

# A PARK AND OPEN SPACE PLAN FOR THE TOWN OF WATERFORD

## RACINE COUNTY WISCONSIN

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Special acknowledgement is due Gerald H. Emmerich, Jr., SEWRPC  
Principal Planner, for his contribution to this report.

**COMMUNITY ASSISTANCE PLANNING REPORT  
NUMBER 71**

**A PARK AND OPEN SPACE PLAN  
FOR THE TOWN OF WATERFORD  
RACINE COUNTY, WISCONSIN**

Prepared by the  
Southeastern Wisconsin Regional Planning Commission  
P. O. Box 1607  
Old Courthouse  
916 N. East Avenue  
Waukesha, Wisconsin 53187-1607

January 1990

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# SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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January 21, 1990

Mr. Lawrence M. Krautkramer, Chairman  
Town of Waterford  
415 N. Milwaukee Street  
Waterford, Wisconsin 53185

Dear Mr. Krautkramer:

In April 1989, the Town of Waterford requested that the Southeastern Wisconsin Regional Planning Commission assist the Town in the preparation of a park and open space plan. Acting in response to that request, and working under the direction of the Town Park and Recreation Committee, the Regional Planning Commission staff has now completed the requested park and open space plan for the Town of Waterford.

This report describes that plan. It sets forth agreed-upon park and open space preservation, acquisition, and development objectives and supporting standards relevant to the needs and values of the citizens of the Town; presents pertinent information on the supply of, and the need for, park, recreation, and related open space lands; and identifies the roles which the Town and other units and agencies of government should play in meeting park and related open space needs.

Implementation of the plan presented in this report would, over time, provide for an integrated system of parks and open spaces within the Town—a system that would serve to preserve and enhance the natural resource base while providing adequate opportunities for a wide range of high-quality recreational experiences. The importance of the implementation of this plan to the overall quality of life within the Town cannot be overemphasized. The Town of Waterford contains many high-quality natural resource amenities, including Tichigan Lake and the Fox River, other rivers and streams, attractive and environmentally important woodlands and wetlands, and good wildlife habitat. These resource amenities are as irreplaceable as they are invaluable, and once lost will be lost forever. Action taken now not only will preserve these natural resources and, therefore, the natural beauty, cultural heritage, and overall quality of the Town for all time, but will also facilitate the provision of a park and open space system that can provide the residents of the Town with the opportunity to participate in a wide variety of wholesome outdoor recreational activities close to home.

The Regional Planning Commission is pleased to have been able to be of assistance to the Town in the preparation of the requested park and open space plan. The Commission stands ready, upon request, to assist the Town in the implementation of the recommended plan over time.

Sincerely,



Kurt W. Bauer  
Executive Director

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## Chapter I

### INTRODUCTION

Broadly defined, recreation is an activity or experience undertaken solely for the pleasure or satisfaction derived from it. Recreation can be experienced indoors or outdoors. It encompasses a wide variety of human activities ranging from rest and reflection to learning and teaching, from development of personal and social skills to meeting challenges and recovering from failures. Recreation is enjoyment and includes both mental and physical exercise, personal and interpersonal experience, and self-provided and socially observed entertainment. Although recreational preferences may vary from individual to individual, recreation occupies a necessary and significant place in every person's life. For purposes of this report, recreation will be viewed in a somewhat narrower framework as including only those recreational activities typically carried on outdoors.

A variety of parks and other outdoor recreational facilities, including open space lands, should be available to offer opportunities for participation in a wide range of active and passive recreational pursuits. The primary purpose of the park and open space plan for the Town of Waterford, then, is to guide the preservation, acquisition, and development of land for park, outdoor recreation, and related open space purposes as needed to satisfy the recreational needs of the resident population of the Town, and to protect and enhance the underlying and sustaining natural resource base.

Because of the importance of outdoor recreation sites and areas to natural resource protection, park and open space acquisition, development, and use have long been issues of concern to public officials and citizen leaders. In 1977, the Southeastern Wisconsin Regional Planning Commission adopted SEWRPC Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000, setting forth park and open space objectives, together with a plan intended to guide the preservation, acqui-

sition, and development of lands needed for outdoor recreation, as well as for the protection of the natural resource base of the seven-county Southeastern Wisconsin Region, to the year 2000. In 1989, Racine County adopted SEWRPC Community Assistance Planning Report No. 134, A Park and Open Space Plan for Racine County, updating the regional park and open space plan as that plan relates to the County. The regional plan and the Racine County park and open space plan both recommend that local units of government in the County refine and detail the adopted plans as those plans relate to local areas of jurisdiction. The Town Board of the Town of Waterford, on April 13, 1989, requested that the Regional Planning Commission assist the Town in the preparation of a park and open space plan for the Town. The adoption of this plan by the Town Board should make the Town eligible to apply for and receive federal and state aids in support of the acquisition and development of needed park and open space sites and facilities.

The findings and recommendations of the requested park and open space planning effort, an effort carried out under the direction of the Town Park and Recreation Committee, are set forth in this report. Chapter II of this report presents information about the Town pertinent to park and open space planning and development, including information on the resident population, the land use pattern, and the natural resource base of the Town, together with information on the existing park sites and open space lands within the Town. Chapter III presents a set of park and open space preservation, acquisition, and development objectives, principles, and supporting standards as the basis for the development of the park and open space plan for the Town, together with a description of park and open space needs in the Town. Chapter IV presents the recommended park and open space plan and identifies the actions required to carry out the recommended plan.

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## Chapter II

### THE MAN-MADE AND NATURAL RESOURCE FEATURES OF THE TOWN OF WATERFORD

#### INTRODUCTION

An understanding of the important man-made and natural resource features of the Town of Waterford is essential to the preparation of a sound park and open space plan. This chapter presents information on the resident population, land use pattern, park and open space sites, and natural resource base of the Town. The first section of this chapter describes certain pertinent characteristics of the Town, including the size and distribution of the resident population. The second section presents a description of the residential and other urban land use development in the Town, and the third section presents pertinent data on the existing park and open space sites and facilities. The fourth and final section describes the environmental corridors and prime agricultural lands in the Town.

#### DESCRIPTION OF THE TOWN OF WATERFORD

The Town of Waterford is located in northwestern Racine County and encompasses an area of about 34.4 square miles. As shown on Map 1, the Town is bounded on the north by the Town of Vernon in Waukesha County, on the east by the Town of Norway, on the south by the Village of Waterford and Town of Rochester, and on the west by the Town of East Troy in Walworth County. The Town is served by a well-developed highway system. Important arterial streets and highways serving the Town include STH 20, STH 83, and STH 164, as well as a network of county and local trunk highways.

Resident population levels are an important consideration in any park and open space planning effort. Data on the historic resident population of the Town are presented in Table 1 and shown in Figure 1. As indicated in the table and figure, the resident population of the Town of Waterford increased steadily from 1,863 persons in 1950 to 3,984 persons in 1980. Between 1980 and 1985, the population continued to increase, but at a much slower rate, to 4,014 persons in 1985. The January 1, 1988, estimate of the resident population of the Town,

prepared by the Wisconsin Department of Administration, was 4,045 persons.

The amount and location of urban residential development is another important consideration in any park and open space planning effort. The distribution of lands devoted to urban uses in the Town in 1950 and selected succeeding years is shown on Map 2. In 1950, urban land uses consisted mainly of residential lands located along the Fox River and the shores of Tichigan Lake in the eastern portion of the Town and encompassed about 370 acres. As further shown on Map 2, by 1963 an additional 129 acres of land—a 35 percent increase over the 1950 urban development area—had been developed along the Fox River for urban uses. By 1970, an additional 146 acres of land—a 29 percent increase over the 1963 urban development area—had been developed throughout the Town for urban uses; and by 1980, an additional 294 acres—or a 46 percent increase over the 1970 area—had been developed. By 1985, an additional 105 acres, or 11 percent over the 1980 area, had been developed for urban uses.

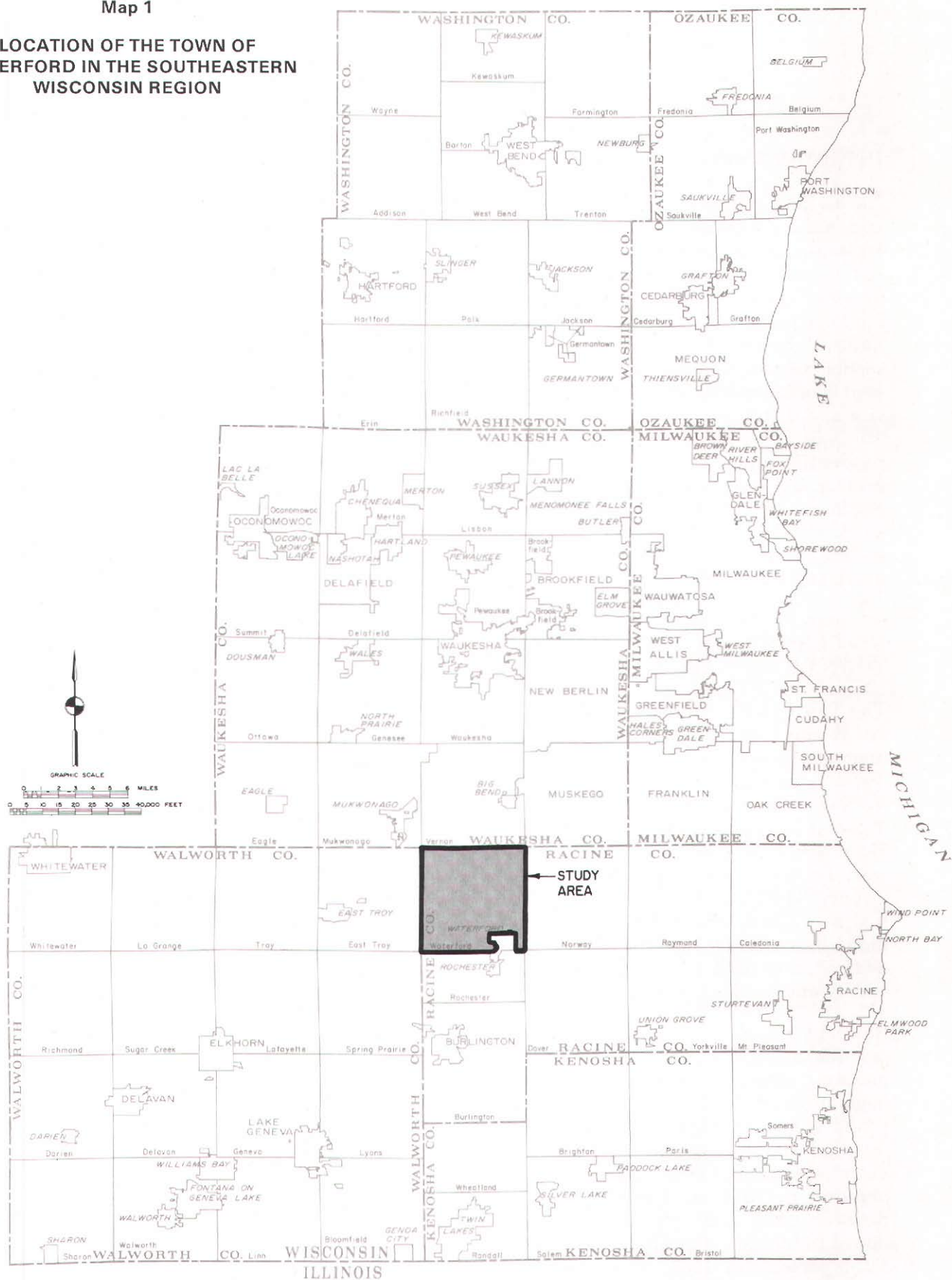
Information on the amount of land devoted to the various types of land uses in the Town in 1985 is presented in Table 2. As indicated in Table 2, agricultural uses accounted for about 13,368 acres, or about 61 percent, of the total area of the Town. Other rural land uses, including surface water, wetlands, woodlands, and other open lands, combined encompassed about 6,722 acres, or about 30 percent of the Town. Thus, about 20,090 acres, or about 91 percent of the Town, were still in rural uses in 1985. Residential lands accounted for about 1,039 acres, or about 5 percent of the Town and 54 percent of the urban lands; while other urban uses combined occupied about 879 acres, or only about 4 percent of the Town, and 46 percent of the urban lands in the Town. Thus, about 1,918 acres, or about 9 percent of the Town, were in urban uses in 1985.

#### EXISTING PARK AND OPEN SPACE SITES

An inventory of the park and open space sites and outdoor recreation facilities in the Town

Map 1

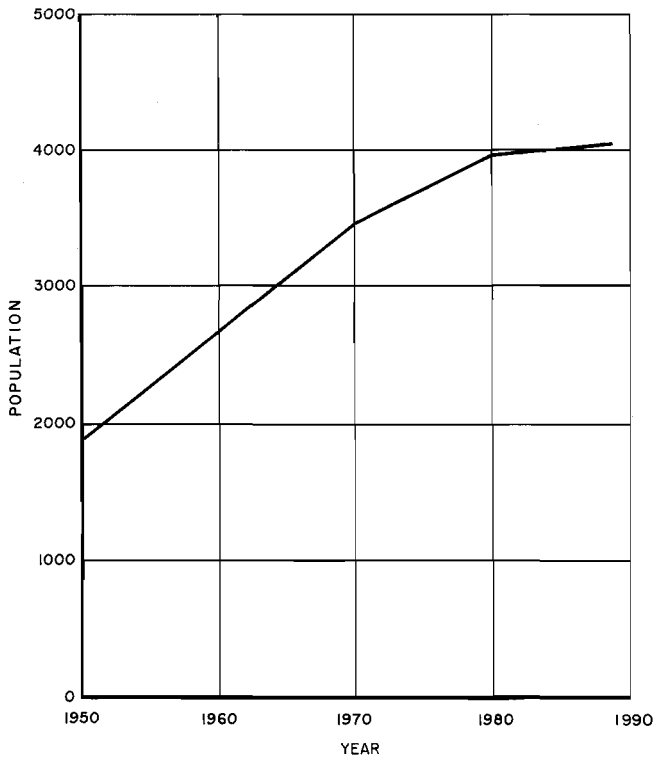
**LOCATION OF THE TOWN OF  
WATERFORD IN THE SOUTHEASTERN  
WISCONSIN REGION**



Source: SEWRPC.

Figure 1

**POPULATION OF THE TOWN  
OF WATERFORD: 1950-1988**



Source: U. S. Bureau of the Census; Wisconsin Department of Administration; and SEWRPC.

indicates that in 1989 there were 21 such sites, which together encompassed about 1,654 acres, or about 8 percent of the total area of the Town. As shown on Map 3 and indicated in Table 3, seven sites encompassing about 1,262 acres, or about 33 percent of the sites and about 76 percent of the total park and open space site acreage in the Town, were publicly owned, while the remaining 14 sites encompassing about 392 acres were privately owned. As further indicated in Table 3, the Tichigan Wildlife Area, owned by the Wisconsin Department of Natural Resources, is the largest such site in the Town, encompassing about 1,221 acres, or about 74 percent of the total park and open space site acreage in the Town. This site was acquired primarily for natural resource preservation purposes.

The Town of Waterford owned two park and open space sites in 1989. As shown on Map 3, the first site, Caldwell Fire Station No. 2, is a 13-acre site located in the western portion of the Town. A softball diamond is provided at the site.

Table 1

**POPULATION OF THE TOWN OF  
WATERFORD: SELECTED YEARS 1950-1988**

Year	Total Population		
	Number	Change from Preceding Census	
		Absolute	Percent
1950	1,863	--	--
1960	2,681	818	43.9
1970	3,483	802	29.9
1980	3,984	501	14.4
1985	4,014	30	0.8
1988	4,045	31	0.8

Source: U. S. Bureau of the Census; Wisconsin Department of Administration; and SEWRPC.

The second site is the Tichigan Volunteer Fire Department grounds, a six-acre site located in the northeastern portion of the Town. A softball and a little league ball diamond are provided at the site.

Racine County has developed biking facilities throughout the County, including both bike trails and bike routes in the Town of Waterford. As shown on Map 3, a one-mile segment of the five-mile "off-the-road" Waterford-Wind Lake Trail is located in the southeastern portion of the Town; and a nine-mile segment of the 100-mile "on-the-road" bike route is located in the northern and central portions of the Town. In addition, two segments of designated rustic roads are located within the Town. Rustic roads are scenic, lightly traveled country roads designated for the leisurely enjoyment of hikers, bikers, and motorists. As further shown on Map 3, a three-mile segment of the six-mile rustic road R2 is located on Maple Avenue in the southern portion of the Town, and a one-half-mile segment of the four-mile rustic road R5 is located on Racine Avenue in the eastern portion of the Town.

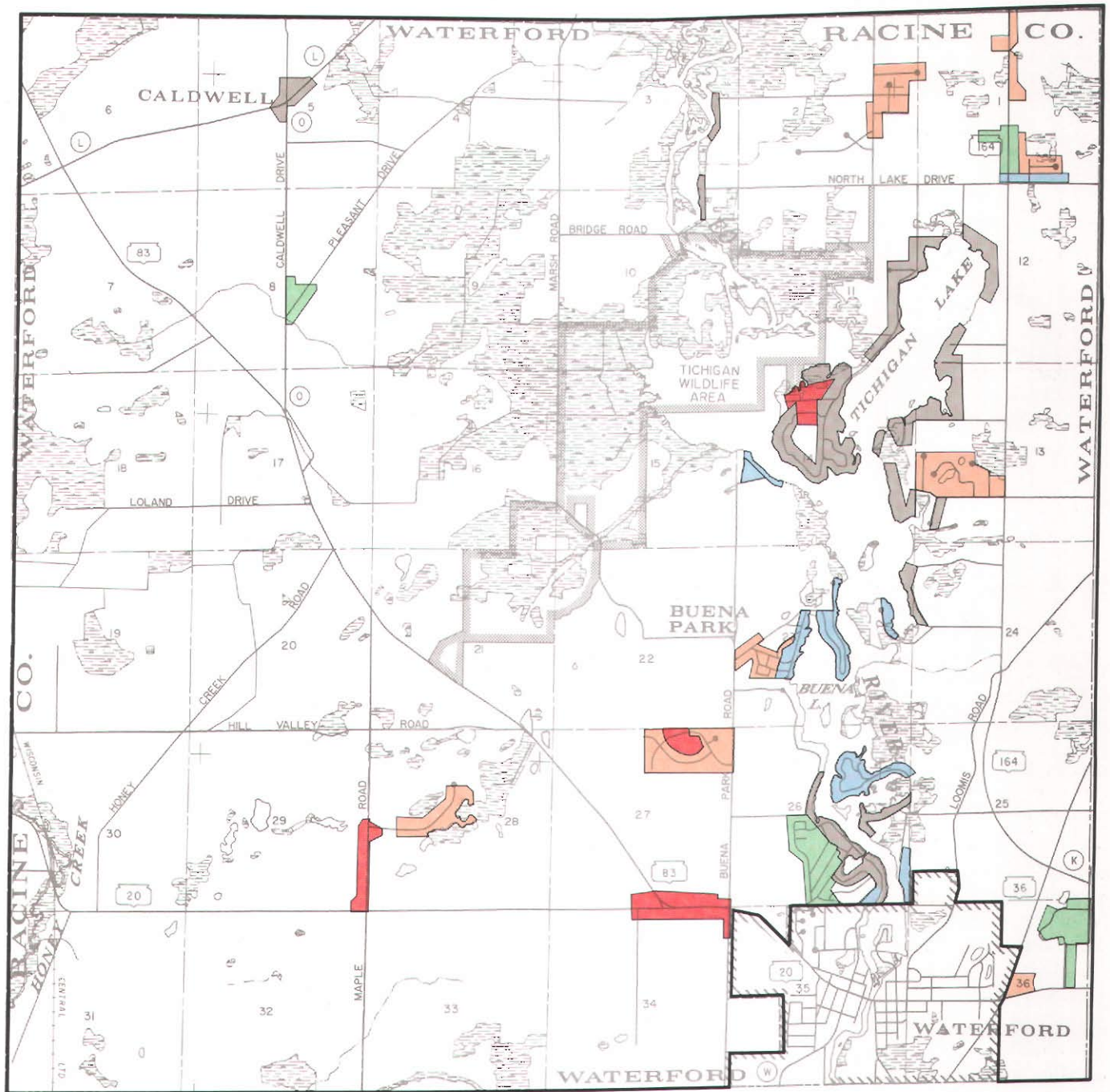
#### ENVIRONMENTAL CORRIDORS AND PRIME AGRICULTURAL LAND

Ecological balance and natural beauty are important determinants of the ability of an area to provide a pleasant and habitable environment for all forms of life and to maintain its social

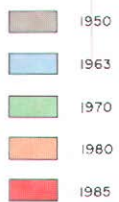


Map 2

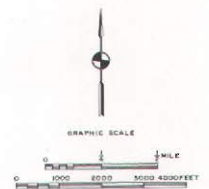
HISTORICAL URBAN GROWTH IN THE TOWN OF WATERFORD: SELECTED YEARS 1950-1985



LEGEND



Source: SEWRPC.



and economic well-being. Preservation of the most significant aspects of the natural resource base, including environmental corridors and prime agricultural lands, is therefore essential to the well-being of an area. This section describes the environmental corridors and important agricultural lands in the Town of Waterford.

#### Environmental Corridors

One of the most important tasks completed under the regional planning effort was the identification and delineation of those areas in southeastern Wisconsin in which concentrations of recreational, aesthetic, ecological, and cultural resources occur, and which therefore should be preserved and protected in essentially natural, open uses. 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 southeastern Wisconsin: 1) lakes, rivers, and streams and their associated 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 elements make up integral parts of the natural resource base, there are five additional elements which, although not part of the natural resource base as such, are closely related to, or centered upon, that base, and are a determining factor in identifying and delineating areas with recreational, aesthetic, ecological, and cultural value. These five additional elements are: 1) existing park and open space sites; 2) potential park and open space sites; 3) historic sites; 4) significant scenic areas and vistas; and 5) natural and scientific areas. Detailed information on these 12 natural resource and resource base-related elements are on file at the Commission offices. In addition, specific information on the location of floodlands and scientific and natural area sites in the County, including the Town of Waterford, is set forth on Map 8 and Map D-1, respectively, in SEWRPC Community Assistance Planning Report No. 134, A Park and Open Space Plan for Racine County.

The delineation of these 12 natural resource and related elements on a map shows a concentration of these elements in an essentially linear pattern of relatively narrow, elongated areas which have been termed "environmental corridors" by the Regional Planning Commis-

Table 2

#### EXISTING LAND USE IN THE TOWN OF WATERFORD: 1985

Category	Acres	Percent of Subtotal	Percent of Town
<b>Urban</b>			
Residential . . . . .	1,039	54.2	4.7
Commercial . . . . .	16	0.8	0.1
Industrial . . . . .	18	0.9	0.1
Transportation . . . . .	694	36.2	3.1
Governmental and Institutional . . . . .	17	0.9	0.1
Recreational . . . . .	134	7.0	0.6
Subtotal	1,918	100.0	8.7
<b>Rural</b>			
Agricultural . . . . .	13,368	66.6	60.8
Surface Water . . . . .	1,328	6.6	6.0
Wetlands . . . . .	2,975	14.8	13.5
Woodlands . . . . .	1,897	9.4	8.6
Other Open Lands . . . . .	522	2.6	2.4
Subtotal	20,090	100.0	91.3
Total	22,008	--	100.0

Source: SEWRPC.

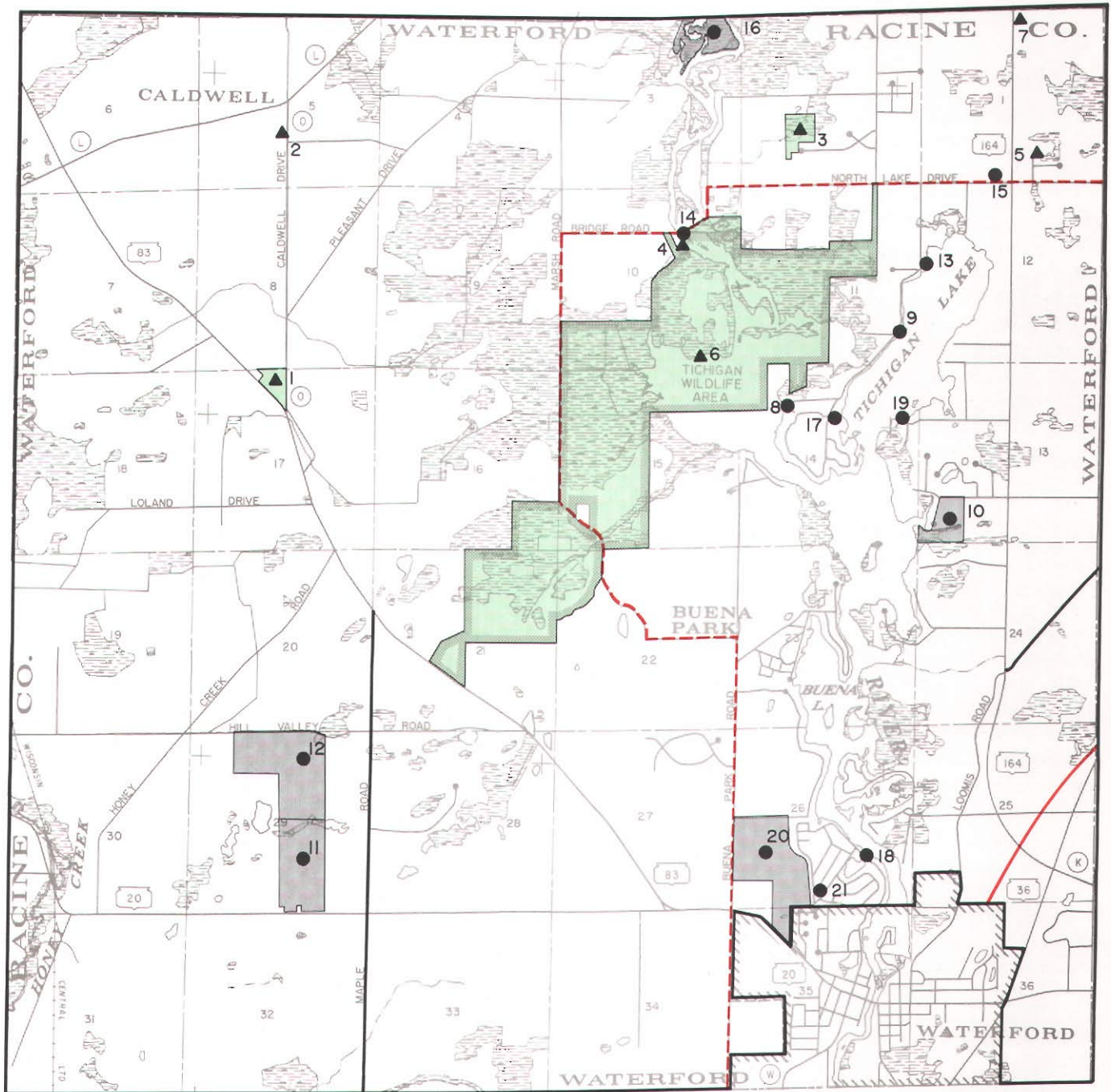
sion.<sup>1</sup> Primary environmental corridors include a wide variety of the important resource and resource-related elements and are at least 400 acres in size, two miles in length, and 200 feet in width. Secondary environmental corridors generally connect with the primary environmental corridors and are at least 100 acres in size and one mile in length.

In any consideration of environmental corridors, it is important to note that the natural resource features concentrated in such corridors can assist in noise pollution abatement, water pollution abatement, and favorable climate modification. In addition, because of the many interacting relationships existing between living

<sup>1</sup>A detailed description of the process of refining the delineation of environmental corridors in southeastern Wisconsin is presented in SEWRPC Technical Record, Vol. 4, No. 2, pages 1 through 21.

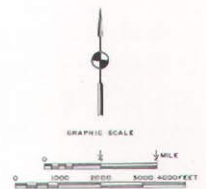
Map 3

EXISTING PARK AND OPEN SPACE SITES IN THE TOWN OF WATERFORD: 1989



LEGEND

- ▲ PUBLIC SITE
- NONPUBLIC SITE
- 4 SITE NUMBER (SEE TABLE 3)
- RACINE COUNTY BICYCLE TRAIL
- - - RACINE COUNTY BICYCLE ROUTE
- RUSTIC ROAD



Source: Town of Waterford and SEWRPC.



Table 3

## EXISTING PARK AND OPEN SPACE SITES IN THE TOWN OF WATERFORD

Site Name	Number on Map 3	Acreage	Facilities
<b>Public</b>			
Caldwell Fire Station No. 2 . . . . .	1	13	Softball diamond
Caldwell School . . . . .	2	3	Playground
County Land (American Eagle Manor) . . . . .	3	16	Open space site
Public Boat Access . . . . .	4	2	Boat launch
Tichigan Volunteer Fire Department Grounds . . . . .	5	6	Softball/little league diamond
Tichigan Wildlife Area . . . . .	6	1,221	Open space site, boat access
Washington Elementary School . . . . .	7	1	Playfield, playground
Subtotal	7 sites	1,262	--
<b>Nonpublic</b>			
Bob's Resort . . . . .	8	1	Boat launch, picnic area
Canteen . . . . .	9	1	Canoe rental
Golden Arrow Bow Club . . . . .	10	29	Target range, trails
Green Meadow Farms . . . . .	11	80	--
Hoppe Homestead . . . . .	12	120	--
Ice Herman's . . . . .	13	1	Picnic area, boat launch, beach
Jim & Yvonne's . . . . .	14	1	Picnic area, boat launch
Miniature Golf . . . . .	15	1	--
Norris School for Boys . . . . .	16	41 <sup>a</sup>	--
Orr Inn . . . . .	17	4	Picnic area, boat launch
Pettit Park . . . . .	18	2	Open space site
Rick's Last Resort . . . . .	19	1	Picnic area, boat launch, beach
Rivermore Golf Course . . . . .	20	106	--
Waterford Woods . . . . .	21	4	Open space site
Subtotal	14 sites	392	--
Total	21 sites	1,654	--

NOTE: There are six park and open space sites in the Village of Waterford: Fox River School, 1 acre; Jim's Marina, 2 acres; St. Thomas Aquinas School, 1 acre; Waterford Elementary School, 2 acres; Waterford Union High School, 29 acres; Whitfield Athletic Park, 13 acres.

<sup>a</sup>Includes only that portion of the site located in the Town of Waterford.

Source: Town of Waterford Park and Recreation Committee and SEWRPC.

organisms and their environment, the destruction or deterioration of any 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 stream systems. The resulting deterioration of surface water quality may, in turn, lead to a deterioration of the quality of the groundwater which serves as the source of domestic, municipal, and industrial water supply, and upon which low flows of rivers and streams may depend. In addition, the intrusion of intensive urban land uses into such areas may result in the creation of serious and costly problems, such as failing pavement and structure foundations, wet basements, excessive operation of sump pumps, excessive clearwater infiltration into sanitary sewerage systems, and poor drainage. Similarly, the destruction of ground cover may result in soil erosion, stream siltation, more rapid runoff, and increased flooding, as well as the destruction of wildlife habitat. Although the effects of any one of the environmental changes may not in and of itself be overwhelming, the combined effects must eventually lead to a serious deterioration of the underlying and supporting natural resource base and of the overall quality of the environment for life. The need to maintain the integrity of the remaining environmental corridors and important isolated natural resource features in the Town of Waterford should thus be apparent.

Primary Environmental Corridors: As shown on Map 4, the primary environmental corridors in the Town of Waterford are located primarily along the main stem of the Fox River, along Honey Creek, around Tichigan Lake, and in the northeastern and western portions of the Town. The primary environmental corridors, as shown on Map 4, encompass about 5,002 acres, or about 23 percent of the total area of the Town. Of this acreage, about 1,130 acres, or about 23 percent, are in public ownership, including about 1,116 acres in the Tichigan Wildlife Area and about 14 acres in county ownership. The remaining 3,872 acres are held in private ownership.

The primary environmental corridors include the best remaining woodlands, wetlands, and wildlife habitat areas, and are, in effect, a composite

of the best remaining residual elements of the natural resource base of the Town. These corridors have truly immeasurable environmental and recreational value. The protection of the primary environmental corridors from intrusion by incompatible rural and urban uses, and thereby from degradation and destruction, should be one of the principal objectives of the town park and open space plan. Their preservation in an essentially open, natural state—including park and open space uses, limited agricultural uses, and country estate-type residential uses—will serve to maintain a high level of environmental quality in the Town, protect its natural beauty, and provide valuable recreation opportunities.

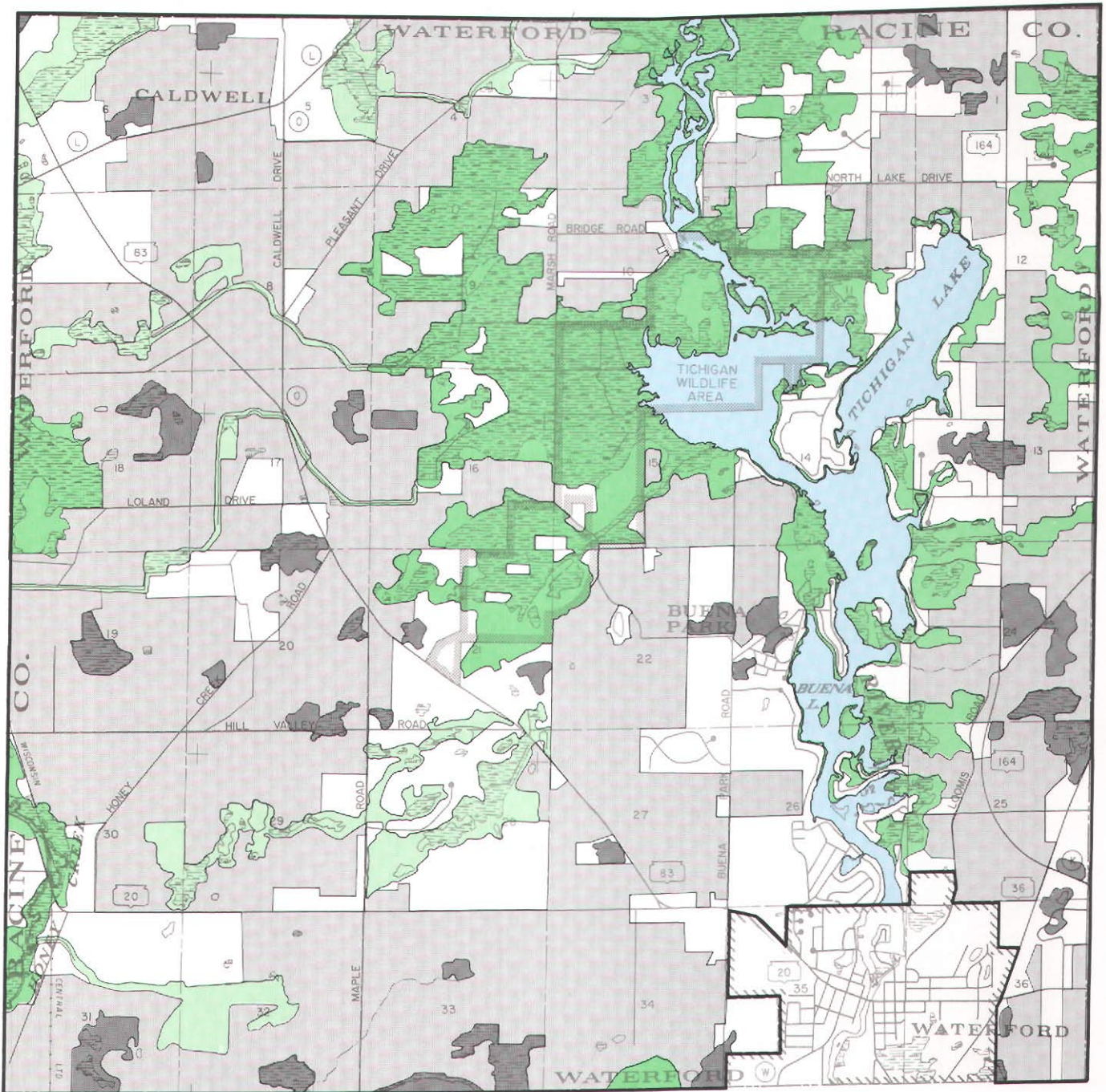
Secondary Environmental Corridors: As shown on Map 4, secondary environmental corridors in the Town of Waterford are located primarily along small perennial and intermittent streams. As shown on Map 4, the secondary environmental corridors encompass about 1,060 acres, or about 5 percent of the area of the Town.

The secondary environmental corridors are often remnants of primary environmental corridors which have been developed for intensive agricultural and urban purposes. Secondary environmental corridors facilitate surface water drainage, maintain pockets of natural resource features, and provide corridors 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 also be preserved in essentially natural, open uses.

Isolated Natural Areas: In addition to the environmental corridors, other, small pockets or concentrations of natural resource base elements exist within the Town. These pockets are isolated from the environmental corridors by urban development or agricultural use, and, although separated from the environmental corridor network, have important natural values. Isolated natural areas may provide the only available wildlife habitat in an area, provide good locations for local parks and natural areas, and lend unique and aesthetic character and natural diversity to an area. The remaining isolated natural areas in the Town, as shown on Map 4, encompass about 835 acres, or about 4 percent of the total area of the Town, and include a variety of wetlands, woodlands, and wildlife

Map 4

**ENVIRONMENTAL CORRIDORS, ISOLATED NATURAL AREAS, AND  
PRIME AGRICULTURAL LANDS IN THE TOWN OF WATERFORD: 1985**



- LEGEND**
- PRIMARY ENVIRONMENTAL CORRIDOR
  - SECONDARY ENVIRONMENTAL CORRIDOR
  - ISOLATED NATURAL AREA
  - PRIME AGRICULTURAL LANDS
  - SURFACE WATER

Source: SEWRPC.

habitat areas. These areas should also be protected and preserved in a natural state to the extent possible.

#### Prime Agricultural Land

For planning purposes it is useful to distinguish between prime agricultural lands and other agricultural lands. Prime agricultural lands are those lands which, in terms of farm size and soil characteristics, are particularly well suited for the production of food and fiber. The Regional Planning Commission has defined prime agricultural land as areas containing farm units which 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 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 at least 100 acres in size. A county farmland

preservation plan was prepared for Racine County in 1981. This plan is documented in SEWRPC Community Assistance Planning Report No. 46, A Farmland Preservation Plan for Racine County, August 1988. Prime agricultural lands within the Town are shown on Map 4. In 1985, these areas encompassed about 10,046 acres, or about 46 percent of the total area of the Town.

A number of important public purposes are served by the preservation of prime agricultural lands. Such 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. Recommendations regarding the preservation of prime agricultural lands in the Town are presented in Chapter IV of this report.



## Chapter III

# PARK AND OPEN SPACE PRESERVATION, ACQUISITION, AND DEVELOPMENT OBJECTIVES, PRINCIPLES, AND STANDARDS

## INTRODUCTION

Planning is a rational process for formulating objectives and, through the preparation and implementation of plans, meeting those objectives. The formulation of objectives, therefore, is an essential task which must be undertaken before plans can be prepared. The Regional Planning Commission, as part of the regional park and open space planning program completed in 1977, formulated a comprehensive set of park and open space preservation, acquisition, and development objectives. Because the study viewed all park and open space facilities as an integral part of an areawide system, the objectives addressed community and neighborhood, as well as regional, park and open space facilities. This chapter sets forth a set of park and open space objectives which can be used to guide the formulation and implementation of a park and open space plan for the Town of Waterford.

## PARK AND OPEN SPACE OBJECTIVES

The following seven park and open space preservation, acquisition, and development objectives were originally formulated under the regional park and open space planning program, and were adapted to and utilized in the development of the park and open space plan for the Town of Waterford.

1. The provision of an integrated system of public outdoor recreation sites and related open space areas which will afford the resident population of the Town adequate opportunities to participate in a wide range of outdoor recreation activities.
2. The provision of sufficient outdoor recreation facilities to afford the resident population of the Town adequate opportunities to participate in intensive nonresource-oriented outdoor recreation activities.
3. The provision of sufficient outdoor recreation facilities to afford the resident population of the Town adequate opportunities

to participate in intensive resource-oriented outdoor recreation activities.

4. The provision of sufficient outdoor recreation facilities to afford the resident population of the Town adequate opportunities to participate in extensive land-based outdoor recreation activities.
5. The provision of sufficient surface water access areas to afford the resident population of the Town adequate opportunities to participate in extensive water-based outdoor recreation activities consistent with safe and enjoyable inland lake and river use and the maintenance of adequate water quality.
6. The preservation of sufficient lands in essentially natural, open uses to assure the protection of the underlying and sustaining natural resource base and enhancement of the social and economic well-being and environmental quality of the Town.
7. The efficient and economical satisfaction of outdoor recreation and related open space needs, meeting all other objectives at the lowest possible cost.

Complementing each of the foregoing objectives is a planning principle and a set of planning standards. These are set forth in Appendix A and serve to facilitate the quantitative application of the objectives in plan design, test, and evaluation. It should be noted that while the attainment of all objectives is considered desirable to provide the residents of the Town of Waterford with the fullest possible opportunity for high-quality recreational experiences, the responsibility for providing the necessary parks, open space land, and associated recreational facilities is shared by the private sector and the public sector, the latter composed of the various levels, units, and agencies of government operating in the Waterford area. In this regard, under the adopted regional park and open space plan, the responsibility for the provision of open

space, large resource-oriented parks, recreation corridors, and resource-oriented recreational facilities is delegated to state and county units of government, while the responsibility for the provision of smaller community parks and associated intensive nonresource-oriented recreational facilities is delegated to local units of government. Local units of government are also responsible for the protection of certain natural resource features within their areas of jurisdiction. Importantly, the responsibility for the provision of certain recreational facilities is left with the private sector, which, in the Southeastern Wisconsin Region, currently provides about one-fourth of all park and open space lands.

#### APPLICATION OF PARK AND OPEN SPACE STANDARDS

Rural towns generally do not have the population densities to warrant the provision of urban-type parks. However, a town-owned park and limited recreational facilities may be warranted in order to promote a desirable sense of community; to serve as a focal point for special local civic events; and to meet certain outdoor recreation needs, such as the need for softball diamonds and picnic areas. Such a facility should be located in conjunction with other community facilities which serve as a focal point for the rural town residents, such as the town hall, school, or fire station.

In those portions of towns that are developed for urban use or planned for such development, normal urban facilities and services, including urban parks, should be provided. Under the regional water quality management plan, portions of the Town along the main stem of the Fox River and around Tichigan Lake are proposed to be served with public sanitary sewers. For purposes of this plan, it is recommended that the residents of lands within the recommended sewer service area—as documented in SEWRPC Community Assistance Planning Report No. 141, Sanitary Sewer Service Area for the Waterford/Rochester Area, and as amended in Amendment to the Regional Water Quality Management Plan—2000, Western Racine County Sewerage District, September 1988—also be served with urban parks and related outdoor recreation facilities.

While many of the objectives and standards presented herein relate to the urban and rural residential population to be served, one of the most important objectives—that relating to the preservation and protection of the underlying and sustaining natural resource base—is independent of any resident population level and associated per capita and accessibility standards. Preservation of the environmental corridors in an essentially open, natural state and preservation of important agricultural lands in agricultural use are required to achieve this important objective.

## Chapter IV

### RECOMMENDED PLAN

#### INTRODUCTION

The primary purpose of the park and open space planning program for the Town of Waterford is the preparation of a sound and workable plan to guide the acquisition and development of lands and facilities needed to satisfy the outdoor recreation demands of the resident population of the Town, and to protect and enhance the underlying and sustaining natural resource base. Important preliminary steps in the development of such a plan are a determination of the existing and probable future size and distribution of the population to be served with park and open space sites and facilities; a determination of the quantity and type of outdoor recreation sites and facilities needed to satisfy the recreation demands of this population; and a determination of the quantity and type of open space sites needed to protect and enhance the underlying and sustaining natural resource base.

Chapter III of this report indicated that different types of park and open space objectives are to be attained by different levels of government. Specifically, resource-oriented outdoor recreation objectives requiring the provision of large parks, trail facilities, and water access facilities for activities such as hunting, fishing, and boating are logically the responsibility of the state and county levels of government; nonresource-oriented outdoor recreation objectives requiring the provision of smaller parks for activities such as softball, tennis, soccer, and children's playground activities are logically the responsibility of the local level of government; and natural resource base preservation objectives to protect important natural resource features, such as environmental corridors, isolated natural areas, and prime agricultural lands, are the responsibility of all levels of government. The Racine County park and open space plan—documented in SEWRPC Community Assistance Planning Report No. 134, A Park and Open Space Plan for Racine County, and as adopted by the Racine County Board of Supervisors in 1989—includes recommendations for the attainment of regional or areawide resource-oriented outdoor recreation objectives and of natural resource base preservation objectives. The first part of this chapter, therefore, summarizes the areawide plan recom-

mendations for resource-oriented outdoor recreation sites and facilities, the protection of the environmental corridors and isolated natural areas, and the protection of prime agricultural lands in the Town of Waterford. The second section of this chapter describes probable future population levels and distributions for the Town, identifies the need for local park facilities, and sets forth a recommended park plan for the Town. The third section of the chapter outlines the steps required to carry out the recommended plan.

#### AREAWIDE PARK AND OPEN SPACE CONSIDERATIONS

The regional park and open space plan, as refined and detailed in the Racine County park and open space plan, contains recommendations which, if implemented, would provide residents of the County, including residents of the Town of Waterford, adequate opportunities to participate in a wide range of resource-oriented outdoor recreational activities. These recommendations—which are incorporated into the park and open space plan for the Town of Waterford—are concerned with the provision of major parks, which provide opportunities for intensive resource-oriented outdoor recreational activities such as camping, swimming, and picnicking; the provision of recreation corridors, which provide opportunities for various trail-oriented recreational activities, including hiking, biking, and ski-touring; and the provision of water access facilities. In addition, the plan contains recommendations for the preservation of environmentally and economically important lands, including primary environmental corridors and prime agricultural lands.

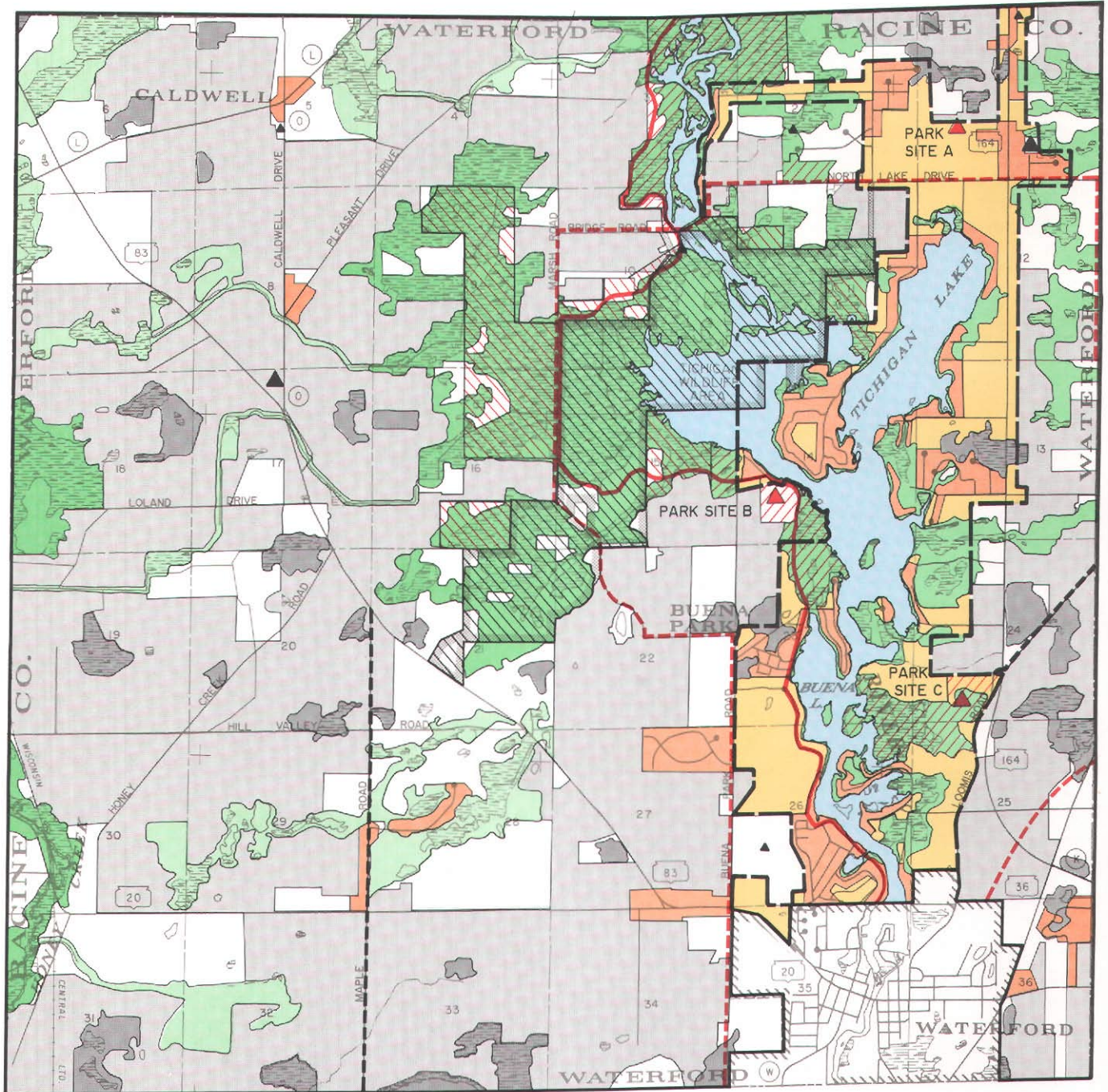
#### Major Parks and Trail Facilities

The Racine County park and open space plan recommends that the state and county levels of government assume responsibility for the provision of major parks. While there are no major parks in the Town of Waterford, the plan recommends the maintenance, expansion, and further development of the county-owned major parks in the vicinity of the Town. Specifically, the plan recommends additional land acqui-



Map 5

RECOMMENDED PARK AND OPEN SPACE PLAN FOR THE TOWN OF WATERFORD



LEGEND

- URBAN SERVICE AREA BOUNDARY
- EXISTING URBAN DEVELOPMENT: 1985
- PLANNED URBAN DEVELOPMENT
- OTHER OPEN LANDS

NATURAL RESOURCES

- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL AREA
- SURFACE WATER
- PRIME AGRICULTURAL LAND

PARK AND OPEN SPACE SITES

- EXISTING TOWN SITE
- PROPOSED TOWN PARK
- SELECTED OTHER EXISTING OUTDOOR RECREATION SITE
- EXISTING TICHIGAN WILDLIFE AREA
- PROPOSED TICHIGAN WILDLIFE AREA
- PROPOSED FOX RIVER PARKWAY

RECREATION TRAILS AND ROUTES

- PROPOSED FOX RIVER RECREATION CORRIDOR (TRAIL)
- RACINE COUNTY BIKE TRAIL OR ROUTE
- RUSTIC ROAD



Source: SEWRPC.



tion—including of lands in the Town—and additional development of Wadewitz Nature Camp, a 168-acre site in the Town of Rochester; development of the Ela property, a 239-acre site located along the Fox River in the Town of Rochester; and additional acquisition and development at Browns Lake Golf Course, a 144-acre site along the Fox River in the Town of Burlington. These existing and proposed major parks, along with other major parks recommended in the Racine County park and open space plan,<sup>1</sup> should provide adequate opportunities for intensive resource-oriented outdoor recreational activities for the residents of the Town of Waterford.

The Racine County park and open space plan also recommends the provision of recreation trails within a system of recreation corridors.<sup>2</sup> Under the plan, a segment of recreation corridor is proposed to be located within the Town of Waterford. As shown on Map 5, an eight-mile segment of the proposed Fox River recreation corridor is proposed to be located along the main stem of the Fox River in the Town. This segment is proposed to be part of a 69-mile system of trails within recreation corridors in the County, giving residents of Racine County and the Town of Waterford adequate opportunities for participation in trail-oriented activities.

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<sup>1</sup>*The locations of existing and proposed major parks in southeastern Wisconsin and Racine County are shown on Maps 1 and 10, respectively, of SEWRPC Community Assistance Planning Report No. 134, A Park and Open Space Plan for Racine County.*

<sup>2</sup>*A recreation corridor is defined as a publicly owned continuous linear tract of land, generally located in scenic areas or areas of natural, cultural, or historical interest, which provides opportunities for trail-oriented outdoor recreational activities such as biking, hiking, nature study, and ski-touring. The existing and proposed recreation corridors in southeastern Wisconsin and Racine County are also shown on Maps 1 and 10, respectively, of SEWRPC Community Assistance Planning Report No. 134, A Park and Open Space Plan for Racine County.*

### Open Space Preservation

The location and extent of the important open space lands in the Town of Waterford—including primary and secondary environmental corridors, isolated natural areas, and prime agricultural lands—are described in Chapter II of this report. The preservation of these open space lands would serve to maintain a high level of environmental quality in, and protect the natural beauty of, the Town of Waterford, as well as provide valuable recreational resources for residents of the Town. Such preservation would also help to avoid the creation of serious and costly environmental and developmental problems.

Environmental Corridors: As already noted, primary environmental corridors in the Town of Waterford encompass about 5,002 acres, or about 23 percent of the total area of the Town. Under the recommended park and open space plan for the Town, all primary environmental corridors would be preserved in essentially natural, open uses.

It is recognized that certain private uses—including private recreational uses and low-density residential uses—as well as public outdoor recreation and related open space sites, may be compatible with the preservation of environmental corridors, and can serve to adequately protect such corridors. Therefore, the plan recommends that, to the extent practicable, the corridors be maintained in private uses for resource preservation and limited recreational use purposes, and that such maintenance be promoted through proper zoning. To the extent that the primary environmental corridor lands within the Town of Waterford are required for public recreational use, the plan recommends that such corridors be publicly acquired through dedication or purchase. Under the plan, primary environmental corridor lands in the Tichigan Wildlife Area would continue to be maintained in public ownership by the Wisconsin Department of Natural Resources, and an additional 644 acres, including about 549 acres of primary environmental corridor lands, in the Tichigan Wildlife Area would be acquired by the Department. In addition, it is recommended that Racine County acquire about 466 acres of land in the Town as part of the proposed Fox River Parkway, including about 423 acres of primary environmental corridor lands, for resource preservation, flood control, limited outdoor recreation, and other parkway uses. It is envi-

oned that the proposed trails in the Fox River recreation corridor would be located within these parkway lands. The locations of the primary environmental corridors proposed for inclusion in the Tichigan Wildlife Area and Fox River Parkway are shown on Map 5.

## TOWN CONSIDERATIONS

As already noted, the Racine County park and open space plan recommends that the state and county levels of government assume responsibility for the provision of major parks and recreation corridors, and, along with local units of government, protect important natural resource lands. Under the plan, the Town of Waterford would be responsible for providing intensive nonresource-oriented sites and facilities, such as town parks providing ball diamonds and picnic areas. The need to provide town park and outdoor recreation facilities is dependent upon both the existing and probable future size and distribution of the resident population of the Town. This section, therefore, describes such population levels and distribution in the Town, identifies the need for local parks and outdoor recreational facilities, and sets forth the plan for the acquisition and development of town parks and facilities.

### Future Population Levels and Distribution

Map 2 in Chapter II shows the location and extent of concentrations of residential and other urban development in the Town of Waterford in 1985. As shown on Map 2, urban residential development has occurred adjacent to the Village of Waterford, along the Fox River and around Tichigan Lake, and along STH 164—all in the eastern one-third of the Town. As already noted, the resident population of the Town of Waterford in 1985 was estimated to be 4,014 persons.

For park planning purposes, it is necessary to identify the probable future resident population level of the Town. Additional urban residential development is anticipated to occur in that portion of the Town of Waterford located within the planned sewer service area. The location and extent of the sewer service area is set forth in SEWRPC Community Assistance Planning Report No. 141, Sanitary Sewer Service Area for the Waterford/Rochester Area, as amended. In 1985, there were about 1,195 housing units accommodating about 3,350 persons in the sewer service area in the Town, or about 83 percent of

the total resident population of the Town. In addition, there were about 1,076 acres of undeveloped lands—not including lands within the environmental corridors—in the sewer service area in the Town in 1985. Under guidelines set forth in the sewer service area plan, it is estimated that an additional 1,900 housing units could be accommodated in the undeveloped portions of the sewer service area. Using an average household size of 2.8 persons per household, an additional 5,320 persons could be accommodated upon full development of the planned sewer service area.<sup>3</sup>

In the more rural areas in the Town, it is anticipated that additional residential development could be accommodated on platted, but as yet undeveloped, residential lots. A total of 79 undeveloped residential lots were identified in platted subdivisions in the Town of Waterford in 1985. Assuming an average household size of 2.8 persons, an additional 221 persons could be

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<sup>3</sup>*The number of housing units that could be accommodated in that portion of the Town of Waterford within the planned sewer service area was determined by first identifying all developable land within the service area. Developable land was assumed to include all undeveloped land except environmental corridors, isolated natural areas, and areas covered by soils poorly suited for urban development with sewer service. Developable lands in 1985 totaled 1,076 acres. In order to provide flexibility to the community in determining the spatial distribution of new urban development and in order to facilitate operation of the urban land market, it was assumed that only 80 percent of the developable land—861 acres—would actually be developed for urban residential purposes. Of the 861 acres allocated to residential development, it was further assumed that streets and other urban uses would occupy 25 percent of the area, or about 215 acres. The remaining 75 percent, or 646 acres, would be used for residential development. Assuming an average lot size of 15,000 square feet, or 0.34 acre, about 1,900 additional lots, or housing units, could be provided in the service area. Based on an average household size of 2.8 persons, an additional 5,320 persons could be accommodated in that portion of the Town within the sewer service area.*

accommodated on undeveloped platted lots in the rural portions of the Town. Thus, if the population of the existing housing units in the Town is maintained at approximately the 1985 level, the population of the Town of Waterford will reach about 9,555 persons—including about 4,014 persons residing in existing residential units in 1985, about 5,320 persons in units anticipated to be developed in that portion of the Town within the sewer service area, and about 221 persons in units to be developed on undeveloped platted lots in the rural portions of the Town. The locations of concentrations of existing and planned residential development in the Town of Waterford are shown on Map 5.

#### Need for Town-Owned Park Sites and Facilities

The provision of urban-type parks and intensive nonresource-oriented outdoor recreational facilities—such as children's play areas, basketball goals, and ice skating rinks—to serve the widely dispersed subdivisions in the generally rural western two-thirds of the Town is not warranted. As noted in Chapter III, however, a park in the rural portion of a town to meet the need for picnic areas, playfields, and ball diamonds is often desirable and practical. As a community facility, such a park should be readily accessible to all town residents. As already noted, such a park is often best located in conjunction with other community facilities which serve as a focal point for town residents, such as the Town Hall, fire station, or school. A park of this type may be needed in the Town of Waterford near the end of the planning period.

In the planned sewer service area in the eastern one-third of the Town, the provision of urban services and facilities, including parks and intensive outdoor recreation facilities, is both necessary and practical. In such planned urban areas, urban parks and intensive nonresource-oriented outdoor recreational facilities are required to meet the outdoor recreation needs of the residents of the area. In a typical urban service area, neighborhood parks having a 0.5- to 1.0-mile service radius and community parks having a 2.0-mile service radius are normally provided to meet urban outdoor recreation needs. As shown on Map 5, that part of the Town of Waterford within the sewer service area is linear and is located along both sides of the Fox River and around Tichigan Lake. These natural features, which serve as important recreational resources, would prevent any planned urban

neighborhood and community parks from being readily accessible. These typical accessibility standards for urban parks were therefore not applied in the Waterford sewer service area. Rather, it was determined that park and related outdoor recreation facilities were needed in three locations in the service area: 1) the west side of the Fox River, 2) the north side of Tichigan Lake, and 3) the east side of the Fox River.

In summary, a need was identified for four local parks and related outdoor recreation facilities in the Town of Waterford: one community park providing a picnic area, playfield, and ball diamond in the generally rural western portion of the Town; and three urban parks and associated intensive facilities in the planned urban area in the eastern portion of the Town.

#### Recommended Town Parks

To meet the identified need for town parks, it is recommended that the Town acquire and develop three new town parks in the eastern portion of the Town within the planned sewer service area. The first site is proposed to be located on the north side of Tichigan Lake in U. S. Public Land Survey Section 1; the second site is proposed to be located on the west side of the Fox River in Section 14; and the third site is proposed to be located on the east side of the Fox River in Section 24. It is also recommended that the Town develop a playfield area, ball diamond, and picnic area at the existing Caldwell Fire Station No. 2 site. The general locations of these sites are shown on Map 5, and a more detailed description of each site is presented below.

### PLAN IMPLEMENTATION

The recommended park and open space plan for the Town of Waterford includes recommendations for the maintenance and additional acquisition of important open space land in the Tichigan Wildlife Area, the provision of trail facilities within the Fox River recreation corridor, and the acquisition of primary environmental corridors in the proposed Fox River Parkway by county and state agencies of government. In addition, the plan includes recommendations for the protection of important natural resource features within the Town, including environmental corridors and isolated natural areas, and prime agricultural lands. Finally, the plan includes recommendations for the acquisition

and development of three new town parks in the eastern portion of the Town and the provision of outdoor recreational facilities on town-owned lands adjacent to Caldwell Fire Station No. 2.

The recommended park and open space plan is not complete, however, until the steps required to implement the plan have been specified. This section of the chapter, accordingly, is intended to serve as a guide for use in carrying out the recommended park and open space plan for the Town of Waterford. It describes the actions that will need to be taken by the Wisconsin Department of Natural Resources, Racine County, and the Town of Waterford to implement the park and open space plan.

#### Wisconsin Department of Natural Resources

The Wisconsin Department of Natural Resources has authority and responsibility in the areas of park development, natural resources protection, water quality maintenance, and water use regulation. Because of this broad range of authority and responsibility, certain Department functions have particular importance in the implementation of the park and open space plan for the Town of Waterford. These include the authority to protect, develop, and regulate the use of state parks, forests, fish, game, lakes, streams, certain plant life, and other outdoor resources; the authority to acquire conservation and scenic easements; and the authority to administer the federal Land and Water Conservation (LAWCON) fund within the State and the new State Acquisition and Development of Local Parks (ADLP) program. The Department also has the obligation to establish standards for floodplains and shoreland zoning, and the authority to adopt, in the absence of satisfactory local action, floodplain and shoreland zoning ordinances.

It is important the the Department approve and adopt the town park and open space plan in order to enable the Town to apply for and receive federal outdoor recreation grants in support of plan implementation. Under the recommended park and open space plan for the Town of Waterford, the Wisconsin Department of Natural Resources would also be responsible for the continued maintenance of about 1,221 acres of land within the Tichigan Wildlife Area for limited outdoor recreation use and for open space preservation purposes. As indicated in Table 4, the Department would also acquire approximately 644 additional acres of land within the

Tichigan Wildlife Area for such purposes, including about 502 acres within the existing Tichigan Wildlife Area project boundary and about 142 acres recommended in the Racine County park and open space plan for inclusion within the project boundary. The Department would also develop the three-mile segment of trails within the proposed Fox River recreation corridor in the Tichigan Wildlife Area.

#### Racine County

Racine County is responsible jointly with the Town of Waterford for the protection of important natural resources in the Town. The plan recommends that the County and the Town cooperate in the placement of all environmental corridors and isolated natural areas in an appropriate zoning conservancy district, and all prime agricultural lands in an agricultural land preservation district. The proper application of conservancy district zoning would generally ensure the preservation of the natural resource features within the primary and secondary environmental corridors and isolated natural areas of the Town of Waterford. The placement of all identified prime agricultural lands in an agricultural preservation district would assure the protection and continued use of such lands for agricultural purposes. Under the recommended plan, it is anticipated that the 523 acres of prime agricultural lands in the planned sewer service area, or about 5 percent of such lands in the Town, would be converted to urban use upon full development of the sewer service area.

Racine County would also be responsible for the acquisition of the proposed Fox River Parkway within the Town; the acquisition of about 18 acres of land within the Town as an addition to the county-owned W. R. Wadewitz Nature Camp site; and the provision of five miles of trails in the Town within the proposed Fox River recreation corridor. As indicated in Table 4, it is specifically recommended that the County acquire, as part of the proposed Fox River Parkway, about 647 acres of land along the main stem of the Fox River, including about 603 acres of primary environmental corridor, for flood control, resource preservation, and other parkway purposes. It is also recommended that the County acquire about 18 acres of lands within the primary environmental corridor in the Town as an addition to W. R. Wadewitz Nature Camp, a 168-acre major park located in the northern one-half of U. S. Public Land Survey Section 3,

Township 3 North, Range 19 East in the Town of Rochester. Finally, it is recommended that the County develop about five miles of hiking and biking trails in the Town as part of the proposed 68-mile Fox River recreation corridor in Kenosha, Racine, and Waukesha Counties.

#### Town of Waterford

Under the recommended plan, the Town of Waterford would be responsible for the acquisition and development of three proposed town parks in the eastern portion of the Town; the development of such community facilities as a picnic area, a softball diamond, and a playfield at the Caldwell Fire Station No. 2 site; and the preservation of the important natural resources and prime agricultural lands in the Town. A more detailed description of these recommendations is presented below.

Under the plan, it is recommended that the Town of Waterford acquire and develop three new town parks:

1. **Park Site A**—Park Site A is proposed to be located in U. S. Public Land Survey Section 1 north of Tichigan Lake in the northern portion of the planned sewer service area in the Town (see Map 5). The site would encompass approximately 32 acres of land. Facilities proposed for this site include four ball diamonds, two tennis courts, two basketball courts, a children's play area, a picnic area, and appropriate support facilities, including a picnic shelter and maintenance building, restrooms, and parking. It is recommended that Park Site A be acquired and developed as the first priority to meet the identified need in the Town for the proposed facilities.
2. **Park Site B**—Park Site B is proposed to be located in Section 14 along the west side of the Fox River in the western portion of the planned sewer service area in the Town (see Map 5). The site would encompass about 40 acres of land, including about 15 acres within the primary environmental corridor. Facilities proposed for this site include a playfield, a children's play area, river access facilities, picnic areas, and appropriate support facilities, including a picnic shelter, restrooms, and parking. In addition, this site is proposed to be located along the proposed Fox River recreation corridor, and trail facilities would extend

Table 4

#### A SUMMARY OF EXISTING AND PROPOSED STATE, COUNTY, AND TOWN PARK AND OPEN SPACE LANDS IN THE TOWN OF WATERFORD

Governmental Unit	Park and Open Space Lands (acres) <sup>a</sup>		
	Existing	Proposed	Total
Wisconsin Department of Natural Resources Tichigan Wildlife Area . . .	1,221	644	1,865
Racine County			
Fox River Parkway . . . . .	--	647	647
Major Park Addition . . . .	--	18	18
Other <sup>b</sup> . . . . .	16	--	16
Town of Waterford			
Proposed Town			
Parks (three) . . . . .	--	112	112
Other <sup>c</sup> . . . . .	14	--	14
<b>Total</b>	<b>1,251</b>	<b>1,421</b>	<b>2,672</b>

<sup>a</sup>Includes lands in the Town of Waterford only.

<sup>b</sup>Consists of one open space parcel (see Table 3).

<sup>c</sup>Consists of the Tichigan Volunteer Fire Department grounds site (6 acres) and a portion of the Caldwell Fire Station No. 2 site (8 acres).

Source: Wisconsin Department of Natural Resources; Racine County; Town of Waterford Park and Recreation Committee; and SEWRPC.

from the recreation corridor through this site.

3. **Park Site C**—Park Site C is proposed to be located in Section 24 east of the Fox River in the eastern portion of the planned sewer service area in the Town (see Map 5). The site would encompass about 40 acres of land, including about 25 acres within the primary environmental corridor. Facilities proposed for this site include a playfield, a children's play area, picnic areas, trails, and appropriate support facilities, including a picnic shelter, restrooms, and parking.

Under the plan, it is also recommended that outdoor recreation facilities be provided on undeveloped land at the Caldwell Fire Station No. 2 site in Section 17 in the western portion

Table 5

**TOWN PARK ACQUISITION AND DEVELOPMENT COSTS UNDER  
THE PARK AND OPEN SPACE PLAN FOR THE TOWN OF WATERFORD**

Park Site	Proposed Acquisition		Proposed Development		Total Cost
	Acres	Cost	Facility	Cost	
A	32	\$ 64,000	Four softball diamonds Two tennis courts Two basketball courts Playground Shelter, restrooms Parking General development  Subtotal	\$ 60,000 24,000 20,000 15,000 50,000 25,000 75,000  \$269,000	\$333,000
B	40	\$ 70,000	Playfield Playground River access Shelter, restrooms Parking General development  Subtotal	\$ 20,000 15,000 15,000 50,000 15,000 50,000  \$165,000	\$235,000
C	40	\$100,000	Playfield Playground Trails Shelter, restrooms Parking General development  Subtotal	\$ 20,000 15,000 10,000 50,000 15,000 50,000  \$160,000	\$260,000
Caldwell Fire Station No. 2	--	--	Softball diamond Playfield Parking General development  Subtotal	\$ 15,000 10,000 10,000 10,000  \$ 45,000	\$ 45,000
4 Sites	112	\$234,000	--	\$639,000	\$873,000

NOTE: All costs estimated in 1989 dollars.

Source: SEWRPC.

of the Town. Under this proposal, a softball diamond, playfield, picnic area, and appropriate support facilities would be provided at the site.

A summary of the acquisition and development costs for the three proposed town parks and the development at Caldwell Fire Station No. 2 is

presented in Table 5. As indicated in Table 5, the acquisition and development costs are estimated to total \$873,000, of which about \$234,000, or 27 percent, would be expended for the acquisition of the three parks, and about \$639,000, or 73 percent, would be expended for the development of the three parks and the fire station site.

As already noted, the Town, in cooperation with Racine County, would preserve, through public land use regulation, the important natural resources and prime agricultural lands in the Town. Full implementation of these plan recommendations, along with the recommendations herein directed to the Wisconsin Department of Natural Resources and Racine County, would result in the attainment of the park acquisition and development and open space preservation objectives presented in Chapter III of this report.

Implementation of the recommendations directed at the Town of Waterford under the park and open space plan would require a total capital expenditure of about \$873,000. This open space acquisition and development cost could be distributed over a plan implementation period of 25 years or more.<sup>4</sup> Under the assumption that additional residential development will occur on the available undeveloped platted lots in the rural portions and the planned sewer service area of the Town over the next 25 years, the average annual acquisition and development cost would be about \$34,920, or about \$5.15 per capita.<sup>5</sup> It should be noted that to the extent that acquisition and development proposals become eligible for state or federal aid, these costs could be reduced. Thus, if Park Sites B and C are acquired through the land subdivision dedication process and if 50 percent of the development costs for the recommended recreation facilities are obtained through state and federal aid, full implementation of the acquisition and development proposals could cost as little as \$384,000

over the 25-year plan implementation period, or about \$15,360—or \$2.26 per capita—per year. This cost could be offset further by the use of charitable donations for parklands and facilities.

#### Other Plan Implementation Considerations

This section of the chapter has identified specific responsibilities for the acquisition and development of park and open space lands in the Town of Waterford. To summarize, it is recommended that the Wisconsin Department of Natural Resources maintain the Tichigan Wildlife Area and acquire additional lands in that area. It is recommended that Racine County acquire and develop the proposed Fox River Parkway within the Town as an integral part of an areawide parkway system along all of the major rivers of the Region, and develop the proposed recreation corridor within the Town as part of the system of recreation trails proposed to be located throughout the County within designated parkways and other environmental corridors, along railway and utility rights-of-way, and on public roads. It is recommended that the Town of Waterford be responsible for the provision of four town parks. It is important to recognize, however, that while specific implementation responsibilities have been identified herein, the provision of needed park and open space sites and facilities in the public interest is of primary importance, and all units and agencies of government should cooperate to assure the timely reservation of land for and the ultimate provision of such sites and facilities.

More specifically in this regard, while the provision of the Fox River Parkway is proposed to be a county responsibility, the Town should consult with the County to identify the specific lands required for parkway purposes. Once such lands are identified, the Town should utilize its zoning and official map powers to reserve the needed lands in open space for eventual acquisition by the County. Further, it may be appropriate for the Town to accept in dedication certain identified parkway lands as the land subdivision process proceeds, and then to transfer ownership of such lands to the County for development. Similarly, it would be appropriate for the County to develop trail facilities in town parklands, as needed, to assure continuity and uniformity in the proposed countywide system of recreation corridors.

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<sup>4</sup>*The Town of Waterford Park Committee requested that this statement be underscored to emphasize that the park and open space plan as set forth herein is a long-range plan. It is anticipated that plan implementation, and expenditures associated with plan implementation, will take place over an extended period of time.*

<sup>5</sup>*The average annual per capita costs were derived by dividing the average annual cost by the average population over a 25-year plan implementation period. The average population—determined by calculating the average of the 1985 population of 4,014 persons and the plan year population of 9,555 persons—is 6,785 persons.*

## CONCLUDING REMARKS

The primary purpose of the park and open space planning program for the Town of Waterford is the preparation of a sound and workable plan to guide the acquisition and development of lands and facilities needed to satisfy the outdoor recreation and open space needs of the existing and probable future population of the Town, and

to protect and enhance the underlying and sustaining natural resource base. Implementation of the recommended plan will ensure the protection and preservation of the environmental corridors and isolated natural areas of the Town; the maintenance of important agricultural lands in agricultural uses; and the provision of an adequate number and variety of park and open space sites and facilities geographically well-distributed throughout the Town.



## **APPENDICES**

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## Appendix A

### OUTDOOR RECREATION AND OPEN SPACE PLANNING OBJECTIVES, PRINCIPLES, AND STANDARDS

#### OBJECTIVE NO. 1

The provision of an integrated system of public general use outdoor recreation sites and related open space areas which will allow the resident population of the Region adequate opportunity to participate in a wide range of outdoor recreation activities.

#### PRINCIPLE

Attainment and maintenance of good physical and mental health is an inherent right of all residents of the Region. The provision of public general use outdoor recreation sites and related open space areas contributes to the attainment and maintenance of physical and mental health by providing opportunities to participate in a wide range of both intensive and extensive outdoor recreation activities. Moreover, an integrated park and related open space system properly related to the natural resource base, such as the existing surface water network, can generate the dual benefits of satisfying recreational demands in an appropriate setting while protecting and preserving valuable natural resource amenities. Finally, an integrated system of public general use outdoor recreation sites and related open space areas can contribute to the orderly growth of the Region by lending form and structure to urban development patterns.

#### A. PUBLIC GENERAL USE OUTDOOR RECREATION SITES

#### PRINCIPLE

Public general use outdoor recreation sites promote the maintenance of proper physical and mental health both by providing opportunities to participate in such athletic recreational activities as baseball, swimming, tennis, and ice-skating—activities that facilitate the maintenance of proper physical health because of the exercise involved—as well as opportunities to participate in such less athletic activities as pleasure walking, picnicking, or just rest and reflection. These activities tend to reduce everyday tensions and anxieties and thereby help maintain proper physical and mental well being. Well designed and properly located public general use outdoor recreation sites also provide a sense of community, bringing people together for social and cultural as well as recreational activities, and thus contribute to the desirability and stability of residential neighborhoods and therefore the communities in which such facilities are provided.

#### STANDARDS

1. The public sector should provide general use outdoor recreation sites sufficient in size and number to meet the recreation demands of the resident population. Such sites should contain the natural resource or man-made amenities appropriate to the recreational activities to be accommodated therein and be spatially distributed in a manner which provides ready access by the resident population. To achieve this standard, the following public general use outdoor recreation site requirements should be met as indicated below:

Site Type	Size (gross acres)	Publicly Owned General Use Sites							
		Parks				Schools <sup>a</sup>			
		Minimum Per Capita Public Requirements (acres per 1,000 persons) <sup>d</sup>	Typical Facilities	Maximum Service Radius (miles) <sup>b</sup>		Minimum Per Capita Public Requirements (acres per 1,000 persons) <sup>f</sup>	Typical Facilities	Maximum Service Radius (miles) <sup>c</sup>	
				Urban <sup>e</sup>	Rural			Urban <sup>e</sup>	Rural
I <sup>g</sup> Regional	250 or more	5.3	Camp sites, swimming beach, picnic areas, golf course, ski hill, ski touring trail, boat launch, nature study area, playfield, softball diamond, passive activity area <sup>h</sup>	10.0	10.0	--	--	--	--
II <sup>i</sup> Multicomunity	100-249	2.6	Camp sites, swimming pool or beach, picnic areas, golf course, ski hill, ski touring trail, boat launch, nature study area, playfield, softball and/or baseball diamond, passive activity area <sup>h</sup>	4.0 <sup>j</sup>	10.0 <sup>j</sup>	--	--	--	--
III <sup>k</sup> Community	25-99	2.2	Swimming pool or beach, picnic areas, golf course, nature study area, playfield, softball and/or baseball diamond, tennis court, passive activity area <sup>h</sup>	2.0 <sup>j</sup>	--	0.9	Playfield, baseball diamond, softball diamond, tennis court	0.5-1.0 <sup>m</sup>	--
IV <sup>n</sup>	Less than 25	1.7	Wading pool, picnic areas, playfield, softball and/or baseball diamond, tennis court, playground, basketball goal, ice-skating rink, passive activity area <sup>h</sup>	0.5-1.0 <sup>o</sup>	--	1.6	Playfield, playground, baseball diamond, softball diamond, tennis court, basketball goal	0.5-1.0 <sup>m</sup>	--

2. Public general use outdoor recreation sites should, as much as possible, be located within the designated primary environmental corridors of the Region.

## **B. RECREATION RELATED OPEN SPACE**

### **PRINCIPLE**

Effective satisfaction of recreation demands within the Region cannot be accomplished solely by providing public general use outdoor recreation sites. Certain recreational pursuits such as hiking, biking, pleasure driving, and ski touring are best provided for through a system of recreation corridors located on or adjacent to linear resource-oriented open space lands. A well designed system of recreation corridors offered as an integral part of linear open space land also can serve to physically connect existing and proposed public parks, thus forming a truly integrated park and recreation related open space system. Such open space lands, in addition, satisfy the human need for natural surroundings, serve to protect the natural resource base, and ensure that many scenic areas of natural, cultural, or historic interest assume their proper place as form determinants for both existing and future land use patterns.

### **STANDARDS**

The public sector should provide sufficient open space lands to accommodate a system of resource-oriented recreation corridors to meet the resident demand for extensive trail-oriented activities. To fulfill these requirements the following recreation-related open space standards should be met:

1. A minimum of 0.16 linear mile of recreation related open space consisting of linear recreation corridors<sup>P</sup> should be provided for each 1,000 persons in the Region.
2. Recreation corridors should have a minimum length of 15 miles and a minimum width of 200 feet.
3. The maximum travel distance to recreation corridors should be five miles in urban areas and 10 miles in rural areas.
4. Resource-oriented recreation corridors should maximize the use of:
  - a. Primary environmental corridors as locations for extensive trail-oriented recreation activities.
  - b. Outdoor recreation facilities provided at existing public park sites.
  - c. Existing recreation trail-type facilities within the Region.

### **OBJECTIVE NO. 2**

The provision of sufficient outdoor recreation facilities to allow the resident population of the Region adequate opportunity to participate in intensive nonresource-oriented outdoor recreation activities.

### **PRINCIPLE**

Participation in intensive nonresource-oriented outdoor recreation activities including basketball, ice-skating, playfield and playground activities, soft ball, pool swimming, and tennis provides an individual with both the opportunity for physical exercise and an opportunity to test and expand his physical capability. Such activities also provide an outlet for mental tension and anxiety as well as a diversion from other human activities. Competition in the various intensive nonresource-related activities also provides an opportunity to share recreational experiences, participate in team play, and gain understanding of other human beings.

### **STANDARD**

A sufficient number of facilities for participation in intensive nonresource-oriented outdoor recreation activities should be provided throughout the Region. To achieve this standard, the following per capita requirements and design criteria for various facilities should be met as indicated below:

Minimum Per Capita Facility Requirements <sup>q</sup>				Design Standards					Service Radius of Facility (miles) <sup>r</sup>
Activity	Facility	Owner	Facility Per 1,000 Urban Residents	Typical Location of Facility	Facility Requirements (acres per facility)	Additional Suggested Support Facilities	Support Facility Requirements (acres per facility)	Total Land Requirement (acres per facility)	
Baseball	Diamond	Public Nonpublic Total	0.09 0.01 0.10 <sup>s</sup>	Types II, III, and IV general use site	2.8 acres per diamond	Parking (30 spaces per diamond) Night lighting <sup>g</sup> Concessions and bleachers <sup>t</sup> Buffer and landscape	0.28 acre per diamond -- 0.02 acre minimum 1.40 acres per diamond	4.5	2.0
Basketball	Goal	Public Nonpublic Total	0.91 0.22 1.13	Type IV general use site	0.07 acre per goal	--	--	0.07	0.5
Ice-Skating	Rink	Public Nonpublic Total	0.15 <sup>u</sup> -- 0.15	Type IV general use site	0.30 acre per rink minimum	Warming house	0.05 acre --	0.35 minimum	0.5
Playfield Activities	Playfield	Public Nonpublic Total	0.39 0.11 0.50	Type IV general use site	1.0 acre per playfield minimum	Buffer area	0.65 acre minimum	1.65 minimum	0.5
Playground Activities	Playground	Public Nonpublic Total	0.35 0.07 0.42	Type IV general use site	0.25 acre per playground minimum	Buffer and landscape	0.37 acre	0.62 minimum	0.5
Softball	Diamond	Public Nonpublic Total	0.53 0.07 0.60	Types II, III, and IV general use site	1.70 acre per diamond	Parking (20 spaces per diamond) Night lighting <sup>t</sup> Buffer	0.18 acre per diamond -- 0.80 acre per diamond	2.68	1.0
Swimming	Pool	Public Nonpublic Total	0.015 <sup>v</sup> -- 0.015	Types II and III general use site	0.13 acre per pool minimum	Bathhouse and concessions Parking (400 square feet per space) Buffer and landscaping	0.13 acre minimum 0.26 acre minimum 0.70 acre minimum	1.22 minimum	3.0 3.0
Tennis	Court	Public Nonpublic Total	0.50 0.10 0.60	Types II, III, and IV general use site	0.15 acre per court	Parking (2.0 spaces per court) Night lighting <sup>t</sup> Buffer	0.02 acre per court -- 0.15 acre per court	0.32	1.0

### OBJECTIVE NO. 3

The provision of sufficient outdoor recreation facilities to allow the resident population of the Region adequate opportunity to participate in intensive resource-oriented outdoor recreation activities.

### PRINCIPLE

Participation in intensive resource-oriented outdoor recreation activities including camping, golf, picnicking, downhill skiing, and stream and lake swimming provides an opportunity for individuals to experience the exhilaration of recreational activity in natural surroundings as well as an opportunity for physical exercise. In addition, the family can participate as a unit in certain intensive resource-oriented activities such as camping, picnicking, and beach swimming.

### STANDARD

A sufficient number of facilities for participation in intensive resource-oriented outdoor recreation activities should be provided throughout the Region. To meet this standard, the following per capita requirements and design criteria for various facilities should be met as indicated below:

Minimum Per Capita Facility Requirement <sup>W</sup>					Design Standards						Service Radius of Facility (miles) <sup>X</sup>
Activity	Facility	Owner	Per Capita Requirements (facility per 1,000 residents)		Typical Location of Facility	Facility Requirements (acres per facility)	Additional Suggested Support Facilities	Support Facility Requirements (acres per facility)	Total Land Requirements (acres per facility)	Resource Requirements	
Camping	Camp site	Public Nonpublic Total	0.35 1.47 1.82		Types I and II general use sites	0.33 acre per camp site	Rest rooms - showers Utility hookups Natural area backup lands	-- -- 1.5 acres per camp site	1.83	Ungrazed wooded area Presence of surface water Suitable topography and soils	25.0
Golf	Regulation 18 hole course	Public Nonpublic Total	0.013 0.027 0.040		Types I and II general use sites	135 acres per course	Clubhouse, parking, maintenance Practice area  Woodland-water areas  Buffer acres	8.0 acres per course 5.0 acres per course 35.0 acres per course 2.0 acres per course	185.0	Suitable topography and soils Presence of surface water  Form-giving vegetation desirable	10.0
Picnicking	Tables	Public Nonpublic Total	6.35 <sup>Y</sup> 2.39 8.74		Types I, II, III, and IV general use sites	0.07 acre per table minimum	Parking  Shelters and grills Buffer and parking overflow	0.02 acre per table (1.5 spaces per table) -- 0.02 acre per table	0.11	Topography with scenic views Shade trees Presence of surface water desirable Suitable soils	10.0
Skiing	Developed slope (acres)	Public Nonpublic Total	0.010 0.090 0.100		Types I, II, and III general use sites	1.0 acre per acre of developed slope	Chalet Parking  Ski tows (and lights)  Buffer and maintenance  Landscape	0.13 acre minimum 0.25 acre per acre of slope 0.40 acre per acre of slope 0.40 acre per acre of slope 0.35 acre per acre of slope	2.1	Suitable topography and soils  (20 percent slope minimum) North or northeast exposure	25.0
Swimming	Beach (linear feet)	Public Nonpublic Total	Major Inland Lakes	Lake Michigan	Types I, II, and III general use sites	40 square feet per linear foot (average)	Parking  Bathhouse-concessions Buffer areas	0.2 acre per acre of beach 0.10 acre minimum 10 square feet per linear foot	-- <sup>Z</sup>	Natural beach Good water quality	10.0
			6	16							
			12	--							
			18	16							

## OBJECTIVE NO. 4

The provision of sufficient outdoor recreation facilities to allow the resident population of the Region adequate opportunity to participate in extensive land-based outdoor recreation activities.

### PRINCIPLE

Participation in extensive land-based outdoor recreation activities including bicycling, hiking, horseback riding, nature study, pleasure driving, ski touring, and snowmobiling provides opportunity for contact with natural, cultural, historic, and scenic features. In addition, such activities can increase an individual's perception and intensify awareness of the surroundings, contribute to a better understanding of the environment, and provide a wider range of vision and comprehension of all forms of life both as this life may have existed in the past and as it exists in the present. Similar to intensive resource-oriented activity, the family as a unit also can participate in extensive land-based recreation activities; such participation also serves to strengthen social relationships within the family. For activities like bicycling, hiking, and nature study, participation provides an opportunity to educate younger members of the family in the importance of environmental issues which may become of greater concern as they approach adulthood.

### STANDARD

A sufficient number of facilities for participation in extensive land-based outdoor recreation activities should be provided throughout the Region. Public facilities provided for these activities should be located within the linear resource-oriented recreation corridors identified in Objective No. 1. To meet this standard, the following per capita requirements and design criteria for various facilities should be met as indicated below:

Minimum Per Capita Public Facility Requirements <sup>aa</sup>			Design Standards				
			Typical Location of Facility	Minimum Facility Requirements (acres per linear mile)	Suggested Support Facilities and Backup Lands	Minimum Support Facility Requirements (acres per linear mile)	Resource Requirements
Biking	Route	- _bb	Scenic roadways	- -	Route markers	- -	- -
	Trail	0.16	Recreation corridor	1.45	Backup lands with resource amenities	24.2	Diversity of scenic, historic, natural, and cultural features Suitable topography (5 percent slope average maximum) and soils
Hiking	Trail	0.16	Recreation corridor	0.73	Backup lands with resource amenities	24.2	Diversity of scenic, historic, natural, and cultural features Suitable topography and soils
Horseback Riding	Trail	0.05	Recreation corridor Type I general use site	1.21	Backup lands with resource amenities	24.2	Diversity of scenic, historic, natural, and cultural features Suitable topography and soils
Nature Study	Center	1 per county	Types I, II, and III general use sites	- -	Interpretive center building Parking	- -	Diversity of natural features, including a variety of plant and animal species Suitable topography and soils
	Trail	0.02	Recreation corridor Types I, II, and III general use sites	0.73	Backup lands with resource amenities	24.2	Diversity of natural features, including a variety of plant and animal species Suitable topography and soils
Pleasure Driving	Route	- _cc	Scenic roadways recreation corridor	- -	Route markers	- -	- -
Ski Touring	Trail	0.02	Recreation corridor Types I and II general use sites	0.97	Backup lands with resource amenities	24.2	Suitable natural and open areas Rolling topography
Snowmobiling	Trail	0.11	Private lands (leased for public use)	1.45	Backup lands, including resource amenities and open lands	24.2	Suitable natural and open areas Suitable topography (8 percent slope average maximum) and soils

#### OBJECTIVE NO. 5

The provision of opportunities for participation by the resident population of the Region in extensive water-based outdoor recreation activities on the major inland lakes and rivers and on Lake Michigan, consistent with safe and enjoyable lake use and maintenance of good water quality.

#### PRINCIPLE

The major inland lakes and rivers of the Region and Lake Michigan accommodate participation in extensive water-based recreation activities, including canoeing, fishing, ice fishing, motorboating, sailing, and water skiing, which may involve unique forms of physical exercise or simply provide opportunities for rest and relaxation within a particularly attractive natural setting. Participation in extensive water-based recreation activities requires access to the major inland lakes and rivers and Lake Michigan and such access should be available to the general public.

#### STANDARDS

1. The maximum number of public access points consistent with safe and enjoyable participation in extensive water-based recreation activities should be provided on the major inland lakes throughout the Region. To meet this standard the following guidelines for access points available for use by the general public on various sized major inland lakes should be met as indicated below:

Size of Major Lake (acres)	Minimum Number of Access Points—Public and Private	Optimum Number of Parking Spaces
50-199	1	$\frac{A}{16.6} - \frac{D^{dd}}{10}$ Minimum: <sup>ee</sup> 6
200 or More	Minimum of 1 or 1 per 1,000 acres of usable surface <sup>ff</sup>	$\frac{A}{15.9} - \frac{D^{gg}}{10}$ Minimum: <sup>ee</sup> 12

2. The proper quantity of public access points consistent with safe and enjoyable participation in the various extensive water-based recreation activities should be provided on major rivers throughout the Region. To meet this standard the maximum interval between access points on canoeable rivers<sup>hh</sup> should be 10 miles.

3. A sufficient number boat launch ramps consistent with safe and enjoyable participation in extensive water-based outdoor recreation activities should be provided along the Lake Michigan shoreline within harbors-of-refuge. To meet this standard the following guidelines for the provision of launch ramps should be met:

Minimum Per Capita Facility Requirements (ramps per 1,000 residents)	Design Standards				Maximum Distance Between harbors of Refuge
	Typical Location of Facility	Facility Area Requirements	Suggested Support Facilities, Services, and Backup Lands	Support Facility Area Requirements	
0.025	Types I, II, and III general use sites	0.015 acre per ramp	Rest rooms Parking (40 car and trailer spaces per ramp)	-- 0.64 acre per ramp minimum	15 miles

4. A sufficient number of boat slips consistent with safe and enjoyable participation in extensive water-based outdoor recreation activities should be provided at marinas within harbors-of-refuge along the Lake Michigan shoreline. To meet this standard the following guidelines for the provision of boat slips should be met:

Minimum Per Capita Facility Requirements (boat slips per 1,000 residents)	Design Standards			Support Facility Area Requirements
	Typical Location of Facility	Facility Area Requirements	Suggested Support Facilities, Services, and Backup Lands	
1.3	Types I, II, and III general use sites	--	Fuel, concessions, rest rooms Parking Storage and maintenance	-- 0.01 acre per boat slip 0.01 acre per boat slip



## **OBJECTIVE NO. 6**

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

### **PRINCIPLE**

Ecological balance and natural beauty within the Region are primary determinants of the ability to provide a pleasant and habitable environment for all forms of life and to maintain the social and economic well being of the Region. Preservation of the most significant aspects of the natural resource base, that is, primary environmental corridors and prime agricultural lands, contributes to the maintenance of ecological balance, natural beauty, and economic well being of the Region.

### **A. PRIMARY ENVIRONMENTAL CORRIDORS**

#### **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 groundwater 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 Region should be preserved in their natural state.

### **B. PRIME AGRICULTURAL LANDS**

#### **PRINCIPLE**

Prime agricultural lands constitute the most productive farm lands in the Region and, in addition to providing food and fiber, contribute significantly to maintaining the ecological balance between plants and animals; provide locations close to urban centers for the production of certain food commodities which may require nearby population concentrations for an efficient production-distribution relationship; provide open spaces which give form and structure to urban development; and serve to maintain the natural beauty and unique cultural heritage of southeastern Wisconsin.

#### **STANDARDS**

1. All prime agricultural lands should be preserved.
2. All agricultural lands should be preserved that surround adjacent high-value scientific, educational, or recreational sites and are covered by soils rated in the regional detailed operational soil survey as having very slight, slight, or moderate limitations for agricultural use.

## **OBJECTIVE NO. 7**

The efficient and economical satisfaction of outdoor recreation and related open space needs meeting all other objectives at the lowest possible cost.

### **PRINCIPLE**

The total resources of the Region are limited, and any undue investment in park and open space lands must occur at the expense of other public investment.

### **STANDARD**

The sum total of all expenditures required to meet park demands and open space needs should be minimized.

<sup>a</sup>In urban areas facilities for intensive nonresource-oriented activities are commonly located in Type III or Type IV school outdoor recreation sites. These facilities often provide a substitute for facilities usually located in parks by providing opportunities for participation in intensive nonresource-oriented activities. It is important to note, however, that school outdoor sites do not generally contain natural areas which provide space for passive recreation use.

<sup>b</sup>The identification of a maximum service radius for each park type is intended to provide another guideline to assist in the determination of park requirements and to assure that each resident of the Region has ready access to the variety of outdoor recreation facilities commonly located in parks, including space and facilities for both active and passive outdoor recreational use.

<sup>c</sup>The identification of a maximum service radius for each school site is intended to assist in the determination of active outdoor recreation facility requirements and to assure that each urban resident has ready access to the types of active intensive nonresource-oriented facilities commonly located in school recreation areas.

<sup>d</sup>For Type I and Type II parks, which generally provide facilities for resource-oriented outdoor recreation activities for the total population of the Region, the minimum per capita acreage requirements apply to the total resident population of the Region. For Type III and Type IV sites, which generally provide facilities for intensive nonresource-oriented outdoor recreation activities primarily in urban areas, the minimum per capita acreage requirements apply to the resident population of the Region residing in urban areas.

<sup>e</sup>Urban areas are defined as areas containing a closely spaced network of minor streets which include concentrations of residential, commercial, industrial, governmental, or institutional land uses having a minimum total area of 160 acres and a minimum population of 500 persons. Such areas usually are incorporated and are served by sanitary sewerage systems. These areas have been further classified into the following densities: low-density urban areas or areas with 0.70 to 2.29 dwelling units per net residential acre, medium-density urban areas or areas with 2.30 to 6.99 dwelling units per net residential acre, and high-density urban areas or areas with 7.00 to 17.99 dwelling units per net residential acre.

<sup>f</sup>For public school sites, which generally provide facilities for intensive nonresource-oriented outdoor recreation activities, the minimum per capita acreage requirements apply to the resident population of the Region residing in urban areas.

<sup>g</sup>Type I sites are defined as large outdoor recreation sites having a multicounty service area. Such sites rely heavily for their recreational value and character on natural resource amenities and provide opportunities for participation in a wide variety of resource-oriented outdoor recreation pursuits. Figure A-1 provides an example of a Type I park.

<sup>h</sup>A passive activity area is defined as an area within an outdoor recreation site which provides an opportunity for such less athletic recreational pursuits as pleasure walking, rest and relaxation, and informal picnicking. Such areas generally are located in parks or in urban open space sites, and usually consist of a landscaped area with mowed lawn, shade trees, and benches.

<sup>i</sup>Type II sites are defined as intermediate size sites having a countywide or multicommunity service area. Like Type I sites, such sites rely for their recreational value and character on natural resource amenities. Type II parks, however, usually provide a smaller variety of recreation facilities and have smaller areas devoted to any given activity. Figure A-2 provides an example of a Type II park.

<sup>j</sup>In general, each resident of the Region should reside within 10 miles of a Type I or Type II park. It should be noted, however, that within urban areas having a population of 40,000 or greater, each urban resident should reside within four miles of a Type I or Type II park.

<sup>k</sup>Type III sites are defined as intermediate size sites having a multineighborhood service area. Such sites rely more on the development characteristics of the area to be served than on natural resource amenities for location. Figure A-3 provides an example of a Type III park.

<sup>l</sup>In urban areas the need for a Type III park is met by the presence of a Type II or Type I park. Thus, within urban areas having a population of 7,500 or greater, each urban resident should be within two miles of a Type III, II, or I park.

<sup>m</sup>The service radius of school outdoor recreation sites, for park and open space planning purposes, is governed primarily by individual outdoor recreation facilities within the school site. For example, school outdoor recreation sites which provide such facilities as playfields, playgrounds, and basketball goals typically have a service radius of one-half mile, which is the maximum service radius assigned to such facilities (see standards presented under Objective No. 2). As another example, school outdoor recreation sites which provide tennis courts and softball diamonds typically have a service radius of one mile, which is the maximum service radius assigned to such facilities (see standards presented under Objective No. 2). It is important to note that areas which offer space for passive recreational use are generally not provided at school outdoor recreation sites, and therefore Type III and Type IV school sites generally do not meet Type III and Type IV park accessibility requirements.

<sup>n</sup>Type IV sites are defined as small sites which have a neighborhood as the service area. Such sites usually provide facilities for intensive nonresource-oriented outdoor recreation activities and are generally provided in urban areas. Recreation lands at the neighborhood level should most desirably be provided through a joint community-school district venture, with the facilities and recreational land area required to be provided on one site available to serve the recreation demands of both the school student and resident neighborhood population. Using the Type IV park standard of 1.7 acres per thousand residents and the school standard of 1.6 acres per thousand residents, a total of 3.3 acres per thousand residents or approximately 21 acres of recreation lands in a typical medium-density neighborhood would be provided. These acreage standards relate to lands required to provide for recreation facilities typically located in a neighborhood and are exclusive of the school building site and associated parking area and any additional natural areas which may be incorporated into the design of the park site such as drainageways and associated stormwater retention basins, areas of poor soils, and floodland areas. Figure A-4 provides a design for typical Type IV combined park-school sites.

<sup>0</sup>The maximum service radius of Type IV parks is governed primarily by the population densities in the vicinity of the park. In high-density urban areas, each urban resident should reside within 0.5 mile of a Type IV park; in medium-density urban areas, each resident should reside within 0.75 mile of a Type IV park; and in low-density urban areas, each resident should reside within one mile of a Type IV park. It should be noted that the requirement for a Type IV park also is met by a Type I, II, or III park within 0.5-1.0 mile service radius in high-, medium-, and low-density urban areas, respectively. Further, it should be noted that in the application of the service radius criterion for Type IV sites, only multiuse parks five acres or greater in area should be considered as satisfying the maximum service radius requirement. Such park sites generally provide areas which offer space for passive recreational uses, as well as facilities which provide opportunities for active recreational uses.

<sup>P</sup>A recreation corridor is defined as a publicly owned continuous linear expanse of land which is generally located within scenic areas or areas of natural, cultural, or historical interest and which provides opportunities for participation in trail-oriented outdoor recreation activities especially through the provision of trails designated for such activities as biking, hiking, horseback riding, nature study, and ski touring.

<sup>q</sup>Facilities for intensive nonresource-oriented outdoor recreation activities generally serve urban areas. The minimum per capita requirements for facilities for intensive nonresource-oriented outdoor recreation activities, therefore, apply to the total resident population in each urban area of the Region.

<sup>r</sup>For each facility for intensive nonresource-oriented activity, the service radius indicates the maximum distance a participant should have to travel from his place of residence to participate in the corresponding activity.

<sup>s</sup>Each urban area having a population of 2,500 or greater should have at least one baseball diamond.

<sup>t</sup>Support facilities such as night lighting, concessions, and bleachers generally should not be provided in Type IV sites. These sites typically do not contain sufficient acreage to allow adequate buffer between such support facilities and surrounding neighborhood residences.

<sup>u</sup>Each urban area should have at least one ice-skating rink.

<sup>v</sup>Each urban area having a population of 7,500 or greater should have one public swimming pool or beach.

<sup>w</sup>Facilities for intensive resource-oriented activities serve both rural and urban residents of the Region. The minimum per capita requirements for facilities for intensive resource-oriented activities, therefore, apply to the total resident population of the Region.

<sup>x</sup>Participants in intensive resource-oriented outdoor recreation activity travel relatively long distances from their home. The approximate service radius indicates the normal maximum distance a participant in the respective resource-oriented activity should have to travel from his place of residence to participate in the corresponding activity.

<sup>y</sup>The allocation of the 6.35 picnic tables per thousand residents to publicly owned general-use sites is as follows: 3.80 tables per thousand residents of the Region to be located in Type I and Type II parks to meet the resource-oriented picnicking needs of the Region and 2.55 tables per thousand residents of urban areas in the Region to be located in Type III and Type IV parks to meet local picnicking needs in urban areas of the Region.

<sup>z</sup>A picnic area is commonly provided adjacent to a swimming beach as a support facility. Thus, the total amount of acreage required for support facilities must be determined on a site-by-site basis.

<sup>aa</sup>Both urban and rural residents of the Region participate in extensive land-based outdoor recreation activities. Thus, minimum per capita requirements for trails for extensive land-based activities apply to the total resident population of the Region.

<sup>bb</sup>Bike routes are located on existing public roadways; therefore, no requirement is provided.

<sup>cc</sup>Pleasure driving routes are located on existing public roadways; therefore, no requirement is provided. However, a recreation corridor may provide a uniquely suitable area for the development of a system of scenic driving routes.

<sup>dd</sup>The survey of boat owners conducted under the regional park study indicated that for lakes of 50-199 acres, the typical mix of fast boating activities is as follows: waterskiing—49 percent; motor boating—35 percent; and sailing—16 percent. The minimum area required per boat for safe participation in these activities is as follows: waterskiing—20 acres; motor boating—15 acres; and sailing—10 acres. Assuming the current mix of boating activities in conjunction with the foregoing area requirements, it is found that 16.6 acres of "usable" surface water are required per boat on lakes of 50-199 acres. The number of fast boats which can be accommodated on a given lake of this size range is the usable surface area of that lake expressed in acres (A) divided by 16.6. The optimum number of parking spaces for a given lake is the number of fast boats which the lake can accommodate reduced by the number of fast boats in use at any one time by owners of property with lake frontage. The latter figure is estimated as 10 percent of the number of dwelling units (D) on the lake.

<sup>ee</sup>The minimum number of parking spaces relates only to parking to accommodate slow boating activities such as canoeing and fishing and is applicable only in the event that the application of the standard indicated a need for less than six parking spaces for fast boating activities. No launch ramp facilities would be provided for slow boating activities.

*<sup>ff</sup>Usable surface water is defined as that area of a lake which can be safely utilized for motor boating, sailing, and waterskiing. This area includes all surface water which is a minimum distance of 200 feet from all shorelines and which is free of submerged or surface obstacles and at least five feet in depth.*

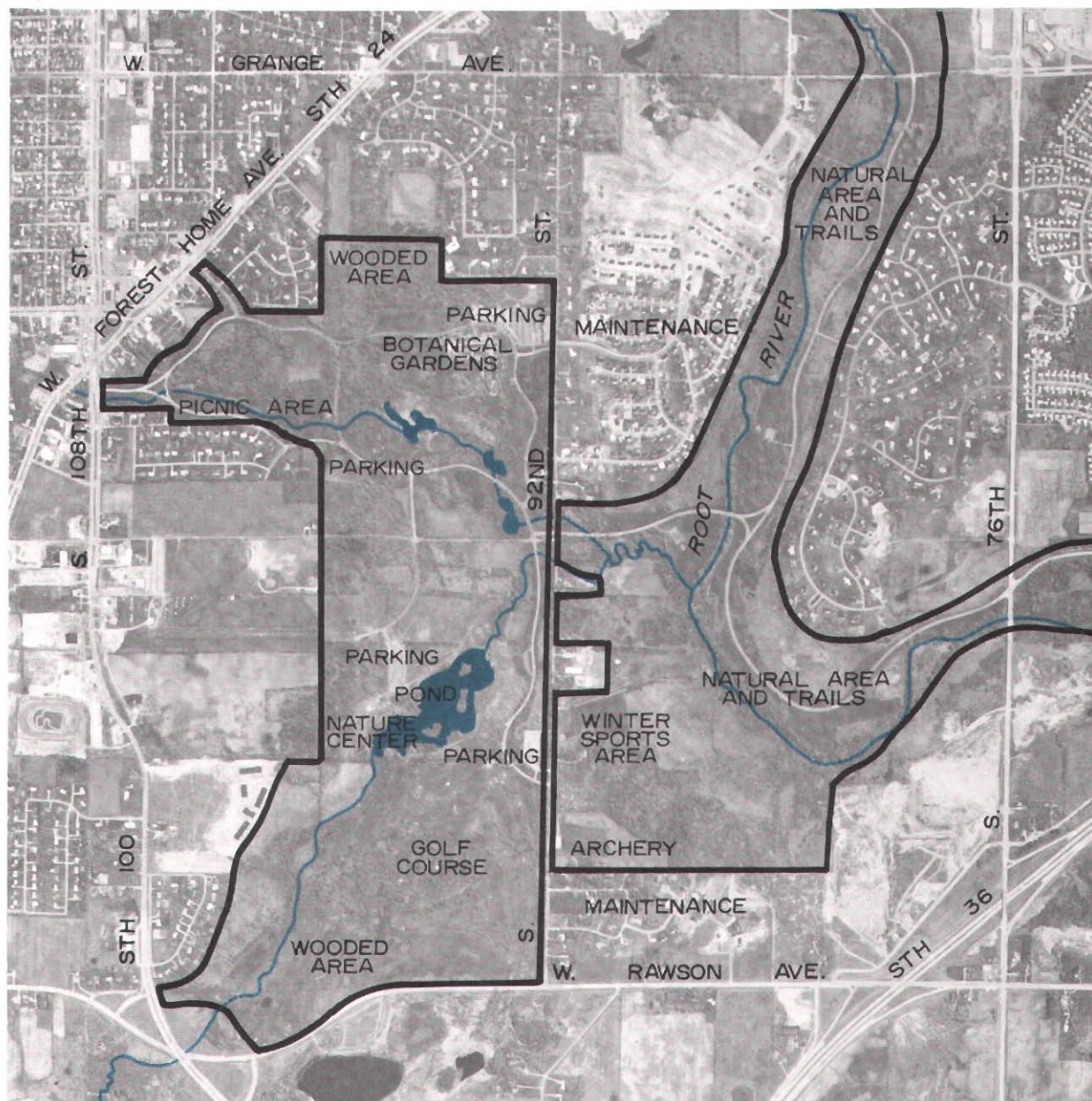
*<sup>gg</sup>The survey of boat owners conducted under the regional park study indicated that, for lakes of 200 acres or more, the typical mix of fast boating activities is as follows: waterskiing—43 percent; motor boating—33 percent; and sailing—24 percent. The minimum area required per boat for safe participation in these activities is as follows: waterskiing—20 acres; motor boating—15 acres; and sailing—10 acres. Assuming the current mix of boating activities in conjunction with the foregoing area requirements, it is found that 15.9 acres of “usable” surface water are required per boat on lakes of 200 acres or more. The number of fast boats which can be accommodated on a given lake of this size range is the usable surface area of that lake expressed in acres (A) divided by 15.9. The optimum number of parking spaces for a given lake is the number of fast boats which the lake can accommodate reduced by the number of fast boats in use at any one time by owners of property with lake frontage. The latter figure is estimated as 10 percent of the number of dwelling units (D) on the lake.*

*<sup>hh</sup>Canoeable rivers are defined as those rivers which have a minimum width of 50 feet over a distance of at least 10 miles.*

Source: SEWRPC.

Figure A-1

TYPICAL TYPE I PARK, WHITNALL PARK, MILWAUKEE COUNTY



Source: SEWRPC.



Figure A-2

TYPICAL TYPE II PARK, MUSKEGO PARK, WAUKESHA COUNTY

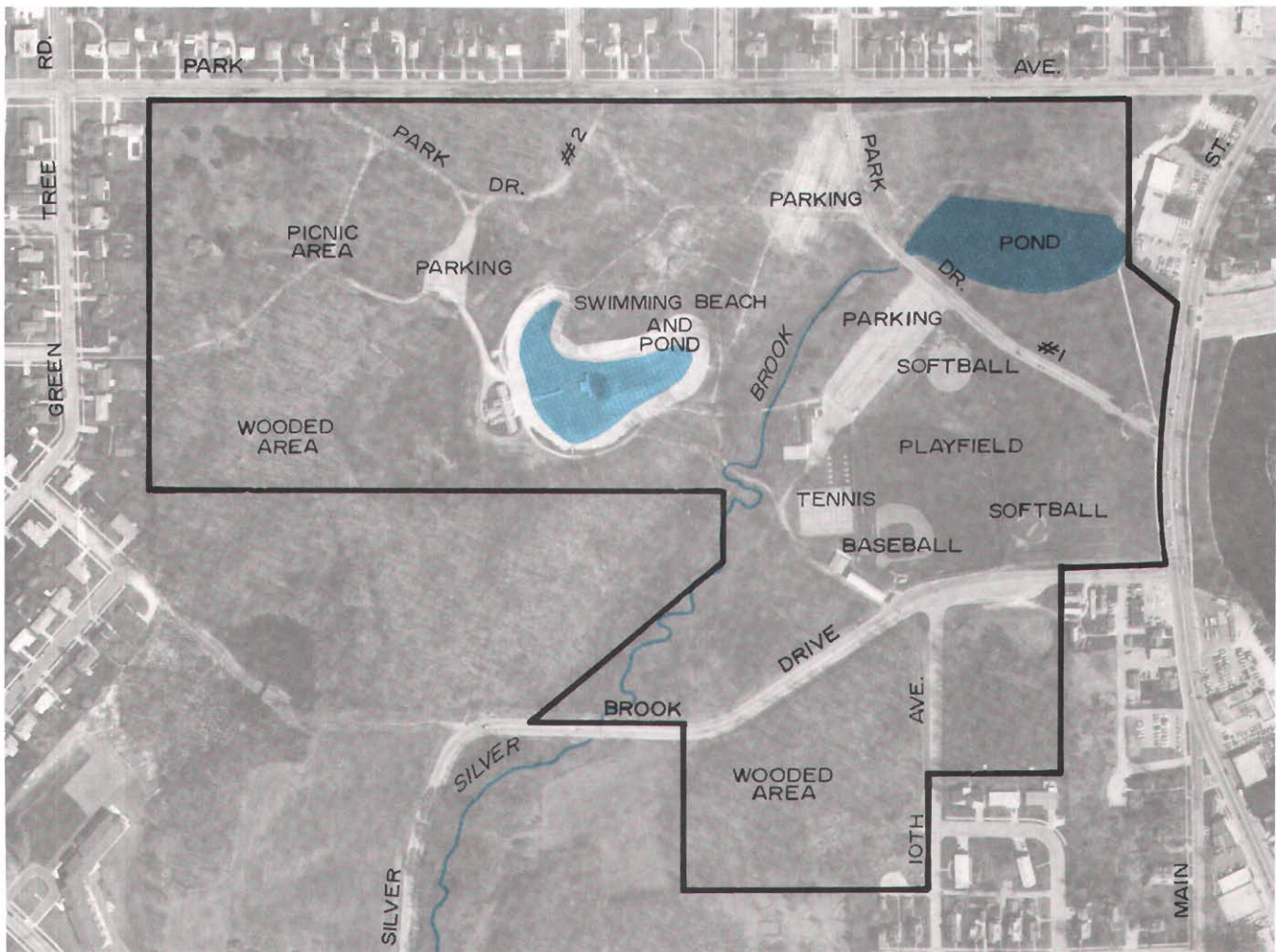


Source: SEWRPC.



Figure A-3

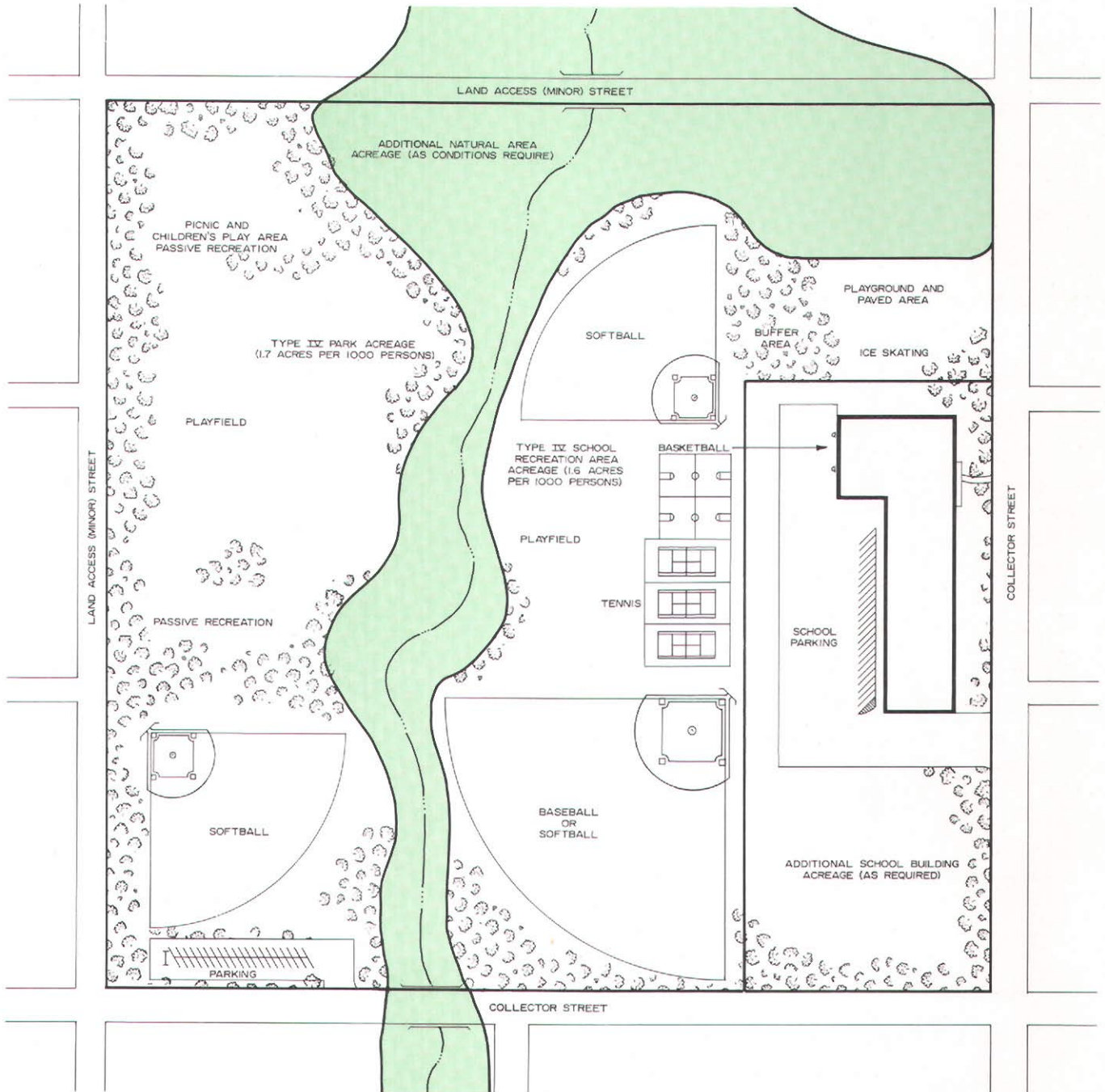
TYPICAL TYPE III PARK, REGNER PARK, WEST BEND, WASHINGTON COUNTY



Source: SEWRPC.

Figure A-4

TYPICAL TYPE IV NEIGHBORHOOD PARK AND SCHOOL RECREATION AREA



NOTE: See page 41 for the application of selected facility standards to a typical Type IV neighborhood park and school recreation area.

Source: SEWRPC.



**A. Assumptions:**

- 1) Neighborhood Density—Medium (2.30 to 6.99 dwelling units per net residential acre)
- 2) Population—6,500
- 3) Area—One Square Mile

**B. Outdoor Recreation Site Requirements:**

Site Type	Minimum Standard Acreage Requirement	Total Acreage Required
Park	1.7 per 1,000	11.05
School	1.6 per 1,000	10.40
Park and School Combined	3.3 per 1,000	21.45

**C. Outdoor Recreation Facility Requirements:**

Facility	Minimum Standard Public Facility Requirement	Number of Facilities Required	Total Acreage Required
Baseball Diamond	0.09 per 1,000	0.59 = 1 <sup>a</sup>	4.5
Basketball Goal	0.91 per 1,000	5.9 = 6	0.42
Ice-Skating Rink	0.15 per 1,000	0.98 = 1	0.35 minimum
Playfield	0.39 per 1,000	2.5 = 3	4.95 minimum
Playground	0.35 per 1,000	2.3 = 2	1.24 minimum
Softball Diamond	0.53 per 1,000	3.4 = 2 <sup>a</sup>	5.36
Tennis Court	0.50 per 1,000	3.3 = 3	0.96
		Subtotal	17.78 minimum
Passive Recreation Area	(+10 percent)		1.8
Other Recreation Area	(+10 percent)		1.8
Total			21.38 minimum

In addition, facilities for picnicking should be provided in Type IV parks.

**D. Additional Acreage Requirements:**

- 1) School Building—The acreage requirement for the school building should be considered an addition to the Type IV park-school acreage standard.

—In the typical Type IV site shown on page 40, the area for this use is approximately seven acres.

- 2) Natural Areas—Natural areas may be incorporated into the design of Type IV sites. However, acreages for areas with steep slopes, poor soils, floodwater storage, and drainageways, should be considered as additions to the Type IV park-school acreage standard.

—In the typical Type IV site shown on page 40, the area for this use is approximately seven acres.

<sup>a</sup>Though the provision of a baseball diamond is not strictly required through application of the standards, one baseball diamond replaced a softball diamond in the typical Type IV site shown on page 40.