



A FARMLAND PRESERVATION PLAN FOR KENOSHA COUNTY WISCONSIN

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Acknowledgement is due Mr. Paul G. Jaeger, former County Agricultural Agent,
for his contribution to this report.

COMMUNITY ASSISTANCE PLANNING REPORT
NUMBER 45

A FARMLAND PRESERVATION PLAN
FOR KENOSHA COUNTY, WISCONSIN

Prepared by the
Southeastern Wisconsin Regional Planning Commission
P.O. Box 769
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916 N. East Avenue
Waukesha, Wisconsin 53187

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June 1981

Inside Region \$ 5.00
Outside Region \$10.00

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SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

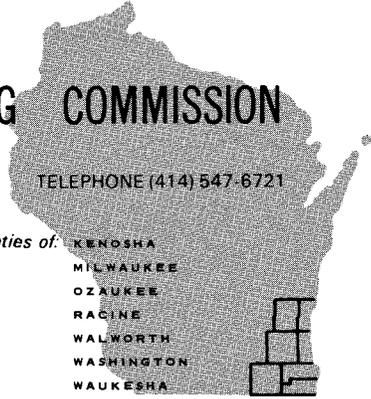
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June 6, 1981

Mr. Ronald J. Frederick, Chairman
Kenosha County Board
Kenosha County Courthouse
912 56th Street
Kenosha, Wisconsin 53140

Dear Mr. Frederick:

The Kenosha County Board, by Resolution No. 1, adopted on April 18, 1978, requested the Regional Planning Commission to assist the County in the conduct of a joint agricultural lands preservation planning program for Racine and Kenosha Counties. Upon receipt of a grant from the Wisconsin Agricultural Lands Preservation Board in partial support of this joint planning program, work on the program was initiated on July 21, 1978 and completed on March 16, 1981. This report sets forth the findings and recommendations of the joint farmland preservation planning program as those findings and recommendations apply to Kenosha County.

This report presents pertinent data on the agricultural and natural resource base of Kenosha County; presents a set of objectives, principles, and supporting standards related to the preservation of agricultural lands, the location of urban growth in relation to such lands, the provision of public facilities and services to support sound rural and urban development, and the preservation of significant natural resources other than agricultural lands; identifies both the amount and spatial distribution of agricultural lands and lands of environmental significance that should be preserved in agricultural and natural open space uses, respectively; and identifies areas of land use transition, within which existing agricultural lands may be expected to be converted to urban use and to which urban services will have to be extended. Finally, the report sets forth recommendations for implementation of the recommended agricultural land preservation plan by local units and agencies of government. Such recommendations are designed to minimize the loss of valuable agricultural lands while providing for the efficient and economical provision of public facilities to areas of urban growth and development.

The Commission and its staff were materially assisted in the preparation of this farmland preservation plan by representatives of the planning and zoning offices of the County as well as by a technical coordinating and advisory committee consisting of farmers, county agricultural agents, and representatives of the Agricultural Stabilization and Conservation Service and the U. S. Soil Conservation Service from both Racine and Kenosha Counties.

The importance of the adoption and implementation of the agricultural preservation plan to Kenosha County cannot be overemphasized. Adoption and implementation of this plan will enable farmers participating in the Wisconsin Farmland Preservation Program to receive the maximum tax credit available. In addition, a number of important public purposes will be served through preservation of the best agricultural lands in agricultural use. Such public purposes include the maintenance of agricultural reserves, energy conservation, the maintenance of open space, the protection of environmentally significant areas, the control of public costs, the preservation of the local economic base, and the preservation of the rural lifestyle.

The Regional Planning Commission is pleased to have been able to be of assistance to the County in this very important planning program. The Commission stands ready upon request to assist the County, and the constituent local units of government within the County, in presenting the information and recommendations contained in this report to the public for its review and evaluation in adopting and implementing the recommended plan.

Sincerely,



Kurt W. Bauer
Executive Director

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Chapter I

INTRODUCTION

The rapid conversion of farmland to urban use has become a matter of increasing public concern. Some of this concern centers on the perceived loss of the local agricultural economic base, some on the loss of agricultural land as a valuable natural resource with the attendant loss of the aesthetic and environmental values associated with that resource, and some on the loss of the rural lifestyle and the unique cultural heritage which emanates from that lifestyle. There is also concern over the attendant high costs of providing urban services, as well as over resolving potential urban-rural conflicts which arise as a result of urban encroachment into rural areas.

The Southeastern Wisconsin Regional Planning Commission recognized the need to preserve farmlands in its first regional land use plan, adopted in 1966. The Commission reaffirmed the need to preserve farmlands in its second regional land use plan adopted in 1977. In the regional land use plan, prime agricultural lands are defined as relatively large areas of land devoted to agricultural use, covered by soils which are highly productive for agricultural purposes, having relatively large farms which consistently produce better than average crop yields, and exhibiting a relatively heavy investment of capital in such improvements as farm irrigation and drainage systems and good soil and water conservation practices. The regional land use plan recommends that much of the prime agricultural land be preserved and that future urban growth be encouraged to occur in proximity to existing urban communities, rather than being scattered throughout the rural countryside. The adopted regional land use plan, as it affects Kenosha County, is shown on Map 1.

Between 1963 and 1970, 8,400 acres of prime agricultural land were lost to urban development in the seven-county Southeastern Wisconsin Region. The adopted regional land use plan had envisioned a loss of only 2,100 acres in the same period. To compound the problem, the majority of prime agricultural lands lost to urban development were not located contiguous to existing urban centers as planned.

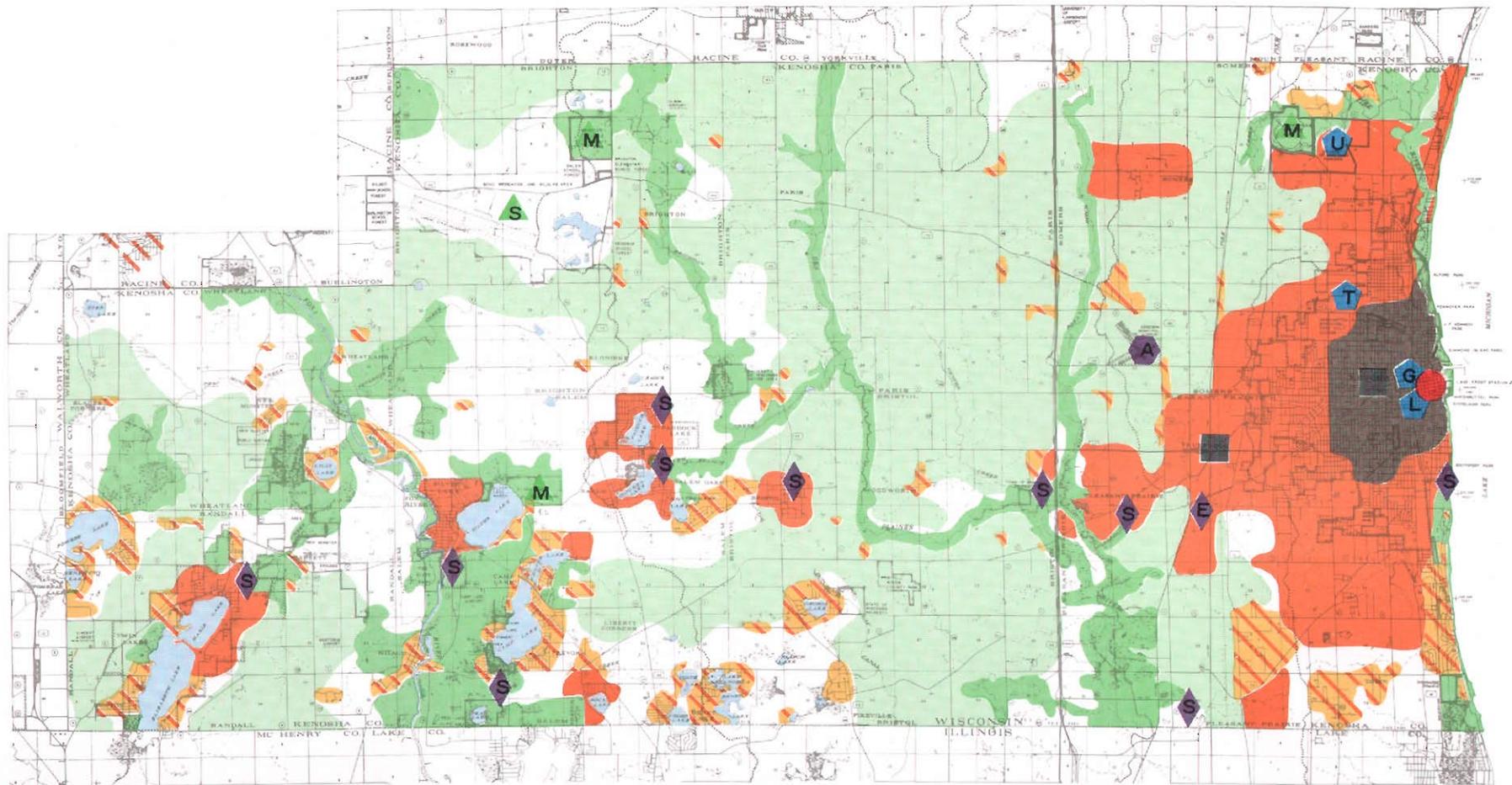
The initial land use plan delineated 67,000 acres of prime agricultural land in Kenosha County in 1963. These 67,000 acres represented about 57 percent of all the lands devoted to agricultural use in the County at that time. By 1970, Kenosha County had lost about 1,000 acres of prime agricultural land to urban development. The adopted regional land use plan had proposed a loss of only 600 acres during the same time period.

PUBLIC PURPOSE IN SAVING AGRICULTURAL LANDS

At least nine public purposes are served by the preservation of agricultural lands in agricultural uses: energy conservation, prevention of urban sprawl, maintenance of open space, retention of natural systems and natural processes, control of public costs, preservation of the local economic base, promotion of local self-sufficiency, preservation of the rural lifestyle, and maintenance of regional, state, and national agricultural reserves.

Prime agricultural soils require less energy to farm than do other soils, and when the prime soils are maintained near their primary markets--the urban centers--energy is conserved and transportation costs are reduced. Energy savings

RECOMMENDED REGIONAL LAND USE PLAN
AS IT PERTAINS TO KENOSHA COUNTY: 2000



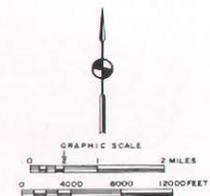
LEGEND

PRIMARY LAND USES

-  SUBURBAN RESIDENTIAL
(0.2-0.6 DWELLING UNITS PER NET RESIDENTIAL ACRE)
-  LOW DENSITY RESIDENTIAL
(0.7-2.2 DWELLING UNITS PER NET RESIDENTIAL ACRE)
-  MEDIUM DENSITY RESIDENTIAL
(2.3-8.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)
-  HIGH DENSITY RESIDENTIAL
(7.0-17.9 DWELLING UNITS PER NET RESIDENTIAL ACRE)
-  MAJOR RETAIL AND SERVICE CENTER

-  MAJOR INDUSTRIAL CENTER
-  MAJOR PUBLIC OUTDOOR RECREATION CENTER
-  M-MULTI-USE SITE
S-SPECIAL PURPOSE SITE
-  MAJOR TRANSPORTATION CENTER
A-AIRPORT
-  MAJOR UTILITY CENTER
S-PUBLIC SEWAGE TREATMENT PLANT
E-ELECTRIC POWER GENERATION PLANT
-  MAJOR GOVERNMENTAL OR INSTITUTIONAL CENTER
G-COUNTY, STATE, OR FEDERAL ADMINISTRATIVE OFFICE
L-LIBRARY
T-TECHNICAL/VOCATIONAL
U-UNIVERSITY

-  PRIMARY ENVIRONMENTAL CORRIDOR
-  PRIME AGRICULTURAL LAND
-  OTHER AGRICULTURAL AND RURAL LAND
-  WATER



are due principally to the natural characteristics of the soil--good moisture content, depth and texture, biochemical features, good drainage, adequate solar energy, and protection from the winds. Because of these natural qualities, less energy is expended on conservation practices, fertilizer and pesticide applications, the development and application of irrigation systems, and the operation of farm equipment. Thus, by maintaining such highly productive, self-sufficient soils in agricultural use, especially near urban centers, communities conserve energy that would otherwise be spent in transportation or on the energy-intensive practice of upgrading and maintaining inferior soils.

By preventing urban encroachment in rural areas, communities promote compact urban development. The costs of diffused, low-density urban development are high both in terms of dollars and in terms of the attendant loss of nonrenewable resources. In saving farms and farmland, communities often prevent urban sprawl, and thus promote more compact and efficient urban development.

Farmland preservation also results in the maintenance of open space that can give desirable form and structure to urban development, and such maintenance is, in turn, essential to the maintenance of the overall quality of the environment as well as to the scenic beauty of the Region. In this respect, farmland preservation can be viewed as a part of an overall program aimed at maintaining natural systems and natural processes. Under the Wisconsin Farmland Preservation Program, such objectives are met through the preservation of wetlands, floodlands, aquifer recharge and discharge areas, and special wildlife habitats, in addition to the preservation of farmland.

The public service and facility costs of farms and farmland are low. Generally, the tax returns to the community from farms are greater than the service and facility outlays they require. With scattered, low-density urban development, however, the public service and

facility costs exceed the tax returns. By controlling the timing, rate, or location of development through a farmland preservation program, communities maintain the stability of their tax base and the control of their public costs.

Farming is often an important element in the local economy. Farming supports a variety of other businesses, such as implement dealers, feed stores, granaries, and food processing plants. But, it is a symbiotic relationship--the farms need the support businesses and the support businesses need the farms. If the farms disappear, the support businesses will also disappear. Thus, by preserving farms, communities also protect the quality and character of their local agricultural economic base.

One of the central characteristics of agriculture is the fact that it capitalizes on the quality of local resources. Unlike other industries, such as manufacturing, agriculture is rooted to soil in a specific time and place. Although agriculture is sensitive to national policies, it is less sensitive to such policies than are most industries. Because of the stability of agriculture, agricultural communities are more self-sufficient and less dependent upon decisions made outside the community.

By maintaining existing farms and farmland, many communities are able to maintain their rural lifestyle and the unique cultural heritage associated with that lifestyle.

In promoting compact urban development through preservation of local agricultural areas, communities also contribute to the maintenance of agricultural reserves. Without farmland preservation programs, many farmers would be forced to turn to other, more marginal lands for agricultural production.

THE WISCONSIN FARMLAND PRESERVATION ACT, CHAPTER 29, LAWS OF 1977

Recognizing a need to preserve agricultural lands in Wisconsin, the State Leg-

islature recently adopted Chapter 29, Laws of 1977, commonly called the "Farmland Preservation Act." Wisconsin's Farmland Preservation Act became law in June 1977 and was subsequently amended in May 1978 and July 1979. The act is designed to encourage individuals and local units of government to take action toward preserving Wisconsin farmland.

Under the amended Act, a farmland owner may agree not to develop his land for urban uses and in return becomes eligible for tax relief in the form of a state income tax credit. Wisconsin's farmland preservation tax relief program is divided into two parts--an initial program and a permanent program. The duration of the initial program extends from October 1, 1977 to September 30, 1982.

Under the initial program, a farmland owner who has 35 or more acres of land is automatically eligible for an income tax credit if that land is 1) in an exclusive agricultural zoning district in a county having an exclusive agricultural zoning ordinance approved by the Wisconsin Agricultural Lands Preservation Board and 2) has produced a value of farm product of \$6,000 during the past year or \$18,000 during the past three years. A farmland owner residing in a county that does not have an approved exclusive agricultural zoning ordinance must apply to the county board for a farmland preservation agreement. In order for an individual owner to be eligible for an agreement, the farmland must meet the above conditions regarding the size of the parcel and the value of farm product and, in addition, a U. S. Soil Conservation Service farm management plan must be in effect, under preparation, or applied for with regard to the land. If the farmland owner meets these eligibility requirements and the county board approves his application, it is sent to the Farmland Preservation Office in Madison where an initial farmland preservation agreement is drawn up. This agreement, which provides that the farmland will remain in agricultural use through September 30, 1982, must be signed by the landowner and approved by

the Wisconsin Department of Agriculture, Trade and Consumer Protection. The owner then becomes eligible for the income tax credit. He also becomes exempt from special tax assessments for sewer, water, or other urban public services.

Income tax credits are based on a formula which takes into account the owner's household income and real estate property taxes. Basically, it is a progressive tax credit system; that is, the higher the property tax and/or the lower the household income, the higher the tax credit. Property taxes up to \$6,000 are eligible for tax relief, and the maximum tax credit available under the program is \$4,200. Farmers who sign initial agreements are eligible to receive only 50 percent of the maximum credit available for their particular income and tax situation.

Farmland owners can receive 70 percent of the maximum credit available if the county in which their farmland is located has adopted an exclusive agricultural zoning ordinance or a farmland preservation plan, and can receive 100 percent of the credit available if the county has adopted both an exclusive agricultural zoning ordinance and a farmland preservation plan. Of the seven counties in southeastern Wisconsin, only Walworth County--following recommendations set forth in the initial SEWRPC regional land use plan adopted in 1966--has to date adopted both an exclusive agricultural zoning ordinance and a farmland preservation plan. All towns in Walworth County, except the Town of Lafayette, have adopted the county zoning ordinance, making farmland owners eligible for the maximum tax credit. In the Town of Lafayette, where town exclusive agricultural zoning has been enacted, farmers are eligible for 70 percent of the maximum credit. In addition, Washington County has prepared and adopted the text of an exclusive agricultural zoning ordinance meeting state program standards. The Towns of Barton and Trenton are the only towns in Washington County that have prepared a zoning district map based on the county ordinance and that have obtained state

certification. Farmers in the Towns of Barton and Trenton thus are eligible for 70 percent of the maximum tax credit. Farmland owners in the remaining areas of the Region are presently eligible for only 50 percent of the maximum tax credits.

All agreements under the initial program expire September 30, 1982. If an initial agreement is terminated before its September 30, 1982 expiration date, the landowner must pay back all tax credits received under the program plus 6 percent compound interest from the time credit was first received. October 1, 1982 marks the beginning of the permanent stage of the program. Basically, Wisconsin farmers can participate in the permanent program only if the county or town in which their farmland is located takes action to preserve such farmland by adopting a farmland preservation plan and/or an exclusive agricultural zoning ordinance. If the farmer is eligible but chooses not to participate in the permanent stage of the program, he must pay back all the tax credits received under the initial stage of the program, plus 6 percent compound interest from the time the contract expires until the land is sold or developed. If a farmer who participated in the initial program is not eligible for the permanent program because the county board failed to qualify his land, then he must pay back the last two years of tax credits, and no interest is calculated.

Under the permanent program, local planning and zoning requirements differ for urban and rural counties. In rural counties--counties with a population density of fewer than 100 persons per square mile--a farmer is eligible to participate in the permanent program if his land is in an exclusive agricultural zoning district in a town or county with an exclusive agricultural zoning ordinance approved by the Wisconsin Agricultural Lands Preservation Board, or if the county in which his land is located adopts a farmland preservation plan and he signs a new, longer-term (10-25 year) farmland preservation agreement.

Farmers in urban counties--counties with a population density of 100 or more persons per square mile--can participate in the permanent program only if the town or county in which their land is located adopts exclusive agricultural zoning. All of the counties in southeastern Wisconsin fall within the Farmland Preservation Act's definition of urban counties. Thus, farmland must be subject to exclusive agricultural zoning in order for the farmland owner to be eligible for tax credits after October 1, 1982.

Upon local adoption of "exclusive agricultural" zoning, a landowner meeting the program farm income requirements need only acquire an "exclusive agricultural" zoning certification from the county zoning administrator to be eligible for 70 percent of the maximum tax credit in the permanent program. As in the initial program, a farmer will be eligible for 100 percent of the maximum tax credits if the county in which his land is located has both an exclusive agricultural zoning ordinance and a farmland preservation plan.

Under the permanent program, the owner is responsible for repaying the tax credits received over the past 10 years when land is removed from an exclusive agricultural zone. The payback is due when the land is next sold or developed, along with 6 percent compound interest from the time the land is rezoned. Of course, no credits must be repaid as long as the land remains in an exclusive agricultural zone. More detailed information on the Wisconsin Farmland Preservation Program is provided in Appendix A of this report.

STATUS OF FARMLAND PRESERVATION IN KENOSHA COUNTY

As of December 1980, there were 27 approved participants in the Wisconsin Farmland Preservation Program residing in Kenosha County. These participants preserve a total of 4,900 acres of farmland, 3,900 acres of which is designated as prime agricultural farmland on the Commission's adopted year 2000 regional land use plan.

The ability of these and other Kenosha farmers to participate in the program after 1982 depends largely on the actions of town and county government. As previously noted, Kenosha County is defined as an urban county under the Farmland Preservation Act, and thus after October 1, 1982, farmland must be zoned for exclusive agricultural use before the farmland owner can receive tax credits. The requirement for exclusive agricultural zoning in urban counties stems from the fact that farmland in such counties is under greater pressure to convert to nonfarm uses than is farmland in rural counties, and thus needs the greater protection that exclusive agricultural zoning affords.

As provided in the Farmland Preservation Act, exclusive agricultural zoning protects farmland by restricting land uses in exclusive agricultural districts to agriculture, farm-related housing, some agricultural-related businesses, and institutional, religious, governmental, and utility uses that do not conflict with agriculture. Adoption of exclusive agricultural zoning occurs in much the same way as does adoption of other zoning in Wisconsin. In the case of Kenosha County, zoning adopted by the County must be approved by a town before going into effect in that town. Similarly, town ordinances must be approved by the County Board of Supervisors.

If an exclusive agricultural zoning ordinance is developed by Kenosha County and subsequently certified by the state Agricultural Lands Preservation Board (ALPB), farmers whose lands are in exclusive agricultural districts in towns approving the zoning will become eligible for 70 percent of the maximum available tax credit. State certification of the farmland preservation plan for the County would bring that level to 100 percent of the maximum tax credit available. If Kenosha County does not develop such an ordinance, farmers could still receive tax credits if the town in which their land is located has adopted exclusive agricultural zoning. Such zoning would have to be approved by the County Board.

THE KENOSHA COUNTY FARMLAND PRESERVATION PLAN

The Wisconsin Farmland Preservation Act established grant-in-aid funds to assist counties in the preparation of farmland preservation plans and mapping. A total of \$800,000 was appropriated for fiscal years 1978 and 1979; \$400,000 each for mapping and planning. Mapping funds were administered by the Wisconsin Department of Agriculture, Trade and Consumer Protection, and planning funds were administered by the Wisconsin Department of Local Affairs and Development (now the Wisconsin Department of Development). Matching local funds were not required under the Act, but were encouraged by those administering the funds.

Shortly after the creation of the Wisconsin Farmland Preservation Program, Kenosha and Racine County officials requested assistance from the Southeastern Wisconsin Regional Planning Commission in the preparation of a joint farmland preservation plan. In response to this request, the Commission staff assisted the two counties in the preparation of a grant application for a mapping/planning project to determine and delineate a farmland preservation area in Kenosha and Racine Counties. The application was one of 30 submitted to the Wisconsin Department of Local Affairs and Development, and to the Wisconsin Department of Agriculture, Trade and Consumer Protection, in 1978. Kenosha and Racine Counties each requested a total of \$22,500, agreeing to expend \$9,643 each in local in-kind funds. The application was the only multicounty proposal submitted. Kenosha and Racine Counties were each subsequently awarded a grant of \$20,000 to undertake an agricultural land preservation planning program, consisting of the development of a farmland preservation plan and plan implementation program. Based upon the reduced grant amount, the Counties also agreed to expend \$8,570 each in local in-kind funds.

The farmland preservation plans were prepared for Racine and Kenosha Counties by the Southeastern Wisconsin Regional Planning Commission. The Commission and

its staff were assisted in the design and preparation of such plans by representatives of the planning and zoning offices of the respective counties as well as by a bi-county technical coordinating and advisory committee consisting of farmers, University of Wisconsin-Extension agricultural agents, and representatives of the Agricultural Stabilization and Conservation Service and the U. S. Soil Conservation Service of the respective counties (see Appendix B for a list of committee members). This report sets forth the farmland preservation plan for Kenosha County, while the Racine County farmland preservation plan is set forth in Community Assistance Planning Report No. 46, A Farmland Preservation Plan for Racine County, Wisconsin.

SCHEME OF PRESENTATION

The Kenosha County farmland preservation plan is presented in seven chapters. Following this introductory chapter, Chapter II, "Inventory and Analysis," presents data on the agricultural resource base and the natural resource base which facilitates the identification of lands that should be preserved for agricultural purposes as well as those lands which possess special environmental or open space significance. Chapter II also presents data on the existing economic and demographic base, man-made physical environment, and adopted plans and other land use regulatory devices relevant to farmland preservation.

Chapter III, "Objectives, Principles, and Standards," sets forth basic objectives and supporting principles and standards, including specific objectives related to the preservation of agricultural lands, urban growth, the provision of public facilities, and the preservation of significant natural resources and open space lands.

Chapter IV, "Forecasts," sets forth probable future population, household, and

employment levels in Kenosha County to the year 2000. These data are required first to assess the probable character, location, and timing of future urban development and the associated public facilities required to serve such development, and second to locate and quantify the amount of rural lands that will have to be converted to urban use over the time period.

Chapter V, "Farmland Preservation Plan," utilizes the inventory, analysis, and forecast data presented in previous chapters to identify both the quantity and spatial distribution of agricultural lands that should be preserved; locate other areas of environmental or open space significance that should be preserved; and identify areas of transition--namely, those areas currently in agricultural or other rural use that are anticipated to be converted to urban use and that should be provided with necessary urban services such as public sanitary sewer and water supply facilities.

Chapter VI, "Plan Implementation," sets forth recommendations designed to facilitate implementation of the plan by local units and agencies of government. Such recommendations deal with the location and timing of future urban development and are designed to minimize the loss of valuable agricultural lands while providing for the efficient and economical provision of public facilities to areas of urban growth and development. Plan implementation recommendations also include suggested modifications to existing county or local zoning ordinances to ensure that such ordinances contain districts that will adequately preserve agricultural as well as other identified environmental and open space lands.

Chapter VII, "Summary and Conclusion," summarizes the salient findings and recommendations of the report.

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Chapter II

INVENTORY AND ANALYSIS

INTRODUCTION

The collection and analysis of basic planning data are essential to the formulation of a workable farmland preservation plan for Kenosha County. Such a plan requires detailed information on agricultural resources, as well as on other elements of the natural resource base, if agricultural lands and areas of environmental or open space significance are to be preserved. Sound planning for the preservation of agricultural lands and other areas having environmental or open space significance also requires an understanding of the demographic and economic base of the planning area. Increasing population levels typically result in the conversion of agricultural and other open lands to residential, industrial, commercial, or other intensive urban land uses. Once converted to urban use, these resources are lost forever. The need for prompt action to preserve the best remaining elements of the natural resource base while at the same time allowing for the efficient and economical expansion of urban areas necessitated by increased population and economic activity levels thus becomes apparent. An understanding of community plans and land use devices is also important to farmland preservation, since such plans and regulatory devices provide the best indicator of community development objectives and provide insight into the probable amount and distribution of agricultural and open space lands envisioned to be converted to urban uses.

Accordingly, this chapter is divided into four major sections. The first section deals with the agricultural resource base of the planning area, the second section deals with the remaining elements of the natural resource base, the third section deals with the eco-

nomical and demographic base and man-made physical environment, and the fourth and final section deals with adopted plans and land use regulatory devices.

AGRICULTURAL RESOURCE BASE

In addition to providing food and fiber, agricultural areas contribute significantly to the maintenance of an ecological balance between plants and animals; provide locations proximal to urban centers for the production of certain food commodities which may require nearby population concentrations for an efficient production-distribution relationship; contribute to wildlife habitat; and provide open space which gives form and structure to community development. The maintenance of agricultural lands in agricultural use also serves to prevent urban sprawl, control public costs, maintain the local economic base, and preserve the rural lifestyle which is part of the unique cultural heritage of southeastern Wisconsin. The principal elements of the agricultural resource base considered in this section are agricultural land use, existing farm units, agricultural conservation practices and improvements, and soils.

These elements are important to any farmland preservation planning program since they provide quantifiable data which can be utilized in the development of standards for determining the amount and spatial distribution of agricultural lands that should be preserved under the recommended farmland preservation plan. The following agricultural land use section provides basic information on both the amount and spatial distribution of various categories of agricultural lands within the planning area. This information, coupled with data on existing farm units and cadastral maps indicating large landholdings, provides an indica-

tion of the location and extent of the existing agricultural lands that may be included in the farmland preservation program. Data on agricultural conservation practices and improvements are also important to the formulation of a farmland preservation plan since they provide evidence of a continued commitment to farming. Finally, information on soil, including data on soil type, susceptibility to erosion, and slopes, provides an invaluable indicator of which lands are well suited to agricultural production.

Agricultural Land Use

The Regional Planning Commission identified agricultural lands in Kenosha County in its land use inventories conducted in the County in 1963, 1970, and 1975. In 1963 agricultural land was the largest single land use category in Kenosha County, occupying 115,741 acres, or 65 percent of the total area of the County. The agricultural land use category includes all cropland, pasturelands, orchards, nurseries, fowl and fur farms, and all farm buildings with the exception of farm residences. Between 1963 and 1975, substantial urban development occurred in many areas of Kenosha County previously used for agricultural purposes. Due largely to this conversion of farmland to urban use, the agricultural land use base in Kenosha County declined by 8,535 acres, or 7 percent, between 1963 and 1975, representing an average annual loss of 711 acres of agricultural lands during this period (see Map 2).

As indicated in Table 1, there was a total of 107,206 acres of land, or 60 percent of the total area of Kenosha County, in agricultural use in 1975. Of this total, 68,648 acres, or over 64 percent, were in row crops, including corn and soybean; 7,106 acres, or 7 percent, were in small grain crops such as wheat and oats; 13,338 acres, or 12 percent, were in hay crops, including clover, alfalfa, timothy, and canary grass; 3,030 acres, or 3 percent, were in vegetable crops including peas, cabbage, beets, carrots, tomatoes, onions, and

Table 1

AGRICULTURAL LAND USE IN KENOSHA COUNTY: 1975

Agricultural Use	Acres	Percent
Row Crops	68,648	64.0
Grain Crops....	7,106	6.6
Hay Crops	13,338	12.5
Vegetable Crops	3,030	2.8
Specialty Crops	317	0.3
Pasture	12,541	11.7
Orchards and Nurseries ...	411	0.4
Farm Buildings .	1,815	1.7
Total	107,206	100.0

Source: SEWRPC.

cucumbers; and 317 acres, or less than 1 percent, were in specialty crops such as sod and mint. Pastureland, including grasslands, covered primarily with non-woody vegetation usually grazed by livestock, occupied 12,541 acres, or 12 percent of the total agricultural lands in Kenosha County in 1975. Orchards and nurseries totaled 411 acres, or less than 1 percent of the agricultural lands, while land occupied by farm buildings other than the residential units accounted for only 1,815 acres, or 2 percent of the total agricultural land in Kenosha County in 1975. The location and extent of existing agricultural lands in Kenosha County are shown on Map 3. More detailed maps at a scale of 1" = 2,000' showing the agricultural use categories listed in Table 1 are on file in the offices of the Kenosha County Department of Planning, Zoning and Sanitation.

Existing Farm Units

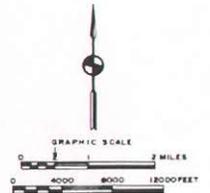
As reported by the Wisconsin Statistical Reporting Service, the number of farms in Kenosha County decreased steadily from 750 farms in 1970 to 580 farms in 1978. This represents a decrease of 170 farms, or 23 percent of the total farms that existed in 1970--a decrease of 21 farms per year between

Map 3

AGRICULTURAL LANDS IN KENOSHA COUNTY: 1975



Source: SEWRPC.



1970 and 1978. This loss in farms can be attributed to, among other factors, operators retiring, economic disadvantages created by increased property taxes as the County continues to urbanize, the proliferation of low-density residential development which interferes with the continued agricultural use of land, and the increased cost of land and machinery.¹

While the actual number of farms in Kenosha County has declined in recent years, the average farm size has increased steadily from about 162 acres in 1970 to 188 acres in 1978, an increase of about 16 percent. This increase in farm size can be attributed in part to advanced agricultural practices which allow the farmer to more efficiently and economically farm more land.

The Wisconsin Farmland Preservation Act requires that farmers have at least 35 acres of farmland in order to be eligible for an income tax credit under the farmland preservation program. An inventory of all parcels of land greater than 35 acres in area was, thus, conducted to determine the maximum amount of land in Kenosha County that potentially could be included in Wisconsin's Farmland Preservation Program. As indicated in Table 2 and on Map 4, there were 115,036 acres of land in parcels of 35 acres or greater in Kenosha County in 1978. Of this total, 41,011 acres, or 36 percent, were held in parcel sizes ranging from 35 to 99 acres in area; 72,104 acres, or 63 percent, were held in parcels of from 100 to 499 acres in area; and 1,921 acres, or 2 percent, were held

¹The loss may also be attributed in part to a change in the definition of a farm utilized by the Wisconsin Agricultural Reporting Service in 1977. Currently, a farm is defined as a place with annual sales of agricultural products of \$1,000 or more. The old definition included places of 10 or more acres that had annual sales of agricultural products of \$50 or more and places of less than 10 acres that had annual sales of \$250 or more.

Table 2

AGGREGATIONS OF PRIVATE AGRICULTURAL AND OPEN LANDHOLDINGS
35 ACRES OR GREATER IN AREA
IN KENOSHA COUNTY: 1978

Parcel Size (acres)	Area	
	Acres	Percent
35-99.....	41,011	35.6
100-499.....	72,104	62.7
500 or More ..	1,921	1.7
Total	115,036	100.0

Source: Kenosha County Department of Planning, Zoning and Sanitation; and SEWRPC.

in parcels of 500 or more acres in area. It should be noted that of the total 115,036 acres of land held in parcels greater than 35 acres in area, approximately 88,000 acres, or 77 percent, are classified as agricultural land under the Commission's 1975 land use inventory.

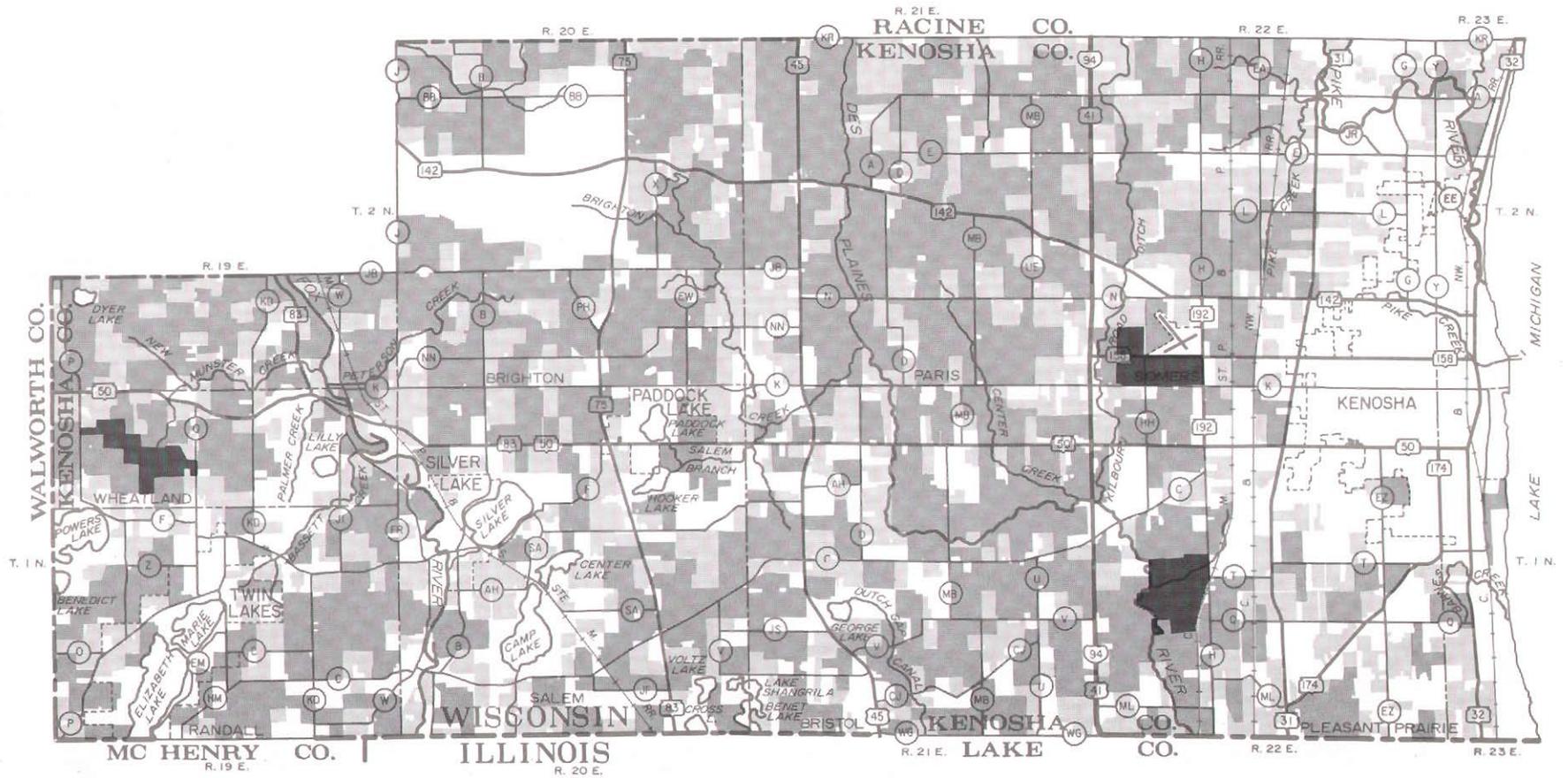
Agricultural Conservation Practices and Improvements

The development and implementation of soil and water conservation plans, the institution of sound soil and water conservation practices in accordance with such plans, the formulation and maintenance of farmland drainage districts, and the construction of new farm-related buildings such as barns, silos, and sheds all provide evidence of individual farmers' continued commitment to farming in Kenosha County. This section identifies the number and spatial distribution of such soil and water conservation plans, conservation practices, drainage districts, and structural improvements in the County.

Soil and Water Conservation Plans and Practices: The U.S. Department of Agriculture, Soil Conservation Service (SCS), develops for each cooperating farm, a soil and water conservation plan which considers the specific topography, hydrology, and soil characteristics of

Map 4

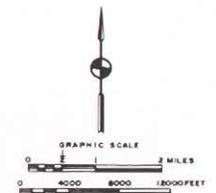
AGGREGATIONS OF PRIVATE AGRICULTURAL AND OPEN LANDHOLDINGS
35 ACRES OR GREATER IN AREA IN KENOSHA COUNTY: 1978



LEGEND

LANDHOLDINGS

- 35 - 99 ACRES
- 100 - 499 ACRES
- 500 OR MORE ACRES



Source: Kenosha County Department of Planning,
Zoning and Sanitation; and SEWRPC.

the farm, together with specific objectives of the farmer as the owner and manager of the land. Development and implementation of such plans are an indicator of the intent of farmers to continue farming. Information on such plans is especially relevant to the Wisconsin Farmland Preservation Program since to qualify for tax credits under the initial phase of that program, a farmer must have a management or "conservation" plan prepared or under preparation. The conservation plan indicates desirable tillage, cropping, and rotation cycles for each field of the farm and recommends the best conservation practices. Limited federal funding is then available through the U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service (ASCS), on a cost-sharing basis to implement the recommended conservation practices, with technical assistance also provided by the U.S. Soil Conservation Service and the University of Wisconsin-Extension Service. As of 1975, soil and water conservation plans have been prepared by the U.S. Soil Conservation Service for a combined area of about 49,406 acres in Kenosha County, or 28 percent of the total area of the County (see Map 5).

A total of 678 known soil and water conservation practices were applied within Kenosha County during the 10-year period ending in 1975. Some of these practices were implemented on lands for which no farm management plans had been prepared. The locations of known conservation practices which were installed with the assistance of the U.S. Department of Agriculture, Soil Conservation Service or Agricultural Stabilization and Conservation Service, are set forth on Map 5. Table 3 presents the major categories of conservation practices known to be installed as of 1975 within Kenosha County, along with their physical extent and the 1976 replacement cost of those practices.

Farmland Drainage Districts: The creation and maintenance of farmland drainage districts to ameliorate problems of high water tables and poor drainage of

agricultural lands provide additional evidence of a continued commitment to farming. Farmland drainage districts are special-purpose units of government, authorized under Chapter 88 of the Wisconsin Statutes, and are intended to provide for the execution of specific areawide drainage improvements. A drainage district may lie in more than one municipality and in more than one county. The costs of any improvements are assessed against the lands that are specifically benefited. Details on the formation and operation of a farmland drainage district are presented in Appendix C. As indicated on Map 6 and in Table 4, there are four active farmland drainage districts in Kenosha County. Together, these districts encompass a total area of 15,530 acres, or about 9 percent of the total area of the County.

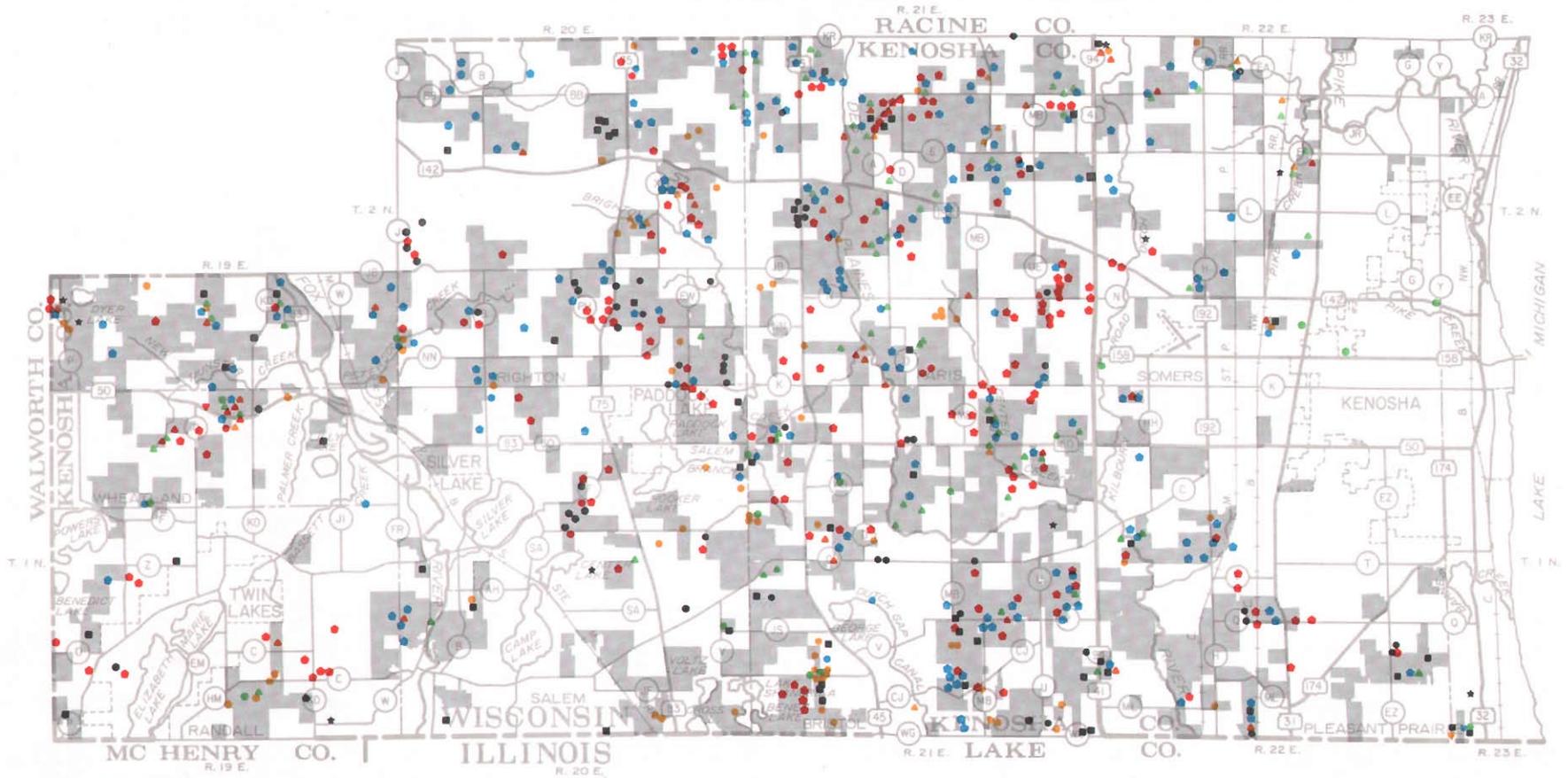
Farm Structure Improvements: In 1978, an inventory of farm structure improvements was conducted by the staff of the Kenosha County Office of Planning, Zoning and Sanitation. Regional Planning Commission aerial photographs at a scale of 1" = 400' for the years 1963, 1970, and 1975 were examined to determine the net change in the number of farm buildings, excluding farm residences, in Kenosha County since 1963. The results of the inventory indicate that there has been a net increase of over 800 farm-related structures such as barns, silos, or sheds in Kenosha County since 1963. About 590 structures, or 74 percent of the total, were added between 1963 and 1970, and 210 structures, or 26 percent, were added between 1970 and 1975. The spatial distribution of farm structures added during these two time periods is shown on Map 7.

Soils--Agricultural Suitability

Perhaps the singularly most important resource component to consider in any farmland preservation planning program is the soil resource. Soil properties greatly influence crop types and yields, the intensity of effort required to produce crops, and the efficiency of the farming operation. Consideration of soil suitability requires an areawide soil suitability study which maps the

Map 5

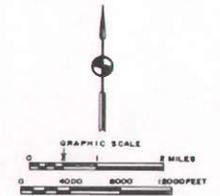
SOIL AND WATER CONSERVATION PLANS AND PRACTICES IN KENOSHA COUNTY



LEGEND

- LANDS WITH SOIL AND WATER CONSERVATION PLANS: 1975
- SOIL AND WATER CONSERVATION PRACTICES: 1965-1975
- VEGETATIVE COVER PRACTICES
 - STRIP-CROPPING
 - NONE
 - INTERIM COVER
 - TREE PLANTING
 - WIND EROSION CONTROL
 - WILDLIFE HABITAT
 - PERMANENT VEGETATIVE COVER
- WATER RETENTION PRACTICES
 - NONE
 - TERRACING
 - NONE
 - LAND SHAPING AND GRADING
 - FARM PONDS

- FLOW CONTROL PRACTICES
 - ▲ DIVERSION
 - ▲ OPEN DRAIN
 - ▲ RUNOFF CONTROL STRUCTURES
 - ▲ RUNOFF CONTROL MEASURES
 - ▲ STREAMBANK STABILIZATION
- CROP PRODUCTION PRACTICES
 - LIMING
 - TILING
 - NONE
 - MULCHING
- OTHER PRACTICES AND PROGRAMS
 - ▼ ANIMAL WASTE FACILITY
 - ★ CROPLAND ADJUSTMENT PROGRAM



Source: U.S. Department of Agriculture, Soil Conservation Service and Agricultural Stabilization and Conservation Service; and SEWRPC.

Table 3

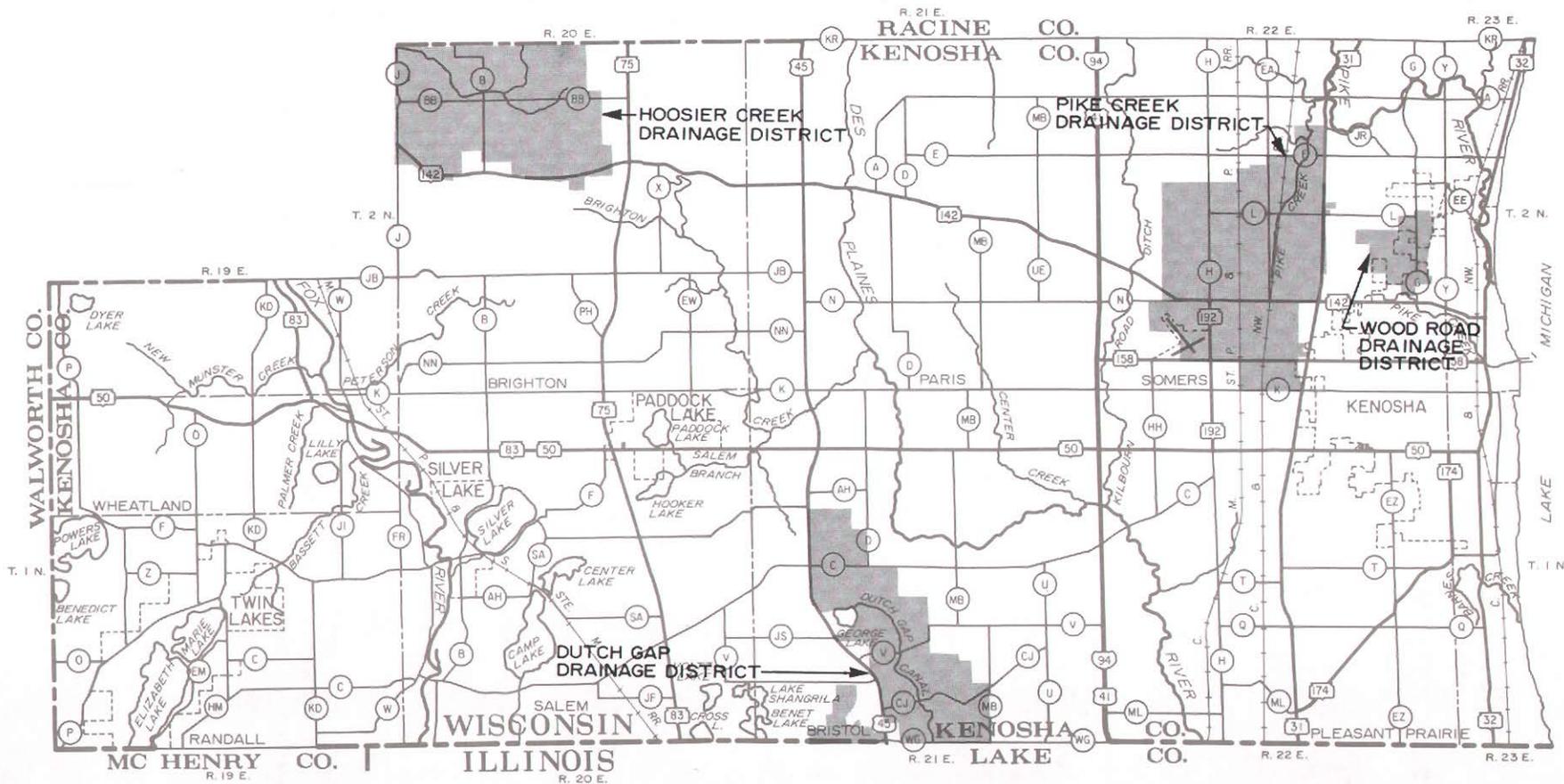
KNOWN SOIL AND WATER CONSERVATION PRACTICES
IMPLEMENTED IN KENOSHA COUNTY: 1965-1975

Practice	Number of Units	Cost per Unit	Estimated Replacement Value in 1976 Dollars
Vegetative Cover			
Strip Cropping.....	646 acres	\$ 10.00 per acre	\$ 6,460.00
Interim Cover.....	--	12.00 per acre	--
Tree Stands.....	61 units (2 acres per unit)	100.00 per acre	12,200.00
Wind Erosion Control.....	40,143 feet	0.60 per foot	24,085.80
Wildlife Habitat.....	15 units (2 acres per unit)	25.00 per acre	750.00
Permanent Vegetative Cover..	716 acres	50.00 per acre	35,800.00
Subtotal	--	--	\$ 79,295.80
Water Retention			
Terracing.....	--	\$ 0.70 per foot	\$ --
Farm Ponds.....	65 units	4,000.00 per unit	260,000.00
Subtotal	--	--	\$ 260,000.00
Flow Control			
Diversions.....	6,793 feet	\$ 1.25 per foot	\$ 8,491.25
Open Drains.....	33,144 feet	2.25 per foot	74,574.00
Runoff Control Structures..	18 units	2,500.00 per unit	45,000.00
Runoff Control Measures....	175,569 feet	1.00 per foot	175,569.00
Stream Bank Stabilization..	2,000 feet	3.50 per foot	7,000.00
Subtotal	--	--	\$ 310,634.25
Crop Production			
Liming.....	2,902 acres	\$ 20.00 per acre	\$ 58,040.00
Tiling.....	794,145 feet	0.70 per foot	555,901.50
Mulching.....	--	60.00 per acre	--
Subtotal	--	--	\$ 613,941.50
Animal Waste Facilities.....	2 units	\$24,000.00 per unit	\$ 48,000.00
Total	--	--	\$1,311,871.55

Source: U.S. Department of Agriculture, Soil Conservation Service and Agricultural Stabilization and Conservation Service; and SEWRPC.

Map 6

FARMLAND DRAINAGE DISTRICTS IN KENOSHA COUNTY: 1978



Source: Kenosha County Department of Planning, Zoning and Sanitation; and SEWRPC.

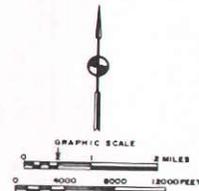


Table 4

**FARMLAND DRAINAGE DISTRICTS
IN KENOSHA COUNTY: 1978**

Farmland Drainage District	Area (acres)	Percent of County ^a
Dutch Gap	3,900	2.2
Hoosier Creek ^b .	4,890	2.7
Pike Creek	5,980	3.4
Wood Road	760	0.4
Total	15,530	8.7

^aPercentage of total area of Kenosha County.

^bThe Hoosier Creek drainage district lies in both Kenosha and Racine Counties; only the area of the district lying in Kenosha County is indicated in this table.

Source: Kenosha County Department of Planning, Zoning and Sanitation; and SEWRPC.

geographic locations of various kinds of soils; identifies their physical, chemical, and biological properties; and interprets these properties for urban as well as agricultural uses. The Commission, in cooperation with the U.S. Soil Conservation Service, completed such a survey as part of the Commission's initial work program, and the resulting comprehensive knowledge of the character and suitability of the soils is invaluable to the formulation of a farmland preservation plan for Kenosha County.

