

A PARK AND OPEN SPACE PLAN FOR THE VILLAGE OF GRAFTON

OZAUKEE COUNTY
WISCONSIN

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Special acknowledgement is due Gerald H. Emmerich, Jr., SEWRPC
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**COMMUNITY ASSISTANCE PLANNING REPORT
NUMBER 178**

**A PARK AND OPEN SPACE PLAN
FOR THE VILLAGE OF GRAFTON
OZAUKEE COUNTY, WISCONSIN**

Prepared by the
Southeastern Wisconsin Regional Planning Commission
P. O. Box 1607
Old Courthouse
916 N. East Avenue
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March 1989

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SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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March 21, 1989

Mr. James D. Grant
President of the Village of Grafton,
and Members of the Board of Trustees
Village Hall
1102 Bridge Street
Grafton, Wisconsin 53024

Gentlemen:

The Village of Grafton, on December 5, 1985, requested that the Southeastern Wisconsin Regional Planning Commission assist the Village in the preparation of a park and open space plan—a plan which would provide recommendations concerning the preservation, acquisition, and development of needed park and open space lands in the Village. Acting in response to that request, and working with the Village Administrator and the Community Activities Commission, the Commission staff has now completed the requested park and open space plan for the Village of Grafton.

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

Implementation of the plan presented in this report would, over time, provide for an integrated system of parks, open spaces, and recreation trails within the Village—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 Village cannot be overemphasized. The Village and its immediate environs still contain many high-quality natural resource amenities, including rivers and streams, attractive and environmentally important woodlands and wetlands, and good wildlife habitat. These amenities, often taken for granted, are as irreplaceable as they are invaluable and, once lost, will be lost forever. Action taken now will not only preserve these amenities, and therefore the natural beauty and cultural heritage of the Village for all time, but will also facilitate the provision of a park and open space system that can provide the residents of the Village 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 Village in planning this important program. The Commission stands ready, upon request, to assist the Village in presenting the information and recommendations contained in this report to the public and to elected officials for review and evaluation prior to implementation.

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 recreational facilities, including open space lands, should be provided 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 Village of Grafton as herein presented, 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 population of the Village, and to protect and enhance the underlying and sustaining natural resource base.

Because of the importance of both outdoor recreation sites and areas for natural resource protection, park and open space acquisition, development, and use have long been issues of concern to public officials and citizen leaders. On December 1, 1977, the Southeastern Wisconsin Regional Planning Commission adopted SEWRPC Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000, which sets forth park and open space objectives, together with a plan intended to guide the preservation, acquisition, 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 addition, following the completion of the regional plan,

and at the specific request of the Ozaukee County Board of Supervisors, the Regional Planning Commission refined and detailed the regional plan as it related to Ozaukee County. That plan, documented in SEWRPC Community Assistance Planning Report No. 23, A Park and Recreation Plan for Ozaukee County, was adopted by the County in 1978. More recently, on July 1, 1987, Ozaukee County adopted SEWRPC Community Assistance Planning Report No. 133, A Park and Open Space Plan for Ozaukee County, a plan which updates the regional park and open space plan as that plan relates to Ozaukee County. The regional plan, and therefore the Ozaukee County park and open space plan, also recommended that each local unit of government in the County refine and detail the adopted plan as it relates to its local area of jurisdiction. Accordingly, the Village Administrator, on behalf of the Village Board of Trustees, on December 5, 1985, requested that the Regional Planning Commission assist the Village of Grafton in the preparation of a park and open space plan for the Village. It is envisioned that the adoption of this plan by the Village Board will make the Village eligible to apply for and receive federal and state aids in partial 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 Village Administrator and Community Activities Commission, are set forth in this report. Chapter II of this report presents information about the Village pertinent to park and open space planning, including information on the resident population, the land use pattern, and the natural resource base of the Village, together with information on the existing park sites and open space lands within the Village. Chapter III presents the park and open space preservation, acquisition, and development objectives, principles, and supporting standards which served as the basis for the development of the park and open space plan for the Village. Chapter IV presents a description of park and open space needs in the Village, sets forth 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 VILLAGE OF GRAFTON

INTRODUCTION

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

DESCRIPTION OF THE VILLAGE OF GRAFTON STUDY AREA

As shown on Map 1, the Village of Grafton study area is located in central Ozaukee County. The study area encompasses about 18 square miles, and includes the extreme eastern portion of the Town of Cedarburg and the western portion of the Town of Grafton, as well as the Village of Grafton and the northeastern portion of the City of Cedarburg. As shown on Map 1, the Village is bounded on the north, south, and east by the Town of Grafton and on the west by the City and Town of Cedarburg. The Village is 2.8 square miles in area, based on 1985 civil division boundaries, thus occupying about 15 percent of the study area.

It is important to point out that certain park and open space sites and facilities in the City of Cedarburg may serve residents of the Village of Grafton and affect the need for such sites and facilities in the Village. Therefore, certain portions of the City of Cedarburg have been included in the Village of Grafton study area, and relevant park and open space planning data for portions of the City are presented in this

report. However, specific recommendations for the provision of needed park and open space sites in the City of Cedarburg are presented in the development plan for the City,¹ and are fully coordinated and compatible with recommendations for provision of such sites and facilities in the Village of Grafton presented in Chapter IV of this report.

