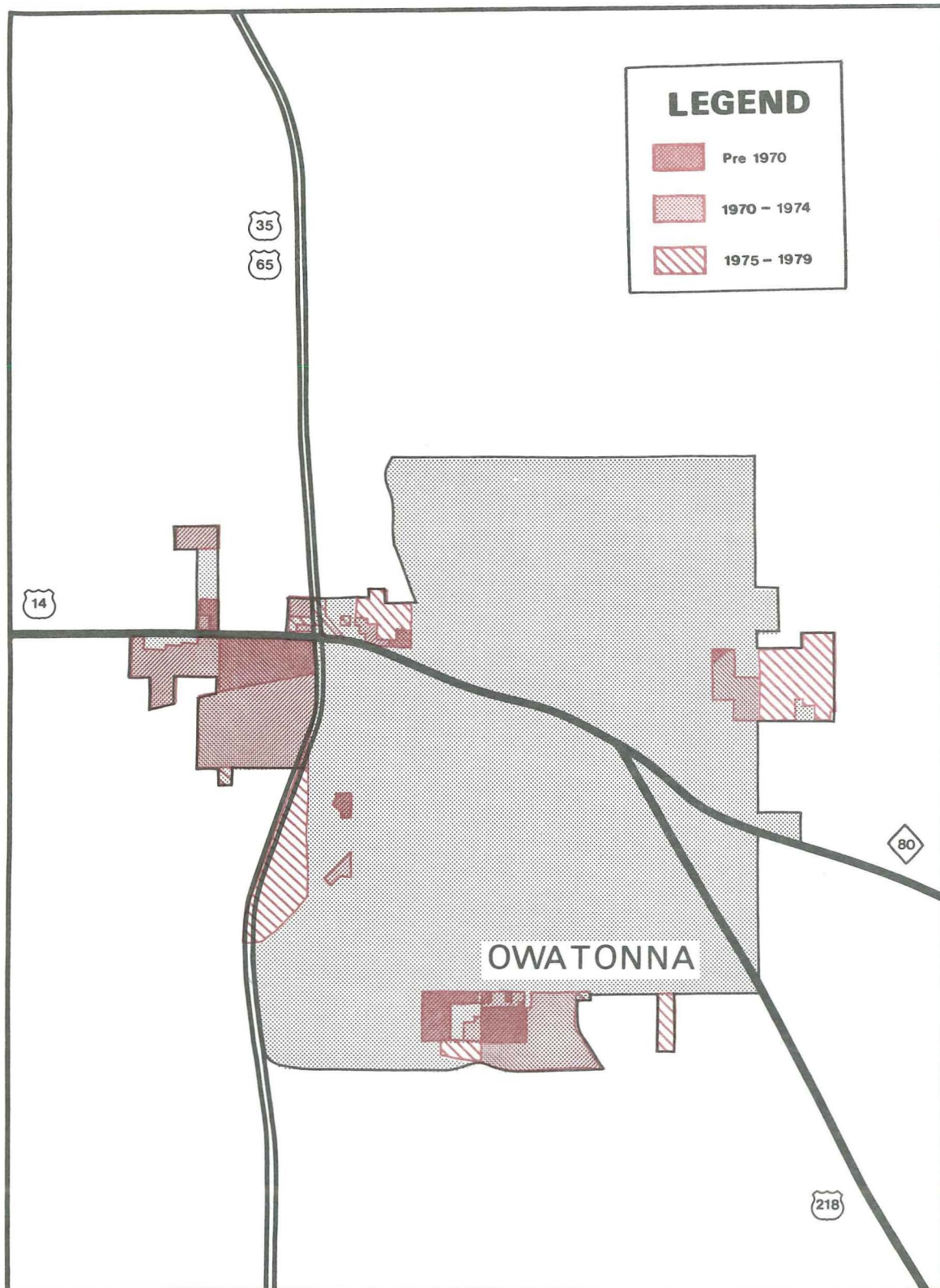
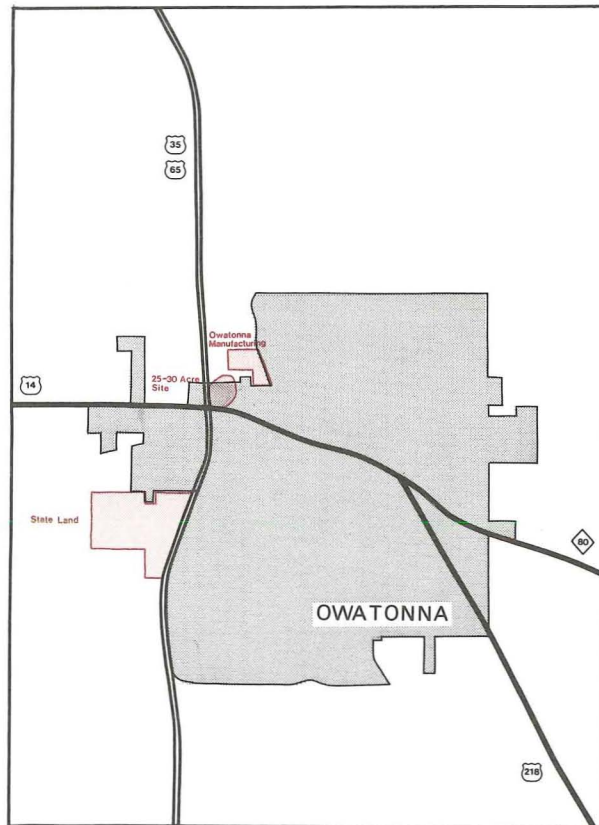