The Regional Soil Survey: Topography and the nature of parent glacial material exhibit wide spatial variations in Kenosha County; therefore, hundreds of different soil types have developed within the County. In order to assess the importance of these unusually diverse soil types to sound regional development, the Regional Planning Commission in 1963 negotiated a cooperative agreement with the U.S. Soil Conservation Service under

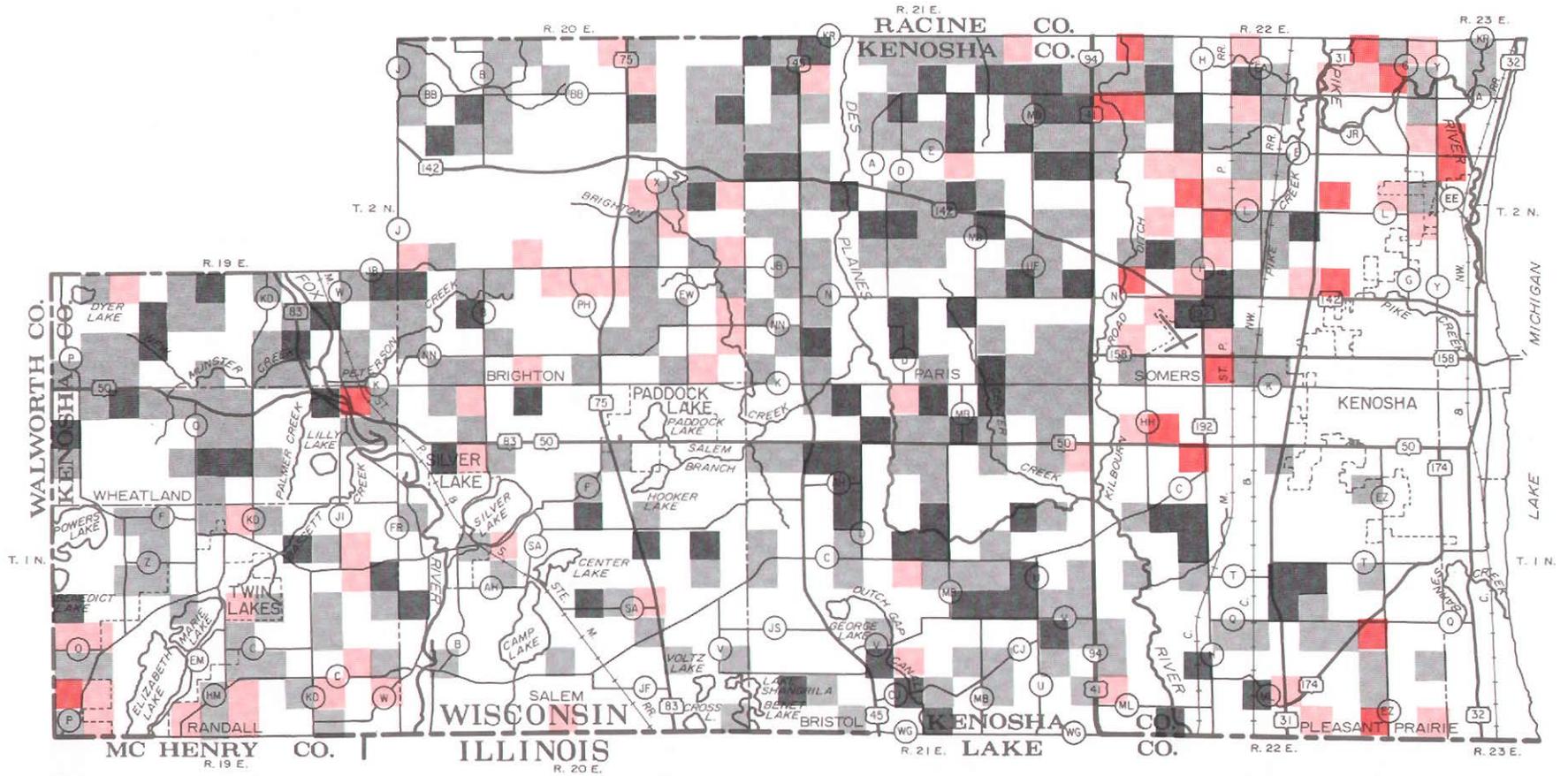
which detailed operational soil surveys were completed for the entire seven-county Southeastern Wisconsin Region, including Kenosha County. The results of the soil surveys have been published in SEWRPC Planning Report No. 8, Soils of Southeastern Wisconsin. The regional soil surveys have resulted in the mapping of the soils within the Region in great detail and have provided data on the physical properties, including slope, as well as on the chemical and biological properties of the soils. They have also provided interpretations of the soil properties for various uses, including agricultural and resource conservation purposes.

Land Slopes: The slope of land to a great extent determines the agricultural uses practicable on a given parcel of land. For example, lands with very steep slopes are virtually unusable for agricultural purposes and should be maintained in a natural cover for wildlife habitat or erosion control purposes. Lands with less severe slopes, however, may be suitable for pastureland while lands with level, nearly level, or gently sloping topography may be best suited for agricultural production. Slope is also directly related to water runoff and erosion hazards and, thus, determines the type and extent of land management practices necessary to utilize the full agricultural potential of farmland. This section presents an inventory of land slopes in Kenosha County.

Slope or relief refers to the incline of the surface of the soil area and is considered in classifying soils. Slope classes have been established on the basis of broad limitations for various types of rural land use and management. Five slope categories and the related limitations of these categories for agricultural use are described below:

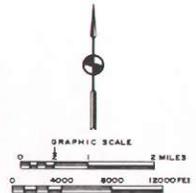
1. Class A--Class A slopes range from zero to 2.9 percent, and represent level or nearly level areas. Runoff is very slow to slow for all soils. All types of agricultural machinery may be used without difficulty.

Map 7 CHANGE IN NUMBER OF FARM-RELATED STRUCTURES IN KENOSHA COUNTY: 1963-1975



LEGEND

- NO CHANGE
- NET INCREASE**
- 1 - 3 STRUCTURES
- 4 OR MORE STRUCTURES
- NET DECREASE**
- 1 - 3 STRUCTURES
- 4 OR MORE STRUCTURES



Source: Kenosha County Department of Planning,
Zoning and Sanitation; and SEWRPC.

There is little likelihood of significant water erosion except on very long slopes with highly erodible soils. A total of 79,222 acres of land, or 45.6 percent of the land area of Kenosha County, have slopes within this category.

2. Class B--Class B slopes range from 3.0 to 5.9 percent, and represent gently rolling areas. Runoff is slow to medium for most soils. All types of agriculture machinery may be used without difficulty. Soils on Class B slopes vary widely in erodibility, depending upon soil characteristics other than slope. Erosion presents no serious problems for some soils, yet others may require protection by terraces or by other, more elaborate means, depending upon the soil characteristics and the soil management practices utilized. A total of 75,081 acres of land, or 43.0 percent of the land area of Kenosha County, have slopes within this category.
3. Class C--Class C slopes range from 6.0 to 11.9 percent and represent gently rolling to rolling areas. Runoff is medium to rapid for most soils. All types of farm machinery can be used, although some difficulty may be experienced in using very large and heavy equipment. Soils on the Class C slopes vary widely in erodibility under cultivation, depending on other soil characteristics and management practices. For most soils, erosion is not a serious problem, and can be controlled by relatively simple practices; others, however, require careful management, with supplemental strip cropping or terracing. A total of 14,319 acres of land, or 8.2 percent of the land area of Kenosha County, have slopes within this category.
4. Class D--Class D slopes range from 12.0 to 19.9 percent and represent hilly areas. Runoff is rapid or very rapid for most soils. Unless

the slopes are complex, most farm machinery can be used, but with difficulty, especially for the heavier equipment. Soils on Class D slopes are likely to erode under clean cultivation except the most pervious ones, and are generally suited only for pasture or for rotations dominated by sod-forming crops. A total of 4,247 acres of land, or 2.4 percent of the land area of Kenosha County, have slopes within this category.

5. Class E--Class E slopes are 20.0 percent or greater and represent very hilly areas. Runoff is very rapid for most soils. Only the lightest of agricultural machinery can be used. The arability of soils on Class E slopes varies widely. If the soils are highly fertile and permeable, they may support good grass, orchards, or even inter-tilled crops with proper management practices. A total of 1,351 acres of land, or 0.8 percent of the land area of Kenosha County, have slopes within this category.

As indicated by the above data, the overwhelming majority--241.9 square miles, or 88.6 percent--of the land area of Kenosha County has a less than 6 percent slope and thus presents minimal difficulties for the use of farm machinery, and presents no serious runoff or soil erosion problems. Lands with slopes of more than 6 percent occur in varying amounts in each town in Kenosha County. Such lands are, however, most abundant in the western half of the County, particularly west of the Fox River in the Towns of Randall and Wheatland. A map at a scale of 1" = 2,000', showing the slope of land in Kenosha County according to the categories described above, is on file in the offices of the Kenosha County Department of Planning, Zoning and Sanitation.

Detailed Agricultural Soil Suitability Interpretations: The suitability of soils for cropland use and management practices is an important consideration in the formulation of a sound farmland

preservation plan. To facilitate planning for the management and use of soils in rural areas, the U.S. Department of Agriculture, Soil Conservation Service, has classified the soils of southeastern Wisconsin into capability groupings that indicate their general suitability for most kinds of farming. These are practical groupings based on limitations of the soils, the risk of damage when they are used, and the way they respond to treatment.

In this system all soils are grouped at three levels: the capability class, the capability subclass, and the capability unit. The eight capability classes are the broadest groupings and are designated by Roman numerals I through VIII. Class I soils are soils that have few limitations, the widest range of use, and the least risk of damage when used. The soils in the other classes have progressively greater natural limitations. In Class VIII are soils and land forms so rough, shallow, or otherwise limited that they do not produce economically worthwhile yields of crops, forage, or wood products.

The subclasses indicate major kinds of limitations within the classes. Within most classes there are up to four subclasses. The subclasses are indicated by the addition of the lower case letter "e," "w," "s," or "c" to the class numeral, as for example, IIe. The letter "e" indicates that the primary limitation on the use of the soils for cultivated crops is the risk of erosion unless close-growing plant cover is maintained; "w" indicates that water in or on the soil will interfere with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); "s" indicates that use of a soil for cultivated crops is limited primarily because it is shallow, droughty, or stoney; and "c" indicates that the use of a soil for cultivated crops is limited because the climate is too cold or too dry. In southeastern Wisconsin, climate is not a significant limiting factor for soil use.

Each subclass is further divided into capability units. These consist of groups of soils that are very similar and, therefore, suited to the same kind of crop and pasture plants, requiring similar management, and having similar productivity and other responses to management. Thus, the capability unit is a convenient grouping of soils for management purposes. Capability units are identified by the addition of an Arabic numeral code to the class and subclass code--for example, IIe-1 or IIe-2.

Table 5 presents a listing and brief description of the agricultural soil capability classes, subclasses, and units for all of the soils within Kenosha County. It should be noted that soils are classified in capability classes, subclasses, and units in accordance with the degree and kind of permanent limitations, but without consideration of major and generally expensive landforming that would change the slope, depth, or other characteristics of soils, and without consideration of possible major reclamation projects.

Using Soil Capability in Identifying Prime Agricultural Land: Early in the 1970's, the U.S. Department of Agriculture established a series of Land Inventory and Monitoring (LIM) committees throughout the nation in an attempt to develop a uniform definition of prime agricultural land. One of the major purposes of the national program was to identify what percent of the nation's total agricultural production was from prime agricultural lands. Out of this effort was produced a hierarchy of agricultural land based largely on soil capability properties. The Department's first "Important Farmlands Inventory" was produced in July 1977 for Peach County, Georgia. The Department has established a goal of preparing 1,200 "Important Farmland Inventories" by 1980.

The Commission staff has recognized that the U.S. Department of Agriculture, through the Soil Conservation Service

Table 5

CLASSIFICATION OF SOILS IN KENOSHA COUNTY

Agricultural Capability Class, Subclass, and Description		Classification	
		National Prime Farmland	Farmland of Statewide Importance ^b
I ^a	Deep, well-drained and moderately well-drained, nearly level soils with no serious limitations that restrict use for cultivated crops	All Type I soils	--
II	Some limitations that reduce choice of plants that can be economically produced or require some conservation practices	--	--
	e Gently sloping soils with a slight erosion hazard that can be easily controlled	Units 1-3, 5, 6, and 8-11 on 2-6 percent slopes	--
	s Nearly level soils that are slightly droughty and need some moisture-conserving practices	Units 1, 2, and 7 on 0-6 percent slopes	--
	w Slight limitation because of excess water	Units 1, 3, 4-6, 11, and 13 on 0-6 percent slopes	Unit 8 on 0-6 percent slopes
III	Moderate limitations that restrict the choice of plants or require special conservation practices or both	--	--
	e Moderate erosion hazard	--	Units 1-12 on 0-12 percent slopes
	s Moderate drought hazard or shallow rooting zone that limits choice of plants	--	Units 2, 4, and 8 on 0-6 percent slopes
	w Moderate limitations because of excess water	--	Units 1, 3, 5, 6, 8, 9, and 12 on 0-6 percent slopes
IV	Severe limitations that restrict the choice of crops and require very careful management	--	--
	e Severe erosion hazard	--	--
	s Severe limitation because of low available moisture capacity	--	--
	w Severe limitations because of excess water	--	Unit 9 on 0-6 percent slopes ^c

Table 5 (continued)

Agricultural Capability Class, Subclass, and Description		Classification	
		National Prime Farmland	Farmland of Statewide Importance
V	Soils having little or no erosion hazard but having other limitations impractical to remove without major reclamation. Use is limited to wildlife, pasture, and woodland	--	--
	w Poorly drained soils that are very difficult to drain or for which drainage is not feasible	--	--
VI	Very severe limitations for cultivation that limit their use to pasture, woodland, or wildlife purposes	--	--
	e Severe or very severe erosion hazards	--	--
	s Severe limitations for cultivation; low available moisture; excess stones	--	--
VII	Very severe limitations for cultivation; used for pasture, woodland, and wildlife purposes	--	--
	e Very severe erosion hazards	--	--
	s Very severely limited by low moisture capacity and excess stones	--	--
VIII	Very severe limitations for commercial production of plants; used mainly for recreation or wildlife purposes	--	--
	s Very low available moisture capacity and very severe erosion	--	--
	w Extremely wet, marshy land that cannot feasibly be reclaimed by drainage	--	--

a There are no subclasses in Class I because soils in this class have few or no limitations.

b Specified soil capability units excluding wetland areas.

c There are no Capability Unit IV w9 soils in Kenosha County.

Source: U.S. Department of Agriculture, Soil Conservation Service; and SEWRPC.

(SCS), has made considerable progress in classifying soils according to their agricultural capability. Accordingly, it was determined that the rating of soils in Kenosha County should be consistent with the previous national efforts. SCS has grouped potentially farmable soils into four classifications--namely, national prime farmland, farmland of statewide importance, unique farmland, and farmland of local importance. SCS criteria for national prime farmland and farmland of statewide importance are based solely on soil characteristics and capabilities. The physical properties contributing to national prime farmland are set forth in Table 6 and the soil capability units exhibiting these properties are shown in Table 5. Table 5 also illustrates those soil capability units considered for inclusion in soils of statewide importance. SCS criteria for the designation of unique farmlands are based on a combination of soil types and existing practices used to enhance the capability of these otherwise marginal farmlands. The classifying of such lands as unique is justified because they are used to grow specialty high-value crops such as cranberries, apples, cherries, and mint. For the purpose of this report, soils in Capability Units IVs3, IVs4, IVe4, VIe3, VIs4, VIe4, and VIs8 on slopes less than 12 percent have been mapped as unique farmland. The final SCS classification--farmland of local importance--is to be determined by local "prime farmland" committees. Since there is no physical standard for identifying farmlands of local importance, only the national prime farmland, farmland of statewide importance, and unique farmlands are mapped for the purposes of this report (see Map 8). The delineation of the major agricultural soil classes presented in Map 8 was accomplished through the classification of soils as they are shown on detailed soil survey maps. This delineation of the major agricultural soil classes was accomplished irrespective of the current use of the land. Areas shown on Map 8 as meeting national prime farmland soil standards total 131,744 acres, or 76 percent of the total land area of the County. Areas shown as meeting soil cri-

teria for farmland of statewide importance total 18,725 acres, or 11 percent of the total land area of the County. Areas shown as meeting soil criteria for unique farmland total 5,592 acres, or 3 percent of the total land area of the County.

THE NATURAL RESOURCE BASE

The natural resources of Kenosha County are vital to its economic development and its ability to provide a pleasant and habitable environment for human life. Natural resources not only condition, but are conditioned by, growth and development. Any meaningful planning effort must, therefore, recognize the existence of a limited natural resource base to which urban and rural development must be properly adjusted if serious environmental problems are to be avoided. This is particularly true with respect to Kenosha County, where an increasing number of urbanites are becoming year-round residents of outlying areas of the County, seeking not only the varied recreational opportunities that are offered by these areas, but also the feeling of open space which these areas lend to residential development. A sound evaluation and analysis of the natural resource capabilities is particularly important to farmland preservation planning since the Wisconsin Farmland Preservation Act requires the identification of areas having natural resource or open space significance and statements of policy regarding preservation of these areas.

The principal elements of the natural resource base of Kenosha County, in addition to the agricultural resources discussed in the previous section of this chapter, are the woodlands, wetlands, wildlife habitat areas, surface water resources and associated shorelands and floodlands, and soils. Existing and potential park sites and historic sites, while not strictly a part of the natural resource base, are closely linked to the underlying resource base and are, therefore, considered in this chapter along with that base.

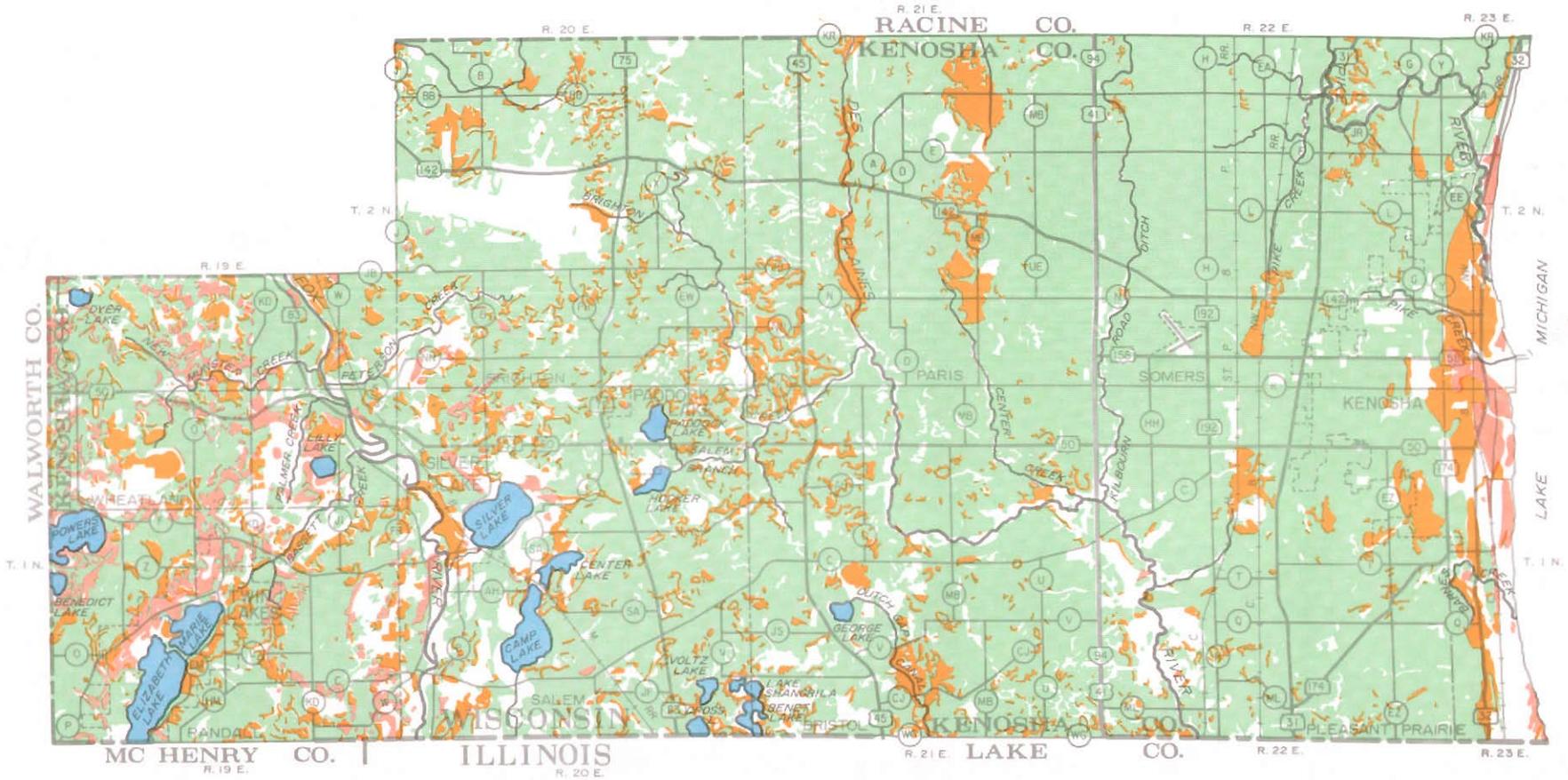
Table 6
U.S. SOIL CONSERVATION SERVICE NATIONAL PRIME FARMLAND CRITERIA

1. The soils have an adequate moisture supply. Included are:
 - a. Soils having aquic or udic moisture regimes. These soils commonly are found in humid or subhumid climates that have well-distributed rainfall or have enough rain in summer that the amount of stored moisture plus rainfall is approximately equal to or exceeds the amount of potential evapotranspiration. Water moves through the soil at some time in most years.
 - b. Soils having sufficient available water capacity within a depth of 40 inches (1 meter), or in the root zone if the root zone is less than 40 inches deep, to produce the commonly grown crops in 7 or more years out of 10.
2. The soils have a soil temperature regime that is frigid or mesic. These soils are at a depth of 20 inches (50 centimeters) and have a mean annual temperature higher than 32°F (0°C). In addition, the mean summer temperature at this depth in soils with an O horizon^a is higher than 47°F (8°C); in soils that have no O horizon, the mean summer temperature is higher than 59°F (15°C).
3. The soils have a pH between 4.5 and 8.4 in all horizons within a depth of 40 inches (1 meter), or in the root zone if the root zone is less than 40 inches deep. This range of pH is favorable for growing a variety of crops without adding large amounts of amendments.
4. The soils have no water table or a water table that is maintained at a sufficient depth during the cropping season to allow food, fiber, forage, and oilseed crops common to the area to be grown.
5. The soils are not flooded frequently during the growing season (less often than once in two years).
6. The soils have a product of K (erodibility factor) x percent slope of less than 2.0 and a product of I (soil erodibility) x C (climate factor) not exceeding 60. That is, prime farmland does not include soils having a serious erosion hazard.
7. The soils have a permeability rate of at least 0.06 inch (0.15 centimeter) per hour in the upper 20 inches (50 centimeters), and the mean annual soil temperature at a depth of 20 inches (50 centimeters) is less than 57°F (14°C). The permeability rate is not a limiting factor if the mean annual soil temperature is 57°F (14°C) or higher.
8. Less than 10 percent of the surface layer in these soils consists of rock fragments coarser than 3 inches (7.6 centimeters). These soils present no particular difficulty in cultivating with large equipment.

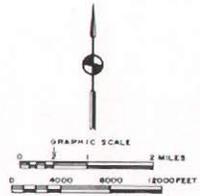
^aAn O soil horizon is a layer of organic matter, formed under thick forest cover frequently having a surface layer of leaves, twigs, and other organic material. O is also used to designate horizons of peat and muck soils.

Source: U.S. Department of Agriculture, Soil Conservation Service.

Map 8
 SOIL CLASSIFICATION FOR AGRICULTURAL CAPABILITY IN KENOSHA COUNTY



- LEGEND
- NATIONAL PRIME FARMLAND
 - FARMLAND OF STATEWIDE IMPORTANCE
 - UNIQUE FARMLAND
 - OTHER LAND
 - MAJOR LAKE



Source: U.S. Department of Agriculture, Soil Conservation Service; and SEWRPC.

Without a proper understanding and recognition of these elements and of the interrelationships which exist between them, human use and alteration of the natural environment proceeds at the risk of excessive costs in terms of both monetary expenditures and environmental degradation. The natural resource base is highly subject to grave misuse through improper land use and transportation facility development. Such misuse may lead to severe environmental problems which are difficult and costly to correct, and to the deterioration and destruction of the natural resource base itself.

Woodlands

Woodlands have both economic and ecological value, and under good management can serve a variety of uses providing multiple benefits. Located primarily on ridges and slopes and along streams and lakeshores, woodlands provide an attractive natural resource of immeasurable value. Woodlands accentuate the beauty of the lakes, streams, and topography of the area, and are also essential to the maintenance of the overall environmental quality of the area. In addition to contributing to clean air and water, the maintenance of woodlands can contribute to the maintenance of a diversity of plant and animal life in association with human life, and can provide for important recreational opportunities. Woodlands can and should be maintained for their total values--scenic, wildlife, educational, recreational, and watershed protection--as well as for their forest products. Under balanced use and sustained yield management, woodlands can serve many of these benefits simultaneously.

Inventories of woodlands within Kenosha County were conducted by the Commission in 1963 and 1975. As shown on Map 9, woodlands within Kenosha County in 1975 covered a total area of about 9,547 acres, or approximately 5 percent of the total area of the County. In 1963, woodlands in Kenosha County covered a combined area of about 9,956 acres. Between 1963 and 1975, losses in woodlands occurred in certain areas of the County,

due largely to the conversion of woodlands to intensive urban and agricultural land uses. Some of these losses were offset in other areas of the County as a result of reforestation activities. The overall effect of these changes in woodlands between 1963 and 1975 was a net loss of about 409 acres, representing a 4 percent decrease in the total amount of woodlands since 1963.

Wetlands

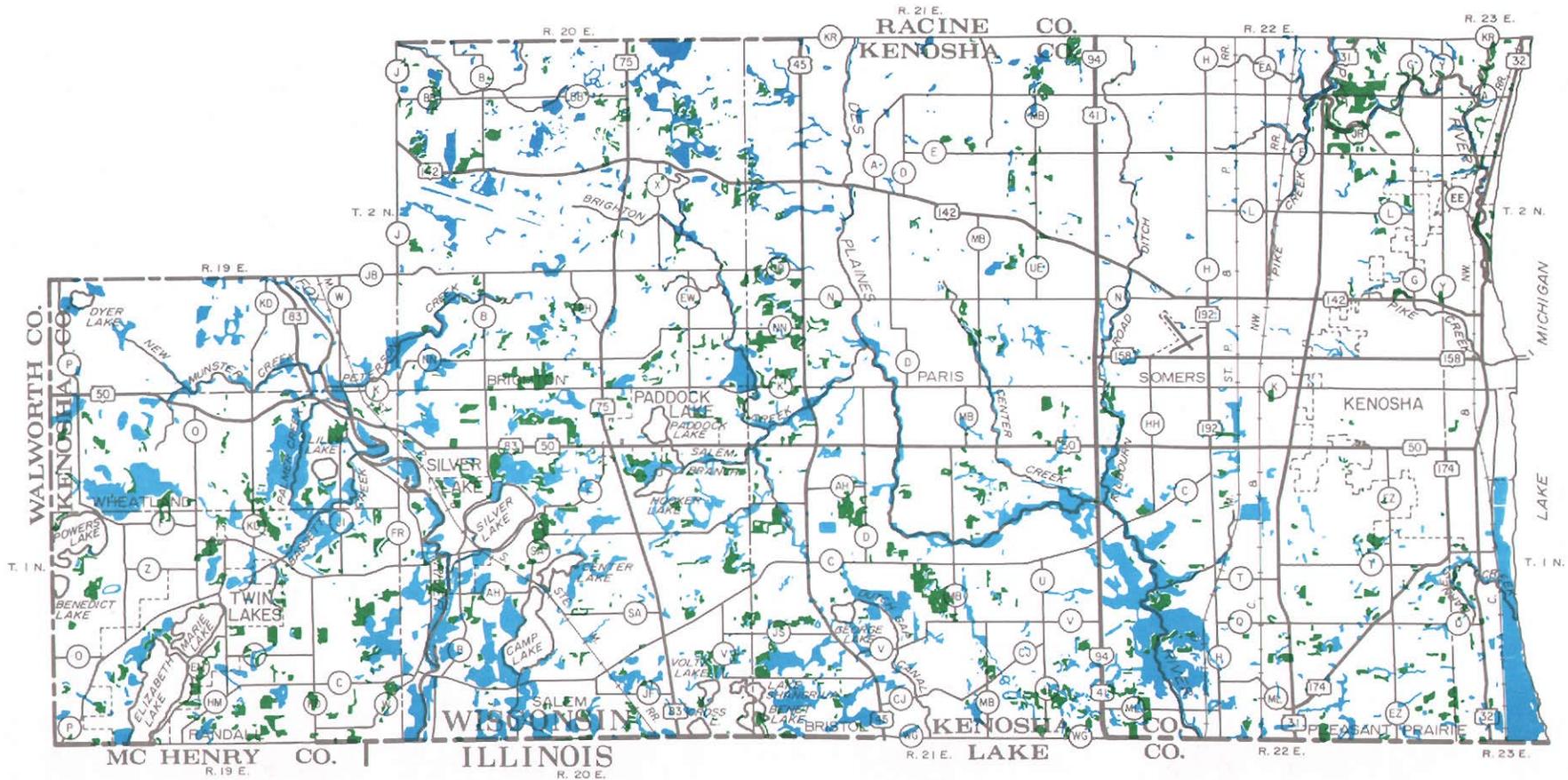
Wetland areas provide one of the most important landscape features of an area, and can serve to enhance proximate uses. Their contribution to resource conservation and recreation is immeasurable. Recognizing the many environmental attributes of wetland areas, continued effort should be made to protect this resource by discouraging costly--both in monetary and environmental terms--wetland draining, filling, and urbanization.

Wetlands represent a variety of stages in the natural filling of lake and pond basins as well as floodplain areas. Wetlands are considered herein as areas in which the water table is at or near the land surface. Such areas are generally unsuited or poorly suited for most agricultural or urban development purposes. Wetlands, however, have important ecological value in a natural state. Wetlands contribute to flood control and water quality enhancement, since such areas naturally serve to store excess runoff temporarily, and thereby tend to reduce peak flood flows and to trap sediments, nutrients, and other water pollutants. It has been found that except during periods of unusually high runoff, concentrations of nutrients in waters leaving such areas are considerably lower than in waters entering the wetlands. The wetlands with standing water are well suited for waterfowl and marsh furbearers, while dryer types support upland game because of the protection afforded by vegetative cover.

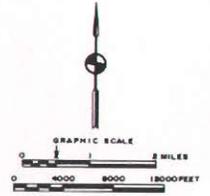
Inventories of wetlands within Kenosha County were conducted by the Commission in 1963 and 1975. As shown on Map 9, wetland areas within Kenosha County in

Map 9

WOODLANDS AND WETLANDS IN KENOSHA COUNTY: 1975



- LEGEND**
- WOODLANDS
 - WETLANDS



Source: SEWRPC.

1975 covered about 15,574 acres, or about 9 percent of the area of the County.

The extent of wetlands may change in a given area over time as a result of drainage and landfill operations, as well as the construction of new impoundment areas. Furthermore, variations in precipitation may cause the boundaries of wetland areas to fluctuate from time to time. As a result of these changes, there was a net decrease of about 174 acres, or approximately 1 percent, in wetlands in Kenosha County between 1963 and 1975.

Wildlife Habitat Areas

Terrestrial wildlife in Kenosha County is composed of small upland game such as rabbit and squirrel. Waterfowl are also present. Deer are found in scattered areas but the herds are small when compared with those of other regions of the State. However, other habitat and wildlife therein provide valuable recreational opportunities, constitute an immeasurable aesthetic asset, and contribute by their presence to economic activity within Kenosha County.

The complete spectrum of wildlife species originally native to Kenosha County has, along with its habitat, undergone tremendous alterations since settlement of the County by Europeans. The change is the direct result of an extreme conversion of the basic environment, beginning with the clearing of forests and prairies and the drainage of wetlands and ending with the extensive conversion to agricultural and urban land uses. This process, which began in the early 19th century when Europeans immigrated to the County, is still operative today. Successive cultural practices, both rural and urban, have been superimposed on the overall land use changes and have also affected the wildlife and wildlife habitat in the County. In agricultural areas, these cultural practices include land drainage by ditching and tiling and the expanding use of fertilizers and pesticides. Examples of urban-area cultural practices that affect wildlife in their

habitat are the use of fertilizers and pesticides, road salting, heavy traffic, which produces disruptive noise levels, damaging air pollution, and the introduction of domestic animals.

It is important to note that, while the alteration of the land for agricultural purposes has reduced the overall amount of wildlife habitat in the County since the early settlement period, agricultural lands may serve to enhance the value of proximate wildlife habitat areas. For example, fence rows provide habitat for many forms of wildlife, including small mammals such as rabbits, weasels, meadow voles, and songbirds; farm ponds may provide habitat for waterfowl; and minimum tillage croplands may provide feeding and browsing areas for game species such as pheasant and deer.

Inventories of wildlife habitat were conducted cooperatively by the Wisconsin Department of Natural Resources and the Southeastern Wisconsin Regional Planning Commission in 1963 and 1970. As indicated in Table 7 and on Map 10, wildlife habitat areas in 1970 covered approximately 22,902 acres, or 13 percent of the total area of the County. Table 7 further indicates that medium-value wildlife habitat areas decreased by about 149 acres since 1963. This decrease, however, was offset by a gain of approximately 118 acres of high-value habitat and 494 acres of low-value habitat, resulting in a net gain of 463 acres of wildlife habitat in the County between 1963 and 1970.

While the areal extent of wildlife habitat in Kenosha County did not change appreciably between 1963 and 1970, it must be remembered that the existing wildlife acreage is only a remnant of the wildlife habitat which at one time, covered virtually the entire County. If the remaining wildlife habitat in Kenosha County is to be preserved, the remaining woodlands, wetlands, and surface water, together with the proximate croplands and pasturelands, must be protected from mismanagement and continued urban encroachment.

Table 7

WILDLIFE HABITAT IN KENOSHA COUNTY: 1963 AND 1970

Value ^a	1963 ^b		1970		Change: 1963-1970	
	Acres	Percent	Acres	Percent	Acres	Percent
High	9,965	44.4	10,083	44.0	118	1.2
Medium...	6,285	28.0	6,136	26.8	-149	-2.4
Low	6,189	27.6	6,683	29.2	494	8.0
Total	22,439	100.0	22,902	100.0	463	2.1

^aHigh-value wildlife habitat areas have a high diversity of species. The territorial requirements of the major species are met in that minimum population levels are possible. The structure and composition of the vegetation provide for nesting, travel routes, concealment, and modification of weather impact. Also, such areas have experienced little or no disturbance as a result of man's activities and are located in proximity to other wildlife areas.

Medium-value wildlife areas maintain all of the criteria described for a high-value habitat, but at a lower level. The species' diversity may not be as high as in the high-value areas. The territorial requirements of the major species may not be adequately met in that minimum population levels are not possible or are just barely met. The structure and composition of the vegetation may not adequately provide for nesting, travel routes, concealment, or modification of weather impact. The areas may have undergone disturbance as a result of man's activities, and may not be located in proximity to other wildlife habitat areas.

Low-value wildlife habitat areas are of a supplemental or remnant nature. They are usually considerably disturbed but are included in the inventory since they provide the only available range in the vicinity, supplement areas of a higher quality, or provide corridors linking higher habitat areas.

^bThe 1963 wildlife habitat acreage data differ slightly from the data presented in SEWRPC Planning Report No. 7, Land Use-Transportation Study, Volume One, Inventory Findings, because the availability of more detailed information since 1963 permitted a refinement of the wildlife habitat delineation for that year.

Source: Wisconsin Department of Natural Resources and SEWRPC.

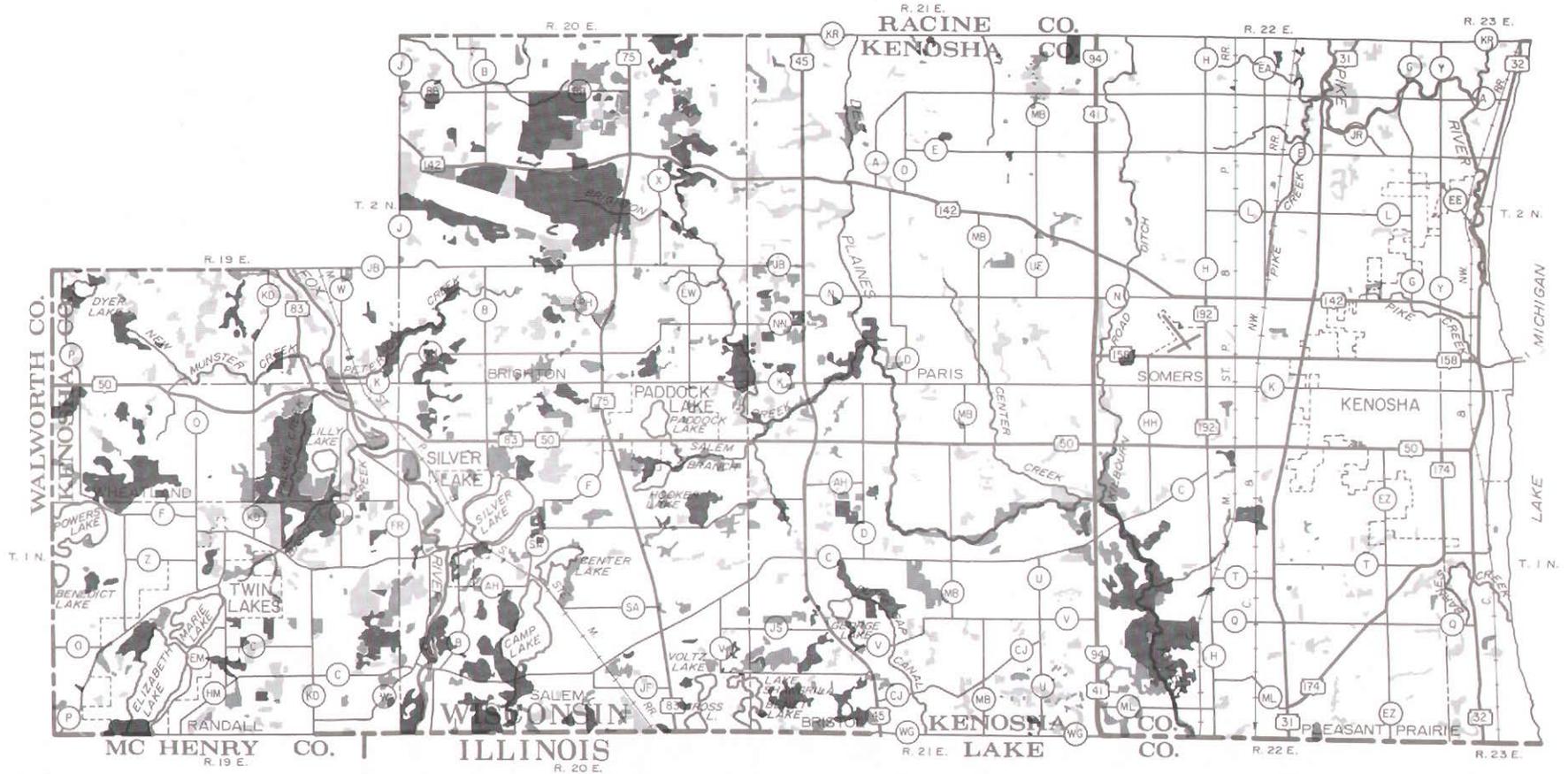
Water Resources

Surface water resources, consisting of lakes, streams, and associated floodlands, form a particularly important element of the natural resource base of Kenosha County. Their contribution to the economic development, recreational activity, and aesthetic quality of the County is immeasurable.

Surface Water Resources: Lakes and streams of Kenosha County constitute focal points for water-related recreational activities popular with the inhabitants of the County; provide an attractive setting for properly planned residential development; and--when viewed in the context of open space areas--greatly enhance the aesthetic

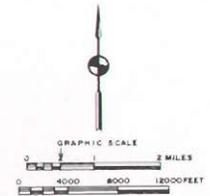
Map 10

WILDLIFE HABITAT IN KENOSHA COUNTY: 1970



LEGEND

- HIGH VALUE
- MEDIUM VALUE
- LOW VALUE



Source: SEWRPC.

quality of the environment. It is important to note that lakes and streams are extremely susceptible to deterioration through improper rural as well as urban land use development and management. Water quality can degenerate as a result of excessive nutrient loads from malfunctioning or improperly placed septic systems, inadequate operation of waste treatment facilities, and careless agricultural practices. Lakes and streams are also adversely affected by the excessive development of lakeshore and

riverine areas in combination with the filling of peripheral wetlands, which removes valuable nutrient and sediment traps while adding nutrient and sediment sources.

Lakes--Major lakes are defined herein as bodies of water having 50 acres or more of surface water area, a size capable of supporting reasonable recreational use with relatively little degradation of the resource. As indicated in Table 8, there are 15 major lakes within Kenosha

**Table 8
LAKES AND PONDS IN KENOSHA COUNTY**

Lakes and Ponds	U.S. Public Land Survey Section, Town, and Range	Surface Area (acres)
Major Lakes		
Benedict Lake	19-1-18; 24-1-19	78.02
Benet/Shangrila Lake..	31-1-20; 36-1-21	153.60
Camp Lake	21, 28, 29-1-20	461.00
Center Lake.....	15, 16, 21-1-20	129.00
Cross Lake.....	35, 36-1-20	87.40
Dyer Lake.....	30-2-19	56.00
Elizabeth Lake.....	28, 29, 32-1-19	637.80
George Lake.....	20, 29-1-21	58.80
Hooker Lake.....	11-1-20	87.00
Lilly Lake	11-1-19	88.00
Marie Lake	21, 28-1-19	315.00
Paddock Lake	2-1-20	112.00
Powers Lake.....	18-1-18; 13-1-19	459.00
Silver Lake.....	8, 9, 16-1-20	464.00
Voltz Lake	36-1-20	51.75
Subtotal	--	3,238.37
Other Lakes and Ponds		
Barber Pond	30-1-21	2.40
Flanagan Lake.....	19, 30-2-20	11.00
Kull Lake	4-1-20	13.00
League Lake.....	35-2-20	14.40
Montgomery Lake.....	12, 13, 14-1-20	45.60
Mud Lake	32-1-21	21.50
Paasch Lake.....	29, 30-1-21	14.70
Peat Lake	32-1-20	6.40
Rock Lake.....	34-1-20	45.60
Subtotal	--	174.60
Total	--	3,412.97

Source: SEWRPC.

County, ranging in size from 52 acres (Voltz Lake) to 638 acres (Elizabeth Lake). The location and relative sizes of the lakes are shown on Map 11. Major lakes in the County have a combined surface water area of about 3,200 acres, or less than 2 percent of the total area of the County.

The lakes of Kenosha County are almost exclusively of glacial origin, being formed by depressions in outwash deposits, terminal and interlobate moraines, and ground moraines. Some lakes, such as Silver Lake in western Kenosha County, owe their origin to kettles--that is, depressions formed in the glacial drift as a result of the melting of ice blocks that became separated from the melting continental ice sheet, and the subsequent subsidence of sand and gravel contained on and within those blocks. By virtue of their origin, glacially formed lakes are fairly regular in shape, with their deepest points located predictably near the center of the basin, or near the center of each of several connected basins. The beaches are characteristically gravel or sand on the windswept north, east, and south shores, while fine sediments and encroaching vegetation are common on the protected west shores and in the bays.

There are nine lakes and ponds in Kenosha County of less than 50 acres of surface water area, which are considered in this report to be minor lakes. These minor lakes, as indicated in Table 8, have a combined surface water area of about 175 acres. These small lakes generally have few riparian owners and only marginal fisheries. In most cases, the primary values of the minor lakes are ecological and aesthetic, and such lakes are fragile and readily lost with any degree of improper shoreline development.

Streams--As shown on Map 11, the surface drainage system of Kenosha County may be viewed as existing within five individual watersheds. Two of the five watersheds contained partly in Kenosha County, the Fox and Des Plaines River watersheds, lie west of the subconti-

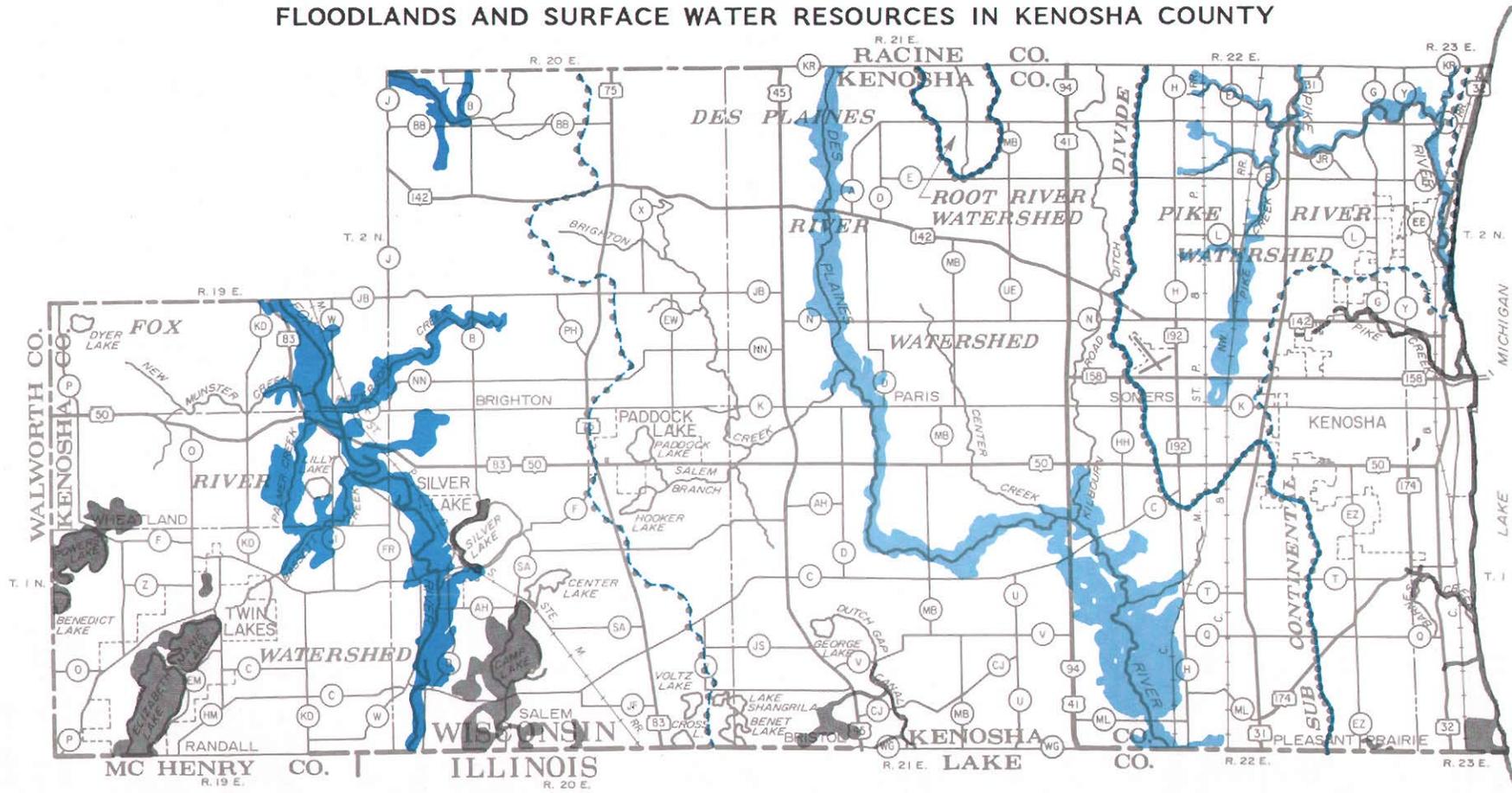
mental divide. These two watersheds have a combined area of 219 square miles, or 79 percent of the area of the County. The rivers and streams within these catchment areas flow in a generally south and southwesterly direction, and are part of the Mississippi River drainage system. The rivers and streams in the three watersheds comprising the remainder of Kenosha County--the Root River watershed, the Pike River watershed, and the watershed of minor streams tributary to Lake Michigan--have a combined area of 59 square miles, or 21 percent of Kenosha County. These rivers and streams flow in an easterly direction and discharge into Lake Michigan, and are a part of the Great Lakes-St. Lawrence River drainage system. Table 9 summarizes the watershed characteristics for Kenosha County.

Major streams are defined herein as perennial streams which maintain, at a minimum, a small, continuous flow throughout the year except under unusual drought conditions. Within Kenosha County, there are approximately 106 miles of such major streams (see Map 11).

Floodlands: The floodlands of a river or stream are the wide, gently sloping areas contiguous with, and usually lying on both sides of, a river or a stream channel. Rivers and streams occupy their channels most of the time. However, during even minor flood events, stream discharges increase markedly such that the channel is not able to convey all the flow. As a result, stages increase and the river or stream spreads laterally over the floodlands. The periodic flow of a river onto its floodlands is a normal phenomenon and, in the absence of major, costly structural flood control works, will occur regardless of whether urban development occurs on the floodlands.

For planning and regulatory purposes, floodlands are normally defined as the areas, excluding the channel, subject to inundation by the 100-year recurrence interval flood event. This is the event

Map 11 FLOODLANDS AND SURFACE WATER RESOURCES IN KENOSHA COUNTY



LEGEND

- FLOODLANDS DELINEATED BY SEWRPC (BASED ON HYDROLOGIC AND HYDRAULIC STUDIES CONDUCTED PRIMARILY WITHIN COMPREHENSIVE WATERSHED PLANNING CONTEXT; 100- AND 10-YEAR RECURRENCE INTERVAL FLOOD STAGES ESTABLISHED)
- FLOODLANDS DELINEATED BY U.S. SOIL CONSERVATION SERVICE (BASED ON HYDROLOGIC AND HYDRAULIC STUDIES; 100- AND 10-YEAR RECURRENCE INTERVAL FLOOD STAGES ESTABLISHED)
- FLOODLANDS DELINEATED BY VARIOUS LOCAL AND FEDERAL GOVERNMENT AGENCIES BASED ON SELECTED HISTORICAL FLOODS, REGIONAL STAGE-FREQUENCY RELATIONSHIPS, SOILS DATA, OR TOPOGRAPHIC OBSERVATIONS
- SUBCONTINENTAL DIVIDE
- WATERSHED BOUNDARY

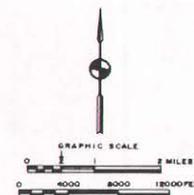


Table 9

CHARACTERISTICS OF WATERSHEDS IN KENOSHA COUNTY

Watershed	Area (square miles)	Percent of County
Mississippi River Drainage Basin		
Fox River	96.33	34.6
Des Plaines River	122.61	44.1
Subtotal	218.94	78.7
Great Lakes-St. Lawrence River Drainage Basin		
Root River	2.18	0.8
Pike River	30.02	10.8
Minor Streams Tributary to Lake Michigan	27.14	9.7
Subtotal	59.34	21.3
Total	278.28	100.0

Source: SEWRPC.

that would be reached or exceeded in severity once on the average of every 100 years. Stated another way, there is a 1 percent chance that this event will be reached or exceeded in severity in any given year. Commission studies indicate that from 7 to 10 percent of the total land area of any given watershed will be within the 100-year recurrence interval floodplain of the stream network. The 100-year recurrence interval floodplain contains within its boundaries, the areas inundated by floods of less severe but more frequent occurrence such as the 50-, 25-, and 5-year recurrence interval events. Because of the importance of floodland data to sound land use and management decisions, the Commission, as an integral part of its comprehensive watershed studies, provides definitive data relating thereto, including a delineation of the limits of the 10- and 100-year recurrence interval flood hazard areas for designated streams in each watershed.

Floodland delineations were prepared by the Commission as a part of its Fox River watershed planning program, and by

the U. S. Soil Conservation Service for the Des Plaines and Pike River watersheds. Moreover, various studies are currently underway to develop additional flood hazard data for stream reaches in Kenosha County. For example, the Commission is refining floodland delineations along the Pike River as part of the Pike River watershed planning program currently underway. In addition, as a result of increased flood insurance activity in Kenosha County, numerous studies are being undertaken by the U.S. Department of Housing and Urban Development to provide supplemental flood hazard data to be used in identifying flood-prone areas for flood insurance purposes. In areas for which there are detailed 100-year recurrence interval flood hazard data, these studies utilize the existing data, but may also include the development of flood hazard data for the small, previously unstudied tributaries. In areas for which there are no 100-year recurrence interval flood hazard data, these studies develop the data necessary for the determination of flood hazard areas. The floodland delineations mentioned above are indicated on Map 11.

Floodland and shoreland management requirements (Wisconsin Administrative Code, Chapters NR115 and NR116) include shoreland and floodland zoning. Counties are responsible under state law for enacting shoreland and floodland zoning ordinances for unincorporated areas. Kenosha County adopted its shoreland-floodland ordinance on March 16, 1971.

Soils--Residential Suitability

A previous section of this chapter discussed the suitability of soils for agricultural purposes. As set forth in that section, about 150,500 acres, or 87 percent of the land area of the County, are covered by soils classified by the U. S. Soil Conservation Service as national prime farmland or farmland of statewide significance. Soils which are suitable for agricultural use, however, may not be suitable for residential development because of limitations relating to slow permeability, high groundwater and shallow bedrock, flooding potential, or steep slope, especially when such residential development is not served by a public sanitary sewerage system.

On the basis of the suitability interpretation from the detailed soil surveys, it is evident that much of Kenosha County exhibits severe or very severe limitations for specific types of urban development. Approximately 94 square miles, or about 35 percent of the land area of the County, are covered by soils which are poorly suited for residential development with public sanitary sewer service or, stated differently, poorly suited for residential development of any kind. Approximately 149 square miles, or about 55 percent of the land area of the County, are covered by soils which are poorly suited for residential development without public sanitary sewer service on lots one acre or larger in size. Approximately 232 square miles, or about 86 percent of the land area of the County, are covered by soils poorly suited for residential development without public sanitary sewer service on lots smaller than one acre in size. Areas covered by soils poorly suited for

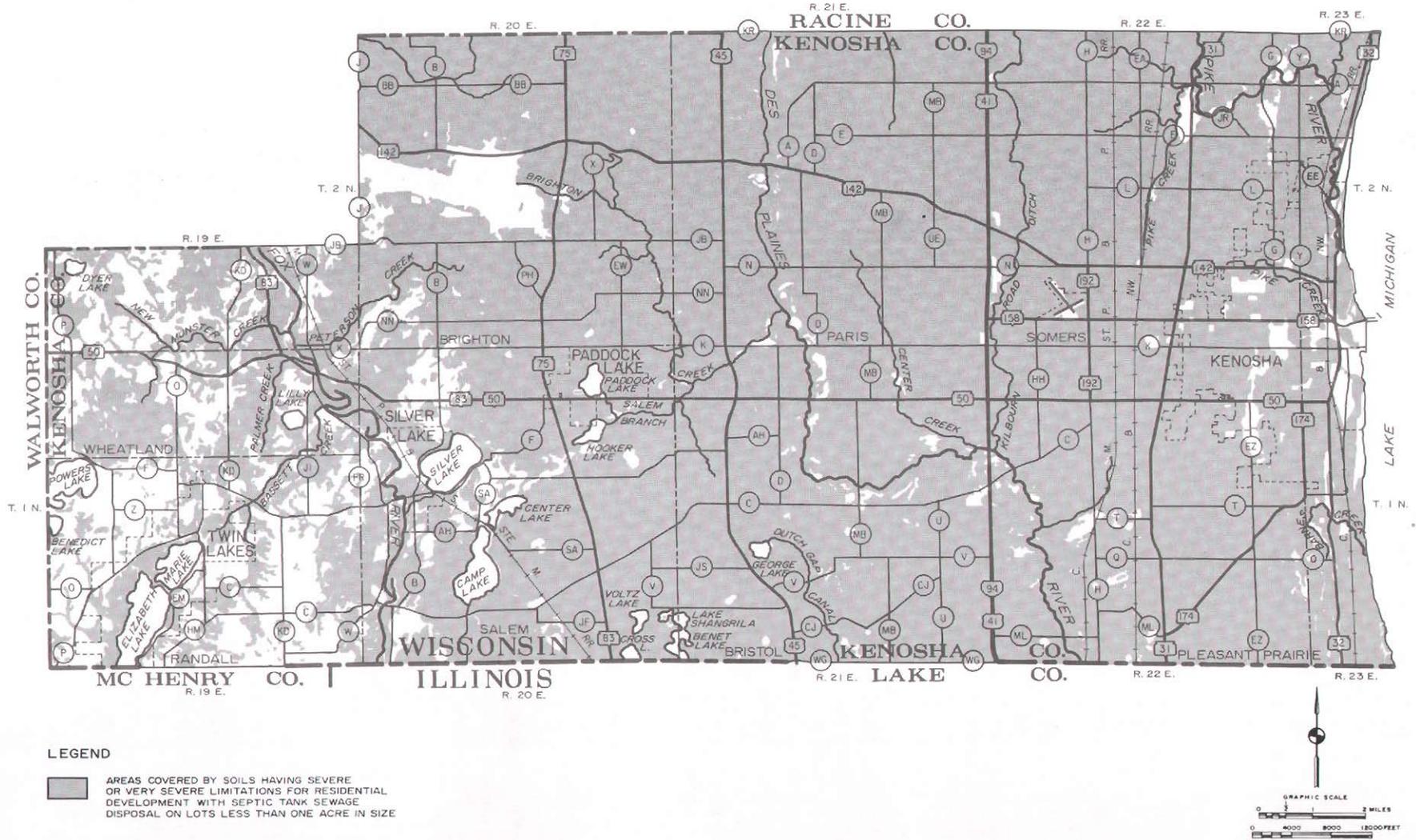
residential development without public sanitary sewer service on lots smaller than one acre are shown on Map 12.

Much of the area of Kenosha County that is well suited to agricultural production is not well suited to residential development. The preparation and implementation of a farmland preservation plan which seeks to maintain agricultural lands in agricultural use will, therefore, both preserve this important element of the natural resource base and discourage development of residential lands in areas having unsuitable soils, thereby minimizing environmental problems which could result from such development.