The Village of Grafton is served by a well-developed highway transportation system. Important arterial streets and highways serving the Village include STH 57 and STH 60, as well as a network of county and local trunk highways. In addition, the former Chicago, Milwaukee, St. Paul & Pacific Railroad Company—now Wisconsin Central, Ltd.—right-of-way traverses the study area.

Resident population levels are an important consideration in any park and open space planning effort. Data on the historic resident population of the Village are presented in Table 1 and shown in Figures 1 and 2. As indicated in Table 1, the resident population of the Village of Grafton increased fairly steadily between 1900 and 1950—from 478 persons in 1900 to 1,489 persons in 1950. Between 1950 and 1960 the population increased dramatically from 1,489 persons to 3,748 persons, a 152 percent increase. From 1960 to 1980 the population continued to increase, but at a slower rate, to 8,381 in 1980; and between 1980 and 1985, the population increased to 8,604 persons, or only a 223-person increase—3 percent over the 1980 level. The January 1, 1988, preliminary estimate of the resident population of the Village, prepared by the Wisconsin Department of Administration, was 9,066 persons.

As further indicated in Table 1, within the 18-square-mile study area, the resident population

¹See *SEWRPC Community Assistance Planning Report No. 114, A Development Plan for the City of Cedarburg: 2010, Chapter X, "The Park and Open Space Plan."*

Table 1

POPULATION WITHIN THE GRAFTON STUDY AREA: SELECTED YEARS 1900-1985

Year	Population					
	Village of Grafton			Grafton Study Area		
	Number	Change from Preceding Census		Number	Change from Preceding Census	
		Absolute	Percent		Absolute	Percent
1900	478	--	--	N/A	--	--
1910	818	340	71.1	N/A	--	--
1920	898	80	9.8	N/A	--	--
1930	1,065	167	18.6	N/A	--	--
1940	1,150	85	8.0	N/A	--	--
1950	1,489	339	29.5	N/A	--	--
1960	3,748	2,259	151.7	7,219 ^a	--	--
1970	5,998	2,250	60.0	10,596	3,377	46.8
1980	8,381	2,383	39.7	13,364	2,768	26.1
1985	8,604	223	2.7	13,590	226	1.7

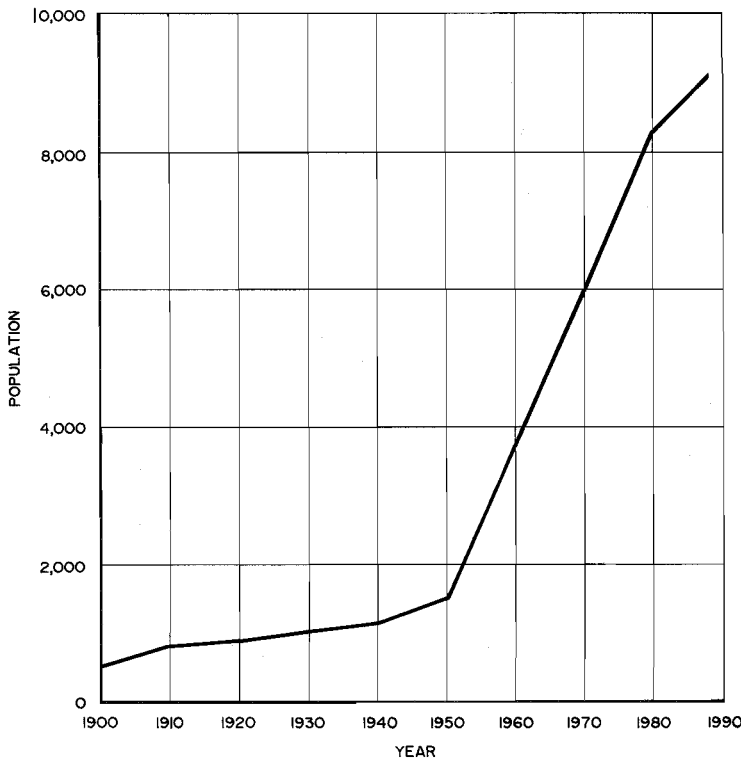
NOTE: N/A indicates data not available.

^aRepresents the estimated number of residents in the study area in 1963.