Figure 9
ANNEXATION PROBLEMS



Although the city has not annexed any land in Clinton Falls Township, pressure to do so from property owners living adjacent to the north city limits is increasing. According to Clinton Falls' Township officials, one of the major problems they see with annexation is that the township loses land with the highest tax value. Currently, according to township officials, the township receives approximately 50 cents per acre for agriculture land while land with housing on it brings in, on the average, approximately \$75 to \$80 per house in tax dollars.

A study is now being conducted by a consultant to analyze the urban fringe area and to make recommendations on the best way of handling the annexation issue. The county, city and the townships are represented on the committee which is responsible for assisting the consultant in preparing the study.

LACK OF LOCAL GOVERNMENT COORDINATION

According to city, county and township officials, there is mutual agreement that coordination has been poor in the past and has contributed to many of the land use problems that occur. When asked to describe why coordination was so poor, it

was difficult for local officials to pin point specific reasons. They did make some general observations that may be helpful in explaining the coordination problem.

Townships believe that piecemeal annexations by the city at the whim of developers is a major contributor to poor coordination. Moreover, townships point out that according to the Owatonna Steel County Cooperative Planning Program,⁴ prepared by a consultant for Owatonna, adjacent townships and Steele County, there are approximately 850 acres of land available for residential development within the city limits. According to population projections prepared by the state demographer, this would be enough land to support residential growth for more than 20 years. The city, on the other hand, feels that any attempt at coordination has only resulted in problems for the city and delays in development. The city believes that the townships don't really understand their need to expand while the townships generally think that the city is acquiring too much land without a plan and time schedules for development.