In May 1975, the Wisconsin Department of Health and Social Services, Division of Health, approved for use throughout Wisconsin three new types of "package" onsite soil absorption sewage disposal systems designed to overcome certain soil limitations such as permeability, high groundwater, and shallow bedrock. Unlike the conventional gravity flow septic tank system, these new systems utilize mechanical facilities to pump septic tank effluent through small-diameter perforated distribution pipes placed in fill on top of the natural soil. When in place, this fill takes on the appearance of a mound; hence, the new systems are commonly called "mound systems." The Division of Health initially determined that 1,100 permits for mound systems would be issued to test the viability of this new system. These permits have now been issued. Current Division of Health rules governing the number of mound system permits allowed for new construction specify that the number of such permits shall be limited to no more than 3 percent of the total number of sanitary permits issued in the State during the previous year. The rules also indicate that no county can issue more than 5 percent of the mound system permits available from the State in any one year. There is, however, no limit on the issuance of mound system permits needed to replace failing systems serving existing housing. While the

Map 12

SUITABILITY OF SOILS IN KENOSHA COUNTY FOR SMALL LOT RESIDENTIAL DEVELOPMENT WITHOUT PUBLIC SANITARY SEWER SERVICE



Source: U.S. Department of Agriculture, Soil Conservation Service; and SEWRPC.

rules adopted by the Division of Health currently restrict the applicability of the mound systems, restrictions relating to such use would probably be relaxed if the systems prove to be operational on a widespread basis. This would serve to greatly reduce the role of soil limitations for onsite sewage disposal in constraining regional settlement patterns, and thereby permit substantial additional areas to be developed for urban use without centralized sanitary sewage systems, thus encouraging further diffusion of urban development throughout the Region in a wasteful, environmentally unsound pattern. In Kenosha County, a total of about 55 square miles of land which is naturally unsuitable for residential development with onsite soil absorption sewage disposal systems on large lots would be subject to urban development, assuming widespread use of the mound system.

Parks, Outdoor Recreation Areas, and Related Open Spaces

In an urbanizing county, park and open space lands should serve three primary purposes. First, they should be utilized to conserve and enhance the natural resource base and thereby to protect important community values. Second, they should serve to provide outdoor recreation opportunities to the resident population. Third, they should lend form and structure to urban development by shaping such development and providing a desirable setting for the more intensive types of urban land uses. When properly related to woodlands, wetlands, and wildlife habitat areas, park and open space lands can be used to conserve soils, fish and game, and certain species of trees and plants and to improve surface water and groundwater quality and quantity. Park and open space lands may also be used to protect sites having scenic, historic, or scientific value. Inventories of existing park and recreation areas, potential park sites, and sites of historic significance were conducted by the Commission in 1973 as part of its regional park and open space planning program. Information on the number and type of existing and poten-

tial park sites and historic sites in Kenosha County collected under this program is summarized below.²

Existing Park and Outdoor Recreation Sites: The existing park and outdoor recreation sites inventory, conducted in 1973 as part of the Commission's regional park and open space planning program, indicated that there are 192 publicly and nonpublicly owned outdoor recreation sites totaling 5,687 acres in Kenosha County (see Table 10). The 102 publicly owned sites identified in 1973 total 2,978 acres. The State and County own only 8 of the 102 public sites but about two-thirds of the total public park and recreation acreage in the County.

Nonpublicly owned sites, although presently providing recreational facilities, are subject to conversion to other uses, and cannot be relied upon as a permanent recreational resource. The 90 nonpublicly owned recreational sites total 2,709 acres in area. Of this total, 34 sites totaling 899 acres were owned and operated by nonprofit organizations in 1973, but were generally open to the public for a fee; 33 sites totaling 1,344 acres were commercially or privately owned and operated and were open to the public for a fee; and 23 sites totaling 466 acres were privately owned and operated for members only, and therefore were not generally open to the public.

²Maps showing the location of existing and potential park sites and historic sites in Kenosha County are published in SEWRPC Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000. Appendix Map D-1 of SEWRPC Planning Report No. 27 shows the location of existing public and nonpublic park and open space sites; Map 72 shows the location of potential park sites; and Appendix Map D-8 shows the location of historic sites in the County.

Potential Park Sites: A total of 61 potential park sites, each having an area of 25 or more acres, were identified as part of the Commission's regional park and open space planning program in 1975. Of these 61 sites which totaled more than 7,400 acres in area, nine sites totaling 1,643 acres were classified as high-value sites, 26 sites totaling 2,807 acres were classified as medium-value sites, and 26 sites totaling 3,029 acres were classified as low-value sites (see Table 11). The potential park sites were further analyzed to determine spe-

cific development possibilities. As indicated in Table 11, 57 of the 61 potential park sites were considered to have development potential for picnicking, 47 sites to have development potential for nature study, 24 sites to have development potential for hiking trails, and 27 sites to have development potential for campground use. Only 6 of the 61 potential park sites were considered to have development potential for golf courses, and only five were considered to have development potential for swimming.

Table 10

PARK AND RECREATION SITES IN KENOSHA COUNTY: 1973

Ownership	Sites		Acres	
	Number	Percent	Number	Percent
Public				
State.....	1	0.5	747	13.1
County.....	7	3.6	1,301	22.9
City.....	31	16.1	540	9.5
Village.....	8	4.2	26	0.5
Town.....	12	6.3	43	0.8
School District .	43	22.4	321	5.6
Subtotal	102	53.1	2,978	52.4
Nonpublic				
Quasi-Public				
Organization...	34	17.7	899	15.8
Commercial.....	33	17.2	1,344	23.6
Private.....	23	12.0	466	8.2
Subtotal	90	46.9	2,709	47.6
Total	192	100.0	5,687	100.0

Source: SEWRPC.

Table 11

POTENTIAL PARK SITES IN KENOSHA COUNTY: 1975

Site Value	Potential Park Sites			Number of Sites Having Development Potential for:					
	Number	Area		Swimming	Picknicking	Nature Study	Campgrounds	Hiking Trails	Golf Courses
		Acres	Percent						
High.....	9	1,643	22.0	1	9	5	--	2	3
Medium....	26	2,807	37.5	1	26	25	14	16	3
Low.....	26	3,029	40.5	3	22	17	13	6	--
Total	61	7,479	100.0	5	57	47	27	24	6

Source: SEWRPC.

Historic Sites: Historic sites are an important element of the unique cultural heritage of Kenosha County. An historic sites inventory identifying both marked and unmarked sites having historic, other cultural, or scientific value was conducted by the Commission in 1973 as a part of the regional park and open space planning program.

As shown in Table 12, the 1973 inventory identified 73 sites of historic significance within Kenosha County, including 17 cultural sites, 13 natural features, and 43 structures. Most of the cultural sites within Kenosha County are related to Indian or early European settlements and include early trails and burial grounds and cemeteries. Natural features consist primarily of those wetland, woodland, or water areas which support plant and animal communities or contain geological features having potential importance for teaching or research. None of the 13 areas containing such natural features identified in the inventories were marked in 1975. A total of 43, or 59 percent, of all the identified historic sites are structures. Historic homes, churches, inns, government buildings, and schools predominate in this category.

Environmental Corridors

The Environmental Corridor Concept: One of the most important tasks undertaken

by the Commission as part of its regional planning effort was the identification and delineation of those areas of the Region having concentrations of natural, recreation, historic, aesthetic, and scenic resources and which, therefore, should be preserved and protected in order to maintain the overall quality of the environment. Such areas normally include one or more of the following seven elements of the natural resource base which are essential to the maintenance of both the ecological balance and natural beauty of the Region: 1) lakes, rivers, and streams and the associated undeveloped shorelands and floodlands; 2) wetlands; 3) woodlands; 4) prairies; 5) wildlife habitat areas; 6) wet, poorly drained, and organic soils; and 7) rugged terrain and high-relief topography. While the foregoing seven elements constitute integral parts of the natural resource base, there are five additional elements which, although not a part of the natural resource base per se, are closely related to or centered on that base and so are important considerations in identifying and delineating areas with scenic, recreational, and educational value. These additional elements are: 1) existing outdoor recreation sites; 2) potential outdoor recreation and related open space sites; 3) historic, archeological, and other cultural sites; 4) significant scenic areas and vistas; and 5) natural and scientific areas.

The delineation of these 12 natural resource and natural resource-related elements on a map of Kenosha County results in an essentially linear pattern of relatively narrow, elongated areas which have been termed "environmental corridors" by the Commission. Primary environmental corridors include a wide variety of the above-mentioned important resource and resource-related elements and are at least 400 acres in size, two miles in length, and 200 feet in width. Secondary environmental corridors typically connect with primary environmental corridors and are at least 100 acres in size and one mile in length.

Table 12

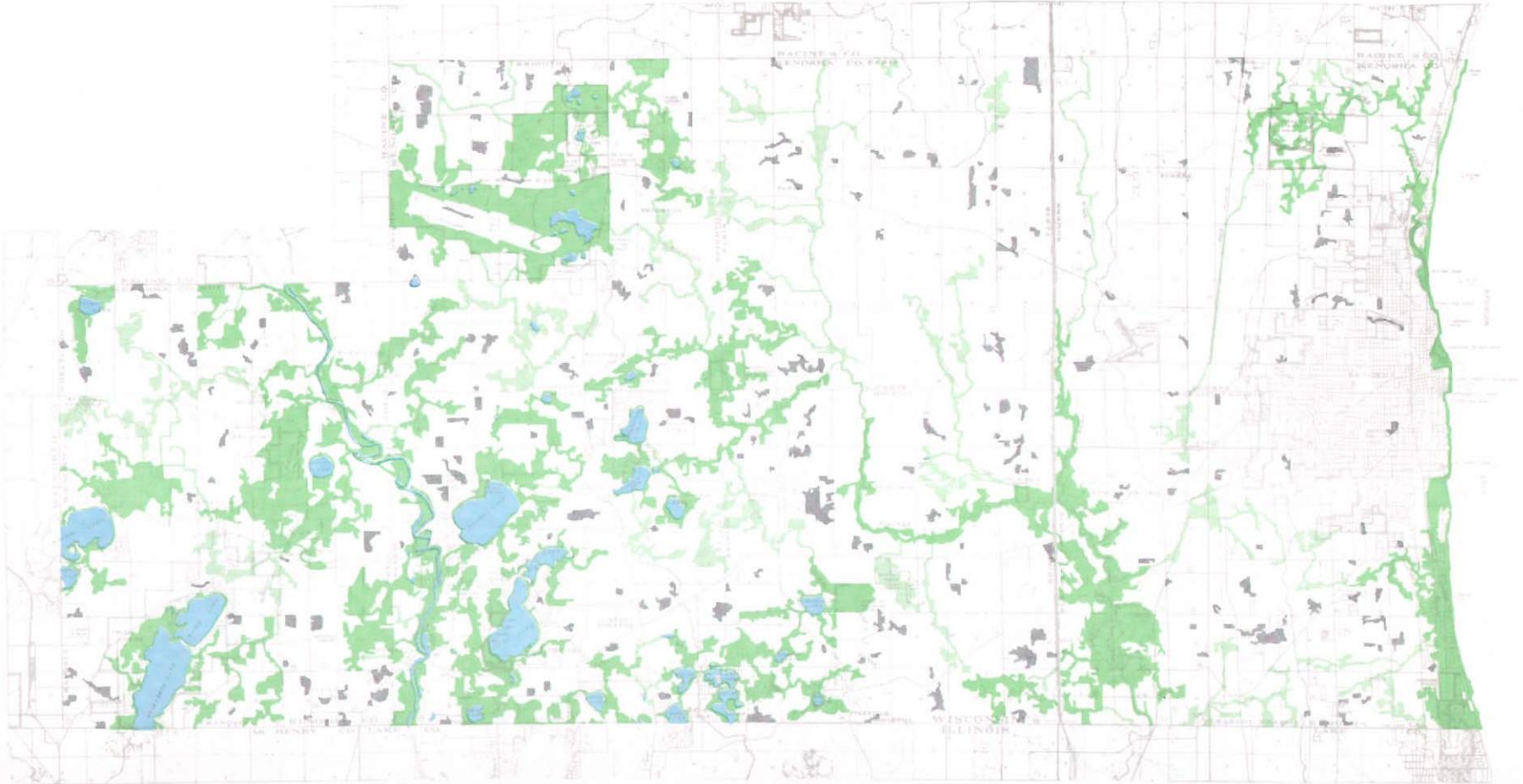
**HISTORIC SITES
IN KENOSHA COUNTY: 1973**

Type of Site	Marked	Unmarked	Total
Cultural Feature..	6	11	17
Natural Feature ..	--	13	13
Structure	3	40	43
Total	9	64	73

Source: SEWRPC.

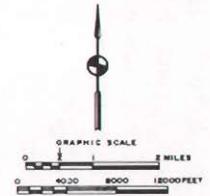
Map 13

ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL AREAS IN KENOSHA COUNTY: 1975



LEGEND

-  PRIMARY ENVIRONMENTAL CORRIDOR
-  SECONDARY ENVIRONMENTAL CORRIDOR
-  ISOLATED NATURAL AREA
-  WATER



Source: SEWRPC.

It is important to point out that, because of the many interlocking and interacting relationships between living organisms and their environment, the destruction or deterioration of one element of the total environment may lead to a chain reaction of deterioration and destruction. The drainage of wetlands, for example, may have far-reaching effects, since such drainage may destroy fish spawning grounds, wildlife habitat, groundwater recharge areas, and natural filtration and floodwater storage areas of interconnecting lake and stream systems. The resulting deterioration of surface water quality may, in turn, lead to a deterioration of the quality of the groundwater. Groundwater serves as a source of domestic, municipal, and industrial water supply and provides a basis for low flows in rivers and streams. Similarly, the destruction of woodland cover, which may have taken a century or more to develop, may result in soil erosion and stream siltation and in more rapid runoff and increased flooding, as well as destruction of wildlife habitat. Although the effects of any one of these environmental changes may not in and of itself be overwhelming, the combined effects may lead eventually to the deterioration of the underlying and supporting natural resource base, and of the overall quality of the environment for life. The need to protect and preserve the remaining environmental corridors within Kenosha County thus becomes apparent.

Primary Environmental Corridors: Primary environmental corridors were identified within the Region in 1963 as part of the original regional land use planning effort of the Commission, and were subsequently refined under the Commission's watershed studies and regional park and open space planning program. The initial corridor delineations, even as modified under major planning programs undertaken by the Commission, were made at the systems level of planning and were thus relatively general. A more detailed delineation of environmental corridors is needed for the detailed project level planning and other local

planning efforts. The Commission has recently completed such a detailed delineation of environmental corridors in Kenosha County, and is currently preparing detailed delineations of environmental corridors in the balance of the Region.

The primary environmental corridors of Kenosha County generally lie along major stream valleys and around major lakes, and contain almost all of the remaining high-value woodlands, wetlands, and wildlife habitat areas within the County and all of the major bodies of surface water and related undeveloped floodlands and shorelands (see Map 13). These corridors also contain many of the best remaining potential park sites. The primary environmental corridors are, in effect, a composite of the best individual elements of the natural resource base of Kenosha County, and have truly immeasurable environmental and recreational value. As indicated in Table 13, primary environmental corridors encompassed 29,556 acres in Kenosha County in 1975, including 4,233 acres of surface water, 12,550 acres of wetlands, 5,117 acres of woodlands, and 7,656 acres of other lands.

Primary corridors are subject to urban encroachment because of their desirable natural resource amenities. Unplanned or poorly planned intrusion of urban development into these corridors not only tends to destroy the very resources and related amenities sought by the development, but tends to create severe environmental and developmental problems as well. One of the major objectives of the farmland preservation plan for Kenosha County--one which was also recognized by the formulators of the Wisconsin Farmland Preservation Act--is the preservation of natural resources above and beyond those related directly to agricultural production. Within Kenosha County the most important natural resources are, for the most part, located within the primary environmental corridors. The preservation of such corridors thus should be one of the major objectives of the Kenosha County farmland preservation plan.

Table 13

**ENVIRONMENTAL CORRIDORS AND IMPORTANT ISOLATED
NATURAL AREAS IN KENOSHA COUNTY: 1975**

Land Use	Primary Environmental Corridor		Secondary Environmental Corridor		Isolated Natural Area	
	Acres	Percent	Acres	Percent	Acres	Percent
Water	4,233	14.3	55	0.9	44	1.1
Wetlands ...	12,550	42.5	2,665	45.4	1,475	36.8
Woodlands ..	5,117	17.3	1,793	30.5	2,118	52.9
Other Land.	7,656	25.9	1,361	23.2	368	9.2
Total	29,556	100.0	5,874	100.0	4,005	100.0

Source: SEWRPC.

Secondary Environmental Corridors: The secondary environmental corridors in Kenosha County are located generally along intermittent streams or serve as links between segments of primary environmental corridors. These secondary environmental corridors contain a variety of resource elements, often remnant resources from primary environmental corridors which have been developed for intensive agricultural purposes or urban land uses. Secondary environmental corridors facilitate surface water drainage, maintain "pockets" of natural resource features, and provide for the movement of wildlife, as well as for the movement and dispersal of seeds for a variety of plant species. Such corridors, while not as important as the primary environmental corridors, should be preserved in essentially open, natural uses as urban development proceeds within the County, particularly when the opportunity is presented to incorporate the corridors into urban storm water detention areas, associated drainageways, and neighborhood parks. As indicated in Table 13, secondary environmental corridors encompassed 5,874 acres in Kenosha County in 1975, including 55 acres of surface water, 2,665 acres of wetlands, 1,793 acres of woodlands, and 1,361 acres of other land.

Isolated Natural Areas: In addition to the primary and secondary environmental corridors, other small concentrations of natural resource base elements exist within Kenosha County. These resource base elements are isolated from the environmental corridors by urban development or agricultural uses, and, although separated from the environmental corridor network, such "isolated" natural areas also have important natural values. Isolated natural areas may provide the only available wildlife habitat in an area, provide good locations for local parks and nature study areas, and lend an aesthetic character or natural diversity to an area. Important isolated natural features within Kenosha County include a geographically well-distributed variety of isolated wetlands, woodlands, and wildlife habitat. These isolated natural features should also be protected and preserved in a natural state whenever possible. Such isolated areas five or more acres in size are shown on Map 13. The combined area of the isolated natural areas identified on this map totals 4,005 acres.

MAN-MADE ENVIRONMENT

Planning for urban growth is the logical counterpart to planning for the preser-

vation of agricultural and other open space lands. Planning for urban growth and planning for open space preservation in Kenosha County both require an understanding of the existing man-made features of the County, including the land use pattern and the supporting transportation and public utility network, as well as an understanding of other components of the County's overall socioeconomic base, including its existing population and economy. An understanding of the existing socioeconomic base is important to the preparation of forecasts of population and employment, and related land use needs--needs which must be considered in the development of a long-range plan for the preservation of agricultural and other open space areas. This section, then, describes the major elements of the overall socioeconomic base in Kenosha County--namely, the existing population, economy, land use pattern, public utility system, and transportation system.

Population³

Pressure to convert agricultural land to urban uses and the subsequent need for farmland preservation planning in Kenosha County can be attributed, to a large extent, to growth in the county population and the decentralization of the population within the County. The population of Kenosha County, which stood at about 123,400 persons in 1980, grew by about 17 percent from 1960 to 1970 and by an additional 5 percent from 1970 to 1980 (see Table 14). The population growth rate has slowed somewhat from a rate of about 1,700 persons per year from 1960 to 1970 to a rate of about 550 persons per year from 1970 to 1980.

In relative terms, since 1940 population growth has generally occurred at a higher rate within Kenosha County than

³The 1980 population data presented herein are based on preliminary 1980 census counts. Final 1980 census population counts are not expected to differ significantly from these figures.

within the Region and the State. Between 1940 and 1970, the population of Kenosha County increased by 86 percent, compared with population increases of 65 percent and 41 percent for the Region and State, respectively. Between 1970 and 1980, the county population growth rate of 4.6 percent exceeded that of the Region (0.2 percent), and was slightly lower than that of the State (6.5 percent).

About 71 percent of the population of Kenosha County resided in urban areas of the County in 1970 and the other 29 percent resided in rural areas. As indicated in Table 15, this urban/rural population ratio has remained relatively constant since 1920, with the proportion of the population residing in urban areas declining slightly during this period. A significant change has, however, occurred in the type of resident living in rural areas of the County. As further indicated in Table 15, the rural population residing on farms has declined substantially since 1940, while the rural "nonfarm" population has increased dramatically. The rural nonfarm population may be typified by the urban dwellers generally living in scattered fashion throughout the rural and rural-urban fringe areas of the County. Despite their rural surroundings these residents require basic urban services and facilities, which are generally costly and inefficient to provide to scattered, isolated residential areas. Moreover, scattered urban development in rural areas lessens the viability of the area for farming, contributes to storm water drainage and water quality problems, and, in general, results in a deterioration of the natural resource base.

Economy

For planning purposes, one of the best measures of economic activity is the number of employment opportunities, or jobs, available to residents of a planning area. Table 16 presents the trend in employment for Kenosha County, the Region, and the State from 1960 to 1977. As indicated in this table, the number

Table 14

**POPULATION TRENDS IN KENOSHA COUNTY,
THE REGION, AND THE STATE: 1850-1980**

Year	Kenosha County			Region			Wisconsin			Kenosha County Population as Percent of:	
	Population	Change From Preceding Time Period		Population	Change From Preceding Time Period		Population	Change From Preceding Time Period		Region	Wisconsin
		Absolute	Percent		Absolute	Percent		Absolute	Percent		
1850	10,734	--	--	113,389	--	--	305,391	--	--	9.5	3.5
1860	13,900	3,166	29.5	190,409	77,020	67.9	775,881	470,490	154.1	7.3	1.8
1870	13,147	-753	-5.4	223,546	33,137	17.4	1,054,670	278,789	35.9	5.9	1.2
1880	13,550	403	3.1	277,119	53,573	24.0	1,315,497	260,827	24.7	4.9	1.0
1890	15,581	2,031	15.0	386,774	109,655	39.6	1,693,330	377,833	28.7	4.0	0.9
1900	21,707	6,126	39.3	501,808	115,034	29.7	2,069,042	375,712	22.2	4.3	1.0
1910	32,929	11,222	51.7	631,161	129,353	25.8	2,333,860	264,818	12.8	5.2	1.4
1920	51,284	18,355	55.7	783,681	152,520	24.2	2,632,067	298,207	12.8	6.5	1.9
1930	63,277	11,993	23.4	1,006,118	222,437	28.4	2,939,006	306,939	11.7	6.3	2.2
1940	63,505	228	0.4	1,067,699	61,581	6.1	3,137,587	198,581	6.8	5.9	2.0
1950	75,238	11,733	18.5	1,240,618	172,919	16.2	3,434,575	296,988	9.5	6.1	2.2
1960	100,615	25,377	33.7	1,573,620	333,002	26.8	3,952,771	518,196	15.1	6.4	2.5
1970	117,917	17,302	17.2	1,756,086	182,466	11.6	4,417,933	465,162	11.8	6.7	2.7
1980 ^a	123,393	5,476	4.6	1,760,106	4,020	0.2	4,705,335	287,402	6.5	7.0	2.6

^aThe 1980 population data presented herein are based on preliminary 1980 census counts. Final 1980 census population counts are not expected to differ significantly from these figures.

Source: U.S. Bureau of the Census and SEWRPC.

Table 15

URBAN AND RURAL POPULATION IN KENOSHA COUNTY: 1850-1970

Year	Population									
	Urban		Rural						Total	
			Nonfarm		Farm		Subtotal			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
1850	3,455	32.2	--	--	--	--	7,279	67.8	10,734	100.0
1860	3,990	28.7	--	--	--	--	9,910	71.3	13,900	100.0
1870	4,309	32.8	--	--	--	--	8,838	67.2	13,147	100.0
1880	5,039	37.2	--	--	--	--	8,511	62.8	13,550	100.0
1890	6,532	41.9	--	--	--	--	9,049	58.1	15,581	100.0
1900	11,606	53.5	--	--	--	--	10,101	46.5	21,707	100.0
1910	21,371	64.9	--	--	--	--	11,558	35.1	32,929	100.0
1920	40,472	78.9	--	--	--	--	10,812	21.1	51,284	100.0
1930 ^a	50,262	79.4	6,464	10.2	6,551	10.4	13,015	20.6	63,277	100.0
1940	48,765	76.8	7,323	11.5	7,417	11.7	14,740	23.2	63,505	100.0
1950	54,368	72.2	14,349	19.1	6,521	8.7	20,870	27.8	75,238	100.0
1960	72,852	72.4	23,517	23.4	4,246	4.2	27,763	27.6	100,615	100.0
1970	84,224	71.4	30,396	25.8	3,297	2.8	33,693	28.6	117,917	100.0

^aThe rural population has been divided into rural farm and rural nonfarm since the 1930 census.

Source: U.S. Bureau of the Census and SEWRPC.

Table 16

**EMPLOYMENT TRENDS IN KENOSHA COUNTY,
THE REGION, AND THE STATE: 1960-1977**

Area	Employment				Change: 1960-1977	
	1960	1965	1970	1977	Employment	Percent
Kenosha County ..	40,100	42,100	39,200	44,300	4,200	10.5
Region	647,900	685,900	741,600	835,100	187,200	28.9
Wisconsin.....	1,582,000	1,682,000	1,842,400	2,126,000	544,000	34.4

Source: Wisconsin Department of Industry, Labor and Human Relations; and SEWRPC.

Table 17

**DISTRIBUTION OF EMPLOYMENT BY MAJOR INDUSTRY
GROUP IN KENOSHA COUNTY: 1960-1977**

Employment Category	Employment								Change: 1960-1977	
	1960		1965		1970		1977			
	Jobs	Percent of Total	Jobs	Percent of Total						
Agriculture.....	1,600	4.0	1,500	3.5	1,170	3.0	920	2.1	-680	-42.5
Construction and Mining.....	1,400	3.5	1,300	3.1	1,130	2.9	950	2.1	-450	-32.1
Manufacturing.....	20,800	51.9	20,700	49.2	16,400	41.8	15,700	35.4	-5,100	-24.5
Transportation, Communication, and Utilities.....	2,100	5.2	1,500	3.6	1,260	3.2	1,500	3.4	-600	-28.6
Trade.....	4,700	11.7	5,500	13.1	6,600	16.8	7,960	18.0	3,260	69.4
Finance, Insurance, and Real Estate.....	580	1.4	670	1.6	710	1.8	820	1.9	240	41.4
Government Services....	2,600	6.5	3,200	7.6	4,700	12.0	5,850	13.2	3,250	125.0
Other Services.....	6,320	15.8	7,730	18.3	7,230	18.5	10,600	23.9	4,280	67.7
Total	40,100	100.0	42,100	100.0	39,200	100.0	44,300	100.0	4,200	10.5

Source: Wisconsin Department of Industry, Labor and Human Relations; and SEWRPC.

of jobs in Kenosha County has increased at a modest rate, from 40,100 in 1960 to 44,300 in 1977, or by about 11 percent during the 17-year period. The County's employment growth rate was considerably lower than that of the Region (29 percent) and State (34 percent) during this time. The relatively slow growth rate in overall employment in Kenosha County may be attributed primarily to a substantial decline in manufacturing jobs after 1965 (see Table 17). It is important to note that manufacturing employment in Kenosha County is profoundly affected by a single manufacturing enterprise--namely, the American Motors Corporation (AMC), which accounts for more than half of all

manufacturing employment in the County. Fluctuations in AMC employment significantly affect the overall county employment trend.

As indicated in Table 17, farm employment accounted for only a small share, about 2 percent, of all jobs in Kenosha County in 1977. Moreover, the number of jobs on farms has declined by 43 percent since 1960. It should be noted, however, that the farm employment group as recorded in Table 17 includes only workers on farms and excludes employment in agricultural-related enterprises such as dairies, food processing, and farm equipment and supply sales.

Table 18

**CASH RECEIPTS FOR FARM PRODUCTS
IN KENOSHA COUNTY: 1965, 1970, AND 1977**

Commodity	Cash Receipts (actual dollars)								Percent Change 1965-1977 (based on constant 1967 dollars)
	1965		1970		1977		Change 1965-1977		
	Thousands of Dollars	Percent of Total	Thousands of Dollars	Percent of Total	Thousands of Dollars	Percent of Total	Thousands of Dollars	Percent	
Livestock									
Meat Animals.....	2,270	20.6	2,437	18.0	2,786	11.0	516	22.7	-34.0
Diary Products.....	4,124	37.4	5,709	42.1	7,794	30.7	3,670	89.0	1.7
Poultry and Eggs.....	569	5.1	994	7.3	1,922	7.6	1,353	237.8	81.8
Miscellaneous Livestock..	1,146	10.4	657	4.8	2,052	8.1	906	79.1	-3.6
Subtotal	8,109	73.5	9,797	72.2	14,554	57.4	6,445	79.5	-3.4
Crops									
Field Crops.....	1,180	10.7	1,961	14.4	7,206	28.4	6,026	510.7	228.6
All Vegetables ^a	1,234	11.2	1,217	9.0	1,847	7.3	613	49.7	-19.4
Specialty Crops.....	497	4.5	586	4.3	1,524	6.0	1,027	206.6	64.9
Miscellaneous Crops.....	17	0.1	16	0.1	243	0.9	226	1,329.4	661.1
Subtotal	2,928	26.5	3,780	27.8	10,820	42.6	7,892	269.5	98.9
All Commodities	11,037	100.0	13,577	100.0	25,374	100.0	14,337	129.9	23.7

^aIncludes fruits, mints, mushrooms, maple products, greenhouses, nurseries, and forest products.

Source: Wisconsin Statistical Reporting Service and SEWRPC.

More insight into the agricultural sector of the economy of Kenosha County can be obtained by examining recent trends in farm cash receipts. The trend in farm cash receipts for major categories of farm commodities in Kenosha County between 1965 and 1977 is presented in Table 18. Farm cash receipts for all commodities combined in the County increased by about \$14.4 million, or 130 percent, during this period--from about \$11.0 million in 1965 to \$25.4 million in 1977. Cash receipts for livestock increased by about \$6.5 million, or 80 percent, between 1965 and 1977, while cash receipts for crops increased by about \$7.9 million, or 270 percent, during this period.

As indicated in Table 18, the composition of farm cash receipts in Kenosha County changed somewhat during the inventory period. Livestock cash receipts constituted 57 percent of all farm cash receipts in 1977, down considerably from the 1965 figure of 74 percent. The proportionate share of all cash receipts associated with meat animals decreased from 21 percent in 1965 to 11 percent in 1977. The proportionate share of all cash receipts associated with dairy products decreased from 37 percent in 1965 and 42 percent in 1970 to 31 percent in 1977.

As further indicated in Table 18, cash receipts for all crops combined constituted 43 percent of all farm cash receipts for the County in 1977, up from 27 percent in 1965. Cash receipts for field crops increased substantially between 1965 and 1977, accounting for 28 percent of all farm cash receipts in 1977, compared with 11 percent in 1965. Conversely, the proportion of county farm cash receipts associated with vegetables decreased somewhat, from 11 percent in 1965 to 7 percent in 1977.

Table 18 also indicates the real change in farm cash receipts between 1965 and 1977. In terms of constant 1967 dollars, farm cash receipts for all commodities combined increased by 24 percent between 1965 and 1977. Cash receipts for crops increased by about 99 percent, while cash receipts for livestock actually decreased by about 3 percent between 1965 and 1977.

Land Use

Prior to 1950, urban development within Kenosha County occurred in a relatively compact, centralized form, primarily in areas located adjacent to and outward from the central portion of the City of Kenosha and outlying urban centers such as Paddock Lake, Silver Lake, and Twin Lakes. However, a dramatic change in the

pattern of urban development within Kenosha County began to occur in 1950. Urban development became discontinuous and diffused, with much urban development occurring in rural areas to which the extension of urban services and facilities is difficult if not impossible (see Map 14). As previously noted, this "urban sprawl" form of development reduces the viability of rural areas for agricultural uses and unnecessarily creates costly environmental problems.

Information on existing (1975) land use in Kenosha County is summarized in Table 19. Although Kenosha County is a relatively urbanized county, only about 18 percent of its total area is presently devoted to urban-type land uses. The largest land use category is still agriculture, which presently occupies about 60 percent of the county area. Water and wetlands constitute an additional 12 percent of the County, while woodlands and unused lands each constitute about 5 percent.⁴

As indicated in Table 19, agriculture and other open lands in Kenosha County decreased by 7,782 acres, or 5 percent, between 1963 and 1975--from 153,366 acres in 1963 to 145,584 acres in 1975. Much of this decline is accounted for by residential development, with residential land use in the County increasing by 3,457 acres, or 29 percent--from 11,919 acres in 1963 to 15,376 acres in 1975. Lands developed for transportation and recreation purposes also account for some of the decline in open space lands during this period, with the transportation and recreation land use categories increasing by 2,443 acres and 998 acres, respectively. As further indicated in Table 19, only a small portion of the decrease in open space lands

⁴The locations of agricultural lands, wetlands and woodlands, and urban lands in Kenosha County are shown on Maps 3, 9, and 14, respectively, of this report. More detailed maps of existing land use at a scale of 1" = 2,000' are on file in the offices of the Kenosha County Department of Planning, Zoning and Sanitation.

in Kenosha County between 1963 and 1975 can be traced to commercial, industrial, and governmental and institutional development.

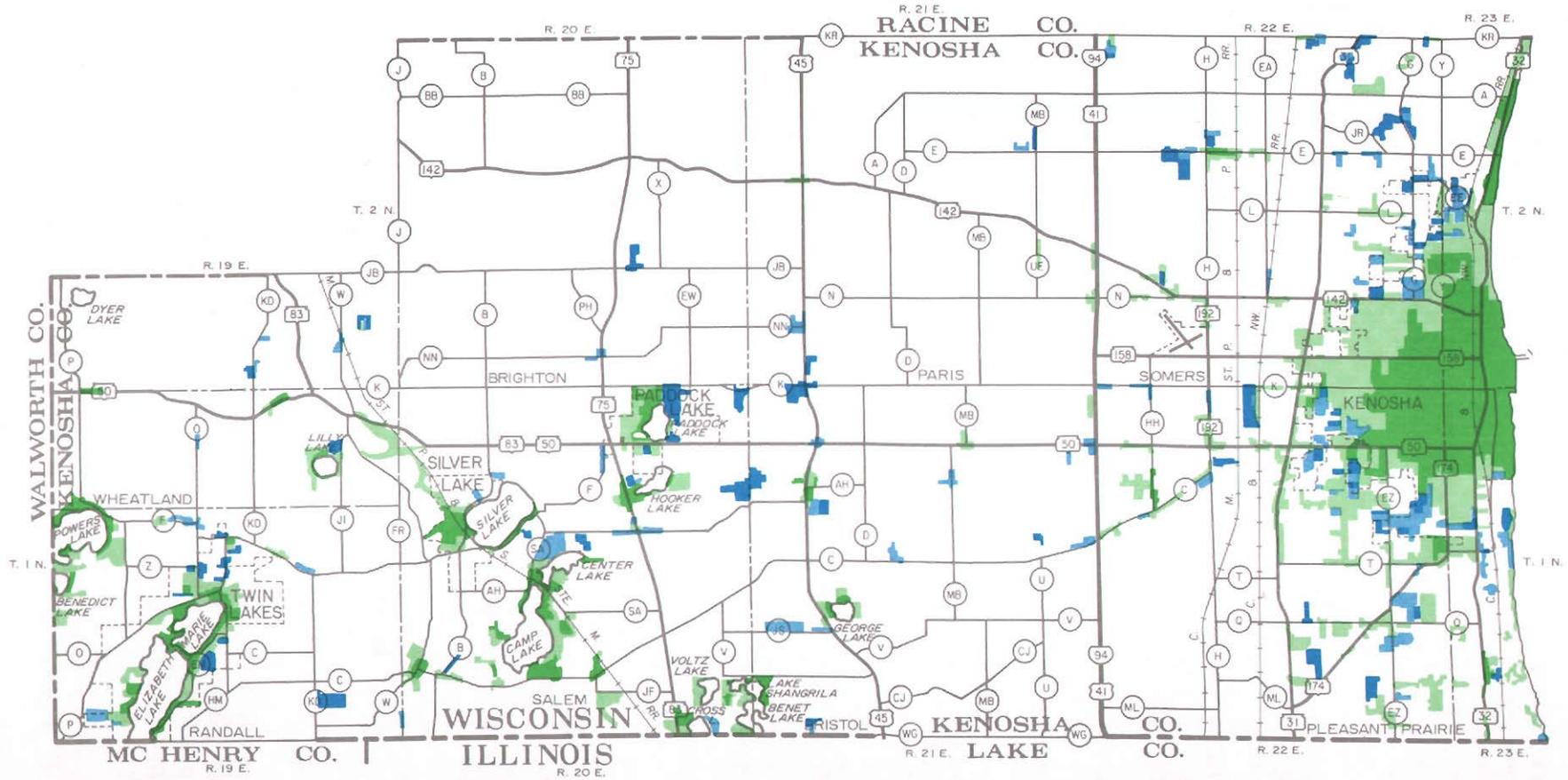
Urban Service Areas

Public utility systems are one of the most important elements of urban growth and development. These utility systems provide the individual land uses with essential power, light, communication, heat, water, and sewerage services. Gas and electric power service may be considered virtually ubiquitous and not a major constraint on the location and intensity of urban development in Kenosha County. Public sanitary sewer and water supply service is much more limited. The preservation of agricultural and other open space lands is directly related to the extent to which urban development can be centralized and concentrated in areas which can be readily and economically provided with public sanitary sewerage and water supply facilities.

The Regional Planning Commission conducted an inventory of existing sanitary sewerage systems in Kenosha County and the balance of southeastern Wisconsin under the initial regional land use-transportation study, and subsequently updated this information as part of the regional sanitary sewerage system study and, more recently, as part of the regional water quality management planning program. These inventories indicate that there were 17 public sanitary sewerage systems served by a total of 10 public sewage treatment facilities in Kenosha County in 1975. In addition, there were eight private sewage treatment facilities serving isolated enclaves of urban development within the County. The public sanitary sewerage systems in Kenosha County together serve about 23 square miles, or 8 percent of the total area of the County, and a population of 100,500, or about 79 percent of the county population (see Map 15 and Table 20). The total sanitary sewer service area of Kenosha County increased by 66 percent between 1963 and 1975, while the proportion of the county population served increased from about 74 percent to 79 percent.

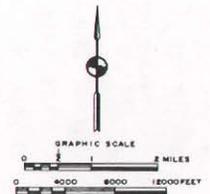
Map 14

URBAN GROWTH IN KENOSHA COUNTY: 1950-1975



LEGEND

- 1950
- 1963
- 1970
- 1975



Source: SEWRPC.

Table 19

LAND USE WITHIN KENOSHA COUNTY: 1963 AND 1975

Land Use Category	1963		1975		Change: 1963-1975	
	Acres	Percent of County	Acres	Percent of County	Acres	Percent
Residential ^a	11,919	6.7	15,376	8.6	3,457	29.0
Commercial	453	0.3	559	0.3	106	23.4
Industrial ^b	685	0.4	1,089	0.6	404	59.0
Transportation, Communication, and Utilities ^c	8,786	4.9	11,229	6.3	2,443	27.8
Governmental and Institutional	957	0.5	1,331	0.8	374	39.1
Recreational	2,099	1.2	3,097	1.7	998	47.5
Urban Subtotal	24,899	14.0	32,681	18.3	7,782	31.3
Agricultural	115,741	64.9	107,206	60.1	-8,535	-7.4
Water	4,522	2.5	5,145	2.9	623	13.8
Wetlands	15,748	8.8	15,574	8.7	-174	-1.1
Woodlands	9,956	5.6	9,547	5.4	-409	-4.1
Unused and Other Open Lands	7,399	4.2	8,112	4.6	713	9.6
Rural Subtotal	153,366	86.0	145,584	81.7	-7,782	-5.1
Total	178,265	100.0	178,265	100.0	--	--

^aIncludes all residential areas developed and under development.

^bIncludes all manufacturing, wholesaling, and storage uses.

^cIncludes off-street parking areas of more than 10 spaces.

Source: SEWRPC.

Table 20

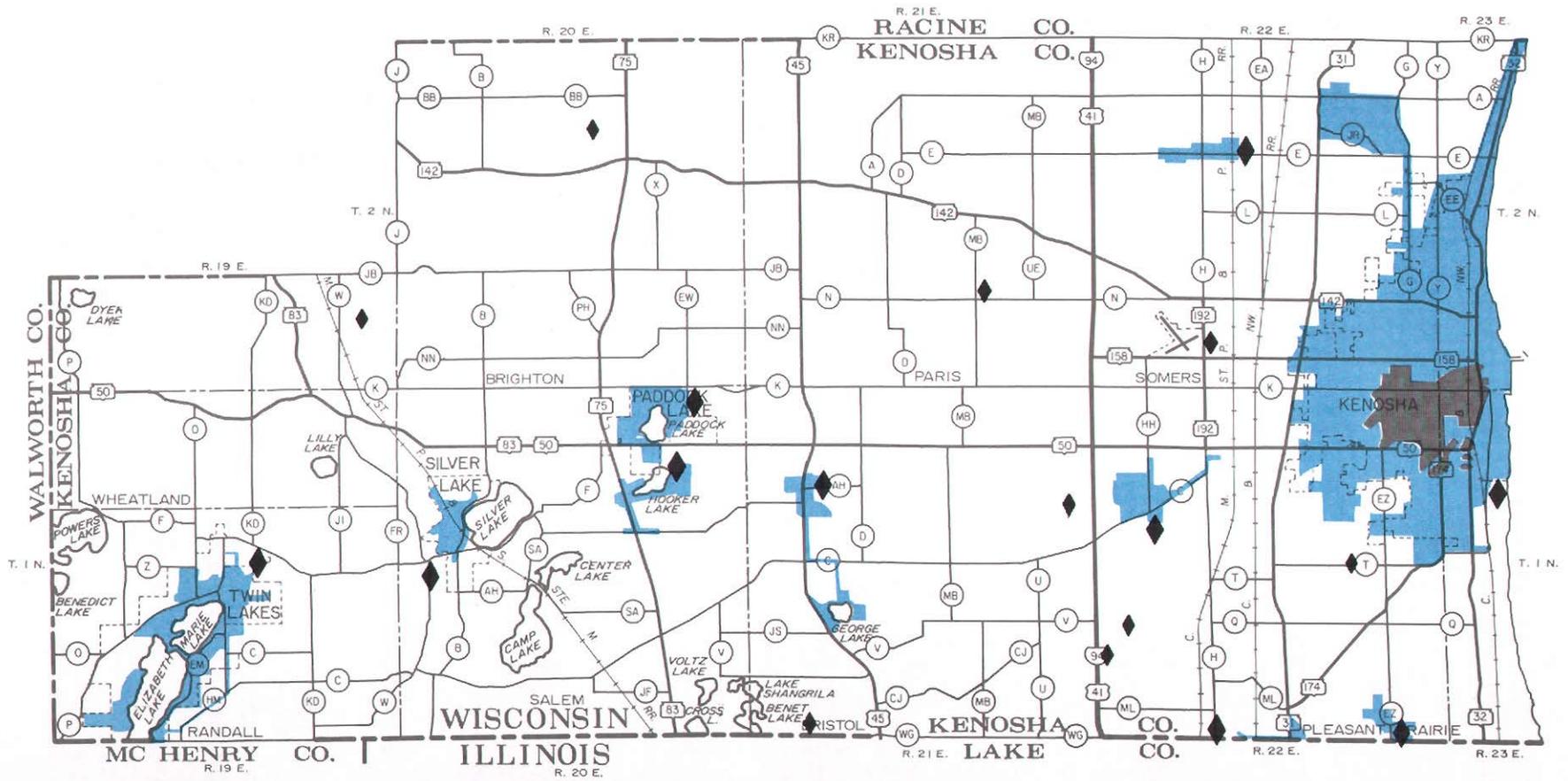
AREA AND POPULATION SERVED BY PUBLIC CENTRAL
SANITARY SEWERS IN KENOSHA COUNTY: 1963 AND 1975

Year	Sanitary Sewer Service Area		Population Served	
	Square Miles	Percent of County	Persons	Percent of County
1963	14.0	5.0	79,200	74.2
1975	23.3	8.4	100,500	79.4

Source: SEWRPC.

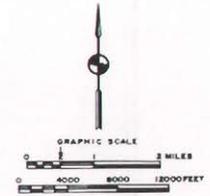
Map 15

EXISTING PUBLIC SANITARY SEWER SERVICE AREAS AND
SEWAGE TREATMENT FACILITIES IN KENOSHA COUNTY: 1975



- LEGEND**
- SEPARATE SEWER SERVICE AREA
 - COMBINED SEWER SERVICE AREA
 - PUBLIC SEWAGE TREATMENT FACILITY
 - PRIVATE SEWAGE TREATMENT FACILITY

Source: SEWRPC.



Most of the water supply service in Kenosha County is provided by public water utilities. There were a total of six public water utilities in Kenosha County in 1975, serving a combined area of about 17 square miles, or about 6 percent of the county area, and about 91,800 persons, or 72 percent of the county population. Areas in Kenosha County served by public water utilities are shown on Map 16. In addition to publicly owned water utilities, there are seven special-purpose water systems in Kenosha County which provide water supply service on a limited basis to isolated residential areas. These special-purpose systems include the water supply systems of the Carol Beach Water Company in the Town of Pleasant Prairie; the Lake Knolls Subdivision, the Edgewater Subdivision, the Twin Lakes Park Water Company, the Van Woods Estates Water Company, and the Wy-Wood Cooperative in the Town of Randall; and the Oakwood Knolls Subdivision in the Town of Salem.

**Existing Surface
Transportation System**

Surface transportation within Kenosha County is supplied primarily by a wide-

spread system of improved streets and highways, as well as by more limited public transit and freight rail systems.

Street and Highway System: The street and highway system consists of three functional subsystems: land access streets, collector streets, and arterial highways comprised of surface arterials and freeways. Arterial highways are of particular importance in farmland preservation planning. These facilities are essential to the economic viability and vitality of rural enterprises, including farms, food processing industries, gravel and stone quarries, nurseries, and orchards. Farms and other rural enterprises rely on arterial highways as the basic form of access to labor, materials, and markets. Moreover, these arterial highways provide direct connections to the freeway system and, thus, access to regional, state, and national markets.

There were a total of 908 miles of public streets and highways open to traffic within Kenosha County in 1978. Of this total, 319 miles, or 35 percent, constituted the arterial street and highway system (see Table 21). The re-

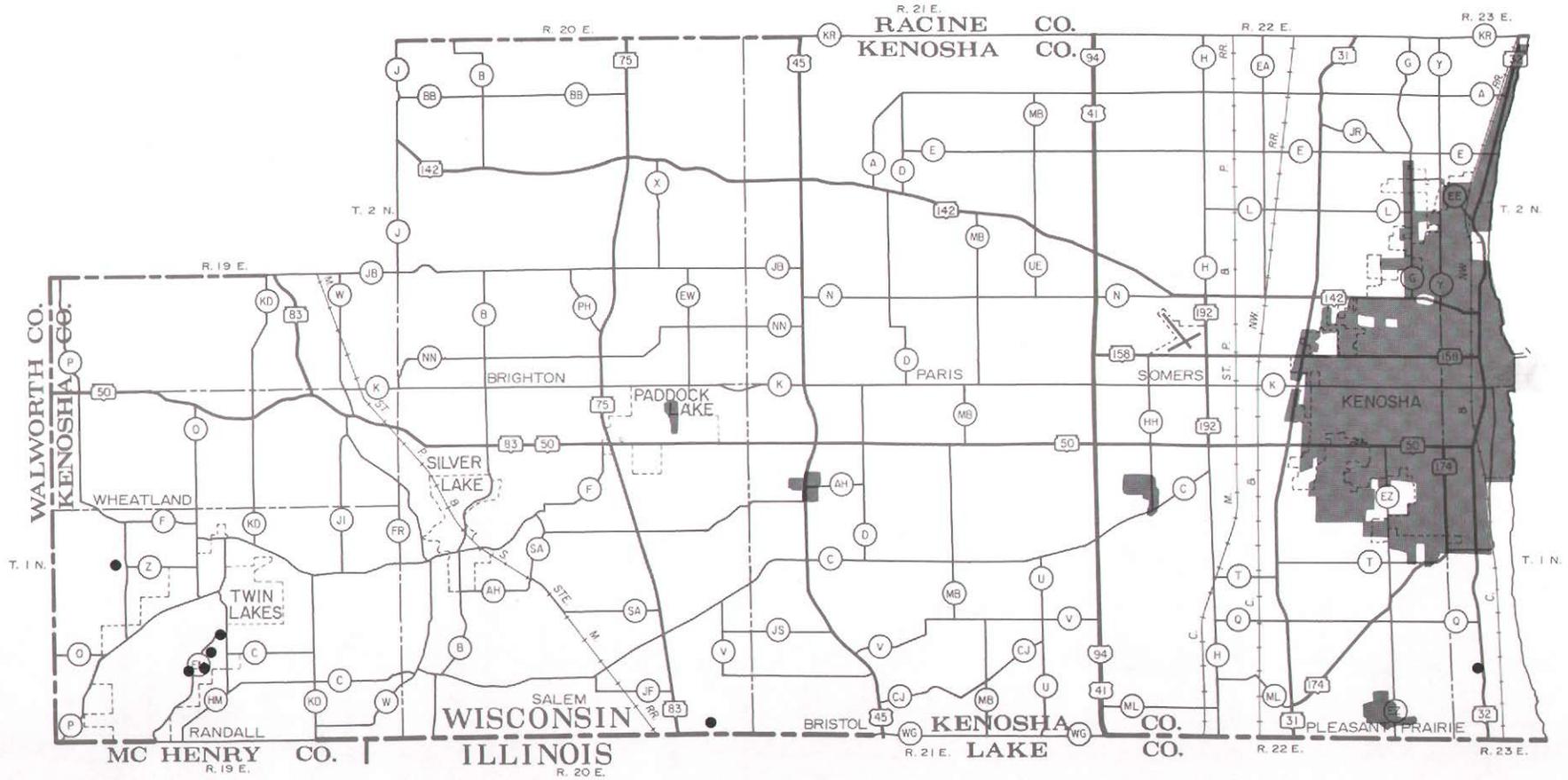
**Table 21
EXISTING STREET AND HIGHWAY SYSTEM MILEAGE IN KENOSHA COUNTY
BY FUNCTIONAL AND JURISDICTIONAL CLASSIFICATION: 1978**

Classification	Miles	Percent of Subtotal	Percent of Total
Arterial Streets and Highways			
State Trunk Highways and Connecting Streets			
Freeway.....	12.0	3.8	1.3
Surface Arterials.....	111.9	35.0	12.3
County Trunk Highways.....	156.6	49.0	17.2
Local Trunk Highways.....	38.9	12.2	4.3
Subtotal	319.4	100.0	35.1
Nonarterial Streets and Highways			
County Trunk Highways.....	110.6	18.8	12.2
Local Trunk Highways.....	478.3	81.2	52.7
Subtotal	588.9	100.0	64.9
Total	908.3	--	100.0

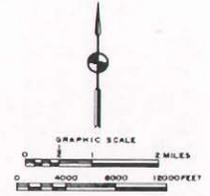
Source: SEWRPC.

Map 16

EXISTING PUBLIC WATER SUPPLY SERVICE AREAS AND SPECIAL-PURPOSE WATER UTILITIES IN KENOSHA COUNTY: 1975



- LEGEND
- AREA SERVED BY PUBLIC WATER UTILITY
 - LOCATION OF SPECIAL-PURPOSE WATER UTILITY



Source: SEWRPC.

sponsibility for the design, construction, operation, and maintenance of this arterial street and highway network rests with three levels of government: the State, the County, and local municipalities. Approximately 124 miles, or 39 percent of the arterial street and highway system, were under the jurisdiction of the State, being comprised of interstate and state trunk highways and connecting streets; about 156 miles, or 49 percent, were under the jurisdiction of the County, being comprised of county trunk highways; and about 39 miles, or 12 percent, were under local jurisdiction, being comprised of local arterial streets and highways.

Public Transit System: Public transit service in Kenosha County is provided in the form of railway passenger train service, fixed route bus service over existing streets and highways, and demand-responsive transit service for the elderly and handicapped.

Railway passenger train service in Kenosha County is limited to a Chicago-oriented commuter service provided by the Chicago & North Western Transportation Company (C&NW). In 1979 the C&NW provided the only commuter-oriented passenger service within the Region, operating nine daily scheduled trains in each direction between the Cities of Kenosha and Chicago.

Fixed route bus service⁵ in Kenosha County includes interregional service over routes in the eastern portion of the County and intraregional service within and through the Kenosha urbanized area. In 1979 the most frequent interre-

gional bus service in the Region--19 regularly scheduled trips in each direction--was provided in the Milwaukee-Chicago corridor. Greyhound Lines West operated 14 scheduled trips in each direction each weekday between Milwaukee and Chicago, with two trips serving the City of Kenosha. Royal Coach Lines, Inc., operated five scheduled trips in each direction on weekdays between Milwaukee and O'Hare International Airport in Chicago, with stops in the County at STH 50 and IH 94.

In the Kenosha urbanized area in 1979, publicly owned and privately managed fixed route common carrier public transit service was provided by the Kenosha Transit Commission. Suburban bus service was provided by Wisconsin Coach Lines, Inc., which operated nine weekday bus trips in each direction between the Cities of Kenosha and Milwaukee, with an intermediate stop in the City of Racine.

Special carrier nonfixed route service was provided in 1977 by three social service agencies to elderly and handicapped residents located throughout Kenosha County, primarily on a demand-responsive basis. During an average month in 1977, these agencies transported almost 400 clients who made a total of more than 8,200 trips.

Freight Rail System: Rail freight service in Kenosha County was provided by three railroad companies in 1979. The Chicago & North Western Transportation Company operated in the eastern portion of the County over two north-south main lines in the Chicago to Milwaukee corridor, one operating through the City of Kenosha and one operating just west of the City of Kenosha through the Towns of Somers and Pleasant Prairie. The Chicago, Milwaukee, St. Paul & Pacific Railroad (Milwaukee Road) operated over one main line in the Chicago to Milwaukee corridor through the Towns of Somers and Pleasant Prairie. The Soo Line Railroad operated over one north-south main line in the western portion of the County through the Town of Wheatland and the Village of Silver Lake. This rail freight system facilitates the movement of agricultural products from Kenosha County to regional, state, and national markets.

⁵Public transportation can be classified as fixed route or nonfixed route service according to whether service is provided on regular schedules over prescribed routes or on a demand-responsive basis. Public transportation can be further divided into common carrier and special carrier service, according to whether service is provided to the general public or limited to special subgroups of the general public.

EXISTING LAND USE AND PUBLIC FACILITY PLANS AND LAND USE REGULATORY DEVICES

A plan for farmland preservation in Kenosha County must be formulated within the framework of other plans, including regional, county, and municipal plans. In addition, it is important that existing land use regulatory devices, such as zoning and subdivision control ordinances, be considered in the farmland preservation planning process. Zoning ordinances and zoning district maps, in particular, offer some insight into an area's development objectives. Moreover, an examination of existing land use controls may lead to recommendations concerning how such controls might be modified to more effectively implement a farmland preservation plan. This section, then, describes the most important land use and public facility plans which have been prepared for Kenosha County, as well as those land use controls having the greatest potential impact on implementation of the farmland preservation plan.

Land Use and Public Facility Plans

A variety of land use and public facility plans have been prepared for all or portions of Kenosha County. Regional plans having the most relevance to farmland preservation planning include the regional land use plan; the regional transportation system plan; the regional sanitary sewerage system plan, particularly as refined under the regional water quality management planning program; the regional park and open space plan; and the Fox River watershed plan. Also to be considered in the preparation of a farmland preservation plan for Kenosha County is the Kenosha County soil and water conservation district plan.

The regional land use plan, as it affects Kenosha County, is shown in graphic form on Map 1 in Chapter I of this report. This plan, described in SEWRPC Planning Report No 25, A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, provides for the attainment of

specific regional land use development objectives formulated with the advice and consent of concerned local, state, and federal units and agencies of government.⁶ Based on careful demographic, economic, public financial resource, natural resource, and public utility inventories, analyses, and forecasts, the regional land use plan provides recommendations with respect to the amount, spatial distribution, and general arrangements of the various land uses required to serve the needs of the anticipated future population and economic activity levels within the seven-county Southeastern Wisconsin Region through the plan design year. Especially important to the preparation of a farmland preservation plan in Kenosha County are the land use plan recommendations concerning the preservation of primary environmental corridors and the encouragement of urban development in those areas of the Region which are covered by soils suitable for such use, which are not subject to special hazards such as flooding, and which can be readily served by sanitary sewerage and water supply facilities. These recommendations are intended to serve as the basis for farmland preservation plan policies regarding urban growth and the protection

⁶*The regional land use plan for the year 2000 was adopted by the Regional Planning Commission in December 1977, and the regional transportation system plan for the year 2000 was adopted by the Commission in June 1978. These plans were prepared and adopted as an amendment to and extension of the regional land use and transportation system plans for the year 1990 adopted by the Commission in 1966. The basic concepts underlying the regional land use plan for the year 2000 are the same as those underlying the 1990 land use plan. The land use plan has been amended to reflect recent changes in the size and distribution of the regional population and economic activity; changes in land development patterns; and revised population forecasts which have been extended to the year 2000.*

of environmental areas. As noted in Chapter I, such policies must be included in a farmland preservation plan to meet the requirements of the Wisconsin Farmland Preservation Act.