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

Figure 1

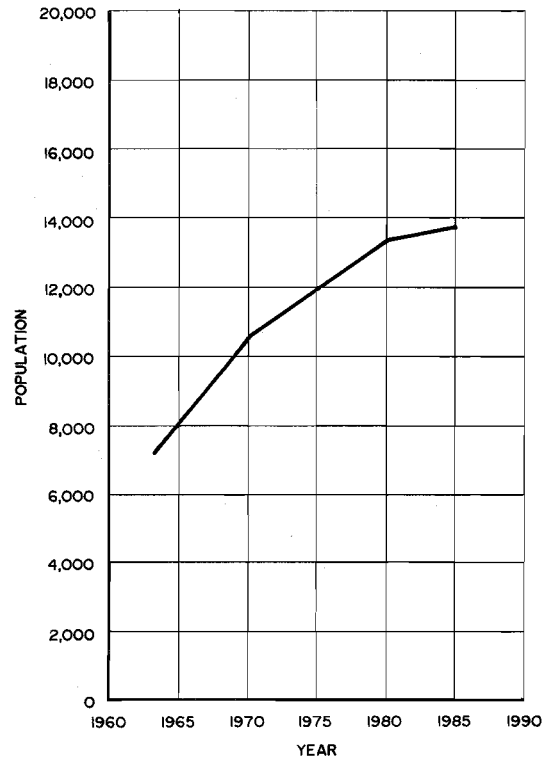
POPULATION WITHIN THE VILLAGE OF GRAFTON: 1900-1988



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

Figure 2

POPULATION WITHIN THE VILLAGE OF GRAFTON STUDY AREA: 1963-1985



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

in 1985 was 13,590 persons. Of this total, it was estimated that 8,604 persons, or 63 percent, resided in the Village of Grafton, while the remaining 4,986 persons, or 37 percent, resided in that portion of the City of Cedarburg and the Towns of Cedarburg and Grafton located within the study area.

The 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 study area, including the Village of Grafton, in 1950 and selected succeeding years is shown on Map 2. In 1950, urban land uses were largely concentrated in the central portion of the Village of Grafton, and in that portion of the City of Cedarburg which lies within the study area, and occupied a total of 378 acres. In the years after 1950, massive urban development occurred within the Village and the study area. As further shown on Map 2, by 1963 an additional 599 acres of land—a 158 percent increase over the 1950 urban development area—within the Village and to the north, south, and west of the Village were developed for urban uses. By 1970, an additional 702 acres of land—a 72 percent increase over the 1963 urban development area—were developed for urban uses; and by 1980 an additional 775 acres throughout the study area—a 46 percent increase over the 1970 area—were developed for urban uses. By 1985, an additional 158 acres, or 6 percent over the 1980 area, mostly outside the Village, were developed for urban uses.

Information on the amount of land devoted to the various types of land uses in the study area in 1985 is presented in Table 2. As indicated in Table 2, agricultural uses still accounted for about 5,749 acres, or 50 percent of the total study area. Other rural land uses, including woodlands, wetlands, and other open lands, combined encompassed 2,488 acres, or 21 percent of the study area. Thus, about 8,237 acres, or 71 percent of the study area in 1985, were still in rural uses. Residential lands accounted for 1,732 acres, or about 15 percent of the study area and 52 percent of the urban lands, while other urban uses combined covered about 1,608 acres, or 14 percent of the study area and 48 percent of the urban lands. Thus, about 3,340 acres, or 29 percent of the study area, were in urban uses in 1985.

As further indicated in Table 2, the Village of Grafton proper in 1985 encompassed about 1,793

acres, or about 15 percent of the study area. Of this total, about 456 acres, or about 25 percent of the Village, were still in rural uses. The remaining 1,337 acres, or 75 percent, were in urban uses, including residential uses encompassing about 666 acres, or about 37 percent of the area of the Village, and commercial, industrial, transportation, and other urban uses combined encompassing about 671 acres, or about 38 percent of the area of the Village.

PARK AND OPEN SPACE SITES

Existing Park and Open Space Sites

An inventory of the existing park and open space sites and outdoor recreation facilities in the study area indicates that in 1988 there were 36 such sites, which together encompassed about 285 acres, or about 2 percent of the study area. As shown on Map 3 and indicated in Table 3, 31 sites and 204 acres—or 86 percent of the sites, and 72 percent of the area—were publicly owned. The remaining five sites encompassing 81 acres were privately owned.

As indicated in Table 4, in 1988 there were 2 baseball diamonds, 2 ice skating rinks, 10 playfields, 19 playgrounds, 7 league softball diamonds, 3 sandlot softball diamonds, and 13 tennis courts located in outdoor recreation sites in the Grafton study area.