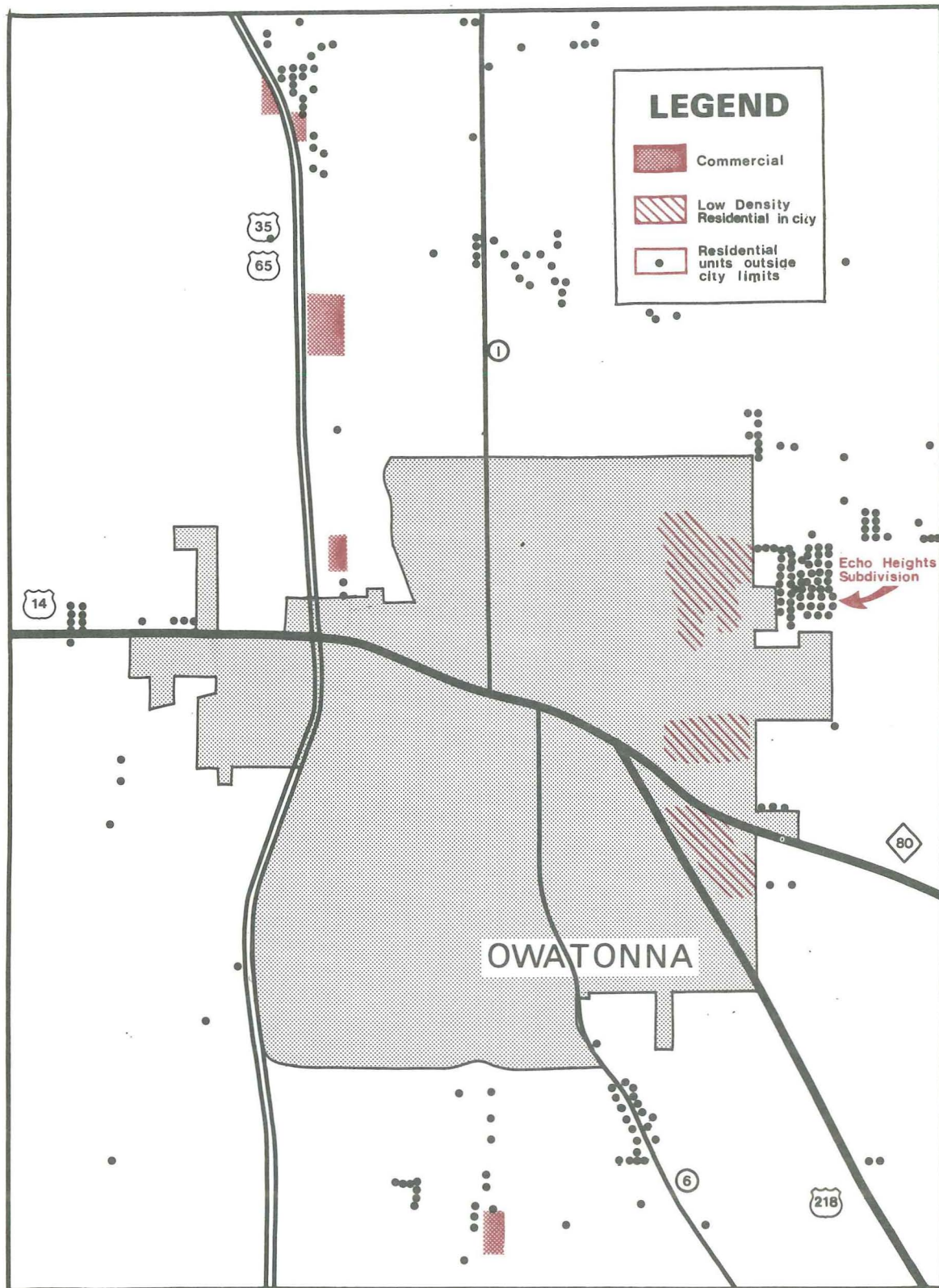
SCATTERED URBAN DEVELOPMENT

Most new residential development in the county is continuing to locate within the Owatonna city limits, primarily in the northern and northeastern portion of the city. During the early and mid-70s, a substantial amount of residential development also occurred in the southern and southeastern section of the city. Industrial and commercial development has occurred mainly in the western portion of the city, west of I-35. Considering the amount of residential and industrial growth that has taken place in Owatonna, the city has done a good job of channeling growth in a contiguous manner. In spite of this, however, there has been some scattering of development (Figure 10). For example, approximately 19 homes have been built one mile north of city limits in the vicinity of County Highway 1 and a township road. Nearly half of the homes were constructed prior to 1968. Some agricultural land had been taken out of production as a result of this development. A number of residential structures are also strung out along County Highway 6, south-east of the city in Owatonna Township.

The Echo Heights Subdivision is located in Owatonna Township just east of the city limits (Figure 10). This is an established subdivision which has experienced gradual development over the past 20 years. Development began there prior to county adoption of subdivision regulations. According to city

⁴ Isberg, Risenberg, Chelseth and Associates, Owatonna/Steele County Cooperative Planning Program, unpublished draft, November 10, 1979.

Figure 10
SCATTERED URBAN DEVELOPMENT



staff, the county zoning administrator and the former area SCS officer, the subdivision is experiencing on-site sewage problems which are resulting in pollution of Maple Creek. Residents there do not want city sewer and water extended to them because of the high cost involved. However, given the pollution that is said to be occurring, this problem will have to be remedied. Providing utilities would be expensive because (1) an expensive lift station would be needed to sewer this area and (2) there are a number of relatively large land holdings between the Echo Heights Subdivision and the existing city sewer and water service. The large land holdings in the area consist of five, ten and fifteen acre hobby farms. These owners do not want to be assessed for sewer and water service that will benefit residents in Echo Heights more than it will them. As a result, the only option open to the city at this time is to condemn a strip of land for an easement to permit placement of sewer and water mains. According to city staff, the city council is reluctant to take this type of action at this time and consequently the problem remains unresolved.