It should be noted that the regional land use plan sets forth a preliminary delineation of prime agricultural lands within the seven-county Region with the intention that these areas be refined in subsequent county planning programs. This preliminary delineation was accomplished in 1964 prior to the completion of the U.S. Soil Conservation Service regional soil survey. Included as prime agricultural areas are lands which were determined to be highly productive for agricultural purposes on the basis of soils; the size and extent of the area farmed; the size of the individual farms in that area; the capital invested in agricultural irrigation and drainage systems and in soil conservation practices; and the historic capability of the area to consistently produce better than average crop yields. The Kenosha County farmland preservation planning program will establish specific standards to be utilized in identifying a farmland preservation area within the County. The application of these standards will result in a refined farmland preservation area which reflects both the more detailed information on soils and farming practices which will become available through the farmland preservation planning program and changes in farming practices and land use since 1964.

The regional transportation plan, also described in SEWRPC Planning Report No. 25, seeks to provide the Region with a safe, efficient, and economical transportation system which will serve the existing and probable future travel and transportation demand within the Region and serve and promote the regional land use plan. The recommended plan consists of two major elements, one dealing with highway facilities and the other with transit facilities. The highway element of the transportation plan is both functional--recommending the general location, type, capacity, and service levels

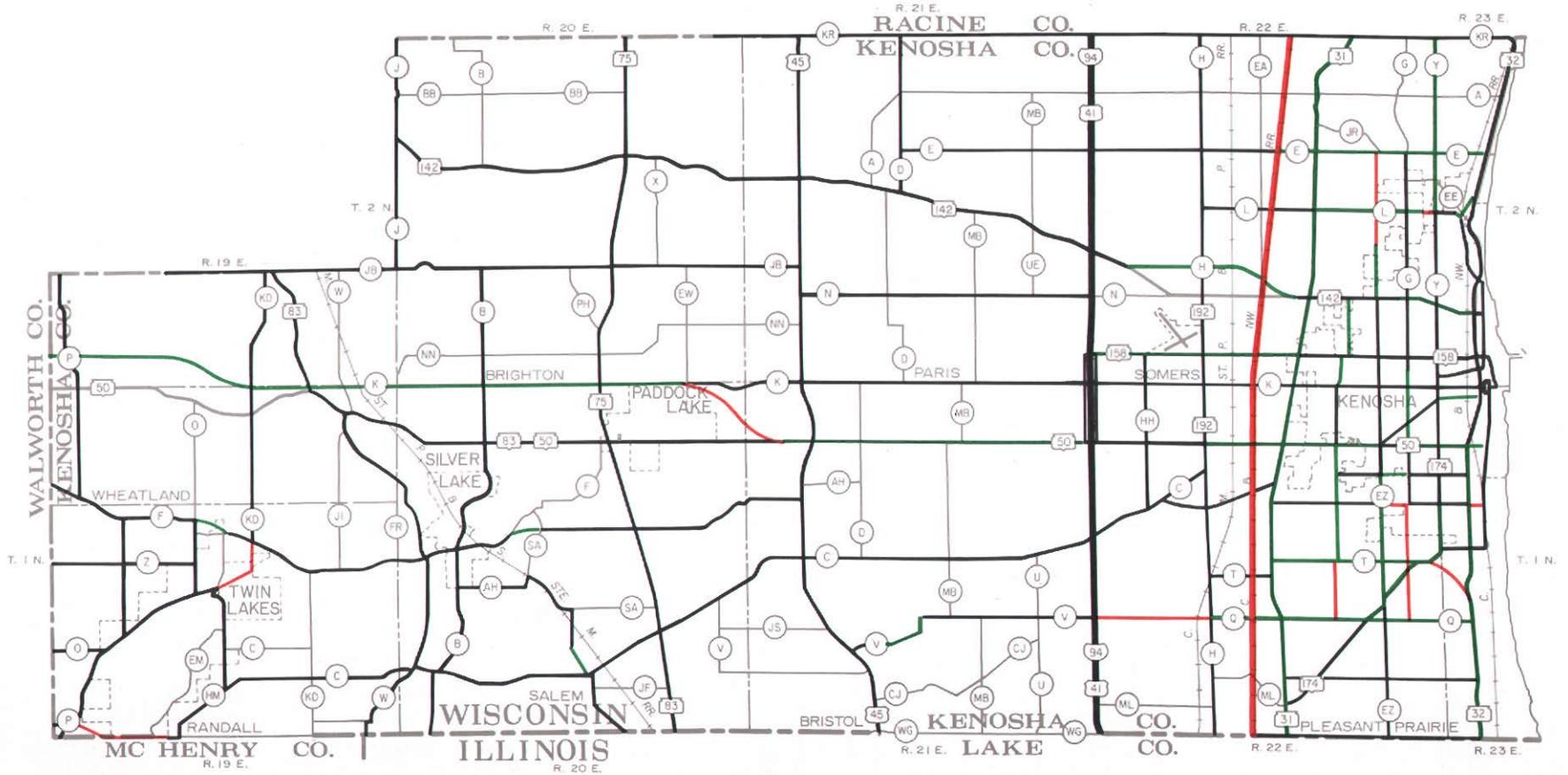
of the arterial street and highway system--and jurisdictional--recommending the governmental level and agency that should be responsible for acquiring, constructing, and maintaining each of the recommended freeway and surface arterial facilities. In Kenosha County, as in the other six counties of the Region, these jurisdictional recommendations represent an amendment to the jurisdictional highway system plans previously prepared for and adopted by each county.⁷ The freeway and standard surface arterial street and highway system recommended under the regional transportation plan for Kenosha County is shown on Map 17. These arterial streets and highways will provide the basic transportation system facilitating the movement of agricultural products from rural farmlands to urban markets.

The recommended regional park and open space plan, described in SEWRPC Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000, provides a guide for the achievement of specific park and open space preservation, acquisition, and development objectives formulated under the study in cooperation with local, state, and federal units and agencies of government concerned as well as with private recreation interests. The park plan identifies existing and anticipated future park and open space needs, and recommends general site locations for needed facilities. It should be noted that the park plan refines the environmental corridor preservation element of the regional land use plan by recommending jurisdictional responsibilities for various agencies and units of government concerned with open space preservation. These recommendations should be considered in the formulation of policies regarding the preservation of environmental areas under the Kenosha County farmland preservation planning program.

⁷The Kenosha County jurisdictional highway system is described in SEWRPC Planning Report No. 24, A Jurisdictional Highway System plan for Kenosha County.

Map 17

RECOMMENDED ARTERIAL STREET AND HIGHWAY SYSTEM IN KENOSHA COUNTY: 2000



LEGEND

SYSTEM PRESERVATION

- FREEWAY
- STANDARD ARTERIAL

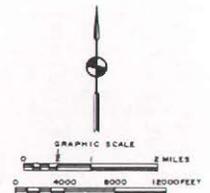
SYSTEM IMPROVEMENT

- STANDARD ARTERIAL

SYSTEM EXPANSION

- FREEWAY
- STANDARD ARTERIAL

Source: SEWRPC.



The recommended regional sanitary sewerage system plan, completed in 1974 and described in SEWRPC Planning Report No. 16, A Regional Sanitary Sewerage System Plan for Southeastern Wisconsin, was prepared as a coordinated guide to the development of future sewage treatment and related trunk sewer facilities. The regional water quality management plan, which was subsequently prepared and adopted by the Commission in 1979, includes a point source pollution abatement element which represents a modification and refinement of the year 1990 regional sanitary sewerage system plan. The modifications and recommendations made in the regional water quality management plan resulted from the findings of local facility planning studies and from changes in the future resident population, employment, and land use development patterns set forth in the new regional land use plan, on which the water quality management plan is based. The point source pollution abatement element of the water quality management plan revises the regional sanitary sewerage system plan somewhat with respect to the population and area proposed to be served by sanitary sewers, the number and location of public sewage treatment facilities within the Region, the type and level of treatment to be provided at public sewage treatment facilities, and the number and location of major intercommunity trunk sewers. The recommendations of the point source pollution abatement plan element of the regional water quality management plan should be considered within this farmland preservation plan in the formulation of policies concerning the provision of public services, policies which the Wisconsin Farmland Preservation Act dictates must be included in county agricultural preservation plans.

The regional water quality management plan also includes a nonpoint source pollution abatement element which addresses the problem of diffuse sources of water pollution such as runoff from intensive urban development and runoff from cropland and pastureland and from livestock wastes in rural areas. A reduction in the transport of pollutants

from such sources, in combination with point source pollution abatement measures, is necessary if regional water use objectives are to be met. The nonpoint source pollution abatement element identifies urban and rural areas in which minimum control measures should be applied, as well as areas where additional control measures are necessary. Recommended minimum nonpoint source pollution control measures for rural areas include such efforts as fertilizer and pesticide management, crop residue management, and livestock waste control. Recommended additional nonpoint source control practices for rural areas, which are more costly to implement, include contour strip-cropping, grass waterways, wind erosion controls, bench terracing, and other efforts. The recommendations of the nonpoint source pollution abatement element of the regional water quality management plan should be considered in the formulation of policies for environmental protection, which must also be included in a farmland preservation plan pursuant to the requirements of the Wisconsin Farmland Preservation Act.

In addition to the foregoing regional plans, the comprehensive plan for the Fox River watershed as it affects Kenosha County should be considered in the Kenosha County farmland preservation planning program. This watershed plan includes recommendations concerning the amount, density, and spatial distribution of future urban development; open space preservation; flood control measures; and water pollution abatement measures. Most important to farmland preservation planning in Kenosha County are the watershed plan recommendations concerning open space preservation and flood control measures.

With respect to open space preservation, this plan recommends the protection of environmental corridor lands through a combination of public acquisition and public land use controls. The open space preservation recommendations of the watershed plan have been refined and made a part of the regional park and open space plan, described above. The basic flood control plan element of the

Fox River watershed plan is primarily nonstructural and is based upon sound land use development in the watershed, particularly the riverine areas. The watershed plan does, however, set forth certain water control facility recommendations which would result in the abatement of urban and agricultural flood damages if implemented. The plan recommends, for example, the widening of and deepening of portions of the main channel of Hoosier Creek for improved agricultural drainage and reduced agricultural flood damage. The flood control element of the Fox River watershed plan also recommends the removal of approximately 160 residences in the floodway of the main stem of the Fox River in the Towns of Wheatland and Salem and the Village of Silver Lake.

The long-range resource conservation program for Kenosha County, prepared by the Kenosha County Soil and Water Conservation District, provides still another guide for the conservation and wise use of the soil and water resources of Kenosha County. The Kenosha County Soil and Water Conservation District prepared an initial long-range resource conservation program for Kenosha County in 1953. The District has recently completed the preliminary draft of a revised long-range resource conservation program and is expected to adopt the revised program this year. The revised plan identifies problems and establishes goals concerning agriculture, water, woodlands, wetlands, and wildlife resources, and addresses problems and establishes goals regarding certain aspects of urban development. The goals of this long-range conservation plan should be considered in the formulation of objectives and plan recommendations in the Kenosha County farmland preservation planning program.

Zoning and Subdivision Controls

Zoning and land subdivision ordinances are among the most important tools available to local units of government in achieving proper use of lands within their jurisdiction. Zoning ordinances and zoning district maps represent the

single most effective means for regulating urban development and preserving open space lands in accordance with local land use plans and policies. Land subdivision ordinances can also serve to implement local plans--for example, by restricting development in areas not suitable for development and by minimizing potential adverse impacts attendant to urban development. Existing zoning and subdivision control ordinances in effect within Kenosha County are described herein.

Existing Zoning--Kenosha County: The Kenosha County zoning ordinance was approved and adopted by Kenosha County in 1959 and has since been ratified by six towns in the County--the Towns of Brighton, Bristol, Pleasant Prairie, Randall, Somers, and Wheatland. It is important to note that Kenosha County has, with the assistance of the Regional Planning Commission, completed a preliminary text containing a new set of zoning district regulations for the County. The County, however, has not yet formally adopted these regulations, nor has it prepared corresponding zoning district maps. The zoning district regulations and maps adopted by the County in 1959 will remain in effect until the County takes formal action to adopt the new ordinance, including a new district map.

A total of seven zoning districts are provided in the existing Kenosha County zoning ordinance. A summary of these districts is set forth in Table 22. As indicated in this table, all zoning districts in the existing Kenosha County ordinance permit intensive urban development. Even those districts which would typically be applied in rural farming areas or environmentally sensitive areas, the Agricultural District and the Recreational District, permit intensive urban uses in the form of medium-density residential and other urban development. For instance, in addition to general farming, the Agricultural District permits single-family, two-family, and multiple-family development on lots as small as 8,400 square feet. The Recrea-

Table 22

**SUMMARY OF EXISTING ZONING DISTRICT REQUIREMENTS
UNDER THE ADOPTED KENOSHA COUNTY ZONING ORDINANCE**

Zoning District	Permitted Uses	Conditional Uses	Minimum Lot Requirements	
			Area (square feet)	Width (feet)
Residential District A	Single-family dwellings; churches; schools; colleges, public libraries; museums; art galleries; municipal buildings; public recreational and community center buildings and grounds; private clubs and lodges; specified utility uses; truck farming, gardening, and nurseries; accessory buildings or one private garage or stable; railroad rights-of-way and passenger depots; uses customarily incident to any of the foregoing uses when located on the same lot and not involving the conduct of a business; professional offices; specified signs	Charitable institutions; quarries; stripping or removal of top soil; microwave relay structures; penal and correctional institutions; public hospitals; public utility or public service corporation buildings; sewer and sanitary landfill operations; concrete batching plants	8,400 ^a	60 ^a
Residential District B	Uses permitted in Residential District A plus two-family and multiple-family dwellings	Conditional uses of Residential District A plus mobile home parks	8,400 ^a	60 ^a
Recreational District	Uses permitted in Residential District A plus summer rental cottages; summer residence hotels; boat houses; organized recreational camps; boat liveries; bait sales	Conditional uses of Residential District A plus recreational vehicle and/or campground development	8,400 ^a	60 ^a
Agricultural District	Uses permitted in Residential District B plus the following: general farming; roadside stands; specified signs; riding academies; public liveries; railroad rights-of-way, sidings, and structures; boarding houses and lodging houses; hospitals, clinics, and sanitoriums	Conditional uses of Residential District A plus public dumping grounds; agricultural warehouses; canneries, cheese factories, condenseries, and creameries; cemeteries; fur farms; pea vineries; sewage disposal plants	8,400 ^a	60 ^a
Commercial District	Uses permitted in the Agricultural District plus specified commercial uses	Conditional uses of Residential District A plus drive-in theaters	8,400 ^a	60 ^a
Commercial District B	Uses permitted in the Commercial District plus trades, business uses, or industries of a restrictive nature which are not detrimental to the district or to the adjoining areas by reason of appearance, noise, dust, smoke, odor, etc	Conditional uses of Residential District A	8,400 ^a	60 ^a
Industrial District	Any use permitted in the Commercial District excluding residential, educational, and institutional uses. However, there may be one single-family residence established in the same building with any commercial use and one dwelling for a watchman or caretaker in connection with any wholesale or industrial use, plus other specified manufacturing uses	Conditional uses of Residential District A plus acid manufacturing; automobile junkyards; bag cleaning; explosives manufacture or storage; other specified manufacturing uses	8,400 ^a	60 ^a

^aA minimum lot area of 8,400 square feet and a minimum lot width of 60 feet is established for sewered single-family residences. A minimum lot area of 12,600 square feet and a minimum lot width of 70 feet is established for unsewered single-family residences.

Source: Kenosha County Department of Planning, Zoning and Sanitation; and SEWRPC.

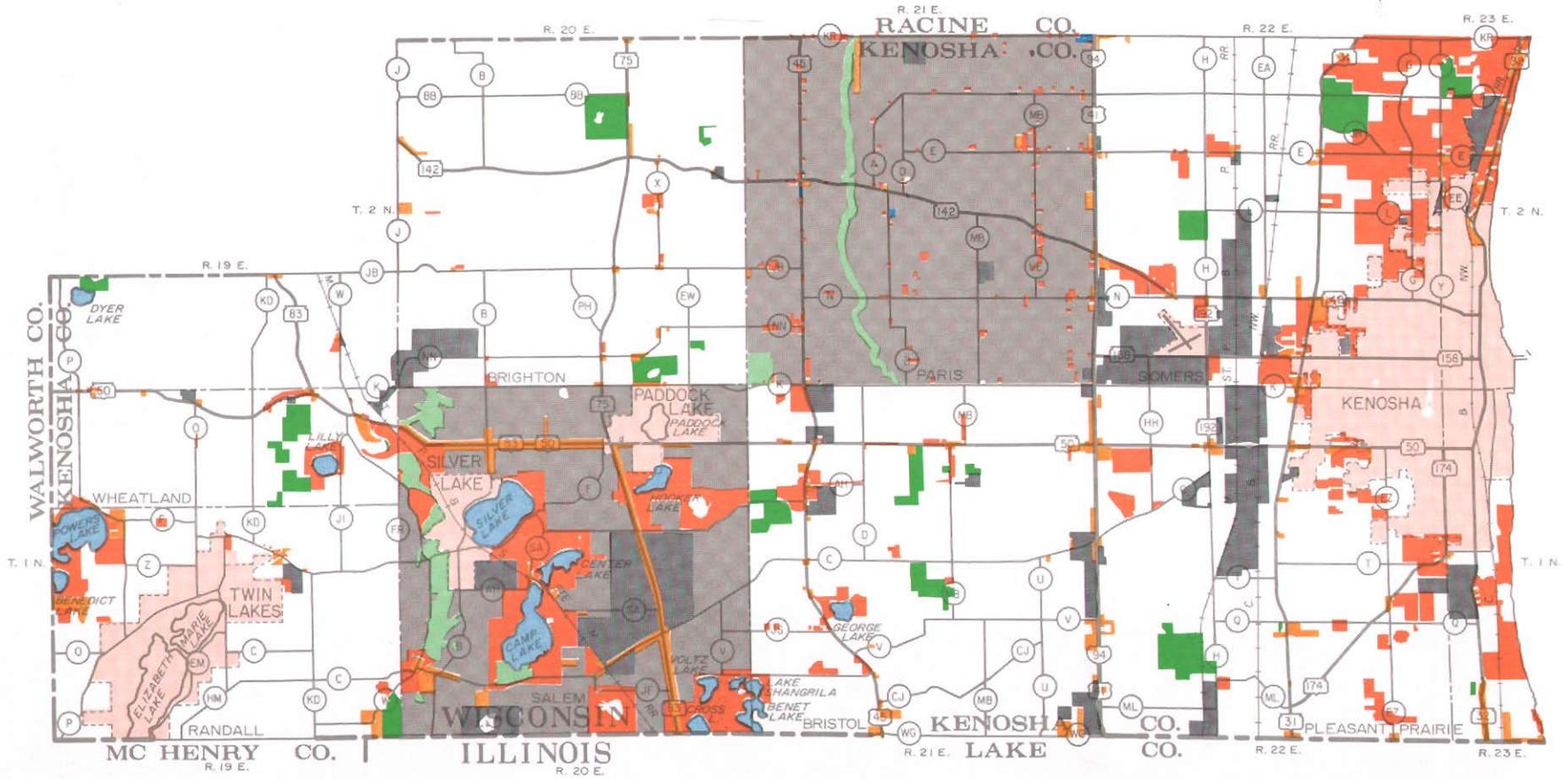
tional District permits single-family dwellings and other urban uses in addition to specified recreation-related uses. Regardless of how they might be applied within the County, the district regulations of the existing Kenosha County zoning ordinance may be expected to contribute very little toward the preservation of agricultural lands and environmentally sensitive areas.

All seven zoning districts in the Kenosha County zoning ordinance are presently applied in Kenosha County. Map 18

illustrates the manner in which the existing districts are currently applied. The zoning districts have been measured, with the resulting area measurements presented in Table 23.

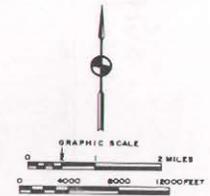
The combined area of the six towns under the jurisdiction of the Kenosha County zoning ordinances is about 118,800 acres. As previously mentioned, all of the land area within the county zoning jurisdiction is presently zoned to permit intensive urban development. The Agricultural District, which permits

EXISTING ZONING DISTRICTS IN THE UNINCORPORATED AREA OF KENOSHA COUNTY: 1978



LEGEND

	RESIDENTIAL (LESS THAN 5 ACRE LOTS)		CONSERVANCY
	COMMERCIAL		MAJOR LAKE (UNZONED)
	INDUSTRIAL		INCORPORATED AREA
	GOVERNMENTAL		AGRICULTURAL (PROHIBITING INTENSIVE URBAN DEVELOPMENT)
	RECREATIONAL		AGRICULTURAL (PERMITTING INTENSIVE URBAN DEVELOPMENT)



Source: Kenosha County Department of Planning, Zoning and Sanitation; and SEWRPC.

Table 23

EXISTING ZONING DISTRICTS IN THE UNINCORPORATED AREA OF KENOSHA COUNTY: 1978

Zoning District	Kenosha County Zoning Jurisdiction ^a			Town of Salem			Town of Paris			Total Unincorporated Area	
	Specific Zoning District	Acres	Percent	Specific Zoning District	Acres	Percent	Specific Zoning District	Acres	Percent	Acres	Percent
Districts Which Permit Intensive Urban Development											
Residential (lots less than 5 acres in size).....	Residential A	9,158	7.7	Residential A	3,980	18.8	Country Home	540	2.4	13,678	8.4
Commercial.....	Residential B Commercial Commercial B	2,241	1.9	Residential B Commercial	1,031	4.9	Service Center	181	0.8	3,453	2.1
Industrial.....	Industrial	5,919	5.0	Industrial	2,356	11.1	Industrial	167	0.7	8,442	5.2
Agricultural (residential lots of less than five acres allowed).....	Agricultural	97,932	82.4	--	--	--	--	--	--	97,932	60.1
Recreational.....	Recreational	2,818	2.4	--	--	--	--	--	--	2,818	1.7 ^d
Institutional.....	--	--	--	--	--	--	Governmental ^c	50	0.2	50	--
Subtotal	--	118,068	99.4	--	7,367	34.8	--	938	4.1	126,373	77.5
Districts Which Prohibit Intensive Urban Development											
Conservancy.....	--	--	--	Recreational ^b	1,029	4.9	Conservancy	600	2.6	1,629	1.0
Agricultural.....	--	--	--	Agricultural	11,223	53.1	Agricultural	21,486	93.3	32,709	20.1
Unzoned (water).....	--	746	0.6	--	1,525	7.2	--	--	--	2,271	1.4
Subtotal	--	746	0.6	--	13,777	65.2	--	22,086	95.9	36,609	22.5
Total	--	118,814	100.0	--	21,144	100.0	--	23,024	100.0	162,982	100.0

^aIncludes the Towns of Brighton, Bristol, Pleasant Prairie, Randall, Somers, and Wheatland.

^bOwing to stringent restrictions on urban development, this recreational district constitutes a lowland conservancy district.

^cWhile the Town of Paris zoning map indicates areas zoned for governmental use, no governmental district is established in the town zoning ordinance.

^dLess than 0.05 percent.

Source: SEWRPC.

medium-density urban residential development, is the predominant zoning district, containing a total of almost 98,000 acres, or 82.4 percent of the county zoning jurisdiction area. The combined area of Residential District A and Residential District B is about 9,200 acres, or 7.7 percent of the county zoning jurisdiction area. Areas of the remaining districts are as follows: Commercial--about 2,200 acres, or 1.9 percent; Industrial--about 5,900 acres, or 5.0 percent; and Recreational--about 2,800 acres, or 2.4 percent. Unzoned surface water constituted the small balance, about 700 acres, of the county zoning jurisdiction area.

The availability of virtually the entire Kenosha County zoning jurisdiction area

for intensive urban development, based upon existing zoning, encourages the diffusion of scattered "urban sprawl" development throughout the County. Such development in rural areas frequently results in a direct loss in prime agricultural lands, lessens the viability of surrounding areas for farming, and creates conflicts between residential living patterns and farming operations. Such development also tends to impair environmentally significant areas and destroy wildlife habitat. Moreover, such development increases the cost of providing various public facilities and services; increases the likelihood of developing incomplete as well as scattered neighborhoods; and tends to create costly storm water drainage and water quality problems.

As previously noted, Kenosha County has essentially completed work on the text of a new zoning ordinance, and is expected to complete a new zoning district map within one year. A summary of proposed zoning district requirements is set forth in Table 24. As indicated in this table, the proposed new zoning ordinance contains a number of districts which impose stringent restrictions on urban development and which, if properly applied within the County, would contribute significantly to the implementation of a farmland preservation plan. Most important in this regard is the proposed A-1 Agricultural Preservation District, which would permit as principal uses primarily agricultural uses on farms of at least 35 acres in size, and which would restrict residential use to housing for farm owners, operators, or laborers. Owing to the restrictions imposed on residential and other urban development, the A-1 District would serve to preserve agricultural areas in which it is applied and would constitute an exclusive agricultural zoning district, as defined under the Wisconsin Farmland Preservation Act, if properly applied throughout the County. The ordinance also provides for an A-4 Agricultural Land Holding District, which regulates land similarly to the A-1 District. The difference between the A-1 and the A-4 Districts is that the A-4 District provides for preservation of farmland for a limited period of time and would be used in urbanizing areas as a temporary preservation measure. The A-4 District would constitute a transitional agricultural zoning district, as defined under the Wisconsin Farmland Preservation Act.

An A-2 Agricultural District also includes regulations which could contribute to the preservation of agricultural areas. This district is intended to preserve agricultural lands historically utilized for crop production which are not included in the A-1 or A-4 Districts, and which are generally best suited for smaller farm units, including truck farming, horse farming, and hobby farming. The A-2 District requires that

land parcels have a minimum size of 10 acres, and imposes restrictions on residential uses similar to those imposed by the A-1 District.

Also included in the proposed county zoning ordinance is a rural residential district, the R-1 District, which seeks to accommodate the continued demand for "country" living but to regulate such development in a manner which minimizes adverse impacts on existing farming areas and on the underlying natural resource base. This district allows single-family development on lots of five or more acres. While such large lot development may result in the conversion of farmland to nonagricultural use, such development can be sustained without serious harm to surrounding farm operations and with minimal impact on the underlying natural resource base.

In addition to preserving agricultural areas, zoning regulations represent an important tool for implementation of the open space preservation recommendations to be adopted as part of this farmland preservation plan. The proposed county zoning ordinance contains two conservancy districts which, if properly applied, could facilitate the preservation of environmentally significant areas of the County. The proposed C-1 Lowland Conservancy District would preserve wetlands, floodlands, and other lowland areas by permitting only open space uses and limiting structures to those accessory to permitted principal uses. The C-2 Upland Conservancy District would preserve woodlands, areas of rough topography, and scenic areas by permitting open space uses and limiting residential use to one, single-family dwelling per parcel, with the minimum parcel size being five acres.

The proposed zoning district requirements prepared by Kenosha County are well suited to the implementation of a county farmland preservation plan. The County still has the difficult, but extremely important, task of applying these zoning district regulations to land within its zoning jurisdiction. The

Table 24

**SUMMARY OF ZONING DISTRICT REQUIREMENTS
UNDER THE PROPOSED KENOSHA COUNTY ZONING ORDINANCE**

Zoning District	Permitted Uses		Conditional Uses	Minimum Lot Requirements	
	Principal	Accessory		Area ^a	Width (feet)
A-1 Agricultural Preservation	Crop production, livestock, orchards	Farm dwelling and farm buildings	Fur farms, commercial egg production, second farm dwelling	35 acres	600
A-2 General Agricultural	Crop production, livestock, orchards, hobby farms, animal hospitals, stables	Farm dwelling and farm buildings	Agricultural-related manufacturing	10 acres	300
A-3 Agricultural-Related Manufacturing, Warehousing, and Marketing	Agricultural warehousing, feed lots, breeding services, food preparation	Living quarters for watchman	Fertilizer production, meat packing	5 acres	300
A-4 Agricultural Land Holding	Principal uses of A-1 District	Accessory uses of A-1 District	Conditional uses of A-1 District	35 acres	600
R-1 Rural Residential	Single-family dwellings	Home occupations and keeping of certain pets	Raising of animals for family consumption	5 acres	300
R-2 Suburban Residential	Single-family dwellings	Home occupations	Keeping of certain pets	40,000 square feet	150
R-3 Urban Single-Family Residential	Single-family dwellings	Home occupations	Planned unit development	20,000 square feet	125
R-4 Urban Single-Family Residential	Single-family dwellings	Home occupations	Planned unit development	15,000 square feet	100
R-5 Urban Single-Family Residential	Single-family dwellings	Home occupations	Planned unit development	10,000 square feet	75
R-6 Urban Single-Family Residential	Existing single-family dwellings	Home occupations	None	6,000 square feet	60
R-7 Suburban Two-Family Residential	Two-family dwellings	Home occupations	None	80,000 square feet	150
R-8 Urban Two-Family Residential	Two-family dwellings	Home occupations	Planned unit development	20,000 square feet	125
R-9 Multiple-Family Residential	Multiple-family dwellings	Home occupations	Planned unit development	10,000 square feet or 5,000 square feet per unit, which ever is larger	120
R-10 Multiple-Family Residential	Multiple-family dwellings	Home occupations	Planned unit development	12,000 square feet or 4,000 square feet per unit, which ever is larger	120
R-11 Multiple-Family Residential	Multiple-family dwellings	Home occupations	Planned unit development and elderly housing	20,000 square feet or 3,000 square feet per unit, which ever is larger	120
R-12 Mobile Home Park Subdivision	Mobile homes in mobile home subdivisions	Home occupations	Mobile home parks	7,500 square feet per unit	50
B-1 Community Business	Central business district retail establishments, office buildings	Related storage, residential dwellings on a nonground floor	Funeral homes, resorts	10,000 square feet	75
B-2 Planned Business	Shopping centers	Related storage	Drive-in establishments	87,120 square feet	200
B-3 Highway Business	Highway-oriented businesses	Related storage	Vehicle sales and service operations	10,000 square feet	75
M-1 Limited Industrial	Small manufacturers and processors, warehousing	Related indoor storage	Outside storage	10,000 square feet	75
M-2 Heavy Industrial	Heavy manufacturing	Related storage	Nuisance industries	40,000 square feet	150
M-3 Mineral Extraction and Landfill	None	None	Quarries, gravel pits, sanitary landfills	Sufficient area	Sufficient width

Table 24 (continued)

Zoning District	Permitted Uses		Conditional Uses	Minimum Lot Requirements	
	Principal	Accessory		Area ^a	Width (feet)
I-1 Institutional	Public administration offices, churches, schools	Related storage	Airports, utilities, penal institutions, rest homes, hospitals	10,000 square feet	75
PR-1 Park-Recreational	Parks, playgrounds, play-fields	Related storage	Marinas, archery ranges, shooting ranges	Sufficient area	Sufficient width
C-1 Lowland Resource Conservancy	Open space uses, not including structures	Parking facilities	Golf courses, camps, sportsman clubs	--	--
C-2 Upland Resource Conservancy	Open space uses and single-family dwellings	Home occupations	Keeping of certain pets	5 acres	300
FP Floodplain Overlay	Open space uses, not including structures	None	Structures on fill in the floodplain fringe area	--	--

^aNo lot utilizing an onsite soil absorption sewage disposal system shall be less than 40,000 square feet in area.

Source: SEWRPC.

recommendations of this farmland preservation plan must be an important consideration in the application of the proposed district regulations and the delineation of zoning district boundaries.

In addition to the basic zoning ordinance described above, Kenosha County adopted a shoreland zoning ordinance in 1971 which imposes special land use regulations on floodland and shoreland areas in the County. Kenosha County floodland regulations serve to limit filling and development within the 100-year floodplains. Such regulations are intended to have the effect of preserving the existing floodwater conveyance and storage capacities of riverine areas and important associated elements of the natural resource base. The Kenosha County floodland zoning regulations conform with the regional land use plan recommendation that local units of government adopt special floodland regulations to protect undeveloped floodlands and prevent new urban development from indiscriminately occurring in floodlands already developed for urban purposes. Moreover, such zoning is required under state floodland management requirements (Wisconsin Administrative Code, Chapter NR 116). The areas in Kenosha County for

which 100-year recurrence interval flood hazard lines have been delineated and within which Kenosha County floodland regulations apply are shown on Map 11. It should be noted that the Kenosha County floodland regulations apply to the entire unincorporated area of the County, including the Towns of Paris and Salem.

Kenosha County shoreland regulations impose special restrictions on the location of certain structures and set forth restrictions on tree cutting, filling, grading, and certain agricultural practices within the shoreland areas of the County. Such shoreland areas include all areas lying within 1,000 feet of a lake and 300 feet of a river or stream, or to the landward side of the floodplain if it extends beyond such distances. The Kenosha County shoreland regulations are in conformance with the regional land use plan recommendation that shoreland zoning be applied to assist in protecting and maintaining water quality, to minimize shoreline erosion, and to maintain the natural beauty of the shoreland area. Such zoning is required under state shoreland management requirements (Wisconsin Administrative Code, Chapter NR 115). It should be noted that, like the floodland regulations, the Kenosha

Table 25

SUMMARY OF EXISTING ZONING DISTRICT REQUIREMENTS UNDER THE ADOPTED TOWN OF SALEM ZONING ORDINANCE

Zoning District	Permitted Uses	Conditional Uses	Minimum Lot Requirements	
			Area	Width (feet)
Residential District A (sewered)	Single- and multiple-family dwellings; churches; schools; colleges; public libraries; museums; galleries; municipal buildings; public recreational and community center buildings and grounds; public parks, golf courses, and tennis courts; specified utility uses; accessory buildings including one private garage and buildings clearly incident to the residential use of the property; uses customarily incident to any of the foregoing uses when located on the same lot and not involving the conduct of a business; professional offices; specified signs	Charitable institutions; quarries and the stripping or removal of top soil; radio stations and transmission towers; microwave radio relay towers; penal and correctional institutions; public hospitals; public utility or public service corporation buildings or structures; storage garage or parking lot in connection with a housing development	7,000 square feet	60
Residential District B (unsewered)	Uses permitted in Residential District A. However, residential development is unsewered	Conditional uses of Residential District A	14,000 square feet	100
Recreational District	Fishing, boating, water sports, hunting, and general recreation; no house, building, or structure may be erected	Conditional uses of Residential District A	--	--
Agricultural District	General farming; up to two single-family homes, each used in connection with the farm	Conditional uses of Residential District A plus the following: water supply plants; public dumping grounds; agricultural warehouses; canneries, cheese factories, condenseries, and creameries; cemeteries; fur farms; pea vineries; sewage disposal plants; tourist camps; mobile home parks, or modular home parks; slaughterhouses; contractors' storage yards; kennels; skeet and trap shooting	-- ^a	-- ^a
Commercial District	Wholesale and retail sale of services and merchandise; related parking	Conditional uses of Residential District A plus drive-in theaters	--	--
Industrial District	Uses permitted in the Commercial District plus any industrial or manufacturing process or activity not creating a public nuisance; related parking	Conditional uses of Residential District A plus the following: acid manufacturing; automobile junkyards; bag cleaning; explosives manufacturing or storage; and other specified manufacturing uses	--	--

^aNo minimum farm size is specified. Permitted accessory dwellings must have a lot area of at least 25,000 square feet and 100 feet of frontage.

Source: Town of Salem and SEWRPC.

County shoreland regulations apply within the entire unincorporated area of the County, including those areas of the Towns of Paris and Salem which are located within the shoreland jurisdiction as defined above.

Existing Zoning--Town of Salem: The Town of Salem zoning ordinance was approved and adopted by the Town of Salem in 1971. This ordinance provides for a total of six basic zoning districts. A summary of these districts is presented in Table 25.

As indicated in Table 25, four of the six districts in the Town of Salem zoning ordinance--Residential District A, Residential District B, the Commercial District, and the Industrial District--permit intensive urban development. Conversely, two districts--the Agricultural District and the Recreational District--place significant limitations on residential and other urban development. The regulations imposed by these two districts provide effective means by which agricultural and other open space lands in the Town may be preserved.

The Agricultural District permits general farming activities, allowing a maximum of two single-family dwellings per farm, each used in connection with the farm. Owing to the general prohibition of residential and other forms of urban development, the Agricultural District would serve to preserve the rural character and agricultural uses of the farmland areas in which it is applied. The Agricultural District does not, however, contain regulations governing minimum farm sizes. Consequently, the Agricultural District does not constitute an exclusive agricultural zoning district under the provisions of the Wisconsin Farmland Preservation Act, which requires a minimum parcel size of 35 acres for a residence or farm.

The Recreational District permits outdoor recreation activities, including fishing, boating, water sports, and hunting, and prohibits erecting a house or other building or structure. Owing to the restrictions on urban development, this district may be viewed as a lowland conservancy district, providing an effective means to preserve wetlands, floodlands, and other environmentally significant lowland areas.

Map 18 illustrates the manner in which the zoning districts of the Town of Salem zoning ordinance are presently applied. Measurements of the zoning districts are presented in Table 23. As indicated in Table 23, about 7,400 acres, or 35 percent of the Town of Salem, have been placed in zoning districts which permit residential, commercial, or industrial development. Conversely, about 12,200 acres, or 58 percent of the Town, are presently in zoning districts which significantly restrict urban development. Specifically, the Agricultural District, which permits only agricultural uses and prohibits urban development in general, is the predominant zoning district, having been applied within about 11,200 acres, or 53 percent of the Town. The Recreational District, which in reality constitutes a lowland conservancy district, covers a total of about 1,000

acres, or 5 percent of the Town. Unzoned surface water constitutes the balance, about 1,500 acres of the town area.

Existing Zoning--Town of Paris: The Town of Paris zoning ordinance was approved and adopted by the Town of Paris in 1967. This ordinance provides for a total of seven basic zoning districts. A summary of the district regulations is presented in Table 26.

Of the seven basic districts established in the Town of Paris zoning ordinance, five districts--the Country Estate District, the Country Home District, the Multiple-Family Urban District, the Service Center District, and the Industrial District--permit intensive urban development. Two districts--the Agricultural District and the Conservancy District--impose significant restrictions on residential and other urban development. The regulations imposed by these two districts provide effective means for preserving agricultural and other open space lands in the Town.

The Agricultural District permits normal agricultural uses as a principal use, and roadside stands and farm dwellings for resident owners and laborers engaged in farming as accessory uses. No more than three dwelling units are allowed on any one farm unit, the minimum size of which is specified as 10 acres. The Agricultural District would serve to preserve the rural character and agricultural use of the farmland areas in which it is applied. It would not, however, be considered exclusive agricultural zoning under the Wisconsin Farmland Preservation Act, which defines exclusive agricultural zoning as requiring lots that are a minimum of 35 acres in size.

The Conservancy District contains regulations intended to preserve wetlands and the natural drainage system. This district prohibits virtually all forms of urban development and represents an effective means of preserving environmentally significant lowland areas of the Town.

Table 26

**SUMMARY OF EXISTING ZONING DISTRICT REQUIREMENTS
UNDER THE ADOPTED TOWN OF PARIS ZONING ORDINANCE**

Zoning District	Permitted Uses		Conditional Uses	Minimum Lot Requirements	
	Principal	Accessory		Area	Width (feet)
Country Estate	Single-family dwellings; public parks and recreation areas, excluding facilities for organized athletics; crop, dairy, cattle, sheep, and tree farming; horticulture; public utility lines, poles, and other accessories	Garages and paved parking; quarters for household or farm employees; guest houses; stables, barns, poultry houses, and greenhouses; specified signs; occupations and professional offices incidental to the principal residential use; the keeping of domestic livestock for show or breeding; private outdoor recreational facilities; service buildings for public recreation area	Group outdoor recreational facilities; schools; churches; public administrative offices and service buildings; private and clubs; nursing homes and homes for the aged; summer theaters and outdoor music amphitheaters; public utility offices and installations	3 acres	200
Country Home	Principal uses of Country Estate District	Accessory uses of Country Estate District. However, domestic livestock cannot be kept on lots of less than three acres	Conditional uses of Country Estate District plus public service yards	2 acres	150
Multiple-Family Urban	Two-family and multiple-family dwellings	Accessory uses of Country Estate District. However, with respect to the keeping of animals, only normal household pets are permitted	Conditional uses of Country Estate District plus mobile home parks	10,000 square feet	100
Agricultural	Normal agricultural uses	Roadside stands; farm dwellings for resident owners and laborers engaged in farming, but no more than three dwelling units on any one farm unit	Commercial hatcheries; farm machinery maintenance buildings; animal hospitals; kennels; laboratories using animals or animal products; dairy processing plants; airports; pea vineries; quarries; goat or fur farms; municipal rubbish disposal sites	10 acres	200
Service Center	Retail stores and shops offering convenient goods and services including bakeries, barbershops, bars, beauty shops and other specified uses	Apartment hotels; department stores; financial institutions; food lockers; furniture stores; upholstery shops; plumbing, heating trade supply, laundry, and dry cleaning establishments; personal service establishments; pet shops; and second hand stores	Nightclubs; places of entertainment; outdoor theaters; amusement parks; drive-in restaurants; service stations; truck stops; and commercial greenhouses	10,000 square feet	80 ^a
Industrial	General industrial and manufacturing operations excluding specified uses such as the manufacture of cement, acids, and asphalt; transportation terminals; general warehousing; experimental research laboratories; lumber and building supply yards; public utility offices and installations	Office storage, power supply, and other such uses normally auxiliary to the principal industrial operation	Quarries; gravel pits; animal hospitals; kennels; and laboratories using animals or animal products	5 acres	300
Conservancy	Fishing; floodways; flood overflows; hunting; navigation; the preservation of scenic, attractive, and scientific areas; public fish hatcheries; soil and water conservation; sustained yield forestry; stream, bank, and lakeshore protection; water retention; and wildlife preservation	Drainageways; public water measurement and water control facilities; grazing; accessory structures, such as hunting or fishing lodges not used for permanent dwelling purposes; airports; truck farming; utility lines; utility facilities and wild crop harvesting		--	--

^aDistrict regulations specify a minimum lot size of 10,000 square feet and a minimum width of 80 feet in sewered areas and a minimum lot size of two acres and a minimum lot width of 120 feet in unsewered areas.

Source: Town of Paris and SEWRPC.

Of the seven basic districts specified in the Town of Paris zoning ordinance, five districts are presently applied on the Town of Paris zoning map. It should be noted that a Government District, not established in the Town zoning ordinance, appears in several locations on the town zoning map. Map 18 illustrates the manner in which the existing zoning districts--including the Government District--are presently applied in the Town of Paris. Measurements for the zoning districts are presented in Table 23.

As indicated in Table 23, only about 900 acres, or 4 percent of the town area, have been placed in zoning districts which permit intensive residential, commercial, industrial, or institutional development. Conversely, about 22,100 acres, or 96 percent of the town area, are presently in zoning districts which significantly restrict urban development. In this regard, the Agricultural District, which permits only agricultural uses and allows residential development only in conjunction with such uses, has been applied to about 21,500 acres, or 93 percent of the Town. The Conservancy District has been applied to a total of about 600 acres, or 3 percent of the Town--primarily in lowland areas along the Des Plaines River.

Land Subdivision Regulations: Kenosha County approved and adopted a subdivision control ordinance in 1971. This subdivision control ordinance governs the division of land in all unincorporated areas of the County. However, each town may, in addition, adopt its own subdivision control ordinance to obtain more stringent control of land subdivision.

The Kenosha County subdivision control ordinance defines and assumes jurisdiction over "subdivisions" resulting from a division of a parcel of land for the purpose of transfer of ownership or building development when the act of division creates five or more parcels on building sites, each of five acres or less in area, or when such division creates five or more parcels or building

sites of five acres or less in area by successive divisions within a period of five years. For such land subdivisions, the county subdivision ordinance sets forth procedures to be followed by the owner/developer in the submission of preliminary and final plats, as well as procedures to be utilized in the county plat review process. The subdivision control ordinance regulates the form of urban development through detailed design standards regarding streets, the layout of lots and blocks, and other development features.

The Kenosha County subdivision control ordinance contains certain regulations which could contribute to the preservation of agricultural lands and the conservation of environmental areas. Thus, the county subdivision ordinance includes requirements regarding the suitability of land for development, prohibiting, for example, the development of the following types of land for uses requiring septic systems: land having bedrock within seven feet of the natural surface; lands having a high water table; and lands drained by farm drainage tile systems, or farm ditch systems. In addition, the county subdivision control ordinance includes regulations intended to minimize erosion and loss of woodlands and other adverse environmental impacts attendant to urban development.⁸

While the Kenosha County subdivision control ordinance in its present form provides sound regulations for the land subdivision process, the County should consider two minor modifications which would contribute further to the implementation of a farmland preservation

⁸*The Kenosha County subdivision control ordinance embodies the special soil regulations recommended by the Regional Planning Commission to be incorporated into land subdivision ordinances. These recommended special soil regulations are set forth in Appendix F of SEWRPC Planning Guide No. 6, Soils Development Guide.*

plan. First, the subdivision control ordinance should define "subdivision" as all divisions of land smaller than the largest minimum lot size specified in the county zoning ordinance in order to prevent the creation of substandard lots. Thus, if Kenosha County is to create an agricultural district requiring minimum parcel sizes of 35 acres, as indicated in the preliminary text of the proposed new county zoning ordinance, the County's current five-acre definition should be increased to 35 acres to ensure that substandard lots will not be created in the agricultural district.

Secondly, it is usually desirable that subdivision control ordinances require parkland dedication and/or fee in lieu of dedication during the land subdivision process, thereby providing another means for local units of government to acquire land for recreation and open space preservation purposes. The county subdivision control ordinance presently specifies that whenever a tract of land

to be subdivided embraces all or any part of a proposed public playground, park, school site, or open space site designated in regional, county, or locally adopted plans, the subdivider must reserve such lands for a period not to exceed three years for purchase by the public agency having jurisdiction. Moreover, the subdivision control ordinance stipulates that in the design of a plat, due consideration must be given to the reservation of suitable sites of adequate area for future schools, parks, playgrounds, drainageways, and other public purposes. However, the county subdivision control ordinance presently contains no specific land dedication requirement. An example of such a dedication requirement is found in the model land division ordinance prepared by the Regional Planning Commission.⁹

⁹See *Appendix A of SEWRPC Planning Guide No. 1, Land Development Guide*.

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Chapter III

OBJECTIVES, PRINCIPLES, AND STANDARDS

INTRODUCTION

Planning is a rational process for formulating and meeting objectives. The formulation of objectives, therefore, is an essential task which must be undertaken before plans can be prepared. Since planning for urban growth is the logical counterpart to planning for the preservation of agricultural land, a comprehensive farmland preservation plan should include objectives related not only to agricultural land preservation but also to urban land development. Recognizing the close relationship between planning for farmland preservation and planning for urban development, the Wisconsin Farmland Preservation Act specifically requires that farmland preservation plans include objectives related to urban growth and to the provision of supporting public facilities, as well as objectives related to agricultural land preservation. In addition, the Wisconsin Farmland Preservation Act requires that farmland preservation plans include objectives concerning protection of significant natural resources and open space lands. This chapter presents the objectives, together with the supporting principles and standards, regarding agricultural land preservation, urban growth and the provision of public facilities, and the preservation of significant natural resources and open space lands which have been recommended by the Technical Coordinating and Advisory Committee on Farmland Preservation for use in the development of the Kenosha County farmland preservation plan.

The term "objective" is subject to a wide range of interpretation and application and is closely linked to other terms often used in planning work which are also subject to a wide range of interpretation and application. The

following definitions will be employed accordingly:

1. Objective: a goal or end toward the attainment of which plans and policies are directed.
2. Principle: a fundamental, primary, or generally accepted tenet used to assert the validity of objectives and to prepare standards and plans.
3. Standard: a criterion used as a basis of comparison to determine the adequacy of alternative and recommended plan proposals to attain objectives.
4. Plan: a design which seeks to achieve the agreed-upon objectives.
5. Policy: a rule or course of action used to ensure plan implementation.
6. Program: a coordinated series of policies and actions to carry out a plan.

Although this chapter discusses only the first three of these terms, an understanding of the interrelationship of the foregoing definitions and the basic concepts which they represent is essential to the following discussion of objectives, principles, and standards.

In the application of the objectives and standards set forth herein, it must be recognized that some of the objectives and supporting standards may conflict with others, requiring resolution through compromise in the plan design process. Potentially conflicting urban land use development and agricultural land preservation objectives typify this situation. Most urban development occurs at the expense of agricultural land. Conflicting urban land use development

and agricultural land preservation objectives must, therefore, be appropriately reconciled through a plan design that minimizes the loss of farmland while providing for the expansion of urban land uses required to accommodate urban population growth.

In the application of the objectives and standards set forth herein it must also be recognized that those objectives and standards concerned with the preservation and use of open space lands, including agricultural lands and natural resource areas, are intended to relate primarily to areas where the resource base has not yet been significantly deteriorated, depleted, or destroyed. In areas where such deterioration, depletion, or destruction has already occurred, strict application of the objectives and standards would make it necessary to inaugurate natural resource base restoration programs--such as reforestation programs--which are not intended to be considered under this preservation plan.

LAND USE DEVELOPMENT OBJECTIVES, PRINCIPLES, AND STANDARDS

During the past two decades, much has been accomplished with respect to land use planning in Kenosha County. Of particular importance is the Kenosha County Board's adoption in 1967 of the design year 1990 regional land use and transportation plans as those plans affect Kenosha County.¹ In 1977, the Regional Planning Commission adopted a new regional land use plan for the design year 2000 as an amendment to, and extension of, the design year 1990

plan.² The plan was formally adopted by the Kenosha County Board of Supervisors on November 14, 1978. Under the design year 2000 plan, the basic concepts and land use development objectives underlying the design year 1990 plan remained essentially unchanged. Of the eight specific land use development objectives set forth in the original design year 1990 regional land use plan and reaffirmed in the new design year 2000 plan, the following six objectives are concerned primarily with urban growth and the provision of supporting public facilities. After careful consideration by the Technical Coordinating and Advisory Committee on Farmland Preservation, these six objectives were adopted for use in the development of the urban growth element of the Kenosha County farmland preservation plan:

1. A balanced allocation of space to the various land use categories which meets the social, physical, and economic needs of the county population.
2. A spatial distribution of the various land uses which will result in a compatible arrangement of land uses.
3. A spatial distribution of the various land uses which will result in the protection and wise use of the natural resources of the County.
4. A spatial distribution of the various land uses which is properly related to the supporting transportation, utility, and public facility systems in order to assure the

¹These plans are described in SEWRPC Planning Report No. 7, The Regional Land Use-Transportation Study, Volume Three, Recommended Regional Land Use and Transportation Plans: 1990.

²The revised regional land use plan is described in SEWRPC Planning Report No. 25, A Regional Land Use Plan and a Regional Transportation Plan for Southeastern Wisconsin: 2000, Volume Two, Alternative and Recommended Plans.

economical provision of transportation, utility, and public facility services.

5. The development and conservation of residential areas within a physical environment that is healthy, safe, convenient, and attractive.
6. The preservation, development, and redevelopment of a variety of suitable industrial and commercial sites in terms of both physical characteristics and location.

Complementing each of the foregoing specific land use development objectives are one or more planning principles and a set of planning standards. These principles and standards are set forth in Appendix D. Each set of standards is directly relatable to a planning principle, as well as to the objective, and serves to facilitate a quantitative application of the objectives in plan design, test, and evaluation. The planning principle is intended to support each specific objective by asserting its validity.

The planning principles adopted by the Commission as part of the new design year 2000 regional land use plan are virtually identical to those adopted as a part of the initial design year 1990 regional land use plan. While the land use development objectives and supporting principles of the initial regional land use plan were re-adopted, without significant change, as part of the new land use plan, several important changes were made in the supporting development standards. Perhaps the most important change in the land use development standards was the creation of a new suburban residential land use category in addition to the high-, medium-, and low-density urban residential land use categories previously provided. The addition of this standard was intended to permit a type of residential development to be incorporated into the land use plan which allows for the location of dwelling units at very low suburban densities in areas not served by centralized sanitary sewer, water supply,

mass transit, or other urban services, but covered by soils suitable for the use of septic tanks for onsite sewage disposal and private wells for onsite water supply. Furthermore, in contrast to the situation for high-, medium-, and low-density residential development, such suburban-density development would not be accommodated in planned neighborhood units.

OPEN SPACE PRESERVATION OBJECTIVE, PRINCIPLE, AND STANDARD

The regional park and open space plan, as it applies to Kenosha County, constitutes another important element of the evolving comprehensive plan for the development of the County and the Region of which the County is an integral part. The regional park and open space plan, as it affects Kenosha County, was adopted by the Kenosha County Board on January 3, 1978. This plan is intended to achieve seven specific outdoor recreation and open space objectives concerned primarily with the provision of a sufficient quantity of suitably located outdoor recreation sites and facilities as well as the preservation of necessary open space lands in the Region. Of the seven specific outdoor recreation and open space objectives, the following single objective was adopted for use in the development of the open space preservation element of the Kenosha County farmland preservation plan, after careful review by the Technical Coordinating and Advisory Committee on Farmland Preservation:

Outdoor Recreation and Open Space Planning Objective No. 6

The preservation of sufficient high-quality open space lands for the protection of the underlying and sustaining natural resource base and enhancement of the social and economic well being and environmental quality of the County.

Associated with this objective are the following principle and standard:

Principle

The primary environmental corridors are a composite of the best individual elements of the natural resource base, including surface water, streams, and rivers, and their associated floodlands and shorelands; woodlands, wetlands, and wildlife habitat; areas of ground-water discharge and recharge; organic soils, rugged terrain, and high relief topography; and significant geological formations and physiographic features. By protecting these elements of the natural resource base, flood damage can be reduced, soil erosion abated, water supplies protected, air cleansed, wildlife population enhanced, and continued opportunities provided for scientific, educational, and recreational pursuits.

Standard

All remaining nonurban lands within the designated primary environmental corridors in the County should be preserved in natural and open space uses.

The environmental corridor concept and a description of the configuration of the primary environmental corridors in Kenosha County were presented in Chapter II (see Map 13). A composite of the best remaining elements of the natural resource base, primary environmental corridors have immeasurable environmental and recreational value to the County. It should be recognized that, in addition to elements of the natural resource base per se, primary environmental corridors also contain important scenic areas as well as sites having scientific, historic and cultural value. Primary environmental corridors tend to lie along stream valleys in which some of the earliest development in the County took place and in which many historic sites have, therefore, been identified. The preservation of primary environmental corridors would result in the protection of the numerous historic and cultural sites which they contain.

It should be noted that certain of the land use development objectives listed in the previous section of this chapter

directly or indirectly concern the protection of the natural resource base. Most of these direct and indirect concerns would be met if the primary environmental corridors within the County were preserved. Thus, preservation of primary environmental corridors would substantially achieve the specific direct natural resource base protection objective set forth in land use development Objective No. 3 with respect to wetlands, woodlands, and floodland and shoreland areas.

AGRICULTURAL LAND PRESERVATION OBJECTIVE, PRINCIPLES, AND STANDARDS

Introduction

In the past century our society has gradually changed from a basically agrarian society in which the majority of households worked the land to provide for their own basic needs, to a highly specialized industrial society in which a very small percentage of the labor force--3 percent nationally--is engaged in farming, providing food and fiber to the balance of the population. As society has changed and become less agrarian, the nature of agricultural lands has also changed. While some agricultural lands are still typified by the relatively small "family farm," other lands are typified by very large farm complexes. The increase in the scale of farming operations is required to justify the investment in expensive farm machinery and other farm improvements. Conversely, other lands, in agricultural use since the early settlement days, have undergone significant change owing to the intrusion of low-density suburban and rural-urban residential development, which has resulted in farmland remnants consisting of small scattered parcels that may prove difficult to farm profitably.

In the early settlement period of this Region, agricultural land values were based on the intrinsic ability of the land to produce the food and fiber on which each household depended. As society became less agrarian and the bond between man and the soil became less tangible, agricultural lands took

on other values. While agricultural lands continued to provide food and fiber, their importance in this regard often became overshadowed by their potential for alternative uses, especially for urban land use development. After 1950, in particular, agricultural lands adjacent to densely developed urbanized areas became valued as desirable homesites, reflecting the consumer's preference for low-density suburban and rural-urban residential development and the premium placed upon open space in the vicinity of a personal residence. The development of "all weather" highway facilities and the attendant use of the automobile for mass transportation, the widespread availability of electric power and telephone service, and the practicality of onsite soil absorption sanitary sewage disposal and individual water supply systems--made possible by the septic tank and electrically powered well--have all contributed to the loss of the small--noncorporate--family farm and the conversion of outlying agricultural lands to urban uses.