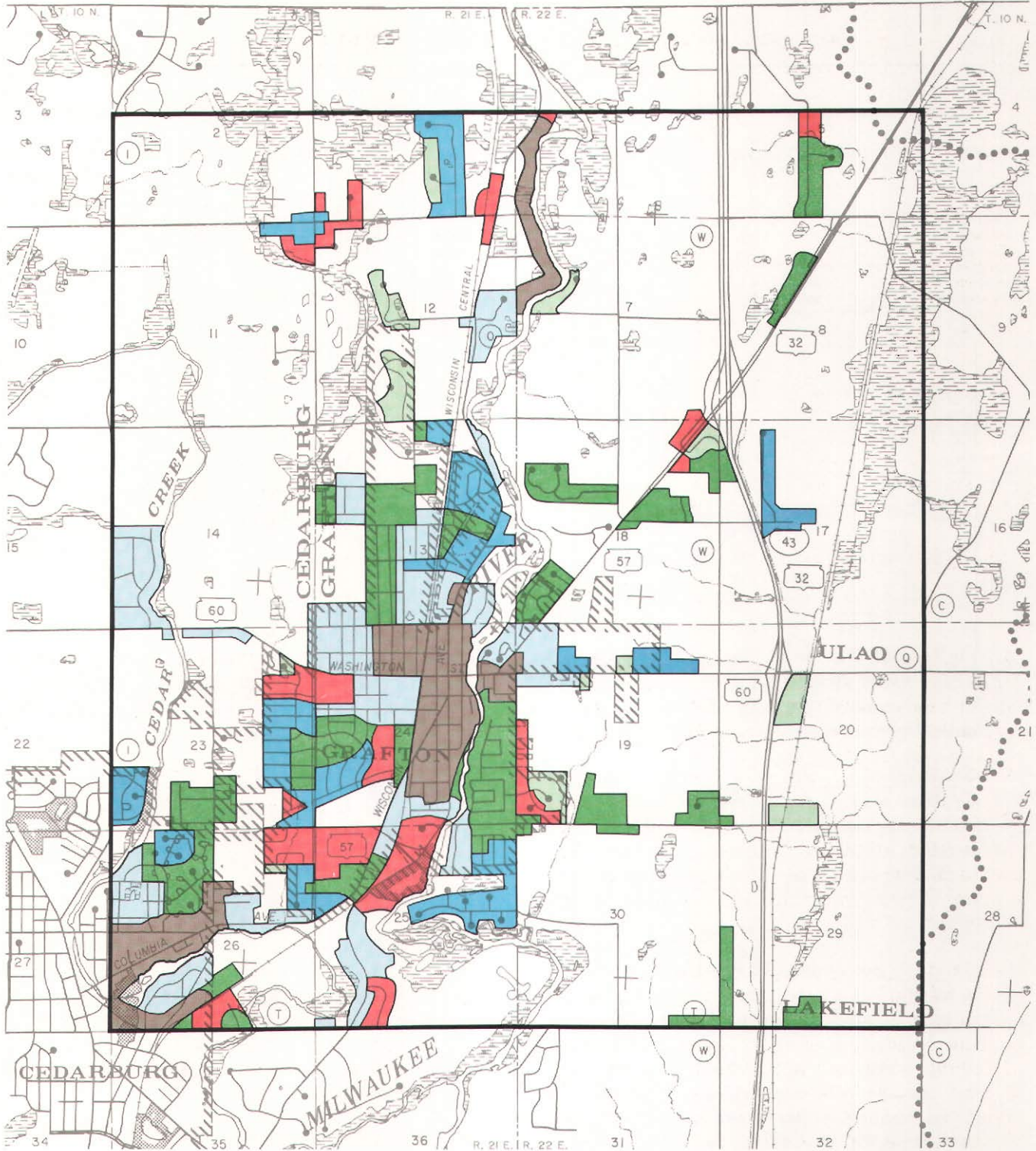
Village of Grafton Sites

In 1988, the Village of Grafton owned 13 park and open space sites encompassing a total of 93 acres, or about 5 percent of the area of the Village. As indicated in Table 5, the village-owned sites ranged in size from the one-acre Acorn Park in the southwestern portion of the Village to the 28-acre Lime Kiln Park in the southern portion of the Village. The locations of the village-owned sites are shown on Map 4. A description of each of the 13 village sites is presented below:

1. Acorn Park—Acorn Park is an urban open space site one acre in size located in the southwestern portion of the Village. A children's play area is provided at the site.
2. Cedar Highlands Open Space—Cedar Highlands open space is an urban open space site one acre in size located in the western portion of the Village.

Map 2

HISTORICAL URBAN GROWTH IN THE VILLAGE OF GRAFTON STUDY AREA: SELECTED YEARS 1950-1985



LEGEND

- 1950
- 1963
- 1970
- 1975
- 1980
- 1985

Source: SEWRPC.