Other relatively large urban land holdings of five to fifteen acres in size are located near the eastern and southeastern border of the city. These, too, are preventing the city from expanding to the east because property owners are unwilling to provide the city with an easement for city services such as streets, and sewer and water mains.

Scattered commercial and industrial uses are located along I-35 northwest of the city in Clinton Falls Township. None of these uses is posing any serious pollution problems at this time except for the Owatonna Manufacturing Company. However, as the area becomes more developed, pollution problems could occur and city sewer and water may be necessary. This development will be more costly to serve with public utilities than the compact industrial development located west of I-35.

GROWTH MANAGEMENT CONTROLS

In general, until recently the city of Owatonna and Steele County have made use of traditional planning tools to control development in the urban fringe. Such tools include comprehensive plans, zoning ordinances and subdivision regulations. Originally, these planning tools were prepared with H.U.D. 701 planning funds. Owatonna prepared their original controls in 1965. As pointed out earlier, townships adopted zoning ordinances back in the mid-fifties prior to adoption of county controls. In 1975 and 1976 the city made revisions to their original planning tools.

The city planner indicated that the revised Owatonna comprehensive plan had been approved by the planning commission but not by the city council. The planner also stated that the plan had

been only partially successful in guiding zoning ordinance preparation and zoning decisions. A problem in this regard is that while the comprehensive plan can be used to suggest land use patterns in the urban fringe, extraterritorial zoning powers cannot be used because the county and the townships surrounding Owatonna all have adopted zoning ordinances. Consequently, the city has no authority whatsoever for ensuring that plans it prepares for the urban fringe can be properly implemented. The only option open to them is to develop close coordination with the county and the townships hoping that the city's plans can be implemented through their ordinances. As we have seen, coordination has not been effective in Owatonna.

Extraterritorial subdivision regulations were discussed earlier in the section on inconsistent controls. At this point all that needs to be said is that this technique has not been an effective growth management tool in the urban fringe.

In order to develop new techniques to manage growth in the urban fringe and improve coordination between the townships, county and the city, the city hired a consultant in January of 1979 to prepare an urban fringe study. To guide the study a committee was established made up of representatives from the city planning commission, city council, county board, county planning commission, Owatonna Township and Clinton Falls Township. This was the first time the county townships and city had worked together on a planning project.

One technique, recommended by the consultant, which the city is starting to implement is its capital improvements program. As a part of this program, the city has adopted the policy of not extending sanitary sewer and water service outside the city without first annexing the area to be served. Additional policies are also being considered to encourage infilling of vacant land within the city before extending services outside the city. These policies would not permit extension of sewer and water service through or adjacent to vacant land without assessing the full cost of such improvements against the land.

The above policies are relatively new and their effectiveness cannot be adequately judged at this time. However, unless the city is able to coordinate these policies with county and township plans and controls, they will be unable to discourage residential development from locating outside the city. And, consequently, the owner of vacant land within the city will be faced with large assessments with little opportunity to recoup his investment.

As mentioned earlier the city still has the problem of dealing with a number of relatively large property holders on hobby

farmers who live in the city. These people are unwilling to give up this life style and provide the city with an easement to extend services. And, unless the city can solve this problem, the above policies on infilling will be difficult to implement. Condemnation may be the only alternative open to the city despite its reluctance to use this power.

Another technique recommended by the consultant is a staged growth policy plan. This particular document combines a land use plan and policy statements setting forth standards to guide local decision makers in determining when, where and what types of urban growth should take place both within and outside the city. It combines the best qualities of a number of techniques including: (1) the capital improvement program and policies regarding the extension of services; (2) an agreed upon land use plan stipulating where residential, industrial and commercial development should be located; (3) coordinated zoning and subdivision controls to prevent scattered urban development and premature conversion of agricultural land; and (4) a growth staging mechanism that sequences when particular areas ought to receive city services. For example, residential subdivisions in a Stage II areas would not be permitted until 50 percent of the available developable land in Stage I has been provided with central utility services and at least 25 percent of this land had been fully developed.⁵ Stage I areas are all within the present city limits. Stage II areas are immediately adjacent to the city boundaries and Stage III areas are just beyond the Stage II area.

The staged growth policy plan has many advantages including promoting contiguous urban development, preserving good agricultural land as long as possible before urban development occurs, ensuring wise expenditure of public funds for city services and relieving some of the pressure exerted by developers on town board and city officials to make hasty land use decisions. Coordination between the county, townships and city is essential if this mechanism is to be effective. Past coordination has been poor as we have seen and unless this is reversed, the proposed staged growth policy plan, will be difficult to implement. The cooperation that has been developed as a part of the Owatonna/Steele County cooperative planning program is a step in the right direction. However, the decisions up until now have been relatively free of conflict and easy to make compared to those that must be made now.

⁵ Ibid.

Annexation is another tool that the city has used to address growth in the urban fringe area. However, as pointed out in an earlier section, this process has been piecemeal and lacked an overall development plan to guide when these annexations should take place. In addition, coordination between city and township was poor and resulted in a number of misunderstandings. An orderly annexation process is now being considered by the city and townships. If the city and townships agree to the staged growth policy plan discussed above, developing an orderly annexation agreement will be relatively simple. The annexation areas and the time when they enter the city will have been decided. Also land use plans and timing of services will also have been agreed upon. The orderly annexation agreement can also provide a way to reduce the financial burden on the township resulting from tax revenue lost through annexation. In this instance the city may agree to compensate the township for lost revenue over a period of years. Zoning and subdivision regulations can also be mutually agreed upon for the orderly annexation area thus ensuring implementation of the staged growth policy plan. For the orderly annexation technique to be effective, close coordination will also be essential.

Summary

In summary it can be said that the major land use problems in Steele County such as loss of agricultural land, extension of public services, lack of coordination and annexation are confined primarily to the urban fringe area around Owatonna. Some scattered urban development takes place in other portions of the county but this development is minor and conflicts are few compared to that in and around Owatonna.

In the past there has been very little coordination between the city, townships or the county in dealing with land use problems in the urban fringe area. Long standing differences between the governing bodies have prevented any meaningful coordination efforts from getting started. The lack of coordination has resulted in the development of conflicting regulations, most of which have not been effective in dealing with the area's land use problems. Moreover, there has been little agreement between the governing bodies on the type and location of new development.

Recently the townships, city and county came together to try and develop a meaningful and effective planning program for the urban fringe area. A number of innovative techniques for

dealing with the area's land use problems have been suggested including orderly annexation, policies on extending public services to the urban fringe area, a growth policy and staging plan and common zoning and subdivision regulations for the planning area. These techniques offer many possibilities for the area. The decision to work together and make use of these techniques rests squarely on the shoulders of local officials. Without this commitment, these plans and techniques for improved growth management will certainly be ineffective.

Findings

LOSS OF AGRICULTURAL LAND

1. Except for scattered small areas and lands adjacent to the Straight River, virtually the entire county is prime agricultural land.
2. The loss of agricultural land to scattered development is a problem and resulted in the adoption of a density zoning ordinance in January 1979.
3. Loss of agricultural land to development will continue to occur, but mostly in the Owatonna urban fringe area.
4. Conflicting township and county zoning controls near Owatonna have made administration of the density zoning ordinance more difficult.
5. The county density zoning ordinance as enforced now is not an effective mechanism for controlling the loss of agricultural land because:
 - a. variances were granted which allowed a density greater than one dwelling unit per 40 acre parcel on SCS Class II soils;
 - b. the ordinance does not include a zoning map and, therefore, lacks predictability; and
 - c. commercial and industrial development is treated as a conditional use, thereby increasing the possibility for incompatible land uses which could hamper efforts by the city and township to implement a meaningful management plan for the urban fringe.

URBAN FRINGE

1. Owatonna will experience a larger population increase during the next 20 years than other cities its size because of a rapidly expanding industrial base.
2. Good agricultural land will continue to be lost regardless of the direction in which the city chooses to grow. These losses can be minimized by adopting policies which encourage infilling of vacant land within the city and by developing plans and controls jointly agreed to by the townships, county and city.
3. Lack of coordination between townships, city and county has been the major obstacle to successful management of growth in the urban fringe area.
4. The joint planning study being developed between Owatonna, Owatonna Township, Clinton Falls Township and the county is the first time the three levels of government have worked together to solve land use problems. This study offers much promise but only if participating governments cooperate with each other.
5. Extraterritorial subdivision regulations are an ineffective land use control when not supported by compatible zoning authority in the same area.
6. Past annexation procedures have not been an effective way of dealing with growth in the fringe area because, unlike orderly annexation agreements, they have not:
 - a. encouraged coordination among township and city officials;
 - b. allowed for the development of an overall plan for the area before annexation takes place; and
 - c. provided for the development of uniform controls such as zoning and subdivision regulations.