Such intrusion of scattered, low-density suburban development into agricultural areas not only results in a direct reduction in the supply of farmland, but also generates certain less tangible, but very real, adverse impacts on the agricultural sector. First, conflicts can arise between the traditional agricultural uses and the new urban uses. Town roads once used primarily by farmers for the movement of farm products and farm machinery often become dominated by nonfarm-oriented traffic, making farm operations more difficult. Odors associated with certain agricultural activities often prove objectionable to new residents, straining social relationships. Noise associated with virtual around-the-clock farming operations during portions of the year may also cause conflicts with nonfarmers living nearby. Second, agri-business firms such as those engaged in the provision of farm supplies and machinery, which rely on a concentration of farms requiring goods and services, may find it difficult to remain in business as the number of

farms in the area dwindles. The disappearance of such supportive businesses is, of course, injurious to those farmers who remain since they may not be able to readily obtain the necessary goods and services to continue farming. Third, scattered, low-density suburban development results in a settlement pattern consisting of isolated and dis-associated areas to which the provision of urban services and facilities is difficult and costly. The cost of providing such services may contribute to increased property tax levies and to the imposition of special assessments on remaining agricultural land. Finally, the intrusion of urban growth into basically agricultural areas may have the effect of inflating the market value of remaining land far above its inherent worth as farmland. Conflicts between urban and agricultural activities, loss of agricultural-related businesses, increasing property taxes not necessarily related to services provided, and inflated land values all encourage additional conversion of farmlands to other uses.

Recognizing the serious consequences of the continued loss of agricultural lands, the State Legislature in 1977 initiated the Wisconsin Farmland Preservation Program. This program, which is intended to provide incentives to maintain farmlands in agricultural use, imposes certain planning requirements, including the formulation of agricultural land preservation objectives in addition to the land use development and open space preservation objectives previously set forth in this chapter. The formulation of agricultural land preservation objectives is a difficult undertaking, given the many values and roles which agricultural land assumes within present day society. However, although less obvious than in the past, the basic function of agricultural land remains the same today as in more agrarian times--namely, the satisfaction of society's needs for food and fiber. While the preservation of agricultural lands can serve many public purposes, the overriding objective of agricultural land preservation is to enable the

continued provision of food and fiber to meet society's existing and probable future needs.

While a reasonably widespread consensus probably exists on the need to preserve agricultural lands to meet society's needs, such a consensus probably does not exist with respect to the amount and location of the agricultural land to be preserved. On one hand, it may be argued that all existing agricultural lands should be preserved in agricultural use or, if not in agricultural use per se, at least in a use which would not destroy the land's agricultural potential, thereby retaining, as much as possible, the ability to adapt to currently unforeseen agricultural production requirements. On the other hand, it may be argued that the preservation of all agricultural land is simply not feasible in view of the fragmentation of farming areas and the urban development pressure which already exists in areas where market forces have operated in the absence of proper land use controls. Moreover, factors such as the rising cost of petroleum and petroleum-based fuels and fertilizers may make it increasingly sound to preserve lands covered by highly productive agricultural soils and located close to major metropolitan areas, thus avoiding the transit of certain agricultural products such as fresh milk and produce over long distances to market and avoiding the costs associated with making poorer soils located at greater distances from the metropolitan markets more productive.

Because of the complexity of the issues involved, specific agricultural land preservation objectives can probably best be established by closely examining the agricultural resource base, categorizing the productivity, broadly defined, of existing agricultural lands, and establishing preservation standards for each of the identified categories. These standards can then be used in the design of a farmland preservation plan, and plan implementation recommendations can then be formulated to identify means by which various types of farmland can best be preserved. Such plan implementation

recommendations might, for example, indicate that lands most suited to agricultural use be preserved through exclusive agricultural zoning; while farmlands of marginal value might be maintained in rural use through the application of a country estate type of zoning. Such zoning, while not amenable to most types of commercial farming, would permit use of smaller tracts for specialty crop production and would not preclude the future recombination of tracts into larger farms should the need present itself.

Basic Concepts and Definitions

As indicated above, in the preparation of a farmland preservation plan, it is useful to categorize and prioritize existing farmlands. Accordingly, as a part of the county farmland preservation planning program, all existing farmland was categorized as prime agricultural lands, agricultural lands of local significance, or other agricultural lands. Prime agricultural lands may be defined as lands most suitable for the production of food and fiber. Such lands are very important in meeting society's basic needs. The protection of such farmlands should be given highest priority within an agricultural preservation plan. Agricultural lands of local significance may be defined as lands which are somewhat less valuable for general agricultural purposes but which, nevertheless, form an integral part of the local agricultural resource base--for example, farmlands devoted to specialty crops such as sod. Other farmlands, although less valuable than prime or locally significant agricultural lands in the production of food and fiber, contribute to the satisfaction of society's needs and serve other important ecological and environmental functions. A more detailed discussion of these basic farmland categories follows.

Prime Agricultural Land: Prime agricultural lands are herein defined as those farmlands which are most suitable for the production of food and fiber. Criteria for the identification of prime agricultural lands should at least include consideration of agricultural soil

capabilities, the size of the individual farm units, and the size or extent of the block or area being farmed. Of these, the agricultural capability of soils is perhaps the most important consideration. Nationally, highly productive soils represent a limited resource which should be protected to the maximum extent possible. As part of this planning program, the soils of Kenosha County have been classified and mapped according to their agricultural capability (see Map 8). Areas covered by soils which have been designated well suited for agricultural use--that is, the soils meeting U.S. Soil Conservation Service criteria for national prime farmland and farmland of state importance--warrant consideration for designation as county prime agricultural lands.

Another important consideration in the identification of prime agricultural lands is the size of the individual farm units. As a result of urban expansion and increasing development pressure, many agricultural areas have witnessed the fragmentation of land ownership until the farms involved no longer represent viable units for agricultural operation. It is difficult to specify precisely the minimum area requirement for a viable farm unit. Each farm is, in a sense, unique, and a viable size for one type of farm may be uneconomical or impractical for another. After careful consideration of this matter, the Technical Coordinating and Advisory Committee on Farmland Preservation selected 35 acres as the minimum size of farm units to be included in the prime agricultural land configuration. The selection of this criterion recognizes the strong influence of the U. S. Public Land Survey on the determination of farm unit boundaries. Farm boundaries in many parts of Kenosha County and throughout the Region and State follow U. S. Public Land Survey section and quarter section lines, the farms comprising fractional parts of sections. Thirty-five acres, it should be noted, is the equivalent of an undersized "quarter-quarter" section. The application of this criterion was

intended to permit the inclusion of small family farms in the prime agricultural land configuration while permitting the exclusion of fragmented parcels which may not be viable for even small family farm use.

In addition to the size of individual farm units, the size of an overall farming area should be considered in the identification of prime agricultural lands. Prime agricultural areas should represent concentrations of farmland capable of supporting agricultural-related businesses, such as distributors of farm supplies and farm machinery. Moreover, the maintenance of concentrations of agricultural lands helps to ensure that individual farm units will remain relatively free of conflicts with urban uses. Initially, blocks of agricultural land 640 or more acres in area were considered suitable for inclusion as prime agricultural lands. After careful review of this matter, however, the Technical Coordinating and Advisory Committee on Farmland Preservation recommended that prime agricultural lands consist of blocks of farmland having a minimum combined area of 100 acres. The 100-acre minimum combined farmland area was chosen because it was consistent with the State's minimum acreage criterion for inclusion in a state-approved farmland preservation area under Wisconsin's Farmland Preservation Program. This smaller area would also enable the largest number of farmers to qualify for tax credits under the State's Farmland Preservation Program.

Recognizing that the concept of prime agricultural land should include the consideration of a variety of factors--most importantly, agricultural soil capabilities, the size of individual farm units, and the size or extent of the area being farmed--the Technical Coordinating and Advisory Committee on Farmland Preservation recommended that prime agricultural lands in Kenosha County be identified by the application of the specific criteria set forth in Table 27. It was the opinion of the Committee that the application of these

Table 27

CRITERIA FOR PRIME AGRICULTURAL LAND
IN KENOSHA COUNTY

To be designated as prime agricultural lands, farm units should meet the following criteria:

1. The farm unit must be at least 35 acres in size.
2. At least 50 percent of the farm unit must be covered by soils meeting U.S. Soil Conservation Service criteria for national prime farmland or farmland of statewide importance.
3. The farm unit must occur in relatively homogeneous concentrations of similar farms, the areas of concentration being at least 100 acres in area.

Source: SEWRPC

criteria, through a mapping process using the information concerning the agricultural resource base assembled during the inventory phase of this planning program, would result in a practical delineation of prime agricultural lands in the County.

Farmlands of Local Significance: Farmlands of local significance are herein defined as lands which have limited suitability for farming but which nevertheless represent an important, integral part of the local agricultural resource base. Farms with soils having limited agricultural capability which are devoted to orchards, mint, ginseng, and other specialty crops typify this category of farmland. Farmlands of local significance are probably best identified by individuals who possess a basic understanding of the County's agricultural economy--namely, members of the Technical Coordinating and Advisory Committee on Farmland Preservation. Committee members may, of course, be assisted in this task by representatives of town governments, and by individual farmers within the County.

Other Farmlands: While less important to the production of food and fiber than prime and locally significant agricultural areas, other farmlands serve many useful functions. Such lands not only

may contribute to the production of food and fiber to meet present needs, but also may provide a reserve of land which may be required to meet presently unforeseen future production requirements. Such lands may lend form and structure to urban development and may contribute to the agricultural heritage and environmental quality of the County and the Region. Such lands may also contribute to the preservation of nonagricultural environmental areas--for example, by providing important open space around major scientific, educational, and recreational sites. The preservation of such farmlands may also help to avoid the undesirable diffusion of urban development. Such diffuse urban development tends to create isolated, partially developed urban and suburban neighborhoods where the provision of urban services and facilities is difficult and costly, tends to create storm water drainage and water quality problems, and tends, in general, to lead to the deterioration and destruction of the natural resource base.

Recommended Agricultural
Land Preservation Objective,
Principles, and Standards

As indicated above, there are a number of compelling reasons to preserve agricultural lands in addition to the over-

riding goal of meeting society's basic needs for food and fiber. Additional public purposes served through the preservation of agricultural land include the preservation of the local economic base, the promotion of local self-sufficiency, the preservation of the rural lifestyle, the retention of natural systems and natural processes, the prevention of urban sprawl, and controlling public costs. In order that these public benefits may be realized in Kenosha County, the Technical Coordinating and Advisory Committee on Farmland Preservation has adopted a single agri-

cultural land preservation objective, along with three principles which support the validity of the objective. Associated with each principle is an agricultural land preservation standard. The agricultural land preservation objective, principles, and standards adopted by the Technical Coordinating and Advisory Committee are presented in Table 28. This objective and the related principles and standards provide the basis for the formulation and evaluation of the agricultural land preservation element of the Kenosha County preservation plan.

Table 28

AGRICULTURAL LAND PRESERVATION
OBJECTIVE, PRINCIPLES, AND STANDARDS

OBJECTIVE

The preservation of all agricultural lands in the County, including prime agricultural lands, agricultural lands of local significance, and other agricultural lands.

1. Prime Agricultural Lands

PRINCIPLE

The preservation of prime agricultural lands ensures that the most productive existing farmlands will remain available for the provision of food and fiber; contributes to the agricultural and agricultural-related economy of the County; maximizes the return on capital invested in agricultural irrigation and drainage systems and soil and water conservation practices; minimizes conflicts between farming operations and activities associated with urban land uses; and contributes to energy conservation since prime agricultural soils require less energy to farm than do other soils.

STANDARD

All prime agricultural lands in the County should be preserved for agricultural use.^a

2. Agricultural Land of Local Significance

PRINCIPLE

Agricultural lands of local significance, although not meeting criteria for prime agricultural lands, constitute an important part of the agricultural sector of the County and thereby warrant preservation in agricultural use.

Table 28 (continued)

Farms with soils having limited agricultural capability which are devoted to orchards, mint, ginseng, and other specialty crops typify this category of farmland. The preservation of such farmland also serves to maintain the local economic base, promote local self-sufficiency, preserve the rural lifestyle, prevent urban sprawl, and control public costs.

STANDARD

All farmland of local significance in the County, as designated by the Technical Coordinating and Advisory Committee on Farmland Preservation, should be preserved for agricultural use.^a

3. Other Agricultural Lands

PRINCIPLE

While less important to the production of food and fiber than prime and locally significant agricultural areas, other agricultural lands serve many useful functions. Such lands lend form and structure to urban development and contribute to the agricultural heritage and natural beauty of the County and Region. Moreover, these agricultural lands contribute to the preservation of nonagricultural environmental areas by providing an important open space buffer around major scientific, educational, and recreational sites. Finally, the preservation of all agricultural lands, including those of marginal value, promotes a compact and efficient form of urban development and discourages diffused low-density urban growth. In this manner, farmland preservation efforts help to avoid the adverse impacts of urban sprawl development. Such development tends to create isolated neighborhoods to which the provision of basic urban services and facilities is difficult and costly, tends to create storm water drainage and water quality problems, and tends, in general, to lead to the deterioration and destruction of the natural resource base.

STANDARD

All agricultural lands not classified as prime agricultural lands or farmland of local significance should be protected.^b

^a*Agricultural lands should be preserved through the application of zoning and land division ordinances which permit only agricultural uses and agricultural-related uses and which specify a relatively large minimum parcel size, such as 35 acres.*

^b*Agricultural lands may be protected through the application of zoning and land division ordinances which prohibit incompatible land uses but which permit compatible uses such as country estate residential development, parks, and hobby farms which do not destroy the basic agricultural capability of the land. Such zoning, while not amenable to most types of commercial farming, would permit use of smaller tracts for specialty crop production and would not preclude the future recombination of tracts into larger farms should the need present itself.*

Source: SEWRPC.

Chapter IV

FORECASTS

INTRODUCTION

Although the preparation of forecasts is not planning, the preparation of all plans must begin with forecasts of those factors affecting the plan but beyond the scope of the plan itself. A farmland preservation plan is a multifaceted plan which identifies the quantity and spatial distribution of agricultural land which should be preserved, other areas of environmental or open space significance which should be preserved, and areas which are anticipated to be converted to urban use. The formulation of such a plan requires information regarding anticipated future population, housing, and employment levels in Kenosha County in order to assess the probable character, location, and type of future urban development and associated public facilities necessary to serve such development, as well as to locate and to quantify the amount of rural lands which may have to be converted to urban use over the plan design period. This chapter sets forth findings of the magnitude and direction of anticipated changes in the required forecasts of these factors and thereby provides an important basis for the development of a farmland preservation plan.

The population, household, and employment level forecasts presented in this chapter were developed by the Regional Planning Commission for use in the preparation of its adopted design year 2000 regional land use plan and of other supporting functional plans. A very brief description of the methodology used in the preparation of these forecasts is presented in this chapter. A more detailed description of the population and household forecast methodology and assumptions is presented in SEWRPC Technical Report No. 22, Recent Population Growth and Change in Southeastern

Wisconsin: 1970-1977. A more detailed description of the employment forecast methodology and assumptions is presented in SEWRPC Technical Report No. 10, The Economy of Southeastern Wisconsin.

In considering any forecasts, it must be recognized that no one can "predict" the future, and that all forecasts, however made, involve uncertainty and, therefore, must always be used with caution. Forecasts cannot take into account events which are unpredictable, but which may have a major effect upon future conditions. Such events include wars; epidemics; major social, political, and economic upheavals; and radical institutional changes. Moreover, both public and private decisions of a less radical nature than the foregoing can be made which may significantly affect the ultimate accuracy of any forecast. The very act of preparing forecasts which present a distasteful situation to society may lead to actions which will negate those forecasts. For these reasons, and other reasons, forecasting, like planning, must be a continuing process. As otherwise unforeseeable events unfold, forecast results must be revised; and, in turn, plans which are based on such forecasts must be reviewed and revised accordingly.

FORECAST METHODOLOGY

The Regional Planning Commission population forecasts were developed utilizing the cohort survival technique, a technique which projects figures from the last census forward by age and sex groups, in five-year intervals, to the date of the forecast. This technique permits explicit consideration of the three major components of population change: deaths, births, and net migration. Initially, a number of projections were prepared, each based upon different

assumptions concerning trends in births, deaths, and migration rates. A single "best" population projection was ultimately chosen as the forecast on the basis of an analysis of the distribution of the array of projections supplemented by the judgment of the Commission staff and Commission advisory committees.¹

Within the controlling framework of the chosen regional population forecasts, individual population projections were developed for each of the seven counties in the Region. Specific assumptions about migration, fertility, and mortality were developed for each individual county based upon historic trends in that county and assumptions about future trends. The resulting projections were carefully analyzed by the Commission staff. Of particular importance in this analysis were the different geographic distribution patterns of the regional population resulting from various sets of county projections.

The county forecasts finally selected from among the projections considered were normative ones, based upon the Commission's adopted land use development objectives. These forecasts assume that the continued diffusion of urban development into the outlying areas of the Region will be controlled in the public interest through the exercise of land use controls and other public policies. They further assume that the present trends in population decentralization will be stabilized and, in fact, reversed in the mid-to-late 1980's and that the central areas of the Region will again experience population growth.

Once county forecasts of total resident population were selected, forecasts of the future number of households and average household size for each county were developed using historic trend

¹As defined by the Regional Planning Commission, a population forecast is a population projection selected from a range of such population projections for use in plan preparation.

information. Implicit in these forecasts are the assumptions that the same proportion of the total population will reside in households as did in 1970, and that average household size will continue to decline from its 1970 level.

The Regional Planning Commission employment forecasting methodology entailed the preparation of a range of employment projections for various industry groups. The range of forecasts for each group was prepared from a series of inputs which included an analysis of historical trends of selected characteristics of each industry group; an extrapolation of employment trends in each industry group in the Region from 1950 to 1970; a multiple regression analysis of national, east north-central states, Wisconsin, and regional employment in each industry group from 1950 to 1970; and other indicators. From the range of projections for each industry group, a final employment forecast was selected by the Commission staff and Commission advisory committees. These industry group projections were summed to arrive at a total employment forecast for the Region for the year 2000. Total future regional employment was then allocated to each of the seven counties in the Region on the basis of county employment trends over the period 1955 through 1974 and normative plan design considerations. The composition by industry group of the total forecast county employment was subsequently obtained for each county within the context of the year 2000 regional land use plan.

POPULATION, HOUSEHOLD, AND EMPLOYMENT LEVEL FORECASTS

As indicated in Table 29, Regional Planning Commission forecasts indicate that the Kenosha County population may be expected to increase by about 48 percent over the forecast period--from 117,900 persons in 1970, to 174,800 persons in the year 2000. The anticipated county population growth rate is considerably higher than that expected for the Southeastern Wisconsin Region overall--26 percent--over the same period. It is

Table 29

ACTUAL AND FORECAST POPULATION
IN KENOSHA COUNTY AND
THE REGION: 1970-2000

Area	Population ^a					
	1970	1980	1990	2000	Change 1970-2000	
					Absolute	Percent
Kenosha County	117,900	139,200	159,900	174,800	56,900	48.3
Region	1,756,100	1,873,400	2,043,900	2,219,300	463,200	26.4

^aActual 1970; forecast 1980, 1990, and 2000.

Source: U.S. Bureau of the Census and SEWRPC.

Table 30

FORECAST NATURAL INCREASE AND NET MIGRATION
IN KENOSHA COUNTY: 1970-2000

Factor	Population Change			
	1970-1980	1980-1990	1990-2000	1970-2000
Natural Increase	9,300	15,200	12,400	36,900
Net Migration	12,000	5,500	2,500	20,000
Total	21,300	20,700	14,900	56,900

Source: SEWRPC.

anticipated that the county population will increase as a result of both significant natural increase and significant net migration into the County. Natural increase is expected to account for an additional 36,900 persons in the County between 1970 and 2000. Net migration into the County is expected to account for a total of 20,000 additional persons over the forecast period (see Table 30).

The population forecast envisions that the age composition of the county population will change between 1970 and the year 2000, as indicated in Table 31. The age group from 0-4 years, representing the preschool population, is expected to increase slightly--from about 10,500 persons in 1970 to about 13,400 persons

in the year 2000, or by 28 percent. The age group from 5-14 years of age, representing the elementary school population, is expected to decrease from about 25,900 persons in 1970 to about 20,300 persons in 1980, and then to increase to about 27,900 persons in the year 2000--an overall increase of about 2,000 persons, or 8 percent, over the forecast period. The age group from 15-19 years of age, representing the high school-age population, is expected to fluctuate somewhat from about 11,100 persons in 1970 to about 15,000 persons in 1980 to about 9,400 persons in 1990 and to about 13,200 persons in the year 2000, an overall increase of about 2,100 persons, or 19 percent, over the forecast period. The age group from 20-64 years of age, representing the working-age population

of the County, is expected to increase from about 59,200 persons in 1970 to about 100,300 persons in the year 2000--an increase of about 41,100 persons, or 69 percent, over the forecast period. Finally, the age group 65 years of age and older, representing the elderly population of the County, is expected to increase from about 11,200 persons in 1970 to about 20,100 persons in the year 2000, an increase of about 8,900 persons, or 80 percent, over the forecast period.

Along with the forecast increases in population will come increases in the number of households in the County. Forecasts of increases in the number of households have particularly important implications for long-range planning since it is the household population which creates much of the demand for additional urban land and supportive public facilities. As indicated in Table 32, the number of households in the County is expected to increase from about 35,500 in 1970 to about 56,800 by

Table 31

ACTUAL AND FORECAST AGE COMPOSITION OF KENOSHA COUNTY POPULATION: 1970-2000

Age Group	Population ^a									
	1970		1980		1990		2000		Net Change 1970-2000	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Under 5....	10,479	8.9	10,747	7.7	14,635	9.1	13,387	7.7	2,908	27.8
5-9.....	13,280	11.3	8,596	6.2	12,832	8.0	13,352	7.6	72	0.5
10-14.....	12,662	10.7	11,696	8.4	11,039	6.9	14,523	8.3	1,861	14.7
15-19.....	11,105	9.4	15,010	10.8	9,397	5.9	13,158	7.5	2,053	18.5
20-24.....	8,493	7.2	14,475	10.4	12,487	7.8	11,352	6.5	2,859	33.7
25-29.....	7,725	6.6	13,103	9.4	15,799	9.9	9,715	5.6	1,990	25.8
30-34.....	6,741	5.7	9,748	7.0	14,914	9.3	12,586	7.2	5,845	86.7
35-39.....	6,074	5.2	8,101	5.8	13,151	8.2	15,660	8.9	9,586	157.8
40-44.....	6,656	5.6	7,065	5.1	9,786	6.1	14,720	8.4	8,064	121.2
45-49.....	6,941	5.9	6,361	4.6	8,114	5.1	12,881	7.4	5,940	85.6
50-54.....	6,425	5.4	6,740	4.8	6,938	4.3	9,457	5.4	3,032	47.2
55-59.....	5,482	4.7	6,732	4.8	6,059	3.8	7,667	4.4	2,185	39.9
60-64.....	4,636	3.9	5,905	4.3	6,140	3.8	6,281	3.6	1,645	35.5
65-69.....	3,705	3.1	4,878	3.5	5,863	3.7	5,225	3.0	1,520	41.0
70-74.....	3,051	2.6	3,783	2.7	4,721	3.0	4,861	2.8	1,810	59.3
75 and Older.....	4,462	3.8	6,250	4.5	8,102	5.1	10,055	5.7	5,593	125.3
Total	117,917	100.0	139,190	100.0	159,977	100.0	174,880	100.0	56,963	48.3

^aActual 1970; forecast 1980, 1990, and 2000.

Source: SEWRPC.

Table 32

ACTUAL AND FORECAST HOUSEHOLDS IN KENOSHA COUNTY AND THE REGION: 1970-2000^a

Area	1970			1980			1990			2000		
	Number of Households	Household Population	Persons Per Household	Number of Households	Household Population	Persons Per Household	Number of Households	Household Population	Persons Per Household	Number of Households	Household Population	Persons Per Household
Kenosha County.....	35,468	115,712	3.26	42,800	136,574	3.19	50,400	156,860	3.11	56,800	171,466	3.02
Region.....	536,486	1,714,598	3.20	605,500	1,829,188	3.02	674,600	1,995,664	2.95	747,700	2,166,925	2.90

^aActual 1970; forecast 1980, 1990, and 2000.

Source: U.S. Bureau of the Census and SEWRPC.

2000, an increase of about 60 percent. It should be noted that the anticipated growth rate in the number of households--60 percent--in the County exceeds the expected rate of growth in the county population--48 percent--over the forecast period, reflecting an anticipated continued decline in household size. Such rapid growth in the number of households by the year 2000 could manifest itself in a substantial increase in both the amount of land devoted to residential use and the demand for urban services and facilities.

Population and employment levels typically follow similar patterns, and in Kenosha County the employment level is expected to increase steadily along with the population between 1970 and 2000. County employment is expected to increase from about 39,200 jobs in 1970 to about 54,300 jobs by 2000, or by 39 percent. As indicated in Table 33, this is similar to the growth rate in the level of employment anticipated within the Southeastern Wisconsin Region overall.

The structure of the economy of Kenosha County is not expected to change significantly over the forecast period. As indicated in Table 34, employment in each major industry group except agriculture is expected to increase between 1970 and 2000. Employment in the private services category is expected to increase most rapidly--by about 5,400 jobs, or 68 percent--between 1970 and 2000, and as a result, the proportional

share of all jobs in this category would increase from about 20 to 25 percent. The decrease in employment in the agricultural sector, described in Chapter II of this report, is expected to continue during the forecast period, but at a reduced rate, declining from 1,170 jobs in 1970 to about 1,000 jobs in 2000.

POPULATION CHANGE SINCE 1970

Chapter II of this report includes data regarding historic population trends in Kenosha County, including data for the period from 1970 to 1980, a period which represents one-third of the forecast period. As indicated in Table 14 of Chapter II of this report, the Kenosha County population stood at about 123,400 in 1980, an increase of 5,500 persons, or about 5 percent, over the 1970 population of 117,900.² Regional Planning Commission forecasts anticipated a 1980 population of 139,200 for Kenosha County, an increase of 21,300 persons, or about 18 percent, over the 1970 level. The actual county population in 1980 is, thus, lower than the forecast population by about 15,800 persons, or 11 percent.

²The 1980 population data presented herein are based on the preliminary 1980 census count. The final 1980 census count is not expected to differ significantly from the preliminary count.

Table 33

ACTUAL AND FORECAST EMPLOYMENT IN KENOSHA COUNTY AND THE REGION: 1970-2000

Area	Employment ^a				Change 1970-2000	
	1970	1980	1990	2000	Absolute	Percent
Kenosha County ..	39,200	44,200	49,300	54,300	15,100	38.5
Region	741,600	833,000	924,500	1,016,000	274,400	37.0

^aActual 1970; forecast 1980, 1990, and 2000.

Source: Wisconsin Department of Industry, Labor and Human Relations and SEWRPC.

In contrast to the modest growth rate of 5 percent in the county population between 1970 and 1980, the number of households in the County grew by about 7,600, or 21 percent--from about 35,500 households in 1970 to 43,100 households in 1980. The actual number of households in the County in 1980 very closely approximates the figure of 42,800 anticipated under Regional Planning Commission forecasts. This is important, since it is the household which constitutes the most basic unit of demand for urban land and for many public services and facilities. In summary, the number of households in Kenosha County increased almost exactly as forecast between 1970 and 1980, while growth in the county popu-

lation was significantly less than forecast.

The modest population increase experienced by Kenosha County since 1970 may be attributed in part to local economic fluctuations, and it is possible that the variance between the actual and forecast population growth rates will diminish over the remainder of the forecast period. The deviation between estimated and forecast 1970-1980 population changes described herein, however, demands the careful evaluation of these forecasts as appropriate data become available and further underscores the nature of forecasting and planning as continuing processes.

Table 34

ACTUAL AND FORECAST EMPLOYMENT
FOR SELECTED INDUSTRY GROUPS
IN KENOSHA COUNTY: 1970-2000

Employment Category	Employment ^a							
	1970		1985		2000		Change 1970-2000	
	Jobs	Percent of Total	Jobs	Percent of Total	Jobs	Percent of Total	Jobs	Percent
Industrial ^a	18,030	46.0	20,000	42.8	22,500	41.4	4,470	24.8
Retail Trade	6,100	15.6	7,100	15.2	8,500	15.7	2,400	39.3
Government Service	4,700	12.0	5,800	12.4	7,100	13.1	2,400	51.1
Private Services ^b	7,940	20.2	11,100	23.8	13,300	24.5	5,360	67.5
Agricultural	1,170	3.0	1,100	2.4	1,000	1.8	-170	-14.5
Transportation, Communi- cations and Utilities	1,260	3.2	1,600	3.4	1,900	3.5	640	50.8
Total	39,200	100.0	46,700	100.0	54,300	100.0	15,100	38.5

^a Includes manufacturing, construction, and wholesale trade.

^b Includes finance, insurance, real estate, and other services.

^c Actual 1970; forecast 1980, 1990, and 2000.

Source: Wisconsin Department of Industry, Labor and Human Relations and SEWRPC.

Chapter V

FARMLAND PRESERVATION PLAN

INTRODUCTION

Chapter II of this report characterized Kenosha County as a county which includes a large, expanding urbanized area and smaller freestanding urban communities, as well as substantial areas of prime farmlands and environmentally significant areas. In recent decades there has been a substantial conversion of farmlands and other open lands to urban uses within the County. Moreover, the forecasts presented in Chapter IV indicate that population increases will probably require further conversion of land from rural to urban use. Through proper planning, the impact of such conversion on remaining agricultural and other open lands can be guided in the public interest.

This chapter presents a farmland preservation plan for Kenosha County which is intended to meet, insofar as practicable, the agricultural land preservation, open space preservation, and land use development objectives presented in Chapter III of this report. The farmland preservation plan presented herein seeks to retain in essentially rural uses the most productive farming areas of Kenosha County. Moreover, the plan seeks to discourage incompatible urban uses in the environmentally significant areas of the County. Finally, the plan recommends that intensive urban development occur only in those areas of the County which are covered by soils suitable for such development, which are not subject to special hazards such as flooding, and which can be readily served with essential municipal facilities including public sanitary sewerage and water supply. This plan, it should be noted, incorporates many of the basic concepts of the regional plan adopted by Kenosha County in 1978, particularly those which

relate to the location, amount, and intensity of future urban development within the County.

The following sections of this chapter describe the basic elements of the farmland preservation plan for Kenosha County--namely, the recommended farmland preservation areas, the recommended natural resource preservation areas, and the recommended urban development areas. For each of these elements, the chapter includes an explanation of the plan design considerations, a description of the plan itself, and a set of related plan implementation policies. In addition to the county farmland preservation plan map presented in the chapter, a larger scale plan map, along with a fact sheet containing plan information for each town in Kenosha County, is presented in Appendix E.

RECOMMENDED FARMLAND PRESERVATION AREAS

Plan Design

The farmland preservation objectives set forth in Chapter III of this report seek to preserve in agricultural and other compatible uses both prime agricultural lands and farmlands of local significance. Prime agricultural lands are those lands which are well suited for agricultural use, and which meet the specific mapping criteria established by the Technical Coordinating and Advisory Committee on Farmland Preservation regarding farm size and agricultural soil capability. Farmlands of local significance are those agricultural lands which are more limited for general agricultural purposes but which nevertheless represent an important part of the local agricultural resource base. Consistent with the adopted objectives, both prime agricultural lands and farmlands of

local significance have been included in the farmland preservation areas delineated on the farmland preservation plan maps.

The criteria used in the identification and mapping of prime agricultural lands relate to the agricultural capabilities of the soils, the size of the individual farm unit, and the size of the overall farming area. Specifically, to be considered prime agricultural land, farm units must meet the following criteria: 1) the farm unit must be at least 35 acres in area; 2) at least 50 percent of the farm unit must be covered by soils which meet the U.S. Department of Agriculture, Soil Conservation Service, standards for national prime farmland or farmland of statewide importance; and 3) the farm unit should occur in blocks of similar farmland of at least 100 acres in size.

The application of the foregoing criteria in the delineation of prime agricultural lands in Kenosha County involved a two-phase mapping process. The first phase involved the identification of all parcels meeting the first two criteria--that is, parcels of at least 35 acres in area, of which at least 50 percent is covered by soils meeting the U.S. Soil Conservation Service criteria for national prime farmland or farmland of statewide importance. The resulting maps were reviewed by the Technical Coordinating and Advisory Committee at a meeting held on February 21, 1980 and subsequently by the Special Towns Committee on Proposed Comprehensive Zoning and individual farmers from each town in Kenosha County at a meeting held on March 26, 1980. The second phase of the mapping process utilized an overlay technique in which parcels identified in the first phase, significant environmental areas, and areas of existing and planned urban development were considered simultaneously, in order that prime agricultural areas of at least 100 acres in size could be identified.

As already noted, in addition to prime agricultural lands, farmlands of local significance are included in the farm-

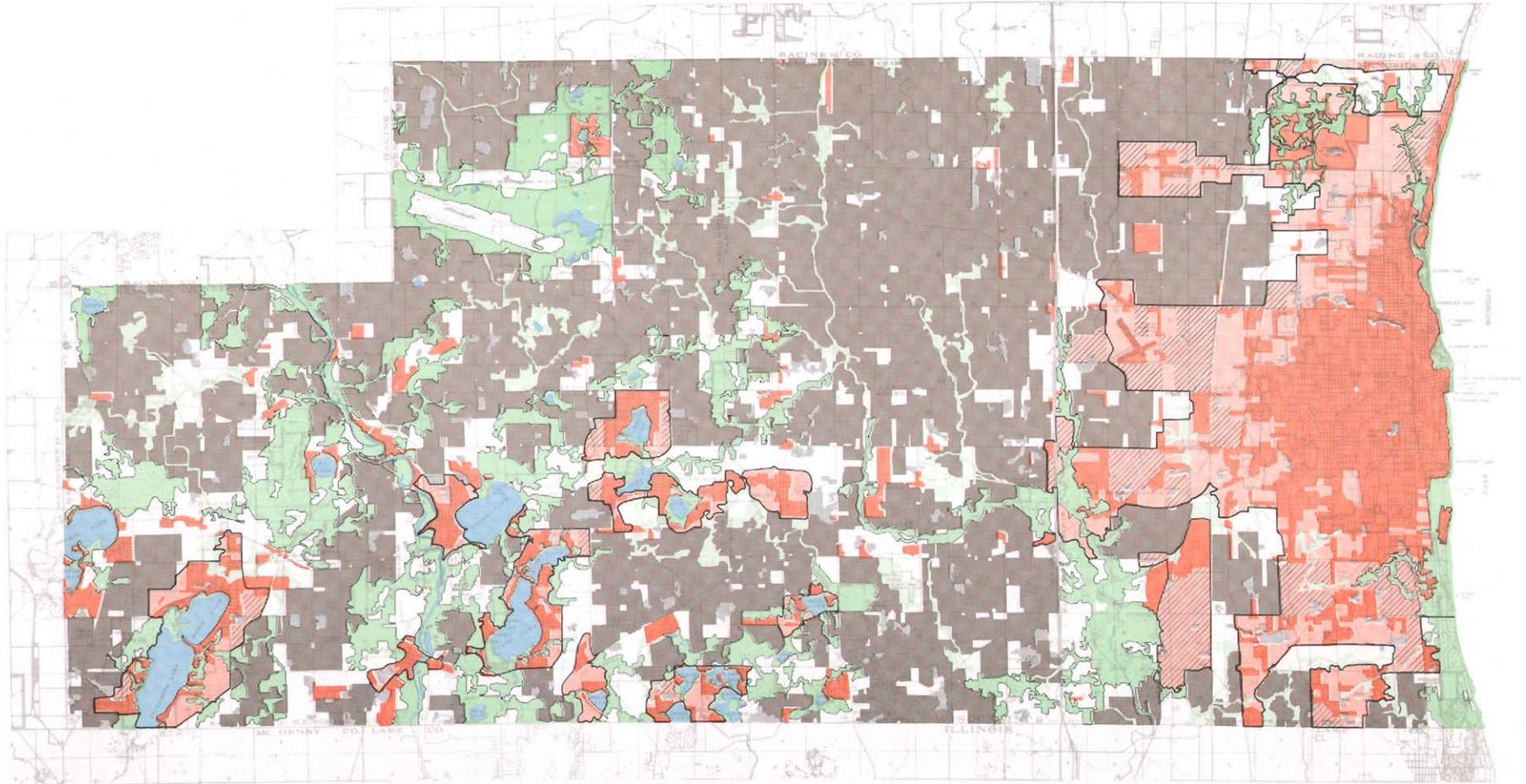
land preservation area. Such lands, while not meeting the established prime agricultural land mapping criteria, are deemed to be an important part of the local farming community. Initial recommendations regarding the location and extent of farmlands of local significance were made by members of the Special Towns Committee on Proposed Comprehensive Zoning and individual farmers at the March 26, 1980 meeting. Additional farmlands of local significance were identified at a meeting on July 23, 1980, held for the purpose of reviewing preliminary farmland preservation plan maps and attended by members of the Special Towns Committee on Proposed Comprehensive Zoning, members of the Technical Coordinating and Advisory Committee, and individual farmers from Kenosha County.

It is important to note that the farmland plan calls for the preservation of most, but not all, of the identified prime agricultural lands in Kenosha County. Open space land, including some prime agricultural land, provides a necessary reserve for the expansion of urban areas required to meet the needs of a growing urban population. Those areas which may be classified as prime agricultural land but which are envisioned to be in urban use by the plan design year 2000 have been designated "transition areas" on the farmland preservation plan maps. Under the plan, the conversion of prime agricultural land to urban use would be limited to that absolute minimum which is necessary to meet the urban development needs of the resident population of the County through the plan design year.

Plan Description

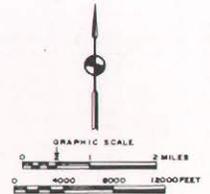
Map 19 shows the farmland preservation area recommended under the Kenosha County farmland preservation plan. Included in the farmland preservation area are those lands which meet the recommended prime agricultural land mapping criteria and such additional lands of local significance as were identified by local officials and farmers. The recommended farmland preservation area encompasses a combined total area of about

RECOMMENDED FARMLAND PRESERVATION PLAN FOR KENOSHA COUNTY: 2000



LEGEND

- | | | | |
|---|--|---|-----------------------------|
|  | EXISTING URBAN, EXTRACTIVE, AND INTENSIVE RECREATION LANDS |  | FARMLAND PRESERVATION AREA |
|  | ADDITIONAL URBAN LAND |  | TRANSITION FARM AREA |
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | OTHER LAND |
|  | SECONDARY ENVIRONMENTAL CORRIDOR |  | WATER |
|  | ISOLATED NATURAL AREA |  | URBAN SERVICE AREA BOUNDARY |



75,000 acres, or 117 square miles of land in Kenosha County. This represents 42 percent of the total area of the County (see Table 35). Significant farmland preservation areas are recommended within each of the eight towns in Kenosha County.

As previously noted, under the farmland preservation plan the development of prime agricultural lands for urban uses would occur only as necessary to meet the urban development needs of the resident population of the County. Prime agricultural lands which may potentially be converted to urban use, designated "transition areas" on the farmland preservation plan maps, are located on the periphery of existing urban development in areas where new urban development can best be accommodated in an economic, efficient, and environmentally sound manner. As indicated in Table 35, only about 6,400 acres, or 3.6 percent of the total area of Kenosha County, are designated transition areas under the farmland preservation plan.

Plan Implementation Policies

The following public policies are recommended for application within the farmland preservation area:

1. With the exception of compatible land uses, all land contained in the designated farmland preservation area should be preserved for and in agricultural use.
2. Additional residential development should be restricted to that required for occupancy by the farmer, his parents or children, or farm laborers.
3. Only those forms of development which are compatible with agricultural uses, such as essential agribusinesses, should be permitted in addition to farming.
4. Other than for the exceptions provided, land should not be subdivided to form parcels of less than 35 acres in size.

The foregoing policies should also be applied to lands located in transition areas until development for residential, commercial, industrial, or other urban use is imminent. Such transition areas should be preserved for agricultural use until sufficient demand for additional urban development has been generated and essential municipal services and facilities, such as sanitary sewer and public water supply, can be readily and economically provided.

RECOMMENDED NATURAL RESOURCE PRESERVATION AREAS

Plan Design

The open space preservation objective set forth in Chapter III of this report calls for the preservation of sufficient high-quality, environmentally significant lands, which are necessary to protect the underlying and sustaining natural resource base and to enhance the environmental quality of Kenosha County. The associated standards specify that all remaining nonurban lands within designated primary environmental corridors should be preserved in essentially natural, open uses. The environmental corridor concept and a description of the configuration of the environmental corridors in Kenosha County were provided in Chapter II.

Briefly, environmental corridors are a composite of the best remaining elements of the natural resource base. Natural resource base elements considered in the identification of the primary environmental corridors include lakes and streams and the associated shorelands and floodlands; wetlands; woodlands; prairies; wildlife habitat areas; areas covered by wet, poorly drained, or organic soils; and rugged terrain or high-relief topography. Additional elements related to the natural resource base considered in the identification of the primary environmental corridors include existing park and open space sites; potential park and open space sites; and sites having historic or scientific value. Primary environmental corridors, which include a variety of the above-

Table 35

FARMLAND PRESERVATION AREA IN KENOSHA COUNTY
UNDER THE RECOMMENDED FARMLAND PRESERVATION PLAN

Area	Recommended Farmland Preservation Area		Recommended Transition Area	
	Acres	Percent of Total Area	Acres	Percent of Total Area
Brighton ^a	12,453	54.2	--	--
Bristol ^b	12,619	54.5	56	0.2
Paris ^c	18,432	80.1	--	--
Pleasant Prairie ^d	4,028	14.4	3,483	12.4
Randall ^e	4,804	31.2	222	1.4
Salem ^f	6,528	28.2	293	1.3
Somers ^g	8,412	31.1	2,326	8.6
Wheatland ^h	7,704	49.8	--	--
Kenosha County Total	74,980	42.1	6,380	3.6

^aIncludes Town 2 North, Range 20 East. This area encompasses the Town of Brighton.

^bIncludes Town 1 North, Range 21 East. This area encompasses the Town of Bristol.

^cIncludes Town 2 North, Range 21 East. This area encompasses the Town of Paris.

^dIncludes Town 1 North, Range 22 East and Town 1 North, Range 23 East. This area encompasses the Town of Pleasant Prairie and the portion of the City of Kenosha located in Town 1 North, Range 22 East and Town 1 North, Range 23 East.

^eIncludes Town 1 North, Range 19 East--Sections 13-36. This area encompasses the Town of Randall and the Village of Twin Lakes.

^fIncludes Town 1 North, Range 20 East. This area encompasses the Town of Salem and the Villages of Paddock Lake and Silver Lake.

^gIncludes Town 2 North, Range 22 East and Town 2 North, Range 23 East. This area encompasses the Town of Somers and the portion of the City of Kenosha located in Town 2 North, Range 22 East and Town 2 North, Range 23 East.

^hIncludes Town 2 North, Range 19 East--Sections 25-36--and Town 1 North, Range 19 East--Sections 1-12. This area encompasses the Town of Wheatland.

Source: SEWRPC.

mentioned natural resource and natural resource-related elements, are, by definition, at least 400 acres in size, two miles in length, and 200 feet in width. Primary environmental corridors, as identified by the Regional Planning Commission under its regional land use planning program, were refined, detailed, and delineated on the farmland preservation plan maps. Their preservation in an essentially open, natural state will avoid the creation of costly environmental problems such as flooding and water pollution and will serve to maintain a high level of environmental quality in the County, protect its natural beauty, and provide invaluable outdoor recreational opportunities. The exclusion of urban development from these corridors will also avoid the creation of serious and costly developmental problems such as wet and flooded basements, foundation failures, and excessive clear water infiltration and inflow into sanitary sewerage systems.

In addition to primary environmental corridors, secondary environmental corridors and certain isolated natural features worthy of preservation exist within Kenosha County. Secondary environmental corridors contain a lesser variety of resource elements than primary corridors, and are often remnants of primary corridors which have been developed for intensive agricultural or urban purposes. Secondary environmental corridors can facilitate surface water drainage, maintain valuable "pockets" of natural features, and provide corridors for the movement of wildlife. Secondary environmental corridors, which frequently connect with primary environmental corridors, are, by definition, at least 100 acres in size and one mile in length. Secondary environmental corridors, as identified by the Regional Planning Commission, were refined, detailed, and delineated on the farmland preservation plan map. Such corridors, while not as important as primary environmental corridors, should also be considered for preservation in essentially natural, open uses.

Isolated natural features represent isolated enclaves or pockets of natural resource base elements. These pockets are isolated from the environmental corridors by urban development or agricultural uses. Although separated from the environmental corridor system, such isolated natural features may have important natural values. Isolated natural features of five or more acres in size, as identified by the Regional Planning Commission, have also been delineated on the farmland preservation plan maps. These features, consisting primarily of wetlands and woodlands, should also be considered for preservation in natural, open uses.

Plan Description

As shown on Map 19, the primary environmental corridors in Kenosha County are located primarily along the Lake Michigan shoreline, along the main stems of the Fox and Des Plaines Rivers, around major lakes in the County, including Silver Lake, Camp Lake, and Elizabeth Lake, and throughout the Bong Recreation Area. About 29,600 acres, or 17 percent of the total area of Kenosha County, are encompassed within the identified primary environmental corridors (see Table 36).

Secondary environmental corridors in Kenosha County are located primarily along creeks and other drainageways, including New Munster Creek, Brighton Creek, Center Creek, and the Kilbourn Ditch. About 5,900 acres, or 3 percent of the total area of Kenosha County, are encompassed within the identified secondary environmental corridors.

Isolated natural features, consisting primarily of isolated wetlands and woodlands, are scattered throughout Kenosha County. A total of 232 isolated natural areas of five or more acres in size have been identified on the farmland preservation plan maps. These sites encompass a total area of about 4,000 acres, or 2 percent of the total area of Kenosha County.

Table 36

PRIMARY ENVIRONMENTAL CORRIDORS, SECONDARY ENVIRONMENTAL CORRIDORS, AND ISOLATED NATURAL AREAS IN KENOSHA COUNTY UNDER THE RECOMMENDED FARMLAND PRESERVATION PLAN

Area	Primary Environmental Corridors		Secondary Environmental Corridors		Isolated Natural Areas	
	Acres	Percent of Total Area	Acres	Percent of Total Area	Acres	Percent of Total Area
Brighton ^a	5,377	23.4	919	4.0	480	2.1
Bristol ^b	2,729	11.8	907	3.9	875	3.8
Paris ^c	663	2.9	1,216	5.3	569	2.5
Pleasant Prairie ^d ..	4,118	14.7	1,193	4.3	523	1.9
Randall ^e	4,183	27.1	293	1.9	409	2.7
Salem ^f	7,240	31.2	373	1.6	529	2.3
Somers ^g	1,580	5.8	269	1.0	359	1.3
Wheatland ^h	3,666	23.7	704	4.6	261	1.7
Kenosha County Total	29,556	16.6	5,874	3.3	4,005	2.2

^aIncludes Town 2 North, Range 20 East. This area encompasses the Town of Brighton.

^bIncludes Town 1 North, Range 21 East. This area encompasses the Town of Bristol.

^cIncludes Town 2 North, Range 21 East. This area encompasses the Town of Paris.

^dIncludes Town 1 North, Range 22 East and Town 1 North, Range 23 East. This area encompasses the Town of Pleasant Prairie and the portion of the City of Kenosha located in Town 1 North, Range 22 East and Town 1 North, Range 23 East.

^eIncludes Town 1 North, Range 19 East--Sections 13-36. This area encompasses the Town of Randall and the Village of Twin Lakes.

^fIncludes Town 1 North, Range 20 East. This area encompasses the Town of Salem and the Villages of Paddock Lake and Silver Lake.

^gIncludes Town 2 North, Range 22 East and Town 2 North, Range 23 East. This area encompasses the Town of Somers and the portion of the City of Kenosha located in Town 2 North, Range 22 East and Town 2 North, Range 23 East.

^hIncludes Town 2 North, Range 19 East--Sections 25-36--and Town 1 North, Range 19 East--Sections 1-12. This area encompasses the Town of Wheatland.

Source: SEWRPC.

Plan Implementation Policies

Significant environmental areas within Kenosha County should be protected from intrusion by incompatible urban and rural land uses. Accordingly, the following public policies are recommended for application within the significant environmental areas:

1. All remaining primary environmental corridor lands should be preserved in a natural, open state.
2. Secondary environmental corridors and isolated natural features should be considered for preservation in a natural, open state to the maximum extent possible.

It should be noted that certain land uses--park and open space uses and large lot country estate--type residential uses--are compatible uses within portions of the identified environmental corridors. Public recreational areas accommodating camping, hiking, nature study, and other, similar activities are ideally located within such natural areas since these areas provide the best setting for resource-oriented recreational activities and since the public ownership of such areas ensures their permanent preservation. Country estate-type residential development, with lot sizes of at least five acres, can also be accommodated in portions of the primary environmental corridors. When properly situated with respect to the natural resource base, such large lot rural residential development can be sustained without public sanitary sewer and water supply, woodland and wetland areas can be preserved, and wildlife habitat can continue to sustain itself in the area.

It should be noted that many areas of Kenosha County have been drained to facilitate agricultural production. If existing farm drainage systems--including those within and adjacent to the identified environmental corridors and natural areas--are not maintained, surrounding farmlands might revert to wetlands, thereby destroying the viability

of certain existing farms. The policies for the preservation of the environmental corridors and natural areas embodied in this plan are not intended to prohibit the maintenance of farm drainage systems located within and adjacent to environmental areas.

RECOMMENDED URBAN DEVELOPMENT AREAS

Plan Design

As indicated in Chapter IV, the population of Kenosha County is expected to increase by about 51,400 persons, from 123,400 persons in 1980¹ to about 174,800 persons in the year 2000. Such an increase in resident population would require a concomitant increase in urban land within the County. This section presents a development framework intended to guide the location and amount of land to be converted from rural to urban use in Kenosha County through the plan design year 2000. This development framework is based upon the population forecasts and basic land use development recommendations of the adopted regional land use plan as that plan applies to Kenosha County. Substantial implementation of this element of the plan would result in the attainment of the land use development objectives set forth in the regional land use plan and reaffirmed by the Technical Coordinating and Advisory Committee on Farmland Preservation, as indicated in Chapter III.

The following guidelines were used in the design of the regional land use plan, which provided the basis for the development framework incorporated into the farmland preservation plan:

1. New urban development should occur primarily at medium densities (2.3-6.9 dwelling units per net residen-

¹The 1980 population data presented herein are based on preliminary 1980 census counts. Final 1980 census population counts are not expected to differ significantly from the preliminary counts.

tial acre) and be located in those areas of the County which are, or readily can be, provided with essential urban services, particularly centralized sanitary sewer systems and water supply systems. The amount of new urban development allocated should be sufficient to support anticipated future resident population levels in the County through the year 2000.

2. To the maximum extent possible, no new urban development should be allocated to prime agricultural lands.
3. No new urban development should be allocated to primary environmental corridors, secondary environmental corridors, or significant isolated wetlands and woodlands.

The areas proposed for development on the farmland preservation plan maps are similar to those recommended under the year 2000 regional land use plan. The areas have been refined and detailed to reflect the sanitary sewer service area recommendations contained in the regional water quality management plan adopted by the Regional Planning Commission in 1979 as well as the preliminary recommendations of the Pike River watershed study currently being conducted by the Commission.

It should be noted that the farmland preservation plan, like the regional land use plan on which it is based, assumes that existing partially developed urban areas will be fully developed through "infilling" over the plan design period. Moreover, achievement of the centralized settlement pattern envisioned under the plan requires that existing fully developed residential, commercial, and industrial areas be conserved and renewed as necessary in order that the viability and attractiveness of such areas as places to live and work can be maintained and increased.

Plan Description

Areas of existing urban development and planned urban growth in Kenosha County

are shown on Map 19. The areas of existing development include fully developed and developing residential areas as well as existing transportation and utility, institutional, intensive recreational, commercial, and industrial areas--which include areas devoted to extractive operations. Such areas encompass a total of about 21,300 acres, or 12 percent of the total area of Kenosha County.

The farmland preservation plan calls for the conversion of a total of about 17,100 additional acres of land from rural to urban uses in Kenosha County by the plan design year 2000 (see Table 37). Under the plan, about 38,400 acres of land, representing 22 percent of the total area of Kenosha County, would be in urban use by the plan design year. The additional urban land recommended by the plan would be sufficient to meet the urban development needs associated with the anticipated increase in population levels in the County set forth in Chapter IV.

Under the recommended plan, additional urban development consisting primarily of residential, commercial, industrial, recreational, transportation, and institutional uses would be encouraged to occur along the periphery of and outward from existing urban centers. Such development would be encouraged to occur in those areas of the County which are covered by soils suitable for such development and which may be readily provided with sanitary sewer systems, public water supply, and other essential urban services. New urban residential development would, moreover, be encouraged to occur in planned neighborhood units primarily at medium population densities, with new single-family residential development averaging about four dwelling units per net residential acre, and with new multiple-family residential development averaging about 10 dwelling units per net residential acre. Overall, new urban development would average about 6,000 persons per gross square mile.

Under the recommended plan, all of the proposed new urban development in Kenosha County would be served with public

Table 37

EXISTING AND PLANNED URBAN LAND IN KENOSHA COUNTY UNDER THE RECOMMENDED FARMLAND PRESERVATION PLAN: 1975-2000

Area	Existing Urban Land: 1975		Planned Urban Land: 2000		Planned Increase In Urban Land 1975-2000
	Acres	Percent of Total Area	Acres	Percent of Total Area	Acres
Brighton ^a	488	2.1	488	2.1	--
Bristol ^b	1,140	4.9	1,584	6.8	444
Paris ^c	214	0.9	214	0.9	--
Pleasant Prairie ^d	7,736	27.6	15,035	53.7	7,299
Randall ^e	1,939	12.6	2,883	18.7	944
Salem ^f	2,698	11.6	4,015	17.3	1,317
Somers ^g	6,632	24.5	13,702	50.7	7,070
Wheatland ^h	499	3.2	499	3.2	--
Kenosha County Total	21,346	12.0	38,420	21.6	17,074

^aIncludes Town 2 North, Range 20 East. This area encompasses the Town of Brighton.

^bIncludes Town 1 North, Range 21 East. This area encompasses the Town of Bristol.

^cIncludes Town 2 North, Range 21 East. This area encompasses the Town of Paris.

^dIncludes Town 1 North, Range 22 East and Town 1 North, Range 23 East. This area encompasses the Town of Pleasant Prairie and the portion of the City of Kenosha located in Town 1 North, Range 22 East and Town 1 North, Range 23 East.

^eIncludes Town 1 North, Range 19 East--Sections 13-36. This area encompasses the Town of Randall and the Village of Twin Lakes.

^fIncludes Town 1 North, Range 20 East. This area encompasses the Town of Salem and the Villages of Paddock Lake and Silver Lake.

^gIncludes Town 2 North, Range 22 East and Town 2 North, Range 23 East. This area encompasses the Town of Somers and the portion of the City of Kenosha located in Town 2 North, Range 22 East and Town 2 North, Range 23 East.

^hIncludes Town 2 North, Range 19 East--Sections 25-36--and Town 1 North, Range 19 East--Sections 1-12. This area encompasses the Town of Wheatland.

Source: SEWRPC.

sanitary sewer and water supply facilities. In addition, public sanitary sewer and water supply service would be extended to certain existing urban areas currently lacking these facilities. The outer boundaries of urban service areas in Kenosha County in the plan design year 2000 envisioned under the farmland preservation plan are also shown on Map 19. Under the plan, sanitary sewer and water supply services would be provided within each of the identified urban service areas.

The centralized form of urban growth envisioned in the farmland preservation plan would contribute significantly toward the preservation of existing natural areas and prime agricultural lands in Kenosha County. Under the plan, no additional intensive urban development would occur within the identified primary environmental corridors, secondary environmental corridors, and isolated natural areas. The development of prime agricultural land for urban purposes would be held to a minimum level, with only 6,400 acres, or 8 percent of all prime agricultural lands in the County, being converted to urban use. Prime agricultural lands to be converted to urban use by the year 2000, designated "transition areas" on the farmland preservation plan maps, are located close to existing urban centers in areas which represent logical extensions of existing urban development.