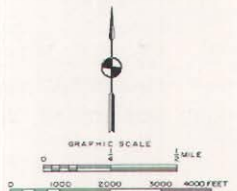


Table 2

EXISTING LAND USE IN THE VILLAGE OF GRAFTON STUDY AREA: 1985

Land Use Category	Village of Grafton				Remainder of Study Area				Total Study Area		
	Acres	Percent of Subtotal	Percent of Village	Percent of Study Area	Acres	Percent of Subtotal	Percent of Remainder of Study Area	Percent of Study Area	Acres	Percent of Subtotal	Percent of Study Area
Urban											
Residential	666	49.8	37.2	5.7	1,066	53.2	10.9	9.2	1,732	51.9	14.9
Commercial	41	3.1	2.3	0.4	44	2.2	0.5	0.4	85	2.5	0.8
Industrial	93	7.0	5.2	0.8	36	1.8	0.4	0.3	129	3.9	1.1
Transportation	400	29.9	22.3	3.5	728	36.4	7.4	6.3	1,128	33.8	9.8
Governmental and Institutional	113	8.4	6.3	1.0	29	1.4	0.3	0.2	142	4.2	1.2
Recreational	24	1.8	1.3	0.2	100	5.0	1.0	0.9	124	3.7	1.1
Subtotal	1,337	100.0	74.6	11.6	2,003	100.0	20.5	17.3	3,340	100.0	28.9
Rural											
Agricultural	201	44.1	11.2	1.7	5,548	71.3	56.7	47.9	5,749	69.8	49.6
Woodlands	31	6.8	1.7	0.3	569	7.3	5.8	4.9	600	7.3	5.2
Wetlands	25	5.5	1.4	0.2	916	11.8	9.4	7.9	941	11.4	8.1
Other Open Lands	199	43.6	11.1	1.7	748	9.6	7.6	6.5	947	11.5	8.2
Subtotal	456	100.0	25.4	3.9	7,781	100.0	79.5	67.2	8,237	100.0	71.1
Total	1,793	--	100.0	15.5	9,784	--	100.0	84.5	11,577	--	100.0

Source: SEWRPC.

3. **Dellwood Park**—Dellwood Park is an urban open space one acre in size located in the eastern portion of the Village. A children’s play area is provided at the site.
4. **Grafton Multi-Purpose Senior Center**—Grafton Multi-Purpose Senior Center is an indoor recreation and community center located in the central portion of the Village. The offices of the Community Activities Commission are also located in the center.
5. **Heritage Settlement Park**—Heritage Settlement Park is a neighborhood park 17 acres in size located in the northern portion of the Village. Existing facilities include a playground and a playfield, and an area for passive recreational use. It should be noted that four acres of the site provide facilities for intensive recreational use, while the remaining 13 acres are open space, including about eight acres within the primary environmental corridor along Mole Creek.
6. **Lime Kiln Park**—Lime Kiln Park is a community park located in the southern portion of the Village. The site is 28 acres in size and provides a wide range of outdoor recreation facilities, including a playfield, a children’s play area, eight lighted horseshoe pits, a canoe launch area, an archery range, a fitness trail, a toboggan hill, and a firing range. Restrooms, a picnic shelter, and four picnic areas are also provided at the site. In addition, a portion of the site is located within the primary environmental corridor along the Milwaukee River.
7. **Meadowbrook Park**—Meadowbrook Park is a seven-acre neighborhood park located in the northern portion of the Village. A children’s play area, two tennis courts, a picnic area, a swimming pool, a bath house, and a concession stand are provided at the site.
8. **Mill Pond Park**—Mill Pond Park is a three-acre neighborhood park located in the northeastern portion of the Village. A children’s play area, an ice-skating rink, fishing and canoe access, a picnic area, and two picnic shelters are provided at the site. In addition, a portion of the site is located within the primary environmental corridor along the Milwaukee River.

9. Mill Pond River Access Site—The Mill Pond River Access Site is an urban open space site one acre in size located in the northeastern portion of the Village. A picnic area and canoe, boat, and fishing access is provided at the site. In addition, a portion of the site is located within the primary environmental corridor along the Milwaukee River.
10. Pine Street Park—Pine Street Park is an urban open space site one acre in size located in the eastern portion of the Village. A children's play area is provided at the site.
11. 3rd Avenue Park—3rd Avenue Park is an urban open space site one acre in size located in the northwestern portion of the Village. A children's play area is provided at the site.
12. Undeveloped Community Park—The undeveloped community park is a 27-acre site located in the eastern portion of the Village. It is anticipated that this site will be developed as a community park.
13. Wildwood Park—Wildwood Park is a four-acre neighborhood park located in the western portion of the Village. A children's play area, a playfield, and an ice-skating rink are provided at the site.

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 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 presents a description of the environmental corridors and important agricultural lands in the Village of Grafton study area.

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.