The compact, centralized form of urban growth fostered by the farmland preservation plan would serve to prevent the serious economic and environmental problems associated with scattered urban development within essentially rural areas. Such scattered urban development increases the likelihood of developing incomplete as well as scattered neighborhoods to which the provision of urban services and facilities is difficult and costly. Moreover, the proliferation of low-density urban development within rural areas can be expected to lead to a less energy efficient settlement pattern which is more dependent upon the automobile for transportation, a problem which

is of growing concern given the increasing cost and overall uncertainty of future energy supplies. In addition, scattered urban development tends to impair environmentally sensitive areas, reduce wildlife habitat, and create costly storm water drainage and water quality problems. Such development may involve the conversion of prime agricultural lands to urban use, may reduce the viability of surrounding areas for farming, and may result in conflicts between residential living patterns and farming operations.

The farmland preservation plan, like the regional land use plan, recognizes that there will continue to be some demand for rural, or "country," living by non-farm people. To a large extent, in past years this demand has been met through the development of subdivisions served by septic tanks and private wells with lot sizes ranging from one to three acres. The recommended plan seeks to discourage this type of scattered development for the reasons mentioned above. Rather, the plan recommends that this portion of the housing market be satisfied through low-density country estate-type development, with minimum lot sizes of five acres. Under the plan, such large lot rural residential development would be accommodated in portions of the primary environmental corridor as well as in rural lands outside the farmland preservation area. As previously noted, such large lot rural residential development, when properly situated with respect to the natural resource base, can be sustained with minimal impacts on existing wetlands, woodlands, wildlife habitat, and natural drainage systems. Also, this type of development permits the replacement of a malfunctioning septic system in a different portion of the lot.

Plan Implementation Policies

The compact, centralized form of urban growth proposed in the farmland preservation plan represents an efficient, economical, and environmentally sound settlement pattern. In order to achieve

the centralized pattern of urban development, the following public policies are recommended:

1. New urban development should occur on lands along the periphery of and outward from existing urban development in areas covered by soils suitable for such development.
2. New urban development should be provided with sanitary sewer systems, public water supply, and other essential urban services. New residential development should occur in planned neighborhood development units, primarily at medium density levels--that is, with new single-family residential development averaging about four dwelling units per net residential acre and with new multiple-family residential development averaging about 10 dwelling units per net residential acre.
3. No new intensive urban development should occur within the identified primary environmental corridors or farmland preservation areas, with the exception of those areas which

have been identified as transition farmland.

4. To the maximum extent possible, no new urban development should occur in the identified secondary environmental corridors or isolated natural areas.
5. Residential development served by onsite sewage disposal systems and private wells on lots less than five acres in area should be discouraged. Rather, the demand for rural living by nonfarm people should be accommodated through country estate development with a minimum lot size of five acres. Served by septic tanks and private wells, such large lot rural residential development should be properly situated to avoid adverse impacts on the natural resource base.
6. Existing partially developed areas should be fully developed. Existing fully developed areas should be conserved and renovated as necessary, thereby enhancing such areas as places to live and work.

Chapter VI

PLAN IMPLEMENTATION

INTRODUCTION

The recommended farmland preservation plan described in the preceding chapter of this report provides a design for the attainment of the farmland preservation, natural resource preservation, and land use development objectives developed under the Kenosha County farmland preservation planning program as set forth in Chapter III of this report. In a practical sense, however, the plan is not complete until the steps required to implement the plan are specified. Accordingly, this chapter outlines the actions which must be taken by the various units and agencies of government concerned if the recommended plan is to be carried out. Those units and agencies of government which have plan adoption and plan implementation powers applicable to the farmland preservation plan are identified; necessary formal plan adoption actions are specified; and specific implementation actions are recommended with respect to the three elements of the farmland preservation plan--namely, the farmland preservation element, the natural resource preservation element, and the urban development element.

PLAN IMPLEMENTATION ORGANIZATIONS

Implementation of the farmland preservation plan depends on the cooperative actions of a number of local, state, and federal agencies of government. Agencies whose actions will have a significant effect, either directly or indirectly, upon the successful implementation of the recommended farmland preservation plan and whose full cooperation in plan implementation will be essential are listed and discussed below by level of government.

Local Level Agencies

Kenosha County: Kenosha County has certain legal powers which enable it to implement the farmland preservation plan. County zoning regulations, administered by the Kenosha County Department of Planning, Zoning and Sanitation, and applied with the cooperation of the towns concerned, can contribute significantly to the preservation of agricultural land and environmentally significant areas, as recommended in the plan. The county land subdivision control ordinance, floodland and shoreland regulations, and recently enacted sanitary code and private sewage system regulatory ordinance represent additional means by which the County can guide and shape land use development in conformance with the farmland preservation, natural resource preservation, and urban development objectives embodied in the plan. It should be noted that Kenosha County can also act to implement the plan through certain nonregulatory measures--for example, through county acquisition of land to protect significant environmental areas.

Towns: Towns can contribute to implementation of the farmland preservation plan, particularly by cooperating with the county zoning agency in the application of the county-enacted zoning ordinance to ensure the preservation of farmland and the protection of environmentally significant areas within the towns. It should be noted that two options exist for zoning land in unincorporated areas of the County--town-enacted zoning and county-enacted zoning. The type of zoning arrangement has a direct bearing on the level of tax relief available to farmland owners under the Wisconsin Farmland Preservation Program. If towns ratify county-enacted zoning which contains appropri-

ate exclusive agricultural zoning regulations, farmland owners whose land is zoned for exclusive agricultural use in such towns are eligible for higher tax credits under the Farmland Preservation Program. A more detailed discussion of the options which exist for zoning of land in unincorporated areas is presented later in this chapter.

Cities and Villages: Cities and villages can contribute to implementation of the farmland preservation plan, particularly the urban development plan element, through both regulatory and nonregulatory measures. Through zoning and land subdivision control, cities and villages can determine the type and the location of urban development both in space and in time to achieve the compact, centralized settlement pattern recommended in the plan. Through policies regarding the provision of basic municipal services and facilities, cities and villages can influence the location and intensity of urban development in accordance with recommendations embodied in the plan.

Kenosha County Soil and Water Conservation District: The Kenosha Soil and Water Conservation District has the authority to develop and implement plans for the conservation of soil and water resources and for the prevention of soil erosion. The District has the authority to acquire, through eminent domain proceedings, any property or rights therein for watershed protection, soil and water conservation, flood prevention works, and fish and wildlife conservation and recreational works.

Municipal Water Supply and Sanitary Districts: Municipal water supply and sanitary districts may be created by towns, villages, and cities, and such districts are authorized to plan, design, construct, operate, and maintain various public sanitary sewer and water supply systems.

Drainage Districts: Drainage districts are authorized to plan, design, construct, and operate all types of facilities to improve drainage and control flooding, including such facilities as

storm water and silt detention basins that may reduce agricultural flood damage and abate water pollution.

State Level Agencies

Wisconsin Department of Agriculture, Trade and Consumer Protection: The Wisconsin Department of Agriculture is the lead agency responsible for the administration of the Wisconsin Farmland Preservation Program, a program that combines planning and zoning provisions with tax incentives for the purpose of ensuring the long-term preservation of existing agricultural lands. A special state Agricultural Lands Preservation Board has been created to review county exclusive agricultural zoning ordinances and farmland preservation plans and to certify that such ordinances and plans are consistent with the standards of the Wisconsin Farmland Preservation Act. Maximum tax relief to farmers under the Wisconsin Farmland Preservation Program is conditioned on certification of county exclusive agricultural zoning ordinances and farmland preservation plans by the Agricultural Lands Preservation Board.

The Wisconsin Department of Agriculture is also responsible for the preparation of agricultural impact statements, as required under Chapter 32 of the Wisconsin Statutes. An agricultural impact statement must be prepared by the Department to assess the impact on an individual farm unit of proposed land acquisition involving condemnation under Wisconsin eminent domain statutes. Any project taking more than five acres from a farm operation through eminent domain requires the preparation of an agricultural impact statement. The agricultural impact statement serves as a decision-making tool assisting both the condemner--for example, local units of government, state government agencies, and utilities--and farm owners in evaluating the impacts of proposed projects on existing agricultural lands.

Wisconsin Department of Natural Resources: The Wisconsin Department of Natural Resources has broad authority and responsibility in the areas of park

development, natural resource protection, water quality control, and water regulation. Department authorities and functions which are most important to the implementation of the farmland preservation plan include the Department's obligation to prepare a comprehensive statewide plan for outdoor recreation and to develop long-range, statewide conservation and water resource plans; the authority to designate such sites, as necessary, to protect, develop, and regulate the uses of state parks, forests, fish, game, lakes, streams, certain plant life, and other outdoor resources; the authority to acquire conservation and scenic easements; the authority to administer the federal grant program known as the Land and Water Conservation (LAWCON) fund within the State, as well as the park and open space grant funds available under the state Outdoor Recreation Action Program (ORAP); the authority to establish standards for floodplain and shoreland zoning and the authority to adopt, in the absence of satisfactory local action, shoreland and floodplain zoning ordinances; and the authority to review and approve all plans and specifications for components of sanitary sewerage systems and to consider conformance with an approved areawide water quality management plan when reviewing locally proposed sewer extensions.

Wisconsin Board of Soil and Water Conservation Districts: The Wisconsin Board of Soil and Water Conservation Districts coordinates at the state level and assists the programs of county soil and conservation districts concerned with the proper development, use, and protection of soil, water, and related natural resources; apportions among the districts any funds allotted for such purposes from state or federal sources; and approves district sponsorship of federally assisted watershed projects authorized under Public Law 566.

Federal Level Agencies

U.S. Department of Agriculture, Soil Conservation Service: The U.S. Depart-

ment of Agriculture, Soil Conservation Service, administers resource conservation and development projects under Public Law 566, and provides technical and financial assistance through county soil and water conservation districts to landowners in the planning and construction of measures for land treatment, agricultural water management, and flood prevention, and for public fish, wildlife, and recreational development. The Soil Conservation Service also conducts detailed soil surveys and provides interpretations of the results of such surveys as a guide to the use of the soil survey data in local planning and development.

U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service: The U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service, administers the federal Agricultural Conservation Program, which provides grants to rural landowners in partial support of carrying out approved soil, water, woodland, wildlife, and other conservation practices. These grants are awarded under yearly and long-term assistance programs, providing guaranteed funds for carrying out approved conservation work plans. In addition, the Agricultural Stabilization and Conservation Service has relatively new authority under Section 208(J) of the federal Water Pollution Control Act to administer a cost-sharing grant program for the purpose of installing and maintaining agricultural measures found needed to control non-point source pollution.

U.S. Department of Agriculture, Farmers Home Administration: The U.S. Department of Agriculture, Farmers Home Administration, administers a variety of grant and loan programs for rural areas including grant and loans for water and wastewater disposal facility construction, loans for community facilities such as community centers and fire stations, housing-related loans and grants, and industrial development loans.

PLAN ADOPTION AND INTEGRATION

Adoption, endorsement, or formal acknowledgement of the farmland preservation plan by local legislative bodies and existing local, state, and federal level agencies concerned is highly desirable, if not absolutely essential, to ensure a common understanding among the several government levels and to enable their staffs to program the necessary plan implementation work. As part of the adopting or endorsing action, the policy-making body or responsible official of the designated governmental unit or agency should direct its staff to fully integrate the farmland preservation plan into plans and programs of that unit or agency of government. Recommendations regarding adoption and endorsement of the farmland preservation plan are presented in this section for the principal local, state, and federal agencies and units of government concerned.

It should be noted that formal adoption of the farmland preservation plan by the Kenosha County Board of Supervisors, in particular, has a direct bearing on the level of tax credits available to farmland owners in Kenosha County under the Wisconsin Farmland Preservation Program. Upon adoption by the County Board, the farmland preservation plan may be submitted to the Wisconsin Agricultural Lands Preservation Board for certification that the plan meets the standards and intent of the Wisconsin Farmland Preservation Act. Such state certification makes farmland owners participating in the farmland preservation program eligible for higher tax credits under that program.¹

Local Level Agencies

1. It is recommended that the Kenosha County Board of Supervisors formally adopt the farmland preservation plan by resolution, pursuant to Section 59.97(3)(d) of the Wisconsin Statutes.
2. It is recommended that the town boards of all of the civil towns in Kenosha County endorse the farmland

preservation plan and cooperate with the Kenosha County Department of Planning, Zoning and Sanitation in implementing the farmland preservation and natural resource preservation plan elements.

3. It is recommended that the governing bodies of all cities and villages in Kenosha County endorse the farmland preservation plan and integrate the plan--particularly the urban development and natural resource preservation plan elements--into local land use plans and plans for the extension of municipal services and facilities.
4. It is recommended that the Kenosha County Soil and Water Conservation District endorse the farmland preservation plan and incorporate the plan recommendations as appropriate into the long-range conservation plans and the annual work plans of the District.
5. It is recommended that the governing bodies of all municipal water and sanitary districts endorse the farmland preservation plan, particularly the urban development element, and determine the boundaries of utility service areas in accordance with the plan.

¹*After September 30, 1982, farmland owners in Kenosha County will be eligible for tax credits under the Wisconsin Farmland Preservation Program only if their land lies within an exclusive agricultural zoning district and if they meet certain other program requirements regarding farm parcel size and value of farm product. Farmland owners will, however, be eligible for the maximum tax credit only if the County Board has adopted a farmland preservation plan. Otherwise, farmers will be eligible for only 70 percent of the maximum credit.*

6. It is recommended that the various drainage districts in Kenosha County endorse the farmland preservation plan and utilize the authority granted them to maintain drainage systems and control flooding, thereby maintaining agricultural productivity of areas within their jurisdiction, thus assisting in the implementation of the farmland preservation element of the plan.

State Level Agencies

1. It is recommended that the Wisconsin Department of Agriculture endorse the farmland preservation plan and utilize it in the administration of the state Farmland Preservation Program after a finding and certification by the Wisconsin Agricultural Lands Preservation Board that the plan meets the standards of the Wisconsin Farmland Preservation Act. It is further recommended that the Department consider and give due weight to the farmland preservation plan in the preparation of agricultural impact statements, pursuant to Chapter 32 of the Wisconsin Statutes.
2. It is recommended that the Wisconsin Natural Resources Board endorse the farmland preservation plan and direct its staff in the Wisconsin Department of Natural Resources to integrate the plan into its broad range of agency responsibilities. In particular, it is recommended that the Natural Resources Board endorse the natural resource preservation element of the plan and direct its staff to integrate the recommendations of this element into its long-range conservation and outdoor recreation plans, its activities relating to floodland and shoreland zoning, and its administration of the LAWCON and ORAP park and open space grant programs. It is further recommended that the Board and its staff consider and give due weight to the urban devel-

opment element of the plan in its review of proposals for the extension of sanitary sewer service areas.

3. It is recommended that the Wisconsin Board of Soil and Water Conservation Districts endorse the recommended farmland preservation plan, particularly the farmland preservation and natural resource preservation plan elements, and use the plan in its efforts to coordinate the county soil and water conservation district projects.

Federal Level Agencies

1. It is recommended that the U.S. Department of Agriculture, Soil Conservation Service, formally acknowledge the farmland preservation plan and utilize the plan recommendations in its administration and granting of federal aids for resource conservation and development projects and its provision of technical assistance to landowners and operators for land and water conservation practices.
2. It is recommended that the U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service, formally acknowledge the recommended farmland preservation plan and utilize the plan recommendations in its administration of the Agricultural Conservation Program and of the Section 208 Agricultural Cost Sharing Program.
3. It is recommended that the U.S. Department of Agriculture, Farmers Home Administration, formally acknowledge the recommended farmland preservation plan and utilize the plan recommendations in its administration of grant and loan programs for water and wastewater disposal facility construction, loans for community facilities, housing-related loans and grants, and industrial development loans.

PLAN IMPLEMENTATION DEVICES

The farmland preservation plan establishes interrelated objectives regarding farmland preservation, the protection of environmentally significant areas, and the location and extent of future urban development within Kenosha County. Implementation of the farmland preservation plan depends primarily on actions by local units of government in the County. Local units of government have many legal powers that enable them to implement the farmland preservation plan. Of greatest importance to implementation of the farmland preservation plan are the public land use regulatory measures of zoning, floodland and shoreland use regulation, and land subdivision control. This section describes these land use regulatory measures, focusing on those provisions which are most important to implementation of the farmland preservation plan. It is important to note that local units of government can act to effectuate physical planning goals through numerous nonregulatory measures. Such nonregulatory measures are also discussed herein.

Public Land Use Regulations

Zoning: Of all plan implementation devices presently available, perhaps the most important and most versatile is the application of local zoning powers to guide and shape land use development. Before identifying the specific zoning actions required to implement the plan, however, a brief review of the county-town zoning relationship in Wisconsin may be useful. Two options exist for zoning land in unincorporated areas of a county. Regardless of which option is chosen, zoning in unincorporated areas is a cooperative county-town action.

In Wisconsin, counties may enact a general, or comprehensive, zoning ordinance covering all unincorporated areas of a county. Such a county zoning ordinance, however, becomes effective only in those towns which act to ratify the county ordinance. After the county zoning ordinance has been adopted and ratified, the zoning text and zoning dis-

trict map may, from time to time, be amended. Town boards have a 40-day period after adoption of a text amendment in which to file certified resolutions objecting to the amendment. If a majority of the towns under the jurisdiction of the county zoning ordinance objects to a text amendment, the amendment does not become effective. The town board of a town that has ratified a county zoning ordinance may object to a zoning map change by filing a certified resolution to that effect within 10 days of the public hearing for such change, and the county board may not override such a town objection. This control held by town boards is often referred to as the "town veto."

Section 91.73(4) of the Wisconsin Statutes alters the process for text amendment under county-enacted zoning when the amendment relates to exclusive agricultural zoning. The requirement that a majority of the town boards involved approve text amendments for such amendments to become effective--Section 59.97(5)(e)(6)--does not apply to text amendments related to exclusive agricultural zoning. Instead, Section 91.73(4) of the Wisconsin Statutes allows each town to individually approve or disapprove text amendments relating to exclusive agricultural zoning. This provision permits a text amendment to become effective in those towns which do not reject it, even though a majority of towns may reject it.

Towns which have not ratified a county zoning ordinance may enact a town zoning ordinance. Before a town zoning ordinance can be enacted, however, the town electorate must vote at an annual town meeting to assume village powers. The town electors must then, also by a vote at an annual town meeting, grant the town board the authority to prepare and adopt a town zoning ordinance. The county board must approve the ordinance that is finally adopted by the town board in order for the ordinance to become effective. Any subsequent amendments to the text or district map of the town zoning ordinance are also subject to county board review and approval.

Thus, it may be concluded that a county cannot zone lands without the consent of the towns concerned, and that a town cannot zone lands without the consent of the county. The question then arises as to which type of zoning arrangement--county-enacted zoning or town-enacted zoning--may be appropriate for implementation of the farmland preservation plan. In considering this issue, it should be noted that the level of tax relief available to farmers under the Wisconsin Farmland Preservation Program depends on which type of zoning is enacted. The farmland owner whose land is placed in an exclusive agricultural district created and applied under county-enacted zoning is eligible for the maximum tax credit for his income and tax situation. The farmland owner whose land is placed in an exclusive agricultural district created and applied under town-enacted zoning is eligible for no more than 70 percent of the maximum tax credit. Thus, greater tax credits are potentially available through county-enacted exclusive agricultural zoning.² It should also be noted that Kenosha County presently maintains a full-time professional staff capable of effectively administering a countywide zoning ordinance. Such a staff is necessary for proper resolution of the many complex zoning issues that arise as a matter of course on a day-to-day basis within the County. For these two reasons, it is recommended that all of the towns in Kenosha County--including the Towns of Salem and Paris, which currently administer town-enacted zoning--ratify a county-enacted zoning ordinance which includes an exclusive agricultural zoning district that conforms to the standards of the Wisconsin Farmland Preservation Program.

As indicated in Chapter II of this report, the existing Kenosha County ordinance was approved and adopted by

²This discussion reflects the requirements of the Wisconsin Farmland Preservation Program, as those requirements are proposed to be in effect after September 30, 1982.

Kenosha County in 1959 and has been ratified by six of the eight towns in the County. Kenosha County is currently in the process of comprehensively amending its zoning ordinance. In order for the Kenosha County Zoning Ordinance to be the most effective tool possible for preservation of agricultural land and other valuable elements of the natural resource base, the following districts are considered necessary.

Agricultural Preservation District--An agricultural preservation district should be created and used to protect and preserve in agricultural use the most valuable agricultural lands in the County. The district should provide for a minimum parcel size of 35 acres in order to preserve workable farm units and prohibit intrusion of incompatible urban land uses. No structures and improvements should be permitted to be made on the land unless consistent with its continued agricultural use. The only residences which should be allowed in this district are those for the farmer, farm laborers, or parents and children of the farmer. The A-1 Agricultural District included in the proposed Kenosha County zoning ordinance generally conforms to the recommended agricultural preservation district, as well as to Wisconsin Farmland Preservation Program standards for an exclusive agricultural zoning district.

Agricultural Transition District--An agricultural transition district should be created and used to prevent the premature conversion of agricultural land to urban land uses, while recognizing that the orderly expansion of urban centers may, over time, require the conversion of some agricultural lands to urban uses. The district should be used to identify lands in transition and serve notice that the conversion of land from rural to urban use within the district is planned. The district should also provide for a minimum parcel size of 35 acres and for uses identical to those permitted in the agricultural preservation district in order to maintain maximum flexibility for future use. The A-4

Agricultural Land Holding District included in the proposed Kenosha County zoning ordinance generally conforms to the recommended agricultural transition district, as well as to the Wisconsin Farmland Preservation Program standards for an agricultural transition district.

General Agricultural District--A general agricultural district should be created and used to preserve and protect areas of the County having marginal farmland value, while at the same time allowing for an estate-type residential development that maintains the rural character of the countryside. This district should provide for a minimum parcel size of 10 acres and should permit use for working farms, hobby farms, and estate-type residences. The A-2 General Agricultural District included in the proposed Kenosha County zoning ordinance conforms to the general agricultural district recommended herein.

Agricultural Manufacturing, Warehousing, and Marketing District--An agricultural manufacturing, warehousing, and marketing district should be created and used to provide for the location of certain manufacturing and retail activities dependent upon and necessary to the farming community. This district should permit such farm-related activities as feed mills, cheese factories, food processing plants, and agricultural equipment and supply centers. The A-3 Agricultural - Related Manufacturing, Warehousing, and Marketing District included in the proposed Kenosha County zoning ordinance conforms to the district recommended herein.

Lowland Conservancy District--A lowland conservancy district should be created and used to preserve, protect, and enhance the lakes, streams, and wetland areas of the County. No new urban development should be permitted in this district and no structures for human habitation should be permitted. The C-1 Lowland Resource Conservancy District included in the proposed Kenosha County zoning ordinance conforms to the lowland conservancy district recommended herein.

Upland Conservancy District--An upland conservancy district should be created and used to preserve, protect, and enhance significant woodlands and related scenic viewpoints, while at the same time allowing for rural estate-type residential development that maintains the rural character of the countryside. This district should provide for a minimum parcel size of five acres. The C-2 Upland Conservancy District included in the proposed Kenosha County zoning ordinance generally conforms to the upland conservancy district recommended herein.

Park and Recreation District--A park and recreation district should be created and used to protect and preserve existing and potential recreation sites in the County. The district should prohibit the conversion of private recreation uses to urban and other incompatible uses without town and county approval. The PR-1 Park-Recreational District included in the proposed Kenosha County zoning ordinance conforms to the park and recreation district recommended herein.

Rural Estate Residential District--A rural estate residential district should be created and used to accommodate the demand for rural residential development by that segment of the population that desires to live away from an urban environment. The district would not only accommodate this desire, but would assure that the development is indeed rural and does not create environmental problems such as drainage and flooding, nor demands for urban services. The district should require a minimum lot size of five acres and, in addition to detached single-family residences, permit the keeping of horses and other domestic animals. The R-1 Rural Residential District included in the proposed Kenosha County zoning ordinance conforms to the rural estate residential district recommended herein.

Floodland and Shoreland Regulations: In addition to the aforementioned basic zoning districts and attendant regulations, a set of floodland and shoreland

regulations should be provided to protect certain elements of the natural resource base and, importantly, to preserve the natural floodwater conveyance and storage capacity of the floodlands, thereby avoiding increases in peak flood flows and the creation of serious flood damage and attendant demands for the construction of costly flood control works. As indicated in Chapter II of this report, Kenosha County adopted a set of floodland and shoreland regulations in 1971. Existing county floodland regulations properly serve to restrict filling and development in the area contained within the 100-year recurrence interval flood hazard lines. The floodland regulations thus serve to preserve the existing floodwater conveyance and storage capacity of riverine areas and important associated elements of the natural resource base.

County shoreland regulations apply to all areas within 1,000 feet of a lake, pond, or flowage, and 300 feet of a river or stream, or to the landward side of the floodplain if it extends beyond such distances. Shoreland regulations impose special restrictions on the location of certain structures and establish restrictions on tree cutting, filling, grading, and certain agricultural practices within the shoreland areas of a county.

It should be noted that Kenosha County is currently in the process of reviewing and revising its floodland and shoreland regulations. This review process will result in the incorporation of floodland and shoreland preservation into the general zoning ordinance; the updating of the ordinance language to conform to current Wisconsin Department of Natural Resources and Federal Emergency Management Agency requirements; and the implementation of a policy of preserving natural floodplain areas in essentially natural open uses in rural areas so as to prevent the loss of floodwater conveyance and storage capacity.

Subdivision Controls: Land subdivision control ordinances provide another device through which the farmland pres-

ervation plan can be effectively implemented. In Wisconsin, county-adopted subdivision control ordinances can be used to govern the division of land in all unincorporated areas of a county. Individual towns may adopt town subdivision control ordinances that parallel or are more stringent than the county ordinance.

Kenosha County adopted a subdivision control ordinance in 1971. As indicated in Chapter II of this report, the county subdivision control ordinance contains certain regulations which can contribute to the preservation of agricultural lands and the conservation of environmental areas. The county subdivision control ordinance, however, presently assumes jurisdiction only over land subdivisions resulting from the division of a parcel of land for the purpose of transfer of ownership or building development wherein the act of division creates five or more parcels or building sites each of five acres or less in area, or when such division creates five or more parcels or building sites each of five acres or less in area by successive divisions within a period of five years. In order to assure that all land divisions which affect the preservation of farmlands are subject to public scrutiny, the county subdivision control ordinance should be amended to require review and approval of all land divisions which create a parcel of land 35 acres or less in area. Certified survey maps can be required in lieu of land subdivision plats when the act of division would create parcels in number or in size beyond the reach of the present ordinance.

Nonregulatory Plan Implementation Measures

As previously noted, local units of government can act to effectuate the physical planning objectives embodied in the farmland preservation plan through numerous nonregulatory measures. For example, public acquisition of land, in whole or in partial interest, can be used to fully protect significant environmental areas, such acquisition being especially warranted in certain existing

and planned urban areas where the continued existence of natural resource amenities would be seriously threatened by urban encroachment and where public acquisition may be the only practical means of ensuring permanent preservation. In addition, soundly conceived public improvement programs of street, sewer, and water extensions can contribute significantly to the compact, centralized form of urban development envisioned under the farmland preservation plan. Finally, local policies regarding the provision of basic urban services--for example, public transit, recreation, and police and fire protection--can also influence the location and intensity of urban development. For example, a policy which calls for the provision of a full range of such services within only an intensively developed urban service area and the provision of only a minimum level of services to residential development in outlying areas may be expected to deter additional scattered development in basically rural areas.

PLAN IMPLEMENTATION ACTIVITIES

As previously noted, the farmland preservation plan for Kenosha County consists of three plan elements--the farmland preservation element, a natural resource preservation element, and an urban development element. Specific activities intended to implement the recommendations of these plan elements are described herein. Plan implementation activities are based upon and related to existing plan implementation measures described in the previous section of this chapter.

Implementation of the Farmland Preservation Element

The farmland preservation element seeks to preserve in agricultural use the most important farmlands in the County and to protect other lands of marginal farmland value. While recognizing that some rural lands may have to be converted to urban use to meet future urban development needs in the County, this plan element seeks to minimize the loss of agricul-

tural land and to prevent the premature conversion of those lands which must be developed. Implementation of the recommendations of the farmland preservation element depends primarily on proper zoning of existing agricultural lands as described in this section.

The recommended farmland preservation area shown on Map 19 in Chapter V of this report includes prime agricultural lands--that is, lands well suited for agriculture which meet the specific mapping criteria established by the Technical Coordinating and Advisory Committee on Farmland Preservation regarding farm size and agricultural soil capability--and farmlands of local significance. The latter include agricultural lands other than prime agricultural lands which represent an important base in support of the local farming community.

Lands included in the preservation area should be placed in the A-1 Agricultural Preservation District of the proposed Kenosha County zoning ordinance. As already noted, such zoning provides for a minimum parcel size of 35 acres and permits only those structures or improvements which are consistent with agricultural use. Proper application of this district would ensure the preservation of important agricultural lands which have historically been used for farming. Moreover, such zoning would satisfy one of the basic eligibility requirements for participation in the Wisconsin Farmland Preservation Program within urban counties such as Kenosha. After September 30, 1982, tax relief can be claimed only on farmland which has been placed in an exclusive agricultural zoning district.

The farmland preservation plan recognizes the necessity of the conversion of rural land to urban use to accommodate future urban development needs within the County. Areas in which additional urban development can be economically and efficiently accommodated by the year 2000 are shown on the farmland preservation plan map. Existing prime agricultural lands within the area recommended

for urban development by the year 2000 are also delineated on the plan map as "transition farmland." Such transition farmland should be placed in the A-4 Agricultural Land Holding District of the proposed Kenosha County zoning ordinance. As already noted, this district provides for a minimum parcel size of 35 acres with permitted uses similar to those of the A-1 Agricultural Preservation District. These lands should remain in the A-4 Agricultural Land Holding District until a genuine need for conversion to more intensive uses can be shown, and until such time as urban services and facilities can be readily provided. As long as lands remain in the A-4 Agricultural Land Holding District, such lands will be eligible for tax credits under the Wisconsin Farmland Preservation Program.

Farmlands within the areas designated on the plan map as "other open lands" represent areas of marginal farmland value which do not qualify as prime agricultural land or farmland of local significance. Such farmland should be placed in the A-2 General Agricultural District of the proposed Kenosha County zoning ordinance. Such zoning is intended to preserve and protect lands having marginal farmland value while at the same time allowing for estate-type residential development on minimum parcel sizes of 10 acres. Such zoning would result in a mixture of working farm sites, hobby farms, and estate-type residences and would preserve the rural character of the areas in which it is applied.

While most farmland within the area designated as "other open lands" should be placed in the General Agricultural District, some lands may be placed in the R-1 Rural Residential District of the proposed Kenosha County zoning ordinance, which would permit single-family residential development on a minimum lot size of five acres. Such zoning should be used on a limited basis within areas which are designated as other open lands, which are not covered by soils having severe or very severe limitations for large lot residential development with septic tank sewage disposal, and

which may be expected to have the least utility for agricultural uses for reasons related to the soils, topography, and geographic separation from other farming areas.

Zoning to preserve agricultural lands as described above should be supplemented by the regulation of land development through the subdivision plat review process. Following county adoption of the farmland preservation plan, the plan should serve as a basis for the review of all preliminary and final land subdivision plats and of all certified survey maps. Urban land subdivisions should not be approved in areas recommended for farmland preservation. Any such proposed departure from the farmland preservation plan should be carefully considered by the individual towns of Kenosha County and by the Kenosha County zoning agency, and such departures should be permitted only if they are found to be in the public interest and only after duly amending the farmland preservation plan.

Implementation of the Natural Resource Preservation Element

The natural resource preservation element of the farmland preservation plan calls for the preservation of the most important remaining environmental areas in the County, including the identified primary environmental corridors, secondary environmental corridors, and isolated natural areas. A description of the location and extent of these open space lands was presented in Chapter II of this report, along with a discussion of the importance of the preservation of these open space lands in order to maintain a high level of environmental quality, maintain the scenic beauty, and provide valuable recreation opportunities in the County. The preservation of these open space lands can be ensured through a combination of land use regulations and public acquisition, as described in this section.

Much can be achieved with respect to the preservation of environmental corridors and isolated natural areas through zoning, particularly through application of the proposed park and recreation dis-

tract, the proposed conservancy districts, and the floodland and shoreland districts. All lands currently held in public as well as nonpublic outdoor recreation use should be placed in the PR-1 Park-Recreation District of the proposed Kenosha County zoning ordinance, which would serve to protect and preserve the character of the existing natural resources, permit the provision of compatible outdoor recreation facilities, and prohibit the intrusion of urban and other incompatible uses. Wetland areas within the identified environmental corridors and isolated natural areas should be placed in the proposed C-1 Lowland Conservancy District, thereby prohibiting new urban development in such areas. To further protect low-lying areas and areas adjacent to bodies of water, all lands within the 100-year recurrence interval flood hazard area should be placed within a floodland preservation overlay district.

Woodlands, prime wildlife habitat areas, and areas possessing steep slopes which have not been placed in the PR-1 Park-Recreation District or the C-1 Lowland Conservancy District of the proposed Kenosha County zoning ordinance should be placed in the proposed C-2 Upland Conservancy District. This district would protect the woodlands and related scenic areas while at the same time allowing for rural estate residential development on lots which are a minimum of five acres in area.

The application of zoning districts as recommended above would effectively ensure the preservation of environmentally significant lands in rural areas. In contrast, within existing and planned future urban areas, the public acquisition of environmental corridor lands may be necessary to ensure their permanent preservation because of the more intense development pressures present, and attendant lack of good alternative uses. Public acquisition of environmental corridors may be warranted in urban areas, moreover, because such corridor lands, once acquired, can provide ideal sites for public parks and parkways required

by residents of urban areas and can serve as integral parts of the urban storm water drainage system.

With respect to the acquisition of environmental corridors, it should be noted that the purchase of the corridor land in fee simple may not always be necessary or desirable, and that the purchase of easements which restrict urban development and, perhaps, provide for certain public uses of these lands may be appropriate. It should also be noted that within developing areas, public acquisition of environmental corridors may be achieved, in part, through the land dedication requirements established in subdivision control ordinances. As indicated in Chapter II of this report, the Kenosha County subdivision control ordinance presently contains no specific land dedication requirements. Kenosha County should consider amending the county subdivision control ordinance to include requirements concerning public land dedication or payment of a fee in lieu of such dedication, as recommended in the model land division ordinance prepared by the Regional Planning Commission.³

Implementation of the foregoing recommendations would contribute significantly to the conservation of the natural resource base in Kenosha County. It should also be recognized that farming practices have a major impact on soil and water resources, the effects of widespread use of fertilizers and pesticides, disposal of livestock waste, and soil erosion attendant to farm operations being of greatest concern in this respect. The regional water quality management planning program conducted by the Regional Planning Commission analyzed alternatives for controlling surface- and groundwater pollution from agricultural-related activities and set forth recommendations for "minimum" and "additional" practices to control such

³See Sections 2.3 and 10.6 of the model land division ordinance set forth in Appendix A of SEWRPC Planning Guide No. 1, Land Development Guide.

sources of pollution for subareas of the Region. The regional water quality plan recommends that minimum practices--including good fertilizer and pesticide management, good crop residue management, good pasture management, contour plowing, and livestock waste control--be applied as appropriate in all agricultural areas. The plan also recommends that additional practices designed to achieve a greater reduction in pollution be applied within certain subareas of the County, including the drainage areas directly tributary to Center, Dyer, George, and Hooker Lakes. The plan further recommends that a livestock waste control program be established in Kenosha County and that detailed plans be prepared for the application of rural land conservation practices, with the county Soil and Water Conservation District serving as the lead agency for these activities.

It should also be noted that the adoption of the farmland preservation plan should serve to encourage the application of good soil and water conservation practices in the County. The management of existing agricultural lands for livestock production and for soil erosion control is determined, in part, by the potential of such land to be converted to urban land uses, or at least by the property owner's perception of that potential. The willingness of landowners to apply soil and water conservation practices is reduced if they perceive their land to be subject to ready and early conversion from rural to urban use. The farmland preservation plan serves to distinguish between areas which should remain permanently in rural use and areas in which urban development can be expected to occur in the foreseeable future. Landowners may be more willing to invest in needed rural land conservation improvements with the assurance that the area in which their land is located will remain in agricultural use.

Implementation of
the Urban Development Element

As previously noted, the farmland preservation plan recognizes the potential

need to convert some rural lands to urban use to satisfy the future urban development needs in the County. The plan proposes a relatively compact, centralized form of urban growth, with new urban development recommended to occur adjacent to, and outward from, existing development in areas which are covered by soils suitable for such development, which are not subject to special hazards such as flooding, and to which basic urban services and facilities can be readily and economically extended. Under the plan, new urban development would be provided with sanitary sewer, public water supply, and other essential urban services. New residential development would occur primarily in planned neighborhood development units, and primarily at medium density levels--that is, with new single-family residential development averaging about four dwelling units per net residential acre and new multiple-family residential development averaging about 10 dwelling units per net residential acre.

Land on which urban development and redevelopment may be encouraged to occur to the year 2000 under the farmland preservation plan is shown on Map 19. It is important to recognize that the urban development pattern shown on this plan map is a generalized pattern which will require further refinement and detailing through local level planning. Such local planning should include, as appropriate, the delineation of neighborhoods and special planning districts, such as community level industrial and commercial centers, and should provide for the preservation of identified environmentally significant lands within the urbanizing area. Such planning should also precisely identify proposed long-range sanitary sewer service areas. Such identification is particularly important to farmland preservation, since it effectively determines the outer boundary of not only the sewer service area, but certain other basic urban service areas as well. The identification of the planned long-range sanitary sewer service area should be accomplished through a cooperative effort by the local units of government concerned and the Regional

Planning Commission, following the seven-step sewer service area refinement process recommended in the regional water quality management plan.⁴ This process is intended to ensure that the needs and desires of local communities are fully taken into account and that the sanitary sewer service areas finally determined truly represent an intergovernmental consensus.

Ultimately, implementation of the urban development objectives of the farmland preservation plan, as refined in local land use plans, depends primarily on the proper application of zoning districts by local units of government. In the zoning process, care must be taken to properly guide the location of community growth in both time and space. Lands should be placed into appropriate urban zoning districts only when the community can economically and efficiently accommodate urban development on such lands. Until then, lands within the proposed ultimate urban development area should be placed within a holding district such as the proposed A-4 Agricultural Land Holding District or another district which seeks to maintain the present uses, while preserving maximum flexibility for accommodating a variety of future urban uses. This approach attempts to avoid "overzoning" which may result in mixed and uneconomical land use patterns.

While the farmland preservation plan envisions an overall centralized form of urban growth, the demand for rural living by certain nonfarm households may be expected to continue. As previously noted, this demand should be met through country estate-type development, as permitted in the proposed R-1 Rural Residential District and the proposed C-2 Upland Conservancy District. The location of such development, which relies

⁴See Chapter IV of SEWRPC Planning Report No. 30, A Regional Water Quality Management Plan for Southeastern Wisconsin: 2000, Volume Three, Recommended Plan:

on private onsite sewage disposal systems, should be carefully regulated to avoid the creation of public health problems and to minimize adverse impacts on the natural resource base. A sanitary code and private sewage system regulatory ordinance, adopted by Kenosha County in July 1980, provides a sound basis for such regulation. This ordinance regulates the location, construction, installation, alteration, and design, use, and maintenance of all private waste disposal and private water supply systems in the County. Regulations in the ordinance pertaining to private sewage systems apply throughout the County, including cities and villages as well as unincorporated areas. The ordinance restricts development served by private onsite sewage disposal systems in areas of the County covered by soils designated as having severe or very severe limitations for such development, based on soil interpretations established by the U.S. Soil Conservation Service. The ordinance also requires that new septic tanks be inspected and cleaned at least every three years. Proper administration of this ordinance should materially assist in the protection of the soil and water resources, and contribute to orderly rural residential development within the County.

SUMMARY OF PLAN IMPLEMENTATION RECOMMENDATIONS

This chapter has recommended specific actions to be taken by various units of government in order to implement the farmland preservation plan. The most important recommendations are summarized in the following paragraphs by agency or unit of government.

Local Level

County Board of Supervisors: It is recommended that the Kenosha County Board of Supervisors:

1. Adopt the recommended farmland preservation plan by resolution, pursuant to Section 59.97(3)(d) of the Wisconsin Statutes.

2. Amend the existing county zoning ordinance to include the district regulations required to effectively preserve farmland and protect environmentally significant areas, as recommended in this chapter, and amend the zoning district map, as appropriate, to properly reflect the recommended farmland preservation plan.
3. Amend the existing county subdivision control ordinance to require review and approval of all land divisions which create parcels of land 35 acres or less in area and subsequently use the farmland preservation plan as a basis for the review of land subdivision plats and certified survey maps.
4. Acquire those portions of the identified primary environmental corridors lying within existing and planned urban areas which are especially subject to urban encroachment and which can only be permanently preserved through public acquisition; and amend the county subdivision control ordinance to provide for special open space land dedication requirements or fees in lieu of such requirements in order to facilitate such acquisition.
5. Regulate, through the Kenosha County Department of Planning, Zoning and Sanitation, development served by onsite sewage disposal systems by properly enforcing the county sanitary code and private sewage system regulatory ordinance.

district map amendments, to ensure the preservation of farmland and environmentally significant areas in the towns.

Common Councils and Village Boards: It is recommended that the Common Council of the City of Kenosha and the Village Boards of the Villages of Paddock Lake, Silver Lake, and Twin Lakes:

1. Endorse the farmland preservation plan, particularly the natural resource preservation and urban development plan elements, and use the plan as a guide to the physical development of the respective communities.
2. Refine the urban development pattern recommended in the farmland preservation plan through local level planning which includes the precise identification of proposed long-range sanitary sewer service areas; includes the delineation, as appropriate, of neighborhoods and special planning districts, such as community, industrial, and commercial centers; and provides for the protection of environmental corridor lands by reserving such lands for use as public outdoor recreation areas and, when appropriate, as components of a natural urban storm water drainage system.
3. Regulate the placement of community growth and development in both time and space through the application of urban zoning districts in a manner which is consistent with the farmland preservation plan and local refinements thereof.

Town Boards: It is recommended that each town board in Kenosha County:

1. Endorse the farmland preservation plan and use the plan as a guide to the preservation of farmland and environmentally significant areas and to orderly growth and development within the respective towns.
2. Ratify the recommended county zoning ordinance amendments, including both the zoning text and zoning

Municipal Water and Sanitary Districts: It is recommended that all municipal water and sanitary districts in Kenosha County:

1. Endorse the farmland preservation plan, particularly the urban development element, and determine proposed utility service areas in conformance with the urban service areas recommended under the farmland preservation plan.

County Soil and Water Conservation District: It is recommended that the Kenosha County Soil and Water Conservation District:

1. Endorse the farmland preservation plan and incorporate the plan recommendations as appropriate into the long-range conservation plan and annual work plan of the District.
2. Serve as a lead agency in the conduct of a livestock waste control program for Kenosha County and in the preparation of detailed plans for the application of rural land conservation practices in the County.

Drainage Districts: It is recommended that the various drainage districts in Kenosha County endorse the farmland preservation plan and utilize the authority granted to them to maintain drainage systems and control flooding, thereby maintaining the agricultural productivity of areas within their jurisdiction.

State Level Agencies

Wisconsin Department of Agriculture, Trade and Consumer Protection: It is recommended that the Wisconsin Department of Agriculture, Trade and Consumer Protection:

1. Endorse the farmland preservation plan and utilize it in the administration of the state Farmland Preservation Program after certification by the Wisconsin Agricultural Lands Preservation Board that the plan meets the standards of the Wisconsin Farmland Preservation Act.
2. Consider and give due weight to the farmland preservation plan in the preparation of agricultural impact statements pursuant to Section 32 of the Wisconsin Statutes.

Wisconsin Department of Natural Resources: It is recommended that the Wisconsin Natural Resources Board and the Wisconsin Department of Natural Resources:

1. Endorse the natural resource preservation element of the plan and integrate the recommendations of this element into its long-range conservation and outdoor recreation plans, its activities relating to floodland and shoreland zoning, and its administration of federal and state park and open space grant programs.
2. Endorse the urban development element of this plan and give due consideration to the urban service area recommendations of this element in its review of proposals for the extension of sanitary sewers.

Wisconsin Board of Soil and Water Conservation Districts: It is recommended that the Wisconsin Board of Soil and Water Conservation Districts:

1. Endorse the farmland preservation plan, particularly the farmland preservation and natural resource preservation elements, and use the plan as a guide in the coordination of county soil and water conservation district projects.

Federal Level Agencies

U.S. Department of Agriculture, Soil Conservation Service: It is recommended that the U.S. Department of Agriculture, Soil Conservation Service:

1. Acknowledge the farmland preservation plan and utilize the plan as a guide in the administration and granting of federal aids for resource conservation and development projects within the Region and in its provision of technical assistance to landowners and farm operators in installing land and water conservation practices.

U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service: It is recommended that the U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service:

1. Acknowledge the recommended farmland preservation plan and utilize the plan recommendations in its administration of the Agricultural Conservation Program and of the Section 208 Agricultural Cost Sharing Program.

U.S. Department of Agriculture, Farmers Home Administration: It is recommended that the U.S. Department of Agriculture, Farmers Home Administration:

1. Acknowledge the recommended farmland preservation plan and utilize the plan recommendations in its administration of grant and loan programs for water and wastewater disposal facility construction, loans for community facilities, housing-related loans and grants, and industrial development loans.

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Chapter VII

SUMMARY AND CONCLUSION

INTRODUCTION

The rapid conversion of farmland to urban use has led to increasing public concern. Some of this concern centers on the perceived loss of the local agricultural economic base, some on the loss of agricultural land as a valuable natural resource with the attendant loss of the aesthetic and environmental values associated with that resource, and some on the loss of the rural lifestyle and the unique cultural heritage inherent in that lifestyle. There is also concern over the attendant high cost of providing urban services to highly diffused, low-density urban development, as well as over the creation of urban-rural land use conflicts which arise as a result of urban encroachment into rural areas.

Recognizing the need to preserve farmlands, the Racine and Kenosha County Boards, through formal resolutions adopted in April 1978, requested the assistance of the Regional Planning Commission in the preparation of a joint farmland preservation plan. The Regional Planning Commission subsequently undertook the requested planning program, assisted by representatives of the planning and zoning departments of the respective counties, as well as by a bi-county technical coordinating and advisory committee consisting of farmers, University of Wisconsin-Extension agricultural agents, and representatives of the U.S. Department of Agriculture, Agricultural Stabilization and Conservation Service, and the Soil Conservation Service. Funding for the planning program was provided by a planning grant awarded pursuant to the provisions of the Wisconsin Farmland Preservation Act and by local in-kind services provided by Kenosha and Racine Counties. This report sets forth the major findings and recommendations of the farmland preser-

vation planning program for Kenosha County, while such findings and recommendations for Racine County are set forth in SEWRPC Community Assistance Planning Report No. 46, A Farmland Preservation Plan for Racine County, Wisconsin.

As the name implies, the farmland preservation plan herein presented is intended to serve as a guide to the preservation of agricultural lands in Kenosha County. In addition, the plan includes recommendations for the protection of environmentally significant areas, and recommendations regarding the location and intensity of urban development within the County through the year 2000. The plan also sets forth recommendations concerning the manner in which the farmland preservation, natural resource preservation, and land use development objectives of the farmland preservation plan can be implemented.

Planning to preserve farmland in Wisconsin received strong impetus with the passage of the Wisconsin Farmland Preservation Act by the State Legislature in June 1977. This act established the Wisconsin Farmland Preservation Program, a program that combines planning and zoning provisions with tax incentives for the purpose of ensuring the preservation of agricultural land. The program provides that after September 30, 1982, farmland owners in "urban" counties of the State, such as Kenosha, will be eligible for state income tax credits to offset property taxes on farmland only if such land is zoned for exclusive agricultural use. Moreover, the farmland owners will be eligible for the maximum level of tax credits available for their particular income and tax situation only if the county has adopted a farmland preservation plan. Adoption of the farmland preservation plan set forth herein

by the Kenosha County Board, and county adoption of exclusive agricultural zoning in conformance with the plan, would make farmland owners in Kenosha County eligible for the maximum tax credits available under the program, given their particular income and tax situation.

INVENTORY, ANALYSIS, AND FORECAST FINDINGS

The farmland preservation plan includes not only a farmland preservation element, but a natural resource preservation element and an urban development element as well. Development of the farmland preservation plan, accordingly, required the collection and analysis of information regarding the agricultural resource base, together with information regarding other elements of the natural resource base and the man-made physical environment. To the maximum extent possible, the relevant data were collated from previous Regional Planning Commission studies. New data were collected only if not available in the Commission files. Of particular importance in this regard were the Commission's studies of the demography and economy of the County, of land use development in the County, and of the underlying and sustaining natural resource base of the County. A summary of the most important inventory, analysis, and forecast findings of the farmland preservation planning program is presented in this section.

Agricultural Resource Base

Information regarding various features of the agricultural resource base in Kenosha County was collected and analyzed to facilitate the development of standards for use in determining the amount and location of agricultural lands that should be preserved. In 1963, agricultural land was the largest single land use category in Kenosha County, occupying 115,700 acres, or 65 percent of the total area of the County. Between 1963 and 1975, substantial urban development occurred in many areas of Kenosha County previously devoted exclusively to agricultural uses. Due largely to this

conversion of farmland to urban use, the agricultural land base in Kenosha County declined by about 8,500 acres, or by about 7 percent, from 1963 to 1975, representing an average annual loss of over 700 acres over this 12-year period.

In 1975, a total of 107,200 acres of land, or 60 percent of the total area of Kenosha County, was in agricultural use. Of this total, 68,700 acres, or 64 percent, were used for row crops including corn and soybeans; 7,100 acres, or 7 percent, were in small grain crops such as wheat and oats; 13,300 acres, or 12 percent, were used for hay crops, including clover and alfalfa; 3,000 acres or 3 percent, were used for vegetable crops including peas, carrots, beets, and tomatoes; and 300 acres, or less than 1 percent, were used for specialty crops such as sod and mint. Pastureland occupied 12,600 acres, or 12 percent of the total agricultural lands. Orchards and nurseries totaled 400 acres, or less than 1 percent of the agricultural lands, while lands occupied by farm buildings other than residential units accounted for 1,800 acres, or 2 percent of the total.

The number of farms in Kenosha County has decreased rapidly in recent years from a total of 750 farms in 1970, to 580 farms in 1978--an average annual decrease of 21 farms. This loss can be attributed to several factors: operators retiring, economic disadvantages caused by increased property taxes as the County continues to urbanize, the proliferation of low-density residential development which interferes with the continued agricultural use of land, the increased value of land, and the trend to larger farms. While the actual number of farms in Kenosha County has declined in recent years, the average farm size has increased from 162 acres in 1970 to 188 acres in 1978. This increase in farm size can be attributed, in part, to advanced agricultural practices which allow the farmer to more efficiently and economically work more land.

Many farms in Kenosha County have been improved in recent years through the development and implementation of soil and

water conservation plans and the construction of new farm-related buildings. Such efforts provide evidence of the individual farmer's continued commitment to farming. Soil and water conservation plans which indicate desirable tillage, cropping, and rotation cycles and appropriate conservation practices had been prepared with the assistance of the U.S. Soil Conservation Service for a combined total area of 49,400 acres in Kenosha County in 1975. During the 10-year period ending in 1975, a total of 678 soil and water conservation practices--including vegetative cover, water retention, flow control, and crop production practices--were implemented in Kenosha County. Moreover, many of the farms have been enhanced through the construction of new farm-related structures such as barns, silos, and sheds. In this regard, there was a net increase of 800 such farm-related structures in Kenosha County between 1963 and 1975.

Perhaps the singularly most important resource component to be considered in any farmland preservation planning program is the soil resource. Soil properties greatly influence crop types and yields, the intensity of effort required to produce crops, and the efficiency of the farming operation. Under the farmland preservation planning program, soils were classified and mapped according to their agricultural capability in conformance with the agricultural soil classification system of the U.S. Soil Conservation Service (SCS). The SCS has grouped potentially farmable soils into three classifications: national prime farmland, farmland of statewide importance, and unique farmland. SCS criteria relating to the identification of national prime farmland and farmland of statewide importance are based solely on soil characteristics and capabilities. SCS criteria for the identification of unique farmlands are based on soil characteristics and capabilities and on existing practices used to enhance the capability of these otherwise marginal farmlands. National prime farmlands in Kenosha County total 131,700 acres, or 76 percent of the total land area of the County. A total of 18,700 acres, or 11

percent of the total land area of the County, are farmlands of statewide importance. Unique farmlands account for 5,600 acres, or 3 percent of the total land area of the County.

Natural Resource Base

The natural resources of Kenosha County are vital to its economic development and its ability to provide a pleasant and habitable environment for human life. Natural resources not only condition, but are conditioned by, growth and development. Any meaningful planning effort must, therefore, recognize the existence of a limited natural resource base to which urban and rural development must be properly adjusted if serious environmental problems are to be avoided. The principal elements of the natural resource base of Kenosha County, in addition to the agricultural resources discussed above, are the woodlands, wetlands, wildlife habitat areas, and surface water resources of the County.

Woodlands: In 1975, woodlands in Kenosha County covered a total of about 9,500 acres, or approximately 5 percent of the total area of the County. Located primarily on ridges and slopes and along streams and lakeshores, woodlands provide an attractive natural resource of immeasurable value. Woodlands accentuate the beauty of the lakes, streams, and topography of the area, and are essential to the maintenance of the overall environmental quality of the area. In addition to contributing to clean air and water, and to limiting storm water runoff and enhancing groundwater recharge areas, the maintenance of woodlands can contribute to the maintenance of a diversity of plant and animal life in association with human life, and can provide important recreational opportunities.

Wetlands: In 1975, wetland areas within Kenosha County covered about 15,600 acres, or about 9 percent of the total area of the County. Wetland areas are generally unsuited or poorly suited for most agricultural or urban development purposes. Wetlands, however, have impor-

tant recreational and ecological value. Wetlands contribute to flood control and water quality enhancement, since such areas naturally serve to store excess runoff temporarily, thereby tending to reduce peak flows and to trap sediments, nutrients, and other water pollutants.

Wildlife Habitat: The wetland and woodland areas described above provide much of the wildlife habitat areas which have been identified within Kenosha County. In 1970, wildlife habitat areas in Kenosha County totaled 22,900 acres, or about 13 percent of the total area of the County. Of this total, 10,100 acres, or 44 percent, were identified as high-value wildlife habitat; 6,100 acres, or 27 percent, as medium-value wildlife habitat; and 6,700 acres, or 29 percent, as low-value wildlife habitat. These remaining wildlife habitat areas and the wildlife therein provide valuable recreational opportunities, constitute an immeasurable aesthetic asset, and contribute to economic activity within Kenosha County. If the remaining wildlife habitat in the County is to be preserved, the remaining woodlands, wetlands, and surface water, together with proximate crop and pasturelands, must be protected from mismanagement and continued urban encroachment.

Surface Water: Surface water resources consisting of lakes, streams, and associated floodlands form a particularly important element of the natural resource base of Kenosha County. The water resources constitute focal points for water-related recreational activities popular with residents of the County, provide an attractive setting for properly planned residential development, and--when viewed in the context of open space areas--greatly enhance the aesthetic quality of the environment. Kenosha County contains approximately 106 miles of perennial streams and 15 major lakes--lakes having a surface area of 50 or more acres. There are an additional nine lakes and ponds in the County with surface areas of less than 50 acres. Together, all of the lakes have a combined

surface area of about 3,400 acres, or 2 percent of the total area of the County.

Lakes and streams are extremely susceptible to deterioration through improper rural as well as urban land use development and management. Water quality can degenerate as a result of excessive nutrient loads from malfunctioning or improperly placed septic systems, inadequate operation of waste treatment facilities, and careless agricultural practices. Lakes and streams are also affected by the excessive development of lakeshore and riverine areas in combination with the filling of peripheral wetlands, which destroys valuable nutrient and sediment traps while adding nutrient and sediment sources.

Environmental Corridors: Environmental corridors are defined as elongated areas in the landscape encompassing concentrations of the best remaining elements of the natural resource base--areas which should, therefore, be preserved in essentially natural open uses in order to maintain a sound ecological balance, to protect the overall quality of the environment, and to preserve the unique natural beauty and cultural heritage of the Region. One of the most important tasks undertaken by the Regional Planning Commission as part of its regional planning effort was the identification and delineation of environmental corridors. Such areas normally include one or more of the following elements of the natural resource base: 1) lakes, rivers, and streams and the associated undeveloped shorelands and floodlands; 2) wetlands; 3) woodlands; 4) prairies; 5) wildlife habitat areas; 6) wet, poorly drained, and organic soils; and 7) rugged terrain and high relief topography. Also considered in the identification of environmental corridors are the following elements which, although not part of the natural resource base per se, are closely related to or centered on that base: 1) existing outdoor recreation sites; 2) potential outdoor recreation sites; 3) historic, archeo-

logical, and other cultural sites; 4) significant scenic areas and vistas; and 5) natural and scientific areas.

The delineation of the aforelisted 12 natural resource base and natural resource-related elements on a map of Kenosha County results in a pattern of relatively narrow, elongated areas termed by the Commission environmental corridors. Primary environmental corridors by definition include a wide variety of the aforelisted resource elements and are at least 400 acres in size, two miles in length, and 200 feet in width. Primary environmental corridors in Kenosha County generally lie along the major stream valleys and around the major lakes, and contain almost all of the remaining high-value woodlands, wetlands, and wildlife habitat areas in the County, and all of the remaining undeveloped floodlands and shorelands. The primary environmental corridors encompass a total of 29,600 acres in Kenosha County, or about 17 percent of the total area of the County.

Secondary environmental corridors contain fewer natural resource elements than primary corridors, and are remnants of former primary environmental corridors which have been developed for agricultural purposes or intensive urban land uses. Secondary environmental corridors in Kenosha County are generally located along intermittent streams and typically serve as links between segments of primary environmental corridors. Secondary environmental corridors are, by definition, at least 100 acres in size and one mile in length. Secondary environmental corridors encompass about 5,900 acres in Kenosha County, or about 3 percent of the total area of the County.

Man-Made Environment

Planning for urban growth is the logical counterpart to planning for the preservation of agricultural and other open space lands. Planning for urban growth and planning for open space preservation

in Kenosha County both require an understanding of existing man-made features of the County, including the land use pattern and supporting transportation and public utility network, as well as an understanding of the components of the County's overall socioeconomic base, including the population and economy of the County.

Population: Pressure to convert agricultural land to urban uses can be attributed, to a large extent, to growth in the county population, and to the decentralization of the population within the County. The population of Kenosha County, which stood at 123,400 persons in 1980, grew by about 17,300 persons, or 17 percent, from 1960 to 1970 and by an additional 5,500 persons, or 5 percent, from 1970 to 1980. Population growth in Kenosha County has been accompanied by a significant change in the distribution of the county population, as evidenced by the increase in the proportion of rural, nonfarm residents. About 26 percent of the county population was classified as rural-nonfarm residents in 1970, compared with 12 percent in 1940. The rural nonfarm population may be typified by urban dwellers generally living in scattered fashion throughout the rural and rural-urban fringe areas of the County. Despite their rural surroundings, these residents require basic urban services and facilities, which are generally costly and inefficient to provide to scattered, isolated residential areas. Moreover, scattered urban development in rural areas lessens the viability of the area for farming; contributes to storm water drainage and water quality problems; and, in general, results in a deterioration of the natural resource base.

The resident population of Kenosha County may be expected to approximate 175,000 persons by the year 2000, an increase of about 42 percent over the 1980 level. This population growth could manifest itself in a substantial in-

crease in both the amount of land devoted to residential use and the demand for urban services and facilities.¹

Economy: One of the measures of economic activity in an area is the number of employment opportunities, or jobs, available to residents of the area. The number of jobs in Kenosha County increased at a modest rate between 1960 and 1977--from 40,100 in 1960 to 44,300 in 1977, or by about 11 percent. By the year 2000 the number of jobs in Kenosha County may be expected to increase to approximately 54,000, or by about 22 percent over the 1977 level.

Land Use Development: The amount of land devoted to urban use has increased steadily in Kenosha County since 1850. Prior to 1950, urban development within Kenosha County occurred in relatively tight concentric rings outward from the central portion of the City of Kenosha and from outlying urban centers such as Paddock Lake, Silver Lake, and Twin Lakes. A dramatic change in the pattern of urban development within Kenosha County occurred, however, in about 1950. Urban development became discontinuous and diffused, with much urban develop-

¹*Regional Planning Commission forecasts indicated that the Kenosha County population would increase from about 117,900 persons in 1970 to about 139,200 in 1980. The preliminary results of the 1980 census indicated a 1980 population for Kenosha County of 123,400 persons, or about 11 percent below the forecast figure. While the preliminary census results indicate that population growth has been occurring at a lower rate than initially forecast, the number of households in Kenosha County appears to be increasing at a rate which closely approximates the forecast rate. This is significant, since it is the household population which creates much of the demand for additional urban land and supportive public facilities. A more thorough analysis of Regional Planning Commission demographic forecasts awaits release of the detailed results of the 1980 census.*

ment occurring in rural areas to which the extension of urban services and facilities is difficult, if not impossible. As previously noted, this "urban sprawl" form of development reduces the viability of rural areas for agricultural uses and unnecessarily creates costly environmental problems.

Although Kenosha County is a relatively highly urbanized county, the largest single land use category in the County is still agriculture, which, in 1975, occupied about 60 percent of the total county area. Water and wetlands constituted an additional 12 percent of the County, while woodlands and unused lands each constituted about 5 percent. Urban land uses occupy approximately 18 percent of the total area, with residential lands accounting for almost one-half of the urban land uses.

Public Utilities: Public utility systems are one of the most important elements of urban growth and development. Urban development today is highly dependent upon these utility systems, which provide the individual land uses with essential power, light, communication, heat, water, and sewerage services. Gas and electric power service may be considered ubiquitous and are not a major constraint on the location and intensity of urban development in Kenosha County. Public sanitary sewer and water supply services are much more limited. The preservation of agricultural and other open space lands is directly related to the extent to which urban development can be centralized and concentrated in areas which can be readily and economically provided with public sanitary sewerage and water supply facilities.

There were 17 public sanitary sewerage systems served by a total of 10 public sewage treatment facilities in Kenosha County in 1975. These systems, together, served about 23 square miles, or about 8 percent of the total area of the County, and a population of about 100,500, or about 79 percent of the total resident population of the County. A total of six

public water utilities existed in Kenosha County in 1975, serving a combined area of about 17 square miles, or about 6 percent of the county area, and about 91,800 persons, or 72 percent of the total resident population of the County.

Surface Transportation System: There was a total of 908 miles of public streets and highways open to traffic in Kenosha County in 1978. Of this total, 319 miles, or 35 percent, constituted the arterial street and highway system. Arterial streets and highways are essential to the economic viability and vitality of farms and isolated rural enterprises which are dependent upon, and necessary to, farm operations. Farms and other rural enterprises rely on arterial highways as the basic form of access to labor, materials, and markets. Moreover, these arterial highways provide direct connections to the freeway system and, thus, access to regional, state, and national markets.

The existing railway system facilitates the movement of agricultural, as well as manufactured, products from Kenosha County to regional, state, and national markets. Railway freight service in Kenosha County was provided by three railroad companies in 1979. The Chicago & North Western Transportation Company operated in the eastern portion of the County over two north-south main lines in the Chicago to Milwaukee corridor, one operating through the City of Kenosha and one operating just west of the City of Kenosha through the Towns of Somers and Pleasant Prairie. The Chicago, Milwaukee, St. Paul & Pacific Railroad (the Milwaukee Road) operated over one main line in the Chicago to Milwaukee corridor through the Towns of Somers and Pleasant Prairie. The Soo Line Railroad operated over one north-south main line in the western portion of the County through the Town of Wheatland and the Village of Silver Lake.

Existing Land Use Controls: Land use development can be guided and shaped in the public interest through the sound application of public land use controls, including, importantly, comprehensive

zoning and land subdivision control ordinances. An inventory of the land use controls in effect in Kenosha County in 1978 was conducted under the farmland preservation planning program in order to provide insight into locally conceived development objectives and to determine how such controls might be modified to effectively implement a farmland preservation plan.

The current Kenosha County zoning ordinance was adopted by the Kenosha County Board in 1959 and has since been ratified by six towns in the County--the Towns of Brighton, Bristol, Pleasant Prairie, Randall, Somers, and Wheatland. The Towns of Paris and Salem have elected to adopt and administer town-enacted zoning ordinances. A total of seven zoning districts are provided in the existing county zoning ordinance. All of these districts--even those districts which are intended to be applied in rural farming areas or environmentally significant areas--permit intensive urban uses in the form of medium-density residential or other urban development. Regardless of how they might be applied within the County, the district regulations of the existing county zoning ordinance may be expected to contribute very little toward the preservation of agricultural land and environmentally significant areas.

It should be noted that Kenosha County is currently preparing a new zoning text and zoning district map. The proposed zoning ordinance contains a number of districts which would impose more stringent restrictions on urban development and which, if properly applied within the County, would contribute significantly to the implementation of a farmland preservation plan. Most important in this regard is the proposed agricultural preservation district, which would permit as principal uses only agricultural uses on farms of at least 35 acres in size and which would restrict residential uses to housing for farm owners, operators, or laborers. Owing to these restrictions, this district would serve to preserve and protect agricultural areas in the County, and would consti-

tute an exclusive agricultural zoning district as defined under the Wisconsin Farmland Preservation Program, if properly applied throughout the County in accordance with the farmland preservation plan.

The Kenosha County Board adopted a new land subdivision control ordinance in 1971. This ordinance regulates the division of land in all unincorporated areas of the County. However, each town may, in addition, adopt its own subdivision control ordinance to provide more stringent regulation of land subdivision. The Kenosha County land subdivision control ordinance contains certain provisions which can contribute to the preservation of agricultural lands and the conservation of environmental areas. Importantly, the county ordinance includes requirements regarding the suitability of land for urban development, prohibiting, for example, such development utilizing onsite sewage disposal systems on land having bedrock within seven feet of the natural surface, on land having a high water table, and on land drained by farm drainage tile or drainage ditch systems. In addition, the subdivision control ordinance includes regulations intended to minimize erosion and loss of woodlands, and other adverse environmental impacts attendant to urban development.

OBJECTIVES, PRINCIPLES, AND STANDARDS

Planning is a rational process for formulating and meeting objectives. The formulation of objectives, therefore, is an essential task which must be undertaken before plans can be prepared. The farmland preservation planning program set forth objectives related to the preservation of agricultural land; to the location of new development and the attendant provision of public utilities and facilities; and to the protection of significant natural resources areas. In the formulation of these objectives, the farmland preservation planning program built upon previous planning work accomplished by the Regional Planning Commission by incorporating and amending as

necessary certain land use development and open space preservation objectives, principles, and standards formulated under the regional land use planning program and the regional park and open space planning program.

Six specific land use development objectives previously formulated under the regional land use planning program were reaffirmed under the farmland preservation planning program as they apply to Kenosha County, as was a single open space preservation objective formulated under the regional park and open space planning program. Only one new objective was formulated under the farmland preservation planning program. This objective relates to the preservation of agricultural land in the County, including prime agricultural lands, agricultural lands of local significance, and other agricultural lands. Accompanying each of the objectives asserted under the farmland preservation planning program is one planning principle or more and a set of planning standards that were used as a guide in the preparation of the farmland preservation plan.

THE FARMLAND PRESERVATION PLAN

The farmland preservation plan represents a guide to the attainment of farmland preservation, natural resource preservation, and land use development objectives established under the farmland preservation planning program. This section provides a summary of the salient recommendations of the three elements of the farmland preservation plan--the farmland preservation element, the natural resource preservation element, and the urban development element.

The Farmland Preservation Element

The farmland preservation element seeks to preserve in agricultural and other compatible uses both prime agricultural land and farmlands of local significance. Prime agricultural lands are defined as those lands which are well suited for agricultural use and which meet the specific mapping criteria established by the Technical Coordinating and Advisory Committee on Farmland Pres-

ervation regarding farm size and agricultural soil capability. Specifically, to be considered prime agricultural land, farm units must meet the following criteria: 1) the farm unit must be at least 35 acres in area, 2) at least 50 percent of the farm unit must be covered by soils which meet the U.S. Soil Conservation Service standards for national prime farmland or farmland of statewide importance, and 3) the farm unit should be located in a block of farmland of at least 100 acres in size. Prime agricultural lands were identified on the basis of the application of these criteria, using information regarding farm parcel boundaries and agricultural soil capability developed under the inventory phase of the farmland preservation planning program.

Farmlands of local significance are those lands in addition to prime agricultural lands which represent an important part of the local agricultural resource base. Such lands were identified by members of the Kenosha County Special Towns Committee on Proposed Comprehensive Zoning and individual farmers from each town in Kenosha County during meetings held for this purpose on March 26, 1980 and July 23, 1980.

The farmland preservation area, as shown on the farmland preservation plan map, includes both the identified prime agricultural lands and farmlands of local significance. The farmland preservation area includes a total of 75,000 acres, or 42 percent of the total area of Kenosha County (see Map 19 in Chapter V of this report). The plan recommends that all land within the identified farmland preservation area be preserved for and in agricultural use. Additional residential development should be restricted to that required for occupancy by the farmer, his parents or children, and farm laborers. Only those forms of development which are compatible with agricultural uses, such as essential agri-business, should be permitted in addition to farming. Other than for the exceptions provided, land should not be subdivided to create parcels of less than 35 acres.

It should be noted that certain farmlands designated as prime agricultural land lie in areas which may be expected to be developed for urban use during the next two decades. Such lands are shown as "transition" lands on the farmland preservation plan map. These lands, which are in addition to the farmland preservation area, encompass a total of 6,400 acres, or 4 percent of the total area of the County. Such lands should be preserved for agricultural use until a sufficient demand for additional urban development to warrant conversion to urban use has been demonstrated, and until essential urban utilities, facilities, and services can be readily and efficiently provided.

Natural Resource Preservation Element

The natural resource preservation element seeks to protect the most important remaining features of the natural resource base by preserving in essentially natural, open uses the remaining primary environmental corridors, secondary environmental corridors, and isolated natural areas which have been identified in Kenosha County. As previously noted, primary environmental corridors are elongated areas in the landscape which represent a composite of the best remaining elements of the natural resource base and which have truly immeasurable environmental and recreational value. Their preservation in an open, natural state will avoid the creation of costly environmental problems such as flooding and water pollution, and will serve to maintain a high level of environmental quality in the County, protecting its natural beauty, and providing invaluable outdoor recreational opportunities. The exclusion of urban development from these corridors will also avoid the creation of serious and costly developmental problems such as wet basements, foundation failures, and excess clear water infiltration and inflow into sanitary sewerage systems. Accordingly, the farmland preservation plan recommends that the remaining primary environmental corridors in Kenosha County--which encompass 29,600 acres, or 17 percent of the total county area--be preserved in essentially natural, open uses.

Secondary environmental corridors facilitate surface water drainage, maintain "pockets" of natural resource features, and provide corridors for the movement of wildlife. Such corridors, while not as significant in terms of their size and natural resource content as the primary environmental corridors, should nevertheless be preserved in essentially open, natural uses as urban development proceeds within the County, particularly where the opportunity is presented to incorporate such corridors into urban storm water detention areas, associated drainageways, and neighborhood parks. Under the plan, secondary environmental corridors--which encompass 5,900 acres, or 3 percent of the total area of the County--would also be preserved in essentially natural, open uses.

In addition to primary and secondary environmental corridors, other small concentrations of natural resource base elements exist within Kenosha County. These resource base elements are isolated from the environmental corridors by urban development or agricultural uses. Although separated from the environmental corridor network, such isolated natural areas have important natural values. Identified isolated natural features within Kenosha County include a geographically well-distributed variety of wetlands, woodlands, and wildlife habitat areas. The farmland preservation plan recommends that such areas, which encompass 4,000 acres, or 2 percent of the total area of Kenosha County, be protected and preserved in a natural state whenever possible.

Urban Development Element

The urban development element of the farmland preservation plan is intended to provide a development framework to guide the amount and location of land to be converted from rural to urban use in Kenosha County through the plan design year 2000. This development framework is based upon the population forecasts and basic land use development recommendations of the adopted regional land use plan as that plan applies to Kenosha

County. Substantial implementation of this plan element would result in the attainment of the land use development objectives set forth in the regional land use plan as reaffirmed by the Technical Coordinating and Advisory Committee on Farmland Preservation.

The farmland preservation plan proposes a relatively compact, centralized form of urban growth, with new urban development recommended to occur adjacent to, and outward from, existing development in areas which are covered by soils suitable for such development, which are not subject to special hazards such as flooding, and to which basic urban utilities, facilities, and services can be readily and economically extended. Under the plan, new urban development would be provided with public sanitary sewers, public water supply, and other essential urban services including public transit services. New residential development would occur primarily in planned neighborhood development units, and primarily at medium-density levels--that is, with new single-family residential development averaging about four dwelling units per net residential acre and new multiple-family residential development averaging about 10 dwelling units per net residential acre.

The farmland preservation plan calls for the conversion of a total of about 17,100 additional acres of land from rural to urban uses in Kenosha County by the plan design year 2000. Under the plan, about 38,400 acres, representing 22 percent of the total area of Kenosha County, would thus be in urban use by the plan design year. The additional land recommended to be converted to urban use, totaling 10 percent of the total area of the County, would be more than adequate to meet the urban development needs associated with the anticipated increases in resident population in the County over the next two decades.

The farmland preservation plan, like the regional land use plan, recognizes that there will continue to be some demand for rural, or "country" living by non-

farm people. To a large extent, in past years, this demand has been met with the development of what were, in effect, urban or suburban subdivisions served by septic tanks and private wells, with lot sizes ranging from one to three acres. The recommended plan seeks to discourage this type of development, as it represents neither sound rural nor sound urban development. Rather, the plan recommends that this portion of the housing market be satisfied through low-density country estate-type development, with minimum lot sizes of five acres or more. Under the plan, such large lot rural residential development would be accommodated in portions of primary environmental corridors as well as in rural lands outside the identified farmland preservation areas. Such large lot rural residential development, when properly situated with respect to the natural resource base, can be sustained with minimal impact on existing wetlands, woodlands, wildlife habitats, and natural drainage systems.

PLAN IMPLEMENTATION

The recommended farmland preservation plan provides a design for the attainment of the farmland preservation, natural resource protection, and land use development objectives asserted under the Kenosha County farmland preservation planning program. In a practical sense, however, the plan is not complete until the steps required to implement the plan are specified. Accordingly, this report outlines the actions which must be taken by the various units and agencies of government concerned if the recommended plan is to be carried out.

While implementation of the farmland preservation plan depends on the cooperative action of a number of local, state, and federal agencies, primary responsibility for the implementation of the plan, especially the farmland preservation and open space protection recommendations, rests with Kenosha County and the civil towns in Kenosha County. Of particular importance to the preservation of farmland in Kenosha

County is the application of exclusive agricultural zoning by Kenosha County with the cooperation of the towns in the County, in accordance with the plan recommendations. Such zoning would serve to effectively protect farming areas from encroachment by urban development. In addition, such zoning, once properly certified by the Wisconsin Agricultural Lands Preservation Board, would satisfy a basic requirement of the Wisconsin Farmland Preservation Program--namely, that after September 30, 1982, farmland owners in Kenosha County are eligible for income tax credits under the Farmland Preservation Program only if their farms are zoned for exclusive agricultural use. While lands may be zoned for exclusive agricultural use through town-enacted or county-enacted zoning, potentially greater levels of tax relief are available where county-enacted exclusive agricultural zoning is applied.

PUBLIC REACTION TO THE PLAN

A public informational meeting was held on March 16, 1981, for the purpose of briefing and receiving comments on the farmland preservation plan from farmland owners and farm operators, public officials, and interested citizens. The meeting included a description of the Wisconsin Farmland Preservation Program presented by the staff of the Wisconsin Department of Agriculture, Trade and Consumer Protection; a review of the farmland preservation planning program and a description of the resulting farmland preservation plan presented by the staff of the Regional Planning Commission; and a period during which those in attendance were invited to comment on the farmland preservation plan.

Reaction to the farmland preservation plan at the March 16, 1981 public informational meeting was mixed, with comments reflecting both support for, and opposition to, the plan. Those in support of the farmland preservation plan cited growing conflicts between farm operations and nonfarm activities, the need to control municipal service costs, and the general need to preserve the

viability of existing agricultural areas for those who desire to continue farming as reasons that the plan is needed. Those in opposition to the plan raised a variety of concerns regarding the restrictions on development inherent in exclusive agricultural zoning and the effect of such zoning on landowners, developers, and those who are desirous of living in rural areas. In addition, concern was expressed regarding the uncertainty of the Wisconsin Farmland Preservation Program and the fact that there is no guarantee that this farmland tax relief program--which was one of the factors prompting the conduct of the farmland preservation planning program--would continue. In general, comments expressed at the meeting were conceptual in nature, there being little specific reaction to the delineation of the farmland preservation areas, the natural resource preservation areas, or the urban development areas as identified on the farmland preservation maps presented at the meeting.

CONCLUSION

As the name implies, the farmland preservation plan presented herein is intended to serve as a guide to the preservation of agricultural lands in Kenosha County. In addition, the plan includes recommendations for the protection of environmentally significant areas and recommendations regarding the location and intensity of urban development within the County through the year 2000. The plan is the result of a joint agricultural lands preservation planning program for Racine and Kenosha Counties conducted by the Regional Planning Commission, with the assistance of the planning and zoning departments of Racine and Kenosha Counties, as well as of a technical coordinating and advisory committee consisting of farmers, county agricultural agents, and representatives of the Agricultural Stabilization and Conservation Service and the Soil Conservation Service from both Racine and Kenosha Counties. This report has set

forth the findings and recommendations of the joint farmland preservation planning program as those findings and recommendations apply to Kenosha County.

Specifically, this report presents pertinent data on the agricultural and natural resource base of Kenosha County; presents a set of objectives, principles, and supporting standards related to the preservation of agricultural lands, the location of urban growth in relation to such lands, the provision of public facilities and services to support sound rural and urban development, and the preservation of significant natural resources other than agricultural lands; identifies both the amount and spatial distribution of agricultural lands and lands of environmental significance that should be preserved in agricultural and natural open space uses, respectively; and identifies areas of land use transition, within which existing agricultural lands may be expected to be converted to urban use and to which urban services will have to be extended. Finally, the report sets forth recommendations for the implementation of the recommended farmland preservation plan by local units and agencies of government.

Adoption and implementation of the farmland preservation plan will enable farmers participating in the Wisconsin Farmland Preservation Program to receive the maximum tax credit for which they are eligible. The Wisconsin Farmland Preservation Program provides tax relief to farmland owners in the form of state income tax credits as an offset to property taxes assessed against their farmland. After September 30, 1982, farmland owners in Kenosha County will be eligible for such tax credits only if their land is placed in an exclusive agricultural zoning district. Farmland owners participating in the program will be eligible for the maximum tax credit for their particular income and tax situation only if the County has also adopted a farmland preservation plan.

In addition, a number of important public purposes will be served through implementation of the farmland preservation plan. Implementation of the plan would serve to maintain the agricultural reserves required for the production of food and fiber to meet the basic needs of society. Other public purposes include the protection of environmentally

significant areas, the preservation of the local economic base, the prevention of urban sprawl, the control of municipal service costs, and the preservation of the rural lifestyle. Accordingly, the importance of the adoption and implementation of the farmland preservation plan to Kenosha County cannot be over emphasized.

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APPENDICES

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Appendix A

WISCONSIN'S FARMLAND PRESERVATION PROGRAM

by Richard Barrows

The Farmland Preservation Act was passed to assist local people who want to preserve farmland, and to provide tax relief to farmers who participate in the local programs. The success or failure of the program rests in the hands of farmers, local citizens, and local elected officials. There are many options for local government under the law, and the state will not dictate local planning and zoning policies—those policy choices are the proper business of local citizens and local government. The Farmland Preservation Act will assist local governments in what they decide to do, but the decisions must be made by local citizens. The information in this publication is based on the law as amended in 1978. A major change involves the tax credit schedule shown in the table. If, after reading this publication, you need more information on the Farmland Preservation Act, contact your county office of University of Wisconsin—Extension, usually located in the county courthouse; or write the Wisconsin Department of Agriculture, Trade and Consumer Protection, P.O. Box 8911, Madison, Wisconsin 53708.

On June 29, 1977, Wisconsin's Farmland Preservation Act became law. The purpose of the new law is to help local governments that want to preserve farmland through local planning and zoning, and to provide tax relief to farmers who participate in the local programs. The program offers many options for farmers and for local governments. It is important that people understand the facts about the new program in order to make well informed decisions for their family and their local community.

Under the new farmland preservation program, farmers can qualify for tax credits in either of two ways: (1) their land is zoned for exclusive agricultural use; or (2) they sign a contract agreeing not to develop their land for a specific time. There are two stages to the program: The first stage runs until 1982, and the second stage begins in 1982 or before, depending on action of the local governments.

THE INITIAL PROGRAM

In the first five years, 1977-1982, or until the county enters the second stage of the program, any farmer in the state can qualify for tax credits by voluntarily signing an initial contract. The farmer agrees not to develop his land and in exchange is eligible for state income tax credits.

The Contract

To qualify for a contract, the farmer must have 35 acres or more in a parcel, and the land must have produced a

value of farm product of \$6,000 in the last year or \$18,000 in the last three years. "Value of farm product" means the gross receipts from the land's agricultural use, not counting rent and the initial cost of livestock or other items which are bought and then resold. A person who rents out his land can easily qualify to sign a contract, if the land produced the required value of farm products. Also, to qualify to sign a contract, the farmer must either have an SCS farm conservation plan or request that a plan be prepared by the local soil and water conservation district and SCS.

The farmer applies to the county board for a contract, by filling out an application and giving it to the county clerk. The clerk notifies several local government agencies, including the town board, and these groups have 30 days to give any comments to the county board. In most counties, a county board committee will review the application and make a recommendation to the county board. The full county board approves or rejects the application, but the farmer can appeal a rejection to the state Agricultural Land Preservation Board. If the county approves the application, the state must sign a contract with the farmer if the land is qualified under the law.

Under the contract, no development is allowed unless it is for farm use. Farmers are eligible for income tax credits, and are exempt from special assessments to provide urban-type public services such as sewer and water. The contract follows the land, even if the land is sold. The initial contract expires on September 30, 1982.

Tax Credits

Farmers whose land is included in the program are eligible for tax credits against their state income tax. The income tax credit is based on household income. A household is a husband, wife, and dependent children under 18 years old. Families in farm partnership or farm corporations under Subchapter S are treated the same as any other household. The household's income includes: the *net* farm income; any non-farm wages, salaries and tips above \$7,500; and other miscellaneous sources of income. The tax credit is calculated by a very detailed formula. Property taxes up to \$6,000 are eligible for relief and the maximum credit is \$4,200. Basically, the higher the property tax, the higher the tax credit, *and* the lower the income, the higher the credit.

The level of tax credits also depends on whether the county has an agricultural preservation plan, exclusive agricultural zoning, or both. The table below shows the *maximum* tax credit. Farmers with initial contracts receive 50% of the maximum credit. Farmers whose land is in an exclusive agricultural zone are eligible for 70% of the maximum credit. If the county has an agricultural preservation plan, farmers are eligible to sign a second-stage contract and receive 70% of the maximum credit. If the county has both planning and zoning, farmers are eligible for 100% of the maximum credit. More details about the planning and zoning are discussed under the second stage of the program.

MAXIMUM TAX CREDIT SCHEDULE*

Income\$	Property Taxes:					
	\$1000	\$2000	\$3000	\$4000	\$5000	\$6000
0	900	1800	2500	3200	3700	4200
5000	900	1800	2500	3200	3700	4200
10,000	675	1575	2325	3025	3575	4075
15,000	360	1260	2080	2780	3400	3900
20,000	0	855	1755	2465	3165	3675
25,000	0	180	1080	1940	2640	3300
30,000	0	0	0	855	1755	2465
35,000	0	0	0	0	180	1080
40,000	0	0	0	0	0	0

*Actual credit received by farmers: Initial contract = 50% of these amounts; exclusive agricultural zoning = 70% of these amounts; zoning plus an agricultural preservation plan = 100% of these amounts.

An initial contract expires naturally in 1982. If the land continues in the program, there is no payback of tax credits. If a farmer is not eligible for the second stage of the program because the county board failed to qualify his land, then he pays back the last two years of tax credits. In this case there is no interest, before or after 1982. If the farmer's land *is* eligible for the second stage under a county agricultural preservation plan but he chooses not to sign another contract after 1982, he must pay back all the tax credits received. In this case there is no interest before 1982, but 6% annual interest on the payback amount if it is not paid in 1982. If a contract is canceled early, before 1982, the landowner must pay back all the tax credits plus 6% interest from the time the credit was received. In all cases the payback amount need not be paid immediately, but must be paid if the land is later sold or developed. *If the*

farmer signs a new contract or is in an exclusive agricultural zone, there is no repayment of tax credits.

THE SECOND STAGE PROGRAM

The second stage of the program begins in 1982 or before if a county adopts agricultural zoning or planning. Tax credits after 1982 depend on what the local government does. In order for farmers to remain eligible for tax credits, counties must take some action. Counties are not required to do *anything*, but tax credits depend on some county action. *Counties could act earlier if they wish*, but by October, 1982.

1. Urban counties—in counties with a population density of 100 or more people per square mile, the land must be under a certified exclusive agricultural zoning ordinance to be eligible for credits.

2. Rural counties—in counties with population density less than 100 people per square mile, the land must be under either a farmland preservation plan or an exclusive agricultural zoning ordinance to be eligible for credits.

Agricultural Zoning

Farmers may also qualify for tax credit through local exclusive agricultural zoning. If the local zoning meets the standards in the law for protecting farmland, then farmers may qualify for tax credits without signing a contract. Exclusive agricultural zoning ordinances must provide that farmland cannot be developed, and no residences can be built unless occupied by the farmer, his parents or children, or a person working on the farm. Other than for these exceptions, the minimum parcel size for a residence is 35 acres. Special exceptions and conditional uses, such as a farm implement dealer or a roadside stand, must be compatible with farming. Rezoning the land to allow development is a local decision. In making the zoning decision, local officials should consider whether the new development would increase public service costs for local people or would harm nearby farms or the local environment.

By early 1979, several counties had already adopted exclusive agricultural zoning ordinances, including Barron, Columbia, Dane, Iowa, Jefferson, Shawano, and Walworth. Several other counties were working to amend their zoning ordinances to provide for exclusive agricultural zoning. When such an amendment is adopted by a county, each town decides for itself whether to accept or reject the exclusive agricultural zoning for that town. In a few urban counties which do not already have county zoning (such as Brown, Fond du Lac, Rock, and Sheboygan) an exclusive agricultural zoning ordinance could be adopted only by a majority vote of all the towns in the county. So, exclusive agricultural zoning must be a partnership between the towns and the county.

Agricultural Planning

Agricultural preservation plans (Ag Plans) are similar to the land use plans which have been in effect in many counties for a long time, except the entire idea of the plan is to help preserve farmland. The plan must be based on background studies of the county's agriculture,

natural resources, and population growth. The plan should also state the county's policies on preserving farmland, providing for urban growth, and protecting the local environment. Importantly, the Ag Plan should also contain maps of which agricultural lands should be preserved, and a proposed program to preserve farmland. Plans are not binding on landowners or the county, but are useful guides for future local decisions. Farmers whose land is in an agricultural preservation district in the Ag Plan may sign contracts similar to the initial contracts. It is important that farmers and other local citizens be involved in the planning process from the very beginning.

Tax Credits

In *rural counties*, a farmer whose land is in the exclusive agricultural zone is automatically eligible for tax credits at the 70% level without any contract. If the county has an Ag Plan, but no zoning, farmers in a preservation district under the county's plan may voluntarily sign contracts. The contract is similar to the initial contract except that it is for 10-25 years and the farmer is eligible for 70% of the maximum tax credit. If the county has both zoning and a plan, farmers are eligible for 100% of the maximum credit. If a county has an Ag Plan, and if allowed by traditional zoning procedures, *towns* could adopt exclusive agricultural zoning ordinances and qualify farmers in the zones for 70% of the maximum credit.

In *urban counties*, farmers are eligible for tax credit only if their land is zoned for exclusive agricultural use. Zoning would qualify them for 70% of the maximum credit, but if the county has both exclusive farm zoning and an Ag Plan, farmers are eligible for 100% of the maximum credit. Under some special conditions, if a county has an Ag Plan and if allowed by traditional zoning procedures, farmers may be eligible for tax credits under town exclusive agricultural zoning at the 70% level of credit.

If a contract expires and no new contract is signed, the farmer is responsible for repaying the tax credits received over the last 10 years. Or, if land is removed from the exclusive agricultural zone, the owner is responsible for repaying the tax credits over the last 10 years. In either case, there is no interest, unless the credits are not repaid at the time the contract expires or the land is rezoned. If the payment is not made until later, there is 6% interest in the meantime. The payback is due when the land is next sold or developed. If the farmer, county and state agree to cancel a contract early, the payback is the tax credits over the last 10 years, plus 6% interest from the time the credit was received. *If a farmer continues in the program by signing a new contract, or the land is in an exclusive agricultural zone, no credits are repaid.*

Local Option

There are options for county and town governments under the farmland preservation program. First, no county is required to have zoning or planning. However, after 1982, tax credits will be available to farmers only if their land is in a county plan preservation district or in an exclusive ag-

ricultural zone. Even if the county acts, town government and landowners still have many options. County Ag Plans are not binding on landowners or governments, and the plan can be modified if there is good reason. Contracts are voluntary for farmers.

Zoning is optional for the county and town governments, but, of course, any local zoning is binding on the landowner. In most counties, towns have an individual town veto over whether any new farm zoning provisions in the county zoning ordinance will take effect in that town. In a few urban counties, adoption of county exclusive agricultural zoning can take place only with the agreement of a majority of towns, basically the same way zoning changes have always worked. Finally, under certain conditions, towns may be able to adopt exclusive agricultural zoning ordinances and qualify farmers for tax credits. By early in 1978, the Walworth County Ag Plan was certified, enabling the Town of Lafayette to qualify farmers for credits by town exclusive agricultural zoning. However, higher levels of credit would be available to town farmers through county zoning.

Administration

Both the initial and the permanent programs will be administered by the Wisconsin Department of Agriculture, Trade and Consumer Protection. A special State Agricultural Lands Preservation Board is created to *certify* that exclusive agricultural zoning ordinances and preservation plans are consistent with standards in the law. The Board also acts on requests for early termination of contracts, acts on appeals from farmers who were denied contracts by the county, and approves spending of funds for counties to develop preservation plans. The Board is composed of the secretaries of the State Department of Agriculture, Trade and Consumer Protection; Administration; Local Affairs and Development; and two public members appointed by the Governor and approved by the State Senate.

Effect on Farmers

The new law will affect farmers in two ways. First, local planning and zoning can protect farm operations from interference from urban land uses. When farm and urban land uses are mixed, land use conflicts often arise over farm odors, noise, or dust, and there are sometimes conflicts over fence maintenance and trespass. Exclusive agricultural zoning by local governments could help reduce these conflicts by separating farm and urban land uses. Farmers are also protected from special tax assessments for sewer, water, or other urban public services. Exclusive agricultural zoning will also help reduce the cost of public services and keep farm property tax assessments from rising as rapidly as they would if nearby farmland were being developed.

Farmers are also eligible for tax relief, but two points must be noted. First, the tax relief depends on the farm family's income. When income is low, tax credits will be high; when income is high, tax credits will be low. In effect, the tax relief is more like an *insurance policy* than a pure across-the-board tax cut. The tax relief program is

insurance against a bad crop year or any other event that reduces farm income.

Second, the tax relief is a pure tax break only if the land stays in farming. The program offers only tax *deferral* if the land is developed. As long as the land stays in agriculture or open space use, there is no reason not to remain in the program, so no tax credits are repaid. So if the land stays in farming, the program offers a tax break. But if the land is removed from the contract or zoning, and is then sold or developed, some tax credits must be repaid. In effect, the property taxes were *deferred* until the land was sold or developed. And, of course, the payback period might not cover all the years when tax credits were received, so there would be some pure tax break and some tax deferral. In the worst case, when all the credits must be repaid, the tax relief amounts to an interest-free loan for the period the land is zoned or under contract (or a loan at 6% interest if a contract is terminated early). So, the new law offers a pure tax break to those who keep their land in farming. To others, the law offers tax deferral, with possibly some pure tax break as well.

Many farmers ask "How do I know whether to sign up?" This must be decided by each individual farm family, but there are several questions which are helpful for the farmer to ask himself. First, he should ask "Do I want to develop my land, and will I be able to develop, between now and 1982?" If the farmer wants to develop and has a good chance of doing so by 1982, then he should be extremely cautious about signing a contract in which he agrees not to develop. A contract can be canceled only with the agreement of all parties—the farmer, the county, and the state.

If the farmer does not want to develop, or has no real chance to develop, then he needs to ask a second question:

"How much tax credit would my family receive?" If there is no credit, there may be little reason to sign a contract. *Each individual farm family must calculate the credit for its own specific situation.* The credit will vary from \$0 to \$4,200 per year, depending on the family's situation. If there is some credit available, then the last question is: "What will be the payback in 1982?" If the land continues in the program through local zoning or a new contract, there is no payback. If the county fails to qualify the land, the payback is the last two years of credits. If the land is eligible for a new contract, but the owner chooses not to sign up (probably because of his wish to develop), then the payback is the full amount of credit received. At worst, the tax credit amounts to a tax deferral; at best it is a pure tax break. Each individual farm family must ask these questions and determine the answers for its own situation, because some families will receive substantial benefits, while others may receive very little. The decision must be made by each farm family.

Effect on City People

The Farmland Preservation Act may benefit urban residents by preserving open space, by helping to preserve farmland for the future, and by helping to control urban sprawl and reduce the cost of extending public services to new developments. Since the tax credit does not affect the property tax collected by the local government, the program will not increase property taxes for urban people. However, everyone in the state will pay for the program since it offers farmers a credit against the state income tax. However, the total cost of the program is likely to be quite small, especially in the early years when there are few contracts signed.

This publication is slightly revised.

Richard Barrows is associate professor of agricultural economics and resource policy, College of Agricultural and Life Sciences, University of Wisconsin-Madison. The author was formerly Director, Farmland Preservation Program, Wisconsin Department of Agriculture, Trade and Consumer Protection.



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DECEMBER 1980

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G2890 WISCONSIN'S FARMLAND PRESERVATION PROGRAM

Appendix B

TECHNICAL COORDINATING AND ADVISORY COMMITTEE ON FARMLAND PRESERVATION FOR KENOSHA AND RACINE COUNTIES

Louis Fowler.....Farmer, Town of Bristol,
Chairman Kenosha County
James Moyer.....Farmer, Town of Yorkville,
Vice-Chairman Racine County
Emil Mravec.....Farmer, Town of Randall,
Secretary Kenosha County
Dennis Boland.....Manager, Agricultural Stabilization and
Conservation Service, Racine County
John M. Braun.....Farmer, Town of Mt. Pleasant, Racine County
Leon T. Dreger.....Farmer, Town of Somers, Kenosha County
Claude Epping.....Farmer, Town of Salem, Kenosha County
Kenneth Gould.....Farmer, Town of Dover, Racine County
Kenneth Jacobs.....Farmer, Town of Norway, Racine County
Paul G. Jaeger.....County Agricultural Agent, Kenosha County
John C. Kevek.....Farmer, Town of Pleasant Prairie, Kenosha County
Stanley Lois.....Farmer, Town of Wheatland, Kenosha County
Rolland F. Prochaska.....Farmer, Town of Caledonia, Racine County
Wendolyn Reiter.....Farmer, Town of Brighton, Kenosha County
Ralph Rice.....Farmer, Town of Burlington, Racine County
Karl Schröder.....County Horticulture/Natural Resource Agent,
Racine County
Earl Stollenwork.....Farmer, Town of Paris, Kenosha County
Elmer Strassburg.....Manager, Agricultural Stabilization and
Conservation Service, Kenosha County
Larry Toney.....District Conservationist
U.S. Soil Conservation Service
Roy E. Weltzien.....Farmer, Town of Waterford, Racine County
Robert Willard.....Farmer, Town of Rochester, Racine County

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Appendix C

FORMATION AND OPERATION OF FARMLAND DRAINAGE DISTRICTS

Farmland drainage districts may be established under Chapter 88 of the Wisconsin Statutes to provide for the execution of specific areawide drainage improvements. Farmland drainage districts are administered by a single county drainage board consisting of three individuals, all resident landowners of the county, appointed by the county court.¹ At least one of the members of the county drainage board should be an experienced farmer who is familiar with drainage and another should be familiar with drainage engineering, if such a person is available. Selection of the board members is made from a list of persons recommended by the county committee on agriculture, which must recommend at least three persons for each position to be filled. Under Wisconsin Statutes, a county drainage board has the authority to purchase or condemn lands which are necessary for the construction, cleaning out, repair, and maintenance of the drainage systems; purchase or lease and maintain and operate the equipment and machinery necessary to construct, maintain, or repair the drains within the districts under its jurisdiction; purchase, construct, maintain, and operate all levees, bulkheads, reservoirs, silt basins, holding basins, floodways, floodgates, and pumping machinery necessary to the successful drainage or protection of its districts; and assess the cost of construction, maintenance, and repair against the benefited lands in proportion to the benefits received by each.

A drainage district may be created upon petition submitted by the owners of more than one-half of the area of the lands proposed to be included within the district, or a majority of landowners owning at least one-third of the land area. The petition for organization of a drainage district must contain a description of the lands proposed to be included in the district and a finding that they will be improved by drainage and that the public health or public welfare will be promoted by the drainage; a map or sketch of the area sought to be drained, with proposed drains shown thereon; a statement that the cost of construction will not exceed 75 percent of the appraised benefits arising from such drainage; the proposed name or number for the district; the names and addresses of the owners and mortgagees of all lands in the district, so far as known to the petitioners; a request by the petitioners to the court for the organization of the drainage district; and, if the purpose of the petition is the enlargement, repair, or maintenance of a drain previously constructed under any law of the State of Wisconsin, a general description of the drain with such particulars as the petitioners deem important. Upon receipt of a petition for organization of a drainage district, the county court shall refer the petition to the drainage board of the county and order the board to report thereon.

When a petition has been referred to the county drainage board, the board, with the aid of a qualified engineer, shall examine the lands described in the petition and all other lands the board believes will be benefited or damaged

¹A drainage district established and operating under Chapter 89 of the 1961 Statutes may continue to operate under its own three-member drainage board with all the powers and duties with respect to that district which the county drainage board otherwise would have.

by the proposed work, and shall consider whether the drains as proposed in the petition are satisfactory. The board shall hold a hearing on the petition to hear all interested persons who desire to be heard for or against the petition. Within 30 days of that hearing, the drainage board must submit to the court a preliminary report on its findings concerning the petition, including its findings concerning the public health and welfare considerations involved. In determining the potential effect on public health and welfare, the board shall consider the effects on water temperature and surface water and groundwater levels, and whether the land proposed to be drained is needed to such a degree as to warrant the possible harmful effects caused by drainage.²

After receiving the report of the county drainage board, the county court shall hold a hearing on the report. Following this hearing, the court may issue an order organizing the district if the court finds that the petition has sufficient signers; that the subject lands will be improved by the proposed work; that the public health and welfare will be promoted thereby; that the proposed work will not materially injure or impair fish habitat, wildlife habitat, scenic beauty, the conservation of natural resources, or other public rights or interests; and that the cost of construction will not exceed 75 percent of the benefits to be derived from the proposed work. If the last condition is not satisfied, the district may still be created if the petitioners file with the court a bond conditioned for the payment of the excess over 75 percent, or deposit with the court a sum of money sufficient to cover the excess.

²Certain additional steps must be taken if the proposed drainage district exceeds 200 acres or if the navigable waters will be affected. If the area of the proposed district exceeds 200 acres, the county drainage board shall procure and file with the court a report setting forth the location, design, feasibility, and cost of the proposed outlet drains; a general description of the additional drainage necessary to reclaim the land fully for general agricultural purposes, and the probable cost of the same; and a general comparison of the benefits in different parts of the district on the basis of the location and design of the proposed drains, and the physical features of the land to be drained. In addition, a report from the College of Agriculture of the University of Wisconsin shall be included with the aforementioned report. The College of Agriculture report shall include information on the quality and character of soils and subsoils in the proposed district; a soil map of the proposed district; the present agricultural value of the lands; and the kinds of crops to which such lands will be adapted after drainage.

If the board finds that it will be necessary to enter upon any waters that may be navigable, or to acquire and remove any dam or obstruction therefrom, or to clean out, widen, deepen, or straighten any streams that may be navigable, the board shall file with the Wisconsin Department of Natural Resources (DNR) an application for a permit to do such work. Upon receipt of such application, the DNR shall hold a hearing at which all interested parties may appear and be heard. Upon the conclusion of the hearing, the DNR shall grant the permit if it finds that the public health and welfare will be promoted; that the proposed work is necessary to the proper operation of the proposed drainage system; and that the proposed work will not materially impair the navigability of such waters and will not materially impair any other public right in or public uses of such waters. Upon granting a permit, the DNR shall transmit to the secretary of the county drainage board a copy of the permit and all relevant findings, orders, and approved plans.

Upon organization of the drainage district, the county drainage board, with the aid of a qualified engineer, shall lay out drains of sufficient depth to adequately drain the lands proposed to be drained; assess the benefits that will accrue to each parcel of land; award damages to such lands as will be damaged; estimate the cost of construction; assess the cost of construction to the benefited lands in proportion to the benefits received by each; and estimate the annual cost of maintenance and operation of the drainage district. The board shall then submit a final report of this work to the county court.

Upon receipt of the final report of the drainage board, the county court must hold a hearing to hear all objections to the report, particularly objections relating to assessment of benefits against, or awards of damages to, specified lands. After any appropriate modifications based upon the results of the hearing, the court shall confirm the report and direct the county drainage board to proceed with the work.

Appendix D

LAND USE DEVELOPMENT OBJECTIVES, PRINCIPLES, AND STANDARDS

OBJECTIVE NO. 1

A balanced allocation of space to the various land use categories which meets the social, physical, and economic needs of the county population.

PRINCIPLE

The planned supply of land set aside for any given use should approximate the known and anticipated demand for that use.

STANDARDS

1. For each additional 100 dwelling units to be accommodated within the County at each residential density, the following minimum amounts of residential land should be set aside:

No.	Residential Density Category	Net Area ^a (acres per 100 dwelling units)	Gross Area ^b (acres per 100 dwelling units)
1a	High Density Urban ^c	8	13
1b	Medium Density Urban ^c	23	32
1c	Low Density Urban ^c	83	109
1d	Suburban ^d	167	204
1e	Rural ^e	500	588

NOTE: In order to convert dwelling units to resident population, a factor of 3.0 persons per dwelling unit should be used.

2. For each additional 1,000 persons to be accommodated within the County, the following minimum amounts of public park and recreation land should be set aside:

No.	Public Park and Recreation Land Category ^e	Net Area ^a (acres per 1,000 persons)	Gross Area ^f (acres per 1,000 persons)
2a	Major.....	4	5
2b	Other.....	8	9

3. For each additional 100 industrial employees to be accommodated within the County, the following minimum amounts of industrial land should be set aside:

No.	Industrial Land Category	Net Area ^a (acres per 100 employees)	Gross Area ^f (acres per 100 employees)
3a	Major and Other.....	7	9

4. For each additional 100 commercial employees to be accommodated within the County, the following minimum amounts of commercial land should be set aside:

No.	Commercial Land Category	Net Area ^a (acres per 100 employees)	Gross Area ^g (acres per 100 employees)
4a	Major.....	1	3
4b	Other.....	2	6

5. For each additional 1,000 persons to be accommodated within the County, the following minimum amounts of governmental and institutional land should be set aside:

No.	Governmental and Institutional Land Category	Net Area ^a (acres per 1,000 persons)	Gross Area ^h (acres per 1,000 persons)
5a	Major and Other.....	9	12

OBJECTIVE NO. 2

A spatial distribution of the various land uses which will result in a compatible arrangement of land uses.

PRINCIPLE

The proper allocation of uses to land can avoid or minimize hazards and dangers to health, safety, and welfare and maximize amenity and convenience in terms of accessibility to supporting land uses.

STANDARDS

1. Urban high-, medium-, and low-density residential uses should be located within planning units which are served with centralized public sanitary sewerage and water supply facilities and contain, within a reasonable walking distance, necessary supporting local service uses, such as neighborhood park, local commercial, and elementary school facilities, and should have reasonable access through the appropriate component of the transportation system to employment, commercial, cultural, and governmental centers; and secondary school and higher educational facilities.
2. Rural and suburban density residential uses should have reasonable access through the appropriate component of the transportation system to local service uses; employment, commercial, cultural, and governmental centers; and secondary school and higher educational facilities.
3. Industrial uses should be located to have direct access to arterial street and highway facilities and reasonable access through an appropriate component of the transportation system to residential areas and to railway, seaport, and airport facilities; and should not be intermixed with commercial, residential, governmental, recreational, or institutional land uses.
4. Regional commercial uses should be located in centers of concentrated activity on only one side of an arterial street and should be afforded direct access to the arterial street system.

OBJECTIVE NO. 3

A spatial distribution of the various land uses which will result in the protection and wise use of the natural resources of the County, including its soils, inland lakes and streams, wetlands, woodlands, and wildlife.

PRINCIPLE

The proper allocation of uses to land can assist in maintaining an ecological balance between the activities of man and the natural environment which supports him.

1. Soils

The proper relation of urban and rural land use development to soil types and distributions can serve to avoid many environmental problems, aid in the establishment of better regional settlement patterns, and promote the wise use of an irreplaceable resource.

STANDARDS

- 1a. Sewered urban development, particularly for residential use, should not be located in areas covered by soils identified in the regional detailed operational soil survey as having severe or very severe limitations for such development.
 - 1b. Unsewered suburban residential development should not be located in areas covered by soils identified in the regional detailed operational soil survey as having severe or very severe limitations for such development.
 - 1c. Rural development, including agricultural and rural residential development, should not be located in areas covered by soils identified in the regional detailed operational soil survey as having severe or very severe limitations for such uses.
- #### 2. Inland Lakes and Streams

PRINCIPLE

Inland lakes and streams contribute to the atmospheric water supply through evaporation; provide a suitable environment for desirable and sometimes unique plant and animal life; provide the population with opportunities for certain scientific, cultural, and educational pursuits; constitute prime recreational areas; provide a desirable aesthetic setting for certain types of land use development; serve to store and convey flood waters; and provide certain water withdrawal requirements.

STANDARDS

- 2a(1). A minimum of 25 percent of the perimeter or shoreline frontage of lakes having a surface area in excess of 50 acres should be maintained in a natural state.
- 2a(2). Not more than 50 percent of the length of the shoreline of inland lakes having a surface area in excess of 50 acres should be allocated to urban development, except for park and outdoor recreational uses.

2a(3). A minimum of 10 percent of the shoreline of each inland lake having a surface area in excess of 50 acres should be maintained for public uses, such as a beach area, pleasure craft marina, or park.

2b(1). It is desirable that 25 percent of the shoreline of each inland lake having a surface area less than 50 acres be maintained in either a natural state or some low-intensity public use, such as park land.

2c(1) A minimum of 25 percent of both banks of all perennial streams should be maintained in a natural state.

2c(2) Not more than 50 percent of the length of perennial streams should be allocated to urban development, except for park and outdoor recreational uses.

2d. Floodlands^j should not be allocated to any urban development^k which would cause or be subject to flood damage.

2e. No unauthorized structure or fill should be allowed to encroach upon and obstruct the flow of water in the perennial stream channels^l and floodways.^m

3. Wetlands

PRINCIPLE

Wetlands support a wide variety of desirable and sometimes unique plant and animal life; assist in the stabilization of lake levels and streamflows; trap and store plant nutrients in runoff, thus reducing the rate of enrichment of surface waters and obnoxious weed and algae growth; contribute to the atmospheric oxygen supply; contribute to the atmospheric water supply; reduce storm water runoff by providing area for floodwater impoundment and storage; trap soil particles suspended in runoff and thus reduce stream sedimentation; and provide the population with opportunities for certain scientific, educational, and recreational pursuits.

STANDARD

3a. All wetland areasⁿ adjacent to streams or lakes, all wetlands within areas having special wildlife and other natural values, and all wetlands having an area in excess of 50 acres should not be allocated to any urban development except limited recreation and should not be drained or filled. Adjacent surrounding areas should be kept in open-space use, such as agriculture or limited recreation.

4. Woodlands^o

PRINCIPLE

Woodlands assist in maintaining unique natural relationships between plants and animals; reduce storm water runoff; contribute to the atmospheric oxygen supply; contribute to the atmospheric water supply through transpiration; aid in reducing soil erosion and stream sedimentation; provide the resource base for the forest product industries; provide the population with opportunities for certain scientific, educational, and recreational pursuits; and provide a desirable aesthetic setting for certain types of land use development.

STANDARDS

4a. A minimum of 10 percent of the land area of each watershed^p within the County should be devoted to woodlands.

4b. For demonstration and educational purposes, the woodland cover within the County should include a minimum of 40 acres devoted to each major forest type: oak-hickory, northern hardwood, pine, and lowland forest. In addition, remaining examples of the native forest vegetation types representative of the pre-settlement vegetation should be maintained in a natural condition and be made available for research and educational use.

4c. A minimum aggregate of five acres of woodland per 1,000 population should be maintained for recreational pursuits.

5. Wildlife^q

PRINCIPLE

Wildlife, when provided with a suitable habitat, supplies the population with opportunities for certain scientific, educational, and recreational pursuits; constitutes an integral component of the life systems which are vital to beneficial natural processes, including the control of harmful insects and other noxious pests and the promotion of plant pollination; provides a food source; offers an economic resource for the recreation industries; and serves as an indicator of environmental health.

STANDARD

5a. The most suitable habitat for wildlife--that is, the area wherein fish and game can best be fed, sheltered, and reproduced--is a natural habitat. Since the natural habitat for fish and game can best be achieved by preserving or maintaining in a wholesome state other resources such as soil, air, water, wetlands, and woodlands, the standards for each of these other resources, if met, would ensure the preservation of a suitable wildlife habitat and population.

OBJECTIVE NO. 4

A spatial distribution of the various land uses which is properly related to the supporting transportation, utility, and public facility systems in order to assure the economical provision of transportation, utility, and public facility services.

PRINCIPLE

The transportation and public utility facilities and the land use pattern which these facilities serve and support are mutually interdependent in that the land use pattern determines the demand for, and loadings upon, transportation and utility facilities; and these facilities, in turn, are essential to, and form a basic framework for, land use development.

STANDARDS

1. Urban development should be located so as to maximize the use of existing transportation and utility systems.
2. The transportation system should be located and designed to provide access not only to all land presently devoted to urban development but to land proposed to be used for such urban development.
3. All land developed or proposed to be developed for urban medium-, high-, and low-density residential use should be located in areas serviceable by an existing or proposed public sanitary sewerage system and preferably within the gravity drainage area tributary to such systems.
4. All land developed or proposed to be developed for urban medium-, high-, and low-density residential use should be located in areas serviceable by an existing or proposed public water supply system.
5. All land developed or proposed to be developed for urban medium- or high-density residential use should be located in areas serviceable by existing or proposed primary, secondary, and tertiary mass transit facilities.
6. The transportation system should be located and designed to minimize the penetration of existing and proposed residential neighborhood units by through traffic.
7. Transportation terminal facilities, such as off-street parking, off-street truck loading, and mass transit loading facilities, should be located in proximity to the principal land uses to which they are accessory.

OBJECTIVE NO. 5

The development and conservation of residential areas within a physical environment that is healthy, safe, convenient, and attractive.

PRINCIPLE

Residential areas developed in designed neighborhood units can assist in stabilizing community property values, preserving residential amenities, and promoting efficiency in the provision of public and community service facilities; can best provide a desirable environment for family life; and can supply the population with improved levels of safety and convenience.

STANDARDS

1. Urban high-, medium-, and low-density residential development should be located in neighborhood units which are physically self-contained within clearly defined and relatively permanent isolating boundaries, such as arterial streets and highways, major parks and open space reservations, or significant natural features, such as rivers, streams, or hills.
2. Urban residential neighborhood units should contain enough area to provide: housing for the population served by one elementary school and one neighborhood park; an internal street system which discourages penetration of the unit by through traffic; and all of the community and commercial facilities necessary to meet the day-to-day living requirements of the family within the immediate vicinity of its dwelling unit.
3. Suburban and rural density residential development should be located in areas where onsite soil absorption sewage disposal systems and private wells can be accommodated and access to other services and facilities can be provided through appropriate components of the transportation system at the community or regional level, thereby properly relating such development to a rural environment.

To meet the foregoing standards, land should be allocated in each urban and rural development category as follows:

Land Use Category	Percent of Area in Land Development Category					
	Urban High-Density (7.0-17.9 dwelling units per net residential acre)	Urban Medium-Density (2.3-6.9 dwelling units per net residential acre)	Urban Low-Density (0.7-2.2 dwelling units per net residential acre)	Suburban Density (0.2-0.6 dwelling unit per net residential acre)	Rural Density (0.1-0.2 dwelling unit per net residential acre)	Agricultural (0.2 dwelling unit per net residential acre)
Residential.....	66.0	71.0	76.5	82.0	85.0	6.0
Streets and Utilities.....	25.0	23.0	20.0	18.0	15.0	4.0
Parks and Playgrounds.....	3.5	2.5	1.5	--	--	--
Public Elementary Schools.....	2.5	1.5	0.5	--	--	--
Other Governmental and Institutional..	1.5	1.0	1.0	--	--	--
Retail and Service.....	1.5	1.0	0.5	--	--	--
Nonurban.....	--	--	--	--	--	90.0
Total	100.0	100.0	100.0	100.0	100.0	100.0

OBJECTIVE NO. 6

The preservation, development, and redevelopment of a variety of suitable industrial and commercial sites both in terms of physical characteristics and location.

PRINCIPLE

The production and sale of goods and services are among the principal determinants of the level of economic vitality in any society, and the important activities related to these functions require areas and locations suitable to their purpose.

STANDARDS

1. Regional industrial development should be located in planned industrial districts which meet the following standards:
 - a. Minimum gross site area of 320 acres or a minimum employment of 3,500 persons.
 - b. Direct access to the arterial street and highway system and access within two miles to the freeway system.
 - c. Direct access to railroad facilities.
 - d. Direct access to primary, secondary, and tertiary transit service.
 - e. Access to a basic transport airport within a maximum travel time of 30 minutes and access to seaport facilities within a maximum travel time of 60 minutes.
 - f. Available adequate water supply.
 - g. Available adequate public sanitary sewer service.
 - h. Available adequate storm water drainage facilities.
 - i. Available adequate power supply.
 - j. Site should be covered by soils identified in the regional soils survey as having very slight, slight, or moderate limitations for industrial development.
 2. Regional commercial development, which would include activities primarily associated with the sale of shoppers' goods, should be concentrated in regional commercial centers which meet the following minimum standards:
 - a. Accessibility to a population of between 75,000 and 150,000 persons located within either a 20-minute one-way travel period or a 10-mile radius.
 - b. A minimum gross site area of 60 acres.
 - c. At least two general sales and service department stores offering a full range of commodities and price levels.
 - d. Direct access to the arterial street system.
 - e. Direct access to primary, secondary, and tertiary mass transit service.
 - f. Available adequate water supply.
 - g. Available adequate sanitary sewer service.
 - h. Available adequate storm water drainage facilities.
 - i. Available adequate power supply.
 - j. The site should be covered by soils identified in the regional soils survey as having a very slight, slight, or moderate limitations for commercial development.
- In addition to the above minimum standards, the following site development standards are desirable:
- k. Provision of off-street parking for at least 5,000 cars.
 - l. Provision of adequate off-street loading facilities.
 - m. Provision of well-located points of ingress and egress which are controlled to prevent traffic congestion on adjacent arterial streets.
 - n. Provision of adequate screening to serve as a buffer between the commercial use and adjacent noncommercial uses.
 - o. Provision of adequate building setbacks from major streets.
3. Local industrial development should be located in planned industrial districts which meet the following standards:
 - a. Direct access to the arterial street and highway system.
 - b. Direct access to mass transit facilities.

- c. Available adequate water supply.
 - d. Available adequate public sanitary sewer service.
 - e. Available adequate storm water drainage facilities.
 - f. Available adequate power supply.
 - g. Site should be covered by soils identified in the regional soils survey as having very slight, slight, or moderate limitations for industrial development.
4. Local commercial development, which includes activities primarily associated with the sale of convenience goods and services, should be contained within the residential planning units, the total area devoted to the commercial use varying with the residential density:
- a. In urban low-density areas, land devoted to local commercial centers should comprise at least 0.5 percent of the total gross neighborhood area, or about 3.2 acres per square mile of gross neighborhood area.
 - b. In urban medium-density areas, land devoted to local commercial centers should comprise at least 1.0 percent of the total gross neighborhood area, or about 6.4 acres per square mile of gross neighborhood area.
 - c. In urban high-density areas, land devoted to local commercial centers should comprise at least 1.5 percent of the total gross neighborhood area, or about 9.6 acres per square mile of gross neighborhood area.

^aNet land use area is defined as the actual site area devoted to a given use, and consists of the ground floor site area occupied by any buildings plus the required yards and open spaces.

^bGross residential land use area is defined as the net area devoted to this use plus the area devoted to all supporting land uses, including streets, neighborhood parks and playgrounds, elementary schools, and neighborhood institutional and commercial uses, but not including freeways and expressways and other community and areawide uses.

^cAreas served, proposed to be served, or required to be served by public sanitary sewerage and water supply facilities require neighborhood facilities.

^dAreas not served, not proposed to be served, nor required to be served by public sanitary sewerage and water supply facilities do not require neighborhood facilities.

^eThese categories do not include large open-space areas not developed for active recreation use or school playgrounds.

^fGross public park and recreation area is defined as the net area devoted to active or intensive recreation use plus the adjacent "backup" lands and lands devoted to other supporting land uses such as roads and parking areas.

^gGross commercial and industrial area is defined as the net area devoted to these uses plus the area devoted to supporting land uses, including streets and off-street parking.

^hGross governmental and institutional area is defined as the net area devoted to governmental and institutional use plus the area devoted to supporting land uses, including streets and onsite parking.

ⁱDirect access implies adjacency or immediate proximity.

^jFloodlands are herein defined as those lands inundated by a flood having a recurrence interval of 100 years where hydrologic and hydraulic engineering data are available, and as those lands inundated by the maximum flood of record where such data are not available.

^kUrban development, as used herein, refers to all land uses except agriculture, water, woodlands, wetlands, open lands, and quarries.

^lA stream channel is herein defined as that area of the floodplain lying either within legally established bulkhead lines or within sharp and pronounced banks marked by an identifiable change in flora and normally occupied by the stream under average annual high-flow conditions.

^mFloodway lands are herein defined as those designated portions of the floodlands that will safely convey the 100-year recurrence interval flood discharge with small, acceptable upstream and downstream stage increases.

ⁿWetland areas, as used herein, are defined as those lands which are partially covered by marshland flora and generally covered with shallow standing water, open lands intermittently covered with water, or lands which are wet and spongy due to a high water table or character of the soil and encompassing an area of one acre or more.

^oThe term woodlands, as used herein, is defined as a dense, concentrated stand of trees and underbrush encompassing an area of one acre or more.

^pA watershed, as used herein, is defined as a portion of the surface of the earth occupied by a surface drainage system discharging all surface water runoff to a common outlet and as an area 25 miles or larger in size.

^qIncludes all fish and game.

Appendix E

FARMLAND PRESERVATION PLAN
LAND USE AND POPULATION DATA
FOR PLANNING AREAS IN KENOSHA COUNTY

Table E-1

RECOMMENDED FARMLAND PRESERVATION PLAN--BRIGHTON^a

Land Use

Category	Acres	
	1975	2000
Farmland Preservation Area.....	12,453	12,453
Natural Resource Preservation Area		
Primary Environmental Corridor.....	5,377	5,377
Secondary Environmental Corridor.....	919	919
Isolated Natural Area.....	480	480
Subtotal	6,776	6,776
Other Open Land.....	3,277	3,277
Urban Development Area.....	488	488
Total Area	22,994	22,994

Public Sanitary Sewage Treatment Facilities

Operator	Average Hydraulic Design Capacity (million gallons per day)	
	1975	2000
None	--	--

Population

Minor Civil Division	1980	2000
Town of Brighton	1,083 ^b	1,317

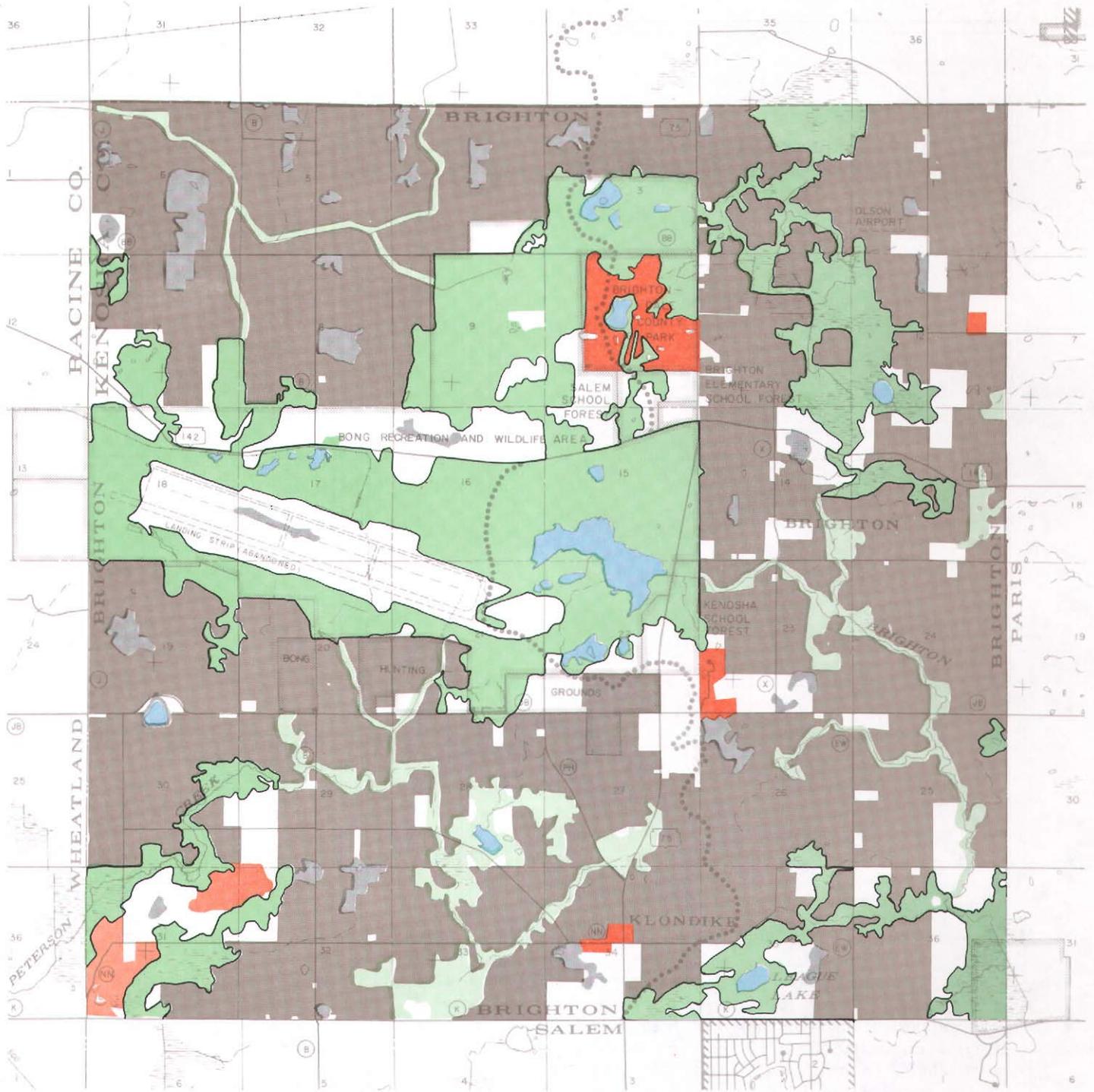
^aIncludes Town 2 North, Range 20 East. This area encompasses the Town of Brighton.

^bPreliminary 1980 census count.

Source: SEWRPC.

Map E-1

RECOMMENDED FARMLAND PRESERVATION PLAN--BRIGHTON



LEGEND

EXISTING URBAN, EXTRACTIVE, AND INTENSIVE RECREATION LANDS

NONE ADDITIONAL URBAN LAND

PRIMARY ENVIRONMENTAL CORRIDOR

SECONDARY ENVIRONMENTAL CORRIDOR

ISOLATED NATURAL AREA

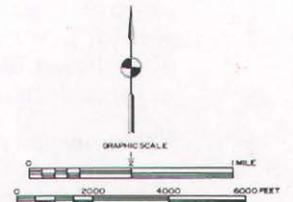
FARMLAND PRESERVATION AREA

NONE TRANSITION FARM AREA

OTHER LAND

WATER

NONE URBAN SERVICE AREA BOUNDARY



Source: SEWRPC.

Table E-2

RECOMMENDED FARMLAND PRESERVATION PLAN--BRISTOL^a

Land Use

Category	Acres	
	1975	2000
Farmland Preservation Area.....	12,675 ^b	12,619
Natural Resource Preservation Area		
Primary Environmental Corridor.....	2,729	2,729
Secondary Environmental Corridor.....	907	907
Isolated Natural Area.....	875	875
Subtotal	4,511	4,511
Other Open Land.....	4,844	4,456
Urban Development Area.....	1,140	1,584
Total Area	23,170	23,170

Public Sanitary Sewage Treatment Facilities

Operator	Average Hydraulic Design Capacity (million gallons per day)	
	1975	2000
Town of Bristol Sewer Utility District No. 1 ^c	0.16	0.32

Population

Minor Civil Division	1980	2000
Town of Bristol.....	3,592 ^d	4,815

^aIncludes Town 1 North, Range 21 East. This area encompasses the Town of Bristol.

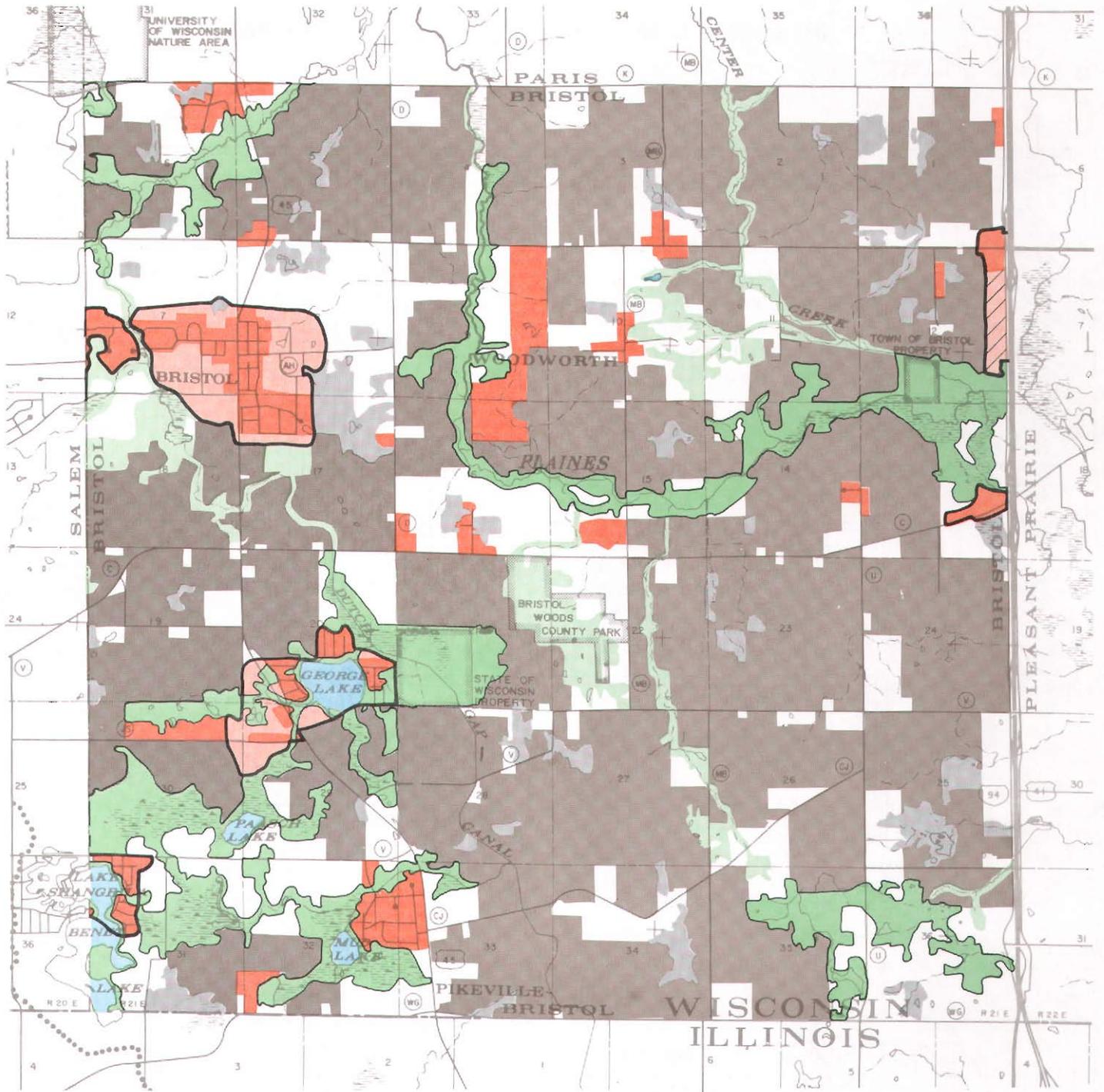
^bIncludes 56 acres of transition land.

^cThe existing Town of Bristol Sewer Utility District No. 1 public sewage treatment plant, with an average hydraulic design capacity of 0.16 million gallons per day (mgd), currently serves the existing urban development in the unincorporated village of Bristol and surrounding George Lake. The regional water quality management plan recommends that the facility be expanded to an average hydraulic design capacity of 0.32 mgd to accommodate urban growth anticipated by the plan year 2000. In addition, under the regional water quality management plan, sanitary sewer service would be extended to other portions of the Town of Bristol from utility districts in adjacent towns. The Town of Salem Sewer Utility District No. 1 would provide service to a small area of existing development in Section 7. The proposed sewage treatment plant to be operated by the Town of Salem Sanitary District No. 2 would provide service to existing development around Lake Shangrila in Section 31. The Town of Pleasant Prairie Sewer Utility District D would serve primarily highway-oriented commercial land use development along the west side of IH 94 in Section 12.

^dPreliminary 1980 census count.

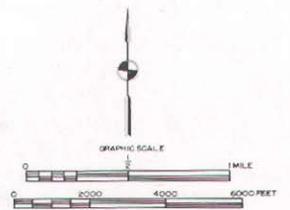
Source: SEWRPC.

RECOMMENDED FARMLAND PRESERVATION PLAN--BRISTOL



LEGEND

- | | | | |
|--|--|---|-----------------------------|
|  | EXISTING URBAN, EXTRACTIVE, AND INTENSIVE RECREATION LANDS |  | FARMLAND PRESERVATION AREA |
|  | ADDITIONAL URBAN LAND |  | TRANSITION FARM AREA |
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | OTHER LAND |
|  | SECONDARY ENVIRONMENTAL CORRIDOR |  | WATER |
|  | ISOLATED NATURAL AREA |  | URBAN SERVICE AREA BOUNDARY |



Source: SEWRPC.

Table E-3
RECOMMENDED FARMLAND PRESERVATION PLAN--PARIS^a

Land Use

Category	Acres	
	1975	2000
Farmland Preservation Area.....	18,432	18,432
Natural Resource Preservation Area		
Primary Environmental Corridor.....	663	663
Secondary Environmental Corridor.....	1,216	1,216
Isolated Natural Area.....	569	569
Subtotal	2,448	2,448
Other Open Land.....	1,930	1,930
Urban Development Area.....	214	214
Total Area	23,024	23,024

Public Sanitary Sewage Treatment Facilities

Operator	Average Hydraulic Design Capacity (million gallons per day)	
	1975	2000
None	--	--

Population

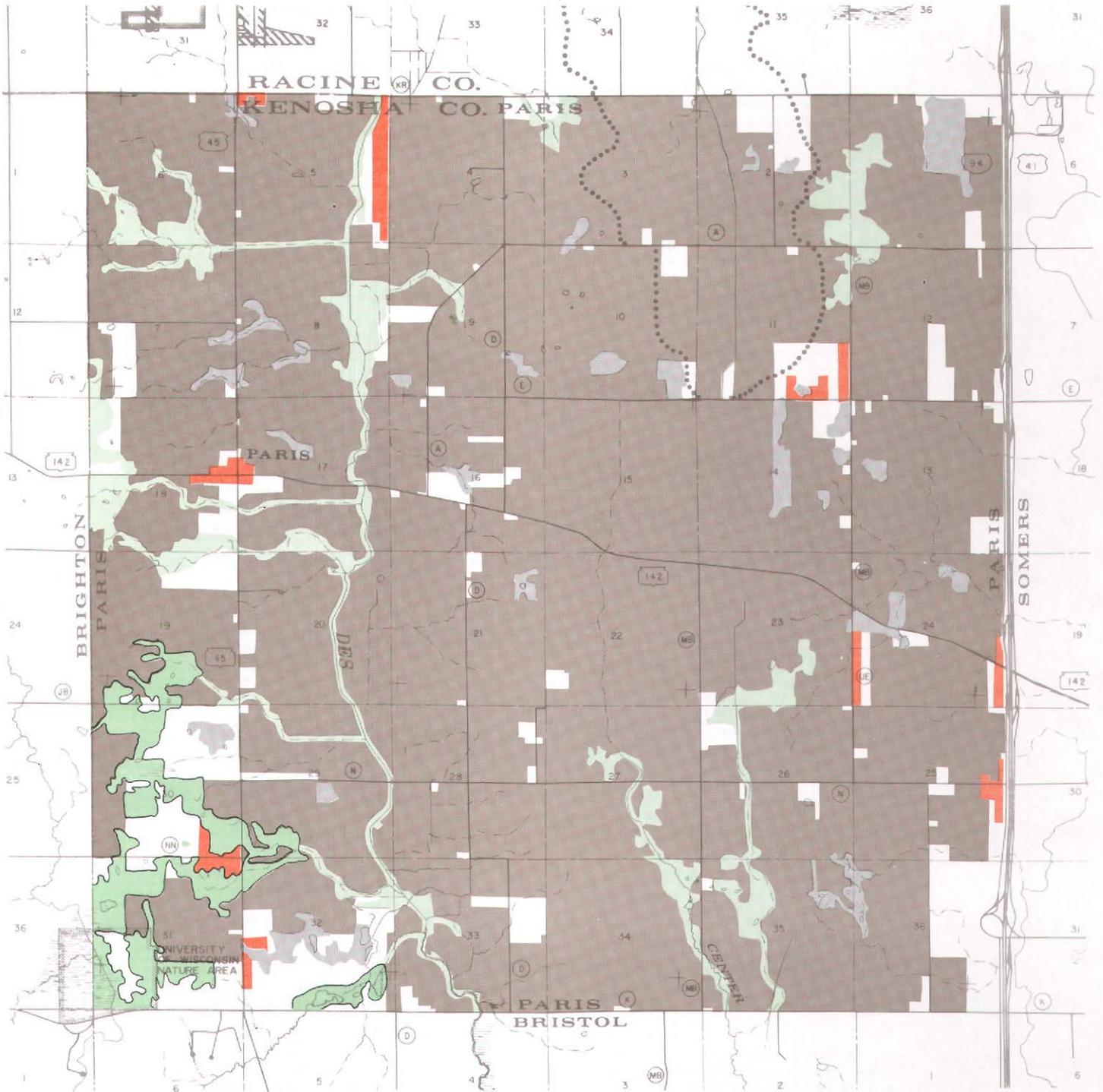
Minor Civil Division	1980	2000
Town of Paris	1,764 ^b	1,885

^aIncludes Town 2 North, Range 21 East. This area encompasses the Town of Paris.

^bPreliminary 1980 census count.

Source: SEWRPC.

RECOMMENDED FARMLAND PRESERVATION PLAN--PARIS



LEGEND

- | | | | |
|--|--|---|----------------------------------|
|  | EXISTING URBAN, EXTRACTIVE, AND INTENSIVE RECREATION LANDS |  | FARMLAND PRESERVATION AREA |
|  | NONE ADDITIONAL URBAN LAND |  | NONE TRANSITION FARM AREA |
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | OTHER LAND |
|  | SECONDARY ENVIRONMENTAL CORRIDOR |  | NONE WATER |
|  | ISOLATED NATURAL AREA |  | NONE URBAN SERVICE AREA BOUNDARY |

Source: SEWRPC.

Table E-4

RECOMMENDED FARMLAND PRESERVATION PLAN--PLEASANT PRAIRIE ^a

Land Use		
Category	Acres	
	1975	2000
Farmland Preservation Area.....	7,511 ^b	4,028
Natural Resource Preservation Area		
Primary Environmental Corridor.....	4,118	4,118
Secondary Environmental Corridor.....	1,193	1,193
Isolated Natural Area.....	523	523
Subtotal	5,834	5,834
Other Open Land.....	6,922	3,106
Urban Development Area.....	7,736	15,035
Total Area	28,003	28,003

Public Sanitary Sewage Treatment Facilities

Operator	Average Hydraulic Design Capacity (million gallons per day)	
	1975	2000
City of Kenosha ^c	18.00	28.00
Town of Pleasant Prairie		
Sanitary District 73-1 ^d	0.40	0.40
Town of Pleasant Prairie		
Sewer Utility District D ^e	0.13	0.85
Pleasant Park Sewer Utility ^f	0.06	--

Population

Minor Civil Division	1980	2000
Town of Pleasant Prairie.....	12,732 ^g	N/A
City of Kenosha (part--i.e., the portion of the City located in Town 1 North, Range 22 East and Town 1 North, Range 23 East)	40,851 ^h	N/A
Total Area	53,583	74,043

NOTE: N/A indicates data not available.

^aIncludes Town 1 North, Range 22 East and Town 1 North, Range 23 East. This area encompasses the Town of Pleasant Prairie and the portion of the City of Kenosha located in Town 1 North, Range 22 East, and Town 1 North, Range 23 East.

^bIncludes 3,483 acres of transition land.

^cUnder the regional water quality management plan, the City of Kenosha sewage treatment plant, which would be expanded from an average hydraulic design capacity of 18 million gallons per day (mgd) to a design capacity of 28 mgd, would serve the City of Kenosha and the urban service area around the City.

^dThe sewage treatment plant serving the south-central portion of the Town of Pleasant Prairie and operated by the Town of Pleasant Prairie Sanitary District 73-1 should have sufficient capacity to serve growth anticipated through the plan design year.

^eUnder the regional water quality management plan, the treatment facility operated by the Town of Pleasant Prairie Sewer Utility District D serving the northwestern portion of the Town of Pleasant Prairie would be expanded from its existing capacity of 0.13 million gallons per day (mgd) to a year 2000 design capacity of 0.85 mgd.

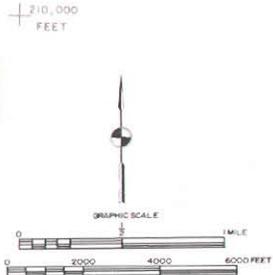
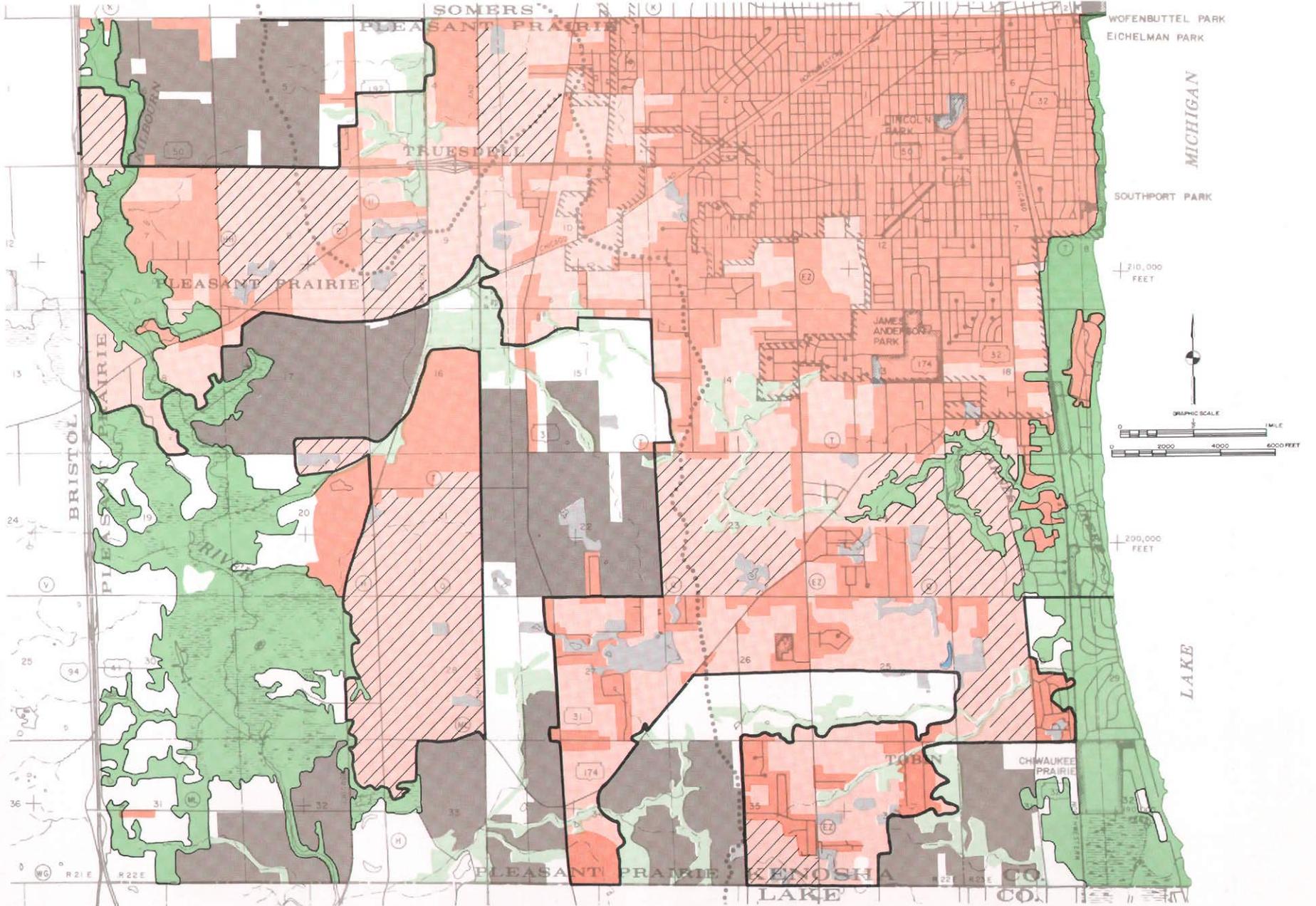
^fUnder the regional water quality management plan, the Pleasant Park Sewer Utility sewage treatment plant, which serves a small area in the southeastern portion of the Town of Pleasant Prairie, would be abandoned and the sewer service area would be incorporated into the City of Kenosha sewer service area by the year 2000.

^gPreliminary 1980 census count.

^hEstimate based on preliminary 1980 census count.

Source: SEWRPC.

RECOMMENDED FARMLAND PRESERVATION PLAN--PLEASANT PRAIRIE



LEGEND

- | | | | | | |
|---|--|---|----------------------------|---|-----------------------------|
|  | EXISTING URBAN, EXTRACTIVE, AND INTENSIVE RECREATION LANDS |  | FARMLAND PRESERVATION AREA |  | WATER |
|  | ADDITIONAL URBAN LAND |  | TRANSITION FARM AREA |  | URBAN SERVICE AREA BOUNDARY |
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | OTHER LAND | | |
|  | SECONDARY ENVIRONMENTAL CORRIDOR | | | | |
|  | ISOLATED NATURAL AREA | | | | |

RECOMMENDED FARMLAND PRESERVATION PLAN--RANDALL ^a

Land Use

Category	Acres	
	1975	2000
Farmland Preservation Area.....	5,026 ^b	4,804
Natural Resource Preservation Area		
Primary Environmental Corridor.....	4,183	4,183
Secondary Environmental Corridor	293	293
Isolated Natural Area.....	409	409
Subtotal	4,885	4,885
Other Open Land.....	3,557	2,835
Urban Development Area.....	1,939	2,883
Total Area	15,407	15,407

Public Sanitary Sewage Treatment Facilities

Operator	Average Hydraulic Design Capacity (million gallons per day)	
	1975	2000
Village of Twin Lakes ^c	0.82	1.00

Population

Minor Civil Division	1980 ^d	2000
Town of Randall.....	2,154	N/A
Village of Twin Lakes	3,478	N/A
Total Area	5,632	6,660

NOTE: N/A indicates data not available.

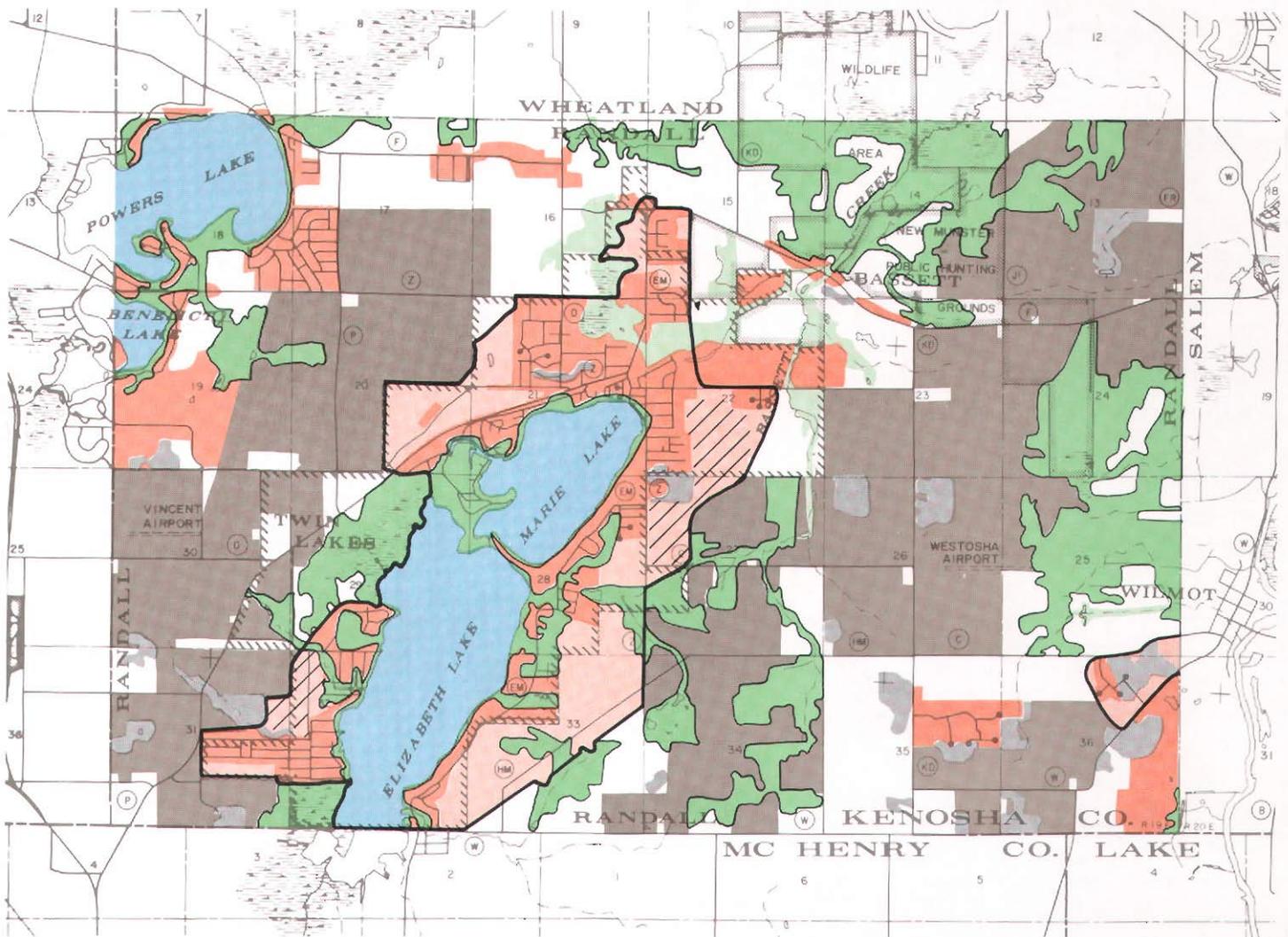
^aIncludes Town 1 North, Range 19 East--Sections 13-36. This area encompasses the Town of Randall and the Village of Twin Lakes.

^bIncludes 222 acres of transition land.

^cThe regional water quality management plan recommends that the sewage treatment plant serving the Village of Twin Lakes be expanded from its current design capacity of 0.82 million gallons per day (mgd) to a year 2000 design capacity of 1.00 mgd to serve the urban growth anticipated in the Twin Lakes sewer service area by the plan design year. In addition, under the regional water quality management plan, sanitary sewer service would be extended to existing development in Section 36 from the proposed sewage treatment plant to be operated by the Town of Salem Sanitary District No. 2.

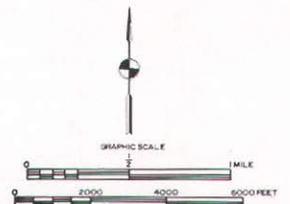
Preliminary 1980 census counts.
Source: SEWRPC.

RECOMMENDED FARMLAND PRESERVATION PLAN--RANDALL



LEGEND

- | | | | |
|--|--|---|-----------------------------|
|  | EXISTING URBAN, EXTRACTIVE, AND INTENSIVE RECREATION LANDS |  | FARMLAND PRESERVATION AREA |
|  | ADDITIONAL URBAN LAND |  | TRANSITION FARM AREA |
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | OTHER LAND |
|  | SECONDARY ENVIRONMENTAL CORRIDOR |  | WATER |
|  | ISOLATED NATURAL AREA |  | URBAN SERVICE AREA BOUNDARY |



Source: SEWRPC.

Table E-6

RECOMMENDED FARMLAND PRESERVATION PLAN--SALEM ^a

Land Use

Category	Acres	
	1975	2000
Farmland Preservation Area.....	6,821 ^b	6,528
Natural Resource Preservation Area		
Primary Environmental Corridor.....	7,240	7,240
Secondary Environmental Corridor.....	373	373
Isolated Natural Area.....	529	529
Subtotal	8,142	8,142
Other Open Land.....	5,512	4,488
Urban Development Area.....	2,698	4,015
Total Area	23,173	23,173

Public Sanitary Sewage Treatment Facilities

Operator	Average Hydraulic Design Capacity (million gallons per day)	
	1975	2000
Village of Paddock Lake ^c	0.32	0.46
Village of Silver Lake ^d	0.30	0.30
Town of Salem Sewer Utility		
District No. 1 ^e	0.30	0.30
Town of Salem Sanitary		
District No. 2 ^f	--	1.61

Population

Minor Civil Division	1980 ^g	2000
Town of Salem.....	6,309	N/A
Village of Paddock Lake.....	2,233	N/A
Village of Silver Lake.....	1,602	N/A
Total Area	10,144	14,718

NOTE: N/A indicates data not available.

^aIncludes Town 1 North, Range 20 East. This area encompasses the Town of Salem and the Villages of Paddock Lake and Silver Lake.

^bIncludes 293 acres of transition land.

^cThe regional water quality management plan recommends the expansion of the Paddock Lake sewage treatment plant to an average hydraulic capacity of 0.46 millions gallon per day (mgd) to serve the urban growth anticipated in the Paddock Lake area by the plan design year 2000.

^dThe sewage treatment plant serving the Village of Silver Lake Lake has an average hydraulic design capacity of 0.30 million gallons per day (mgd). This capacity should be sufficient to serve anticipated growth for the design life of the facility.

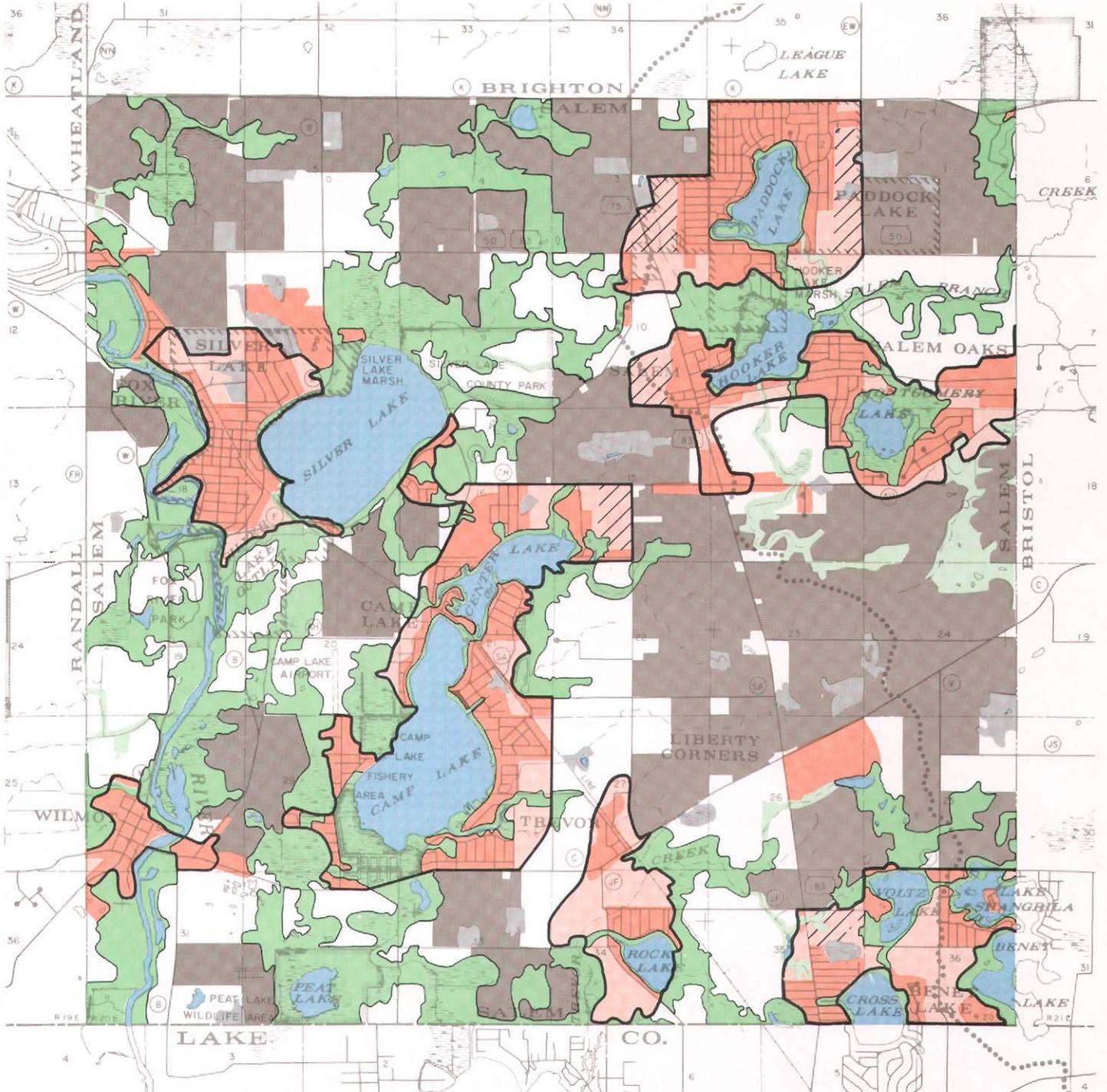
^eThe existing sewage treatment plant operated by the Town of Salem Sewer Utility District No. 1 and serving the area around Hooker and Montgomery Lakes should be sufficient, in terms of hydraulic capacity, to serve the needs of the district through the year 2000.

^fA new public sewage treatment plant to be operated by the Town of Salem Sanitary District No. 2 is in the final phases of facility planning. This new facility will primarily serve existing urban development along the shorelines of Silver, Bennet, Camp, Center, Cross, and Rock Lakes and Lake Shangrila and in the unincorporated villages of Wilmot and Trever.

^gPreliminary 1980 census counts.

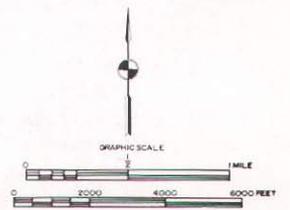
Source: SEWRPC.

RECOMMENDED FARMLAND PRESERVATION PLAN--SALEM



LEGEND

- | | | | |
|--|--|---|-----------------------------|
|  | EXISTING URBAN, EXTRACTIVE, AND INTENSIVE RECREATION LANDS |  | FARMLAND PRESERVATION AREA |
|  | ADDITIONAL URBAN LAND |  | TRANSITION FARM AREA |
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | OTHER LAND |
|  | SECONDARY ENVIRONMENTAL CORRIDOR |  | WATER |
|  | ISOLATED NATURAL AREA |  | URBAN SERVICE AREA BOUNDARY |



Source: SEWRPC.

Table E-7

RECOMMENDED FARMLAND PRESERVATION PLAN--SOMERS^a

Land Use

Category	Acres	
	1975	2000
Farmland Preservation Area.....	10,738 ^b	8,412
Natural Resource Preservation Area		
Primary Environmental Corridor.....	1,580	1,580
Secondary Environmental Corridor.....	269	269
Isolated Natural Area.....	359	359
Subtotal	2,208	2,208
Other Open Land.....	7,453	2,709
Urban Development Area.....	6,632	13,702
Total Area	27,031	27,031

Public Sanitary Sewage Treatment Facilities

Operator	Average Hydraulic Design Capacity (million gallons per day)	
	1975	2000
City of Kenosha ^c	18.0	28.0
Town of Somers Utility District No. 1 ^d	0.03	--

Population

Minor Civil Division	1980	2000
Town of Somers.....	7,723 ^e	N/A
City of Kenosha (part--i.e., the portion of the City of Kenosha located in Town 2 North, Range 22 East and Town 2 North, Range 23 East).....	36,960 ^f	N/A
Total Area	44,683	68,450

NOTE: N/A indicates data not available.

^aIncludes Town 2 North, Range 22 East and Town 2 North, Range 23 East. This area encompasses the Town of Somers and the portion of the City of Kenosha located in Town 2 North, Range 22 East and Town 2 North, Range 23 East.

^bIncludes 2,326 acres of transition land..

^cUnder the regional water quality management plan, the entire urban service area shown on the farmland preservation plan map would be served by the City of Kenosha sewage treatment plant by the plan design year 2000. The capacity of this plant in terms of average hydraulic capacity would be expanded from 18 million gallons per day (mgd) to 28 mgd.

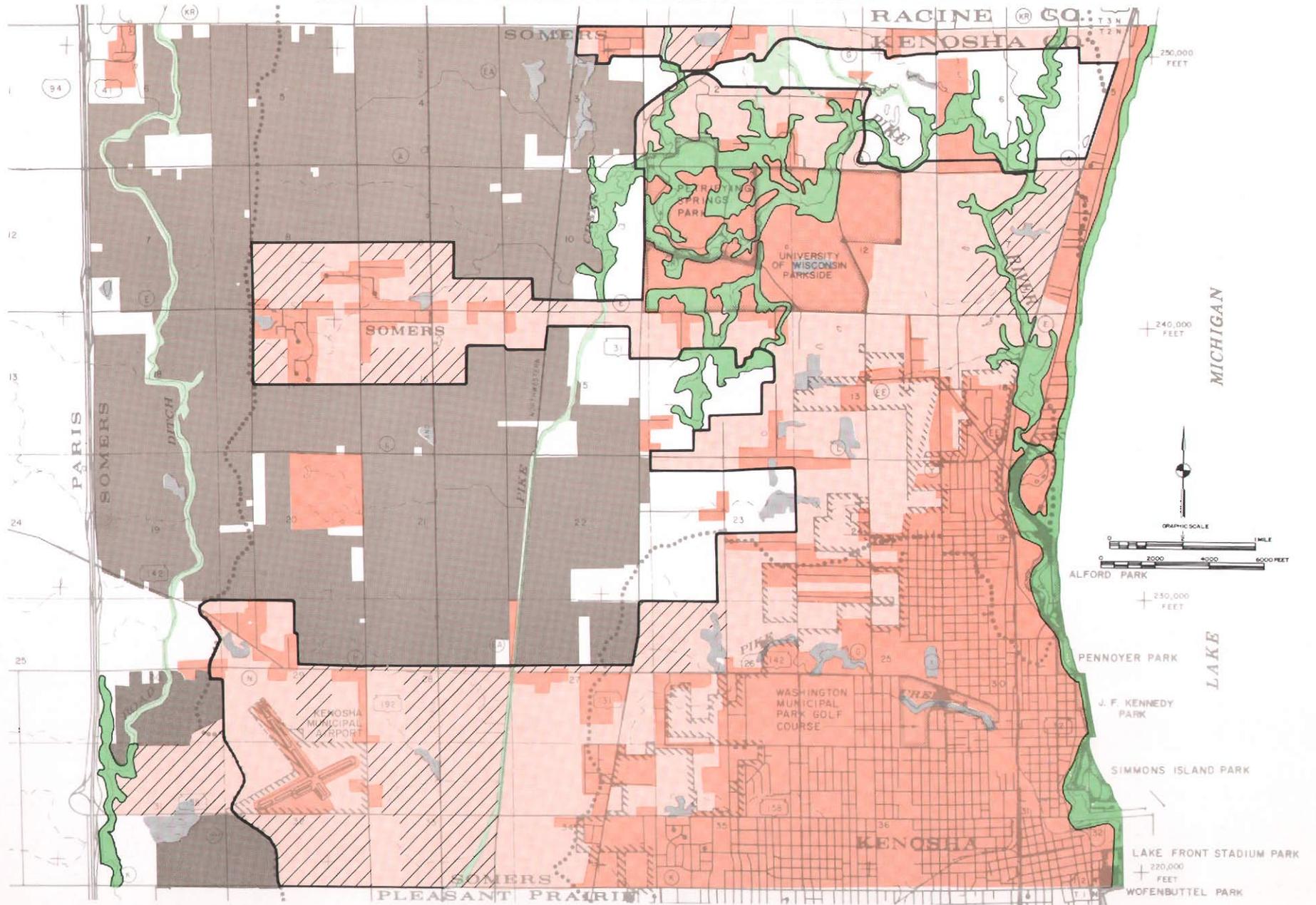
^dUnder the regional water quality management plan, the sewage treatment plant operated by the Town of Somers Utility District No. 1 would be abandoned and the district would be incorporated into the City of Kenosha sewer service area by the plan design year 2000. An interim expansion of this facility, completed in 1978, increased the plant capacity to 0.13 million gallons per day.

^ePreliminary 1980 census count.

^fEstimate based on preliminary 1980 census count.

Source: SEWRPC.

RECOMMENDED FARMLAND PRESERVATION PLAN--SOMERS



LEGEND

- | | | | | | |
|---|--|---|----------------------------------|--|----------------------------|
|  | EXISTING URBAN, EXTRACTIVE, AND INTENSIVE RECREATION LANDS |  | PRIMARY ENVIRONMENTAL CORRIDOR |  | FARMLAND PRESERVATION AREA |
|  | ADDITIONAL URBAN LAND |  | SECONDARY ENVIRONMENTAL CORRIDOR |  | TRANSITION FARM AREA |
|  | ISOLATED NATURAL AREA |  | URBAN SERVICE AREA BOUNDARY |  | OTHER LAND |

Table E-8

RECOMMENDED FARMLAND PRESERVATION PLAN--WHEATLAND^a

Land Use

Category	Acres	
	1975	2000
Farmland Preservation Area.....	7,704	7,704
Natural Resource Preservation Area		
Primary Environmental Corridor.....	3,666	3,666
Secondary Environmental Corridor.....	704	704
Isolated Natural Area.....	261	261
Subtotal	4,631	4,631
Other Open Land.....	2,629	2,629
Urban Development Area.....	499	499
Total Area	15,463	15,463

Public Sanitary Sewage Treatment Facilities

Operator	Average Hydraulic Design Capacity (million gallons per day)	
	1975	2000
None	--	--

Population

Minor Civil Division	1980	2000
Town of Wheatland	2,912 ^b	2,912

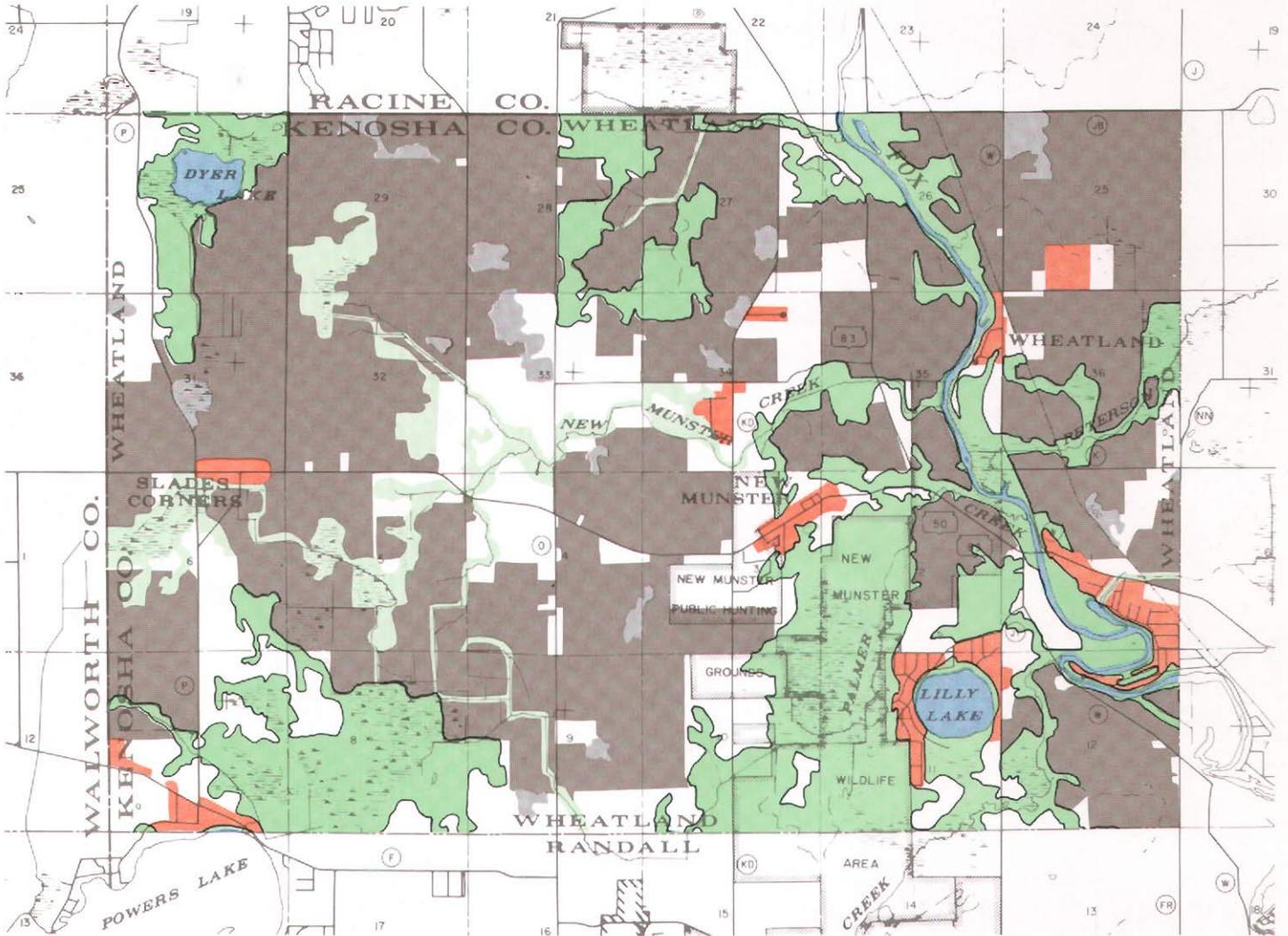
^aIncludes Town 2 North, Range 19 East--Sections 25-36--and Town 1 North, Range 19 East--Sections 1-12. This area encompasses the Town of Wheatland.

^bPreliminary 1980 census count.

Source: SEWRPC.

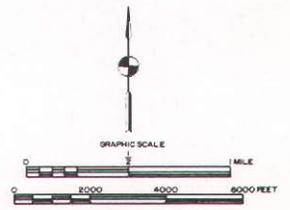
Map E-8

RECOMMENDED FARMLAND PRESERVATION PLAN--WHEATLAND



LEGEND

- | | | | |
|--|--|---|----------------------------------|
|  | EXISTING URBAN, EXTRACTIVE, AND INTENSIVE RECREATION LANDS |  | FARMLAND PRESERVATION AREA |
|  | NONE ADDITIONAL URBAN LAND |  | NONE TRANSITION FARM AREA |
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | OTHER LAND |
|  | SECONDARY ENVIRONMENTAL CORRIDOR |  | WATER |
|  | ISOLATED NATURAL AREA |  | NONE URBAN SERVICE AREA BOUNDARY |



Source: SEWRPC.

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