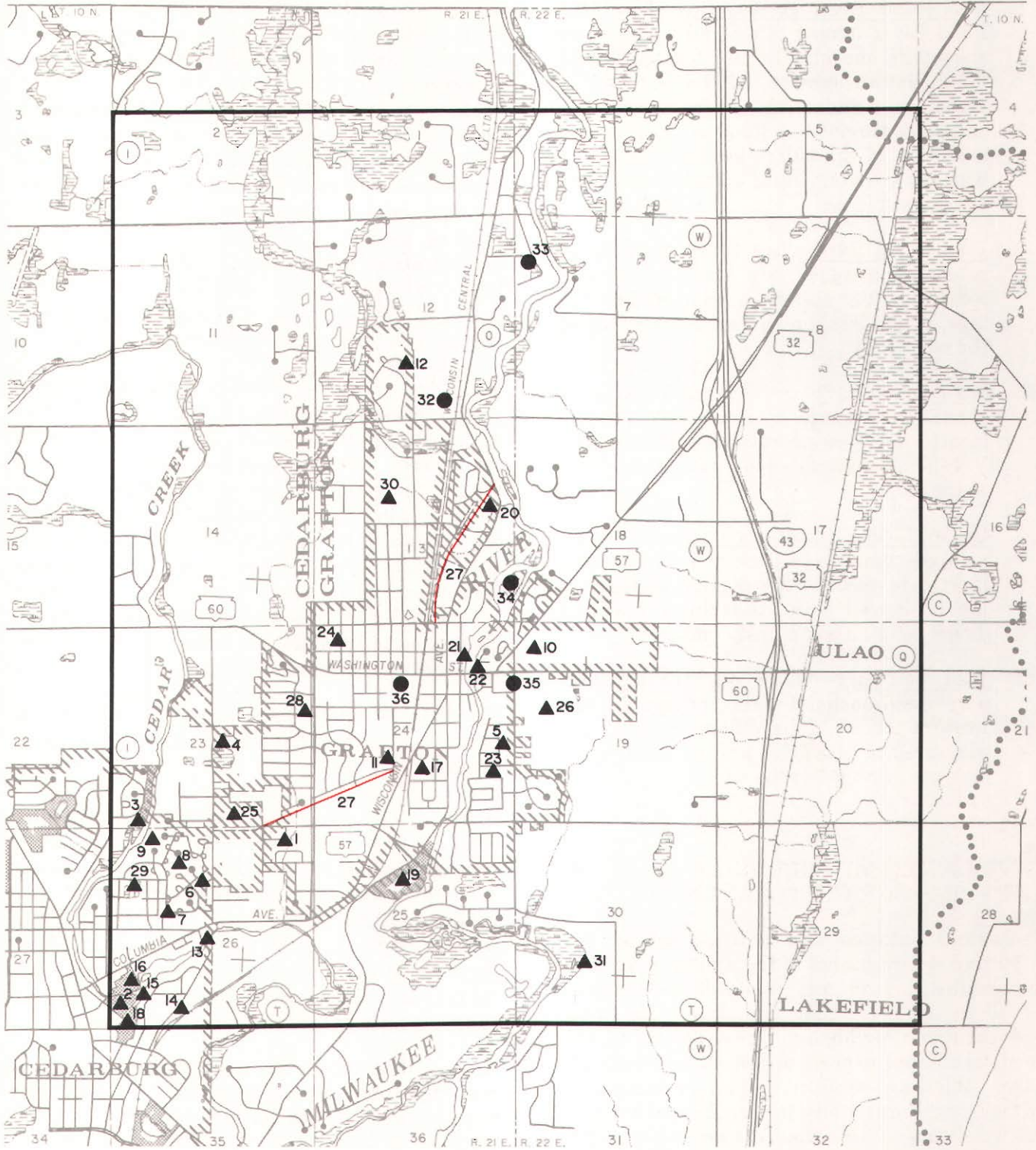
The delineation of these 12 natural resource and natural resource-related elements on a map results in an essentially linear pattern of relatively narrow, elongated areas which have been termed "environmental corridors" by the Regional Planning Commission.² Primary environmental corridors include a wide 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 discussion of environmental corridors and important natural features, it is important to point out that such features can assist in noise pollution abatement, water pollution abatement, and favorable climate modification. In addition,

²A 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.*

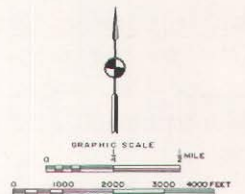
Map 3

PARK AND OPEN SPACE SITES IN THE VILLAGE OF GRAFTON STUDY AREA: 1988



LEGEND

- 3 SITE NUMBER (SEE TABLE 3)
- ▲ PUBLIC SITE
- NONPUBLIC SITE
- VILLAGE BIKE AND HIKE PATH



Source: SEWRPC.

Table 3

PARK AND OPEN SPACE SITES IN THE VILLAGE OF GRAFTON STUDY AREA: 1988

Site Name	Number on Map 3	Ownership	Acreage
Public			
Acorn Park	1	Village of Grafton	1
Cedar Creek Park	2	City of Cedarburg	15
Cedar Hedge Park	3	City of Cedarburg	11
Cedar Highlands Open Space	4	Village of Grafton	1
Dellwood Park	5	Village of Grafton	1
Georgetown Lot No. 1	6	City of Cedarburg	1
Georgetown Lot No. 2	7	City of Cedarburg	1
Georgetown Lot No. 3	8	City of Cedarburg	3
Georgetown Park	9	City of Cedarburg	2
Grafton Elementary and High School	10	Grafton School District	19 ^a
Grafton Multi-purpose Senior Center	11	Village of Grafton	1
Heritage Settlement Park	12	Village of Grafton	17
Highland Bridge	13	City of Cedarburg	1
Highland Park	14	City of Cedarburg	1
Hilbert Tot Lots	15	City of Cedarburg	1
Horn Park	16	City of Cedarburg	9
Kennedy School	17	Grafton School District	4 ^a
Legion Park	18	City of Cedarburg	2
Lime Kiln Park	19	Village of Grafton	28
Meadowbrook Park	20	Village of Grafton	7
Mill Pond Park	21	Village of Grafton	3
Mill Pond River Access Site	22	Village of Grafton	1
Pine Street Park	23	Village of Grafton	1
3rd Avenue Park	24	Village of Grafton	1
Thorson School	25	Cedarburg School District	7 ^a
Undeveloped Community Park	26	Village of Grafton	27
Village Bike and Hike Path	27	Village of Grafton	-- ^b
Wildwood Park	28	Village of Grafton	4
Woodland Park	29	City of Cedarburg	4
Woodview Elementary and John Long Middle Schools	30	Grafton School District	18 ^a
Zaun Soccer Park	31	Grafton School District	12 ^a
Subtotal	31 Sites	--	204
Nonpublic			
Edgewater Golf Course	32	Private	61
Home-Owners Association Park	33	Private	4
River Knoll Golf Course	34	Private	6
St. Joseph School	35	Private	5
St. Paul School	36	Private	5
Subtotal	5 Sites	--	81
Total	36 Sites	--	285

^aThe identified school site acreage includes only that portion of the site intensively used for outdoor recreation purposes.

^bThe Village Bike and Hike Path is about two miles long. The trail is located partially along road rights-of-way and partially along an abandoned railway right-of-way having a width of about 75 feet. The area of the trail along the former railway right-of-way is approximately 18 acres.

Source: Village of Grafton and SEWRPC.

Table 4

SELECTED OUTDOOR RECREATION FACILITIES IN THE VILLAGE OF GRAFTON STUDY AREA: 1988

Site Name	Number of Selected Facilities										Other Facilities
	Number on Map 3	Regulation Baseball Diamond	Basketball Goal	Ice-Skating Rink	Picnic Areas	Playfield	Playground	Softball Diamond (league)	Softball Diamond (sandlot)	Tennis Courts	
Public											
Acorn Park	1	--	--	--	--	--	1	--	--	--	--
Cedar Creek Park	2	--	--	--	--	--	1	1	--	--	Restrooms, tobaggan hill, bandshell, concession stand, picnic shelter
Dellwood Park	5	--	1	--	--	--	1	--	--	--	--
Georgetown Park	9	--	--	--	--	--	1	--	--	--	--
Grafton Elementary and High School	10	1	4	--	--	1	1	--	--	7	Football field, soccer field
Heritage Settlement Park	12	--	--	--	--	1	1	--	--	--	--
Hilbert Tot Lots	15	--	2	--	--	--	--	--	--	--	--
Horn Park	16	--	--	--	--	--	--	1	--	2	--
Kennedy School	17	--	3	--	--	--	1	1	--	2	--
Lime Kiln Park	19	--	--	--	4	1	1	--	--	--	Eight lighted league horseshoe pits, canoe launch area, archery range, fitness trail, tobaggan hill, firing range, restrooms, picnic shelter, volleyball area, historic site, lighted ball diamond
Meadowbrook Park	20	--	2	--	1	--	1	--	--	2	Swimming pool, bath house, concession stand
Mill Pond Park	21	--	2	1	1	--	1	--	--	--	Two picnic shelters, fishing and canoe access, gazebo
Mill Pond River Access	22	--	--	--	1	--	--	--	--	--	Canoe, boat and fishing access
Pine Street Park	23	--	1	--	--	--	1	--	--	--	--
3rd Avenue Park	24	--	2	--	--	--	1	--	--	--	--
Thorson School	25	--	--	--	--	--	1	1	--	--	--
Village Bike and Hike Path	27	--	--	--	--	--	--	--	--	--	Recreation corridor providing biking and hiking
Wildwood Park	28	--	2	1	--	1	1	--	--	--	--
Woodland Park	29	--	1	--	--	1	1	--	--	--	--
Woodview Elementary and John Long Middle Schools	30	1	9	--	--	1	1	3	--	--	Two little league diamonds, one soccer field, restrooms, and concession stand
Zaun Soccer Park	31	--	--	--	--	1	--	--	--	--	Three soccer fields, parking lot
Subtotal	--	2	29	2	7	7	16	7	--	13	
Nonpublic											
Edgewater Golf Course	32	--	--	--	--	--	--	--	--	--	Nine-hole regulation golf course
Home-Owners Association Park	33	--	--	--	--	1	1	--	1	--	--
River Knoll Golf Course	34	--	--	--	--	--	--	--	--	--	Three-hole private golf course
St. Joseph School	35	--	3	--	--	1	1	--	1	--	Soccer field
St. Paul School	36	--	2	--	--	1	1	--	1	--	Soccer field
Subtotal	--	--	5	--	--	3	3	--	3	--	
Total	--	2	34	2	7	10	19	7	3	13	--

Source: Village of Grafton and SEWRPC.

Table 5

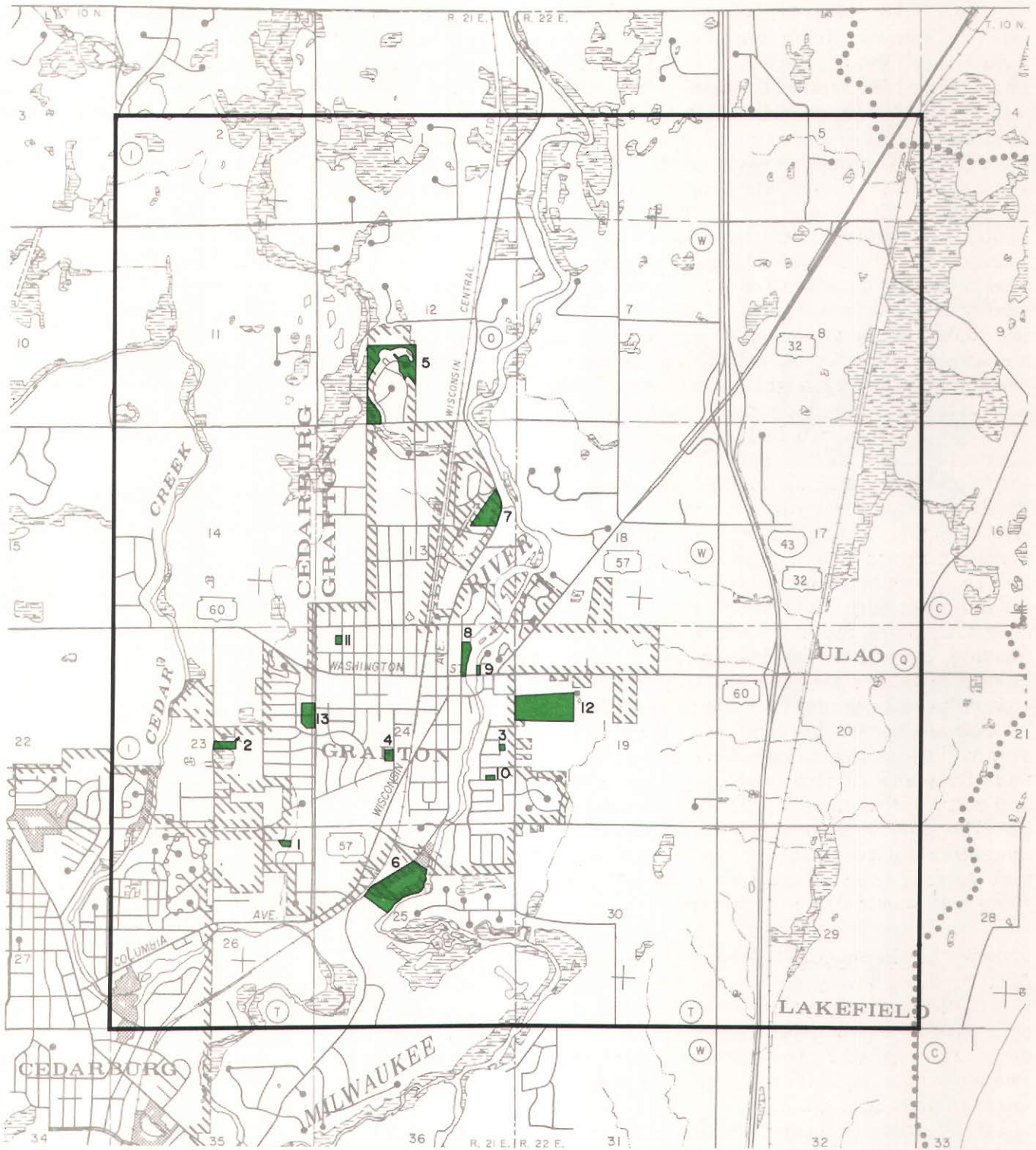
VILLAGE OF GRAFTON PARK SYSTEM: 1988

Site Name	Acreage	Site Description
Acorn Park	1	Urban open space
Cedar Highlands Open Space	1	Urban open space
Dellwood Park	1	Urban open space
Grafton Multi-purpose Senior Center	1	Indoor recreation and community center site
Heritage Settlement Park	17	Neighborhood park
Lime Kiln Park	28	Community park
Meadowbrook Park	7	Neighborhood park
Mill Pond Park	3	Neighborhood park
Mill Pond River Access Site	1	River access
Pine Street Park	1	Urban open space
3rd Avenue Park	1	Urban open space
Undeveloped Community Park	27	Community park
Wildwood Park	4	Neighborhood park
Total—13 sites	93	--

Source: Village of Grafton and SEWRPC.

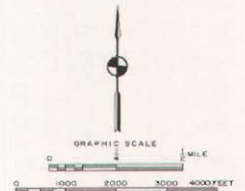
Map 4

VILLAGE-OWNED PARK AND OPEN SPACE SITES



LEGEND

- | | |
|---------------------------------------|-------------------------------|
| 1 ACORN PARK | 8 MILL POND PARK |
| 2 CEDAR HIGHLANDS OPEN SPACE | 9 MILL POND RIVER ACCESS |
| 3 DELLWOOD PARK | 10 PINE STREET PARK |
| 4 GRAFTON MULTI-PURPOSE SENIOR CENTER | 11 3RD AVENUE PARK |
| 5 HERITAGE SETTLEMENT PARK | 12 UNDEVELOPED COMMUNITY PARK |
| 6 LIME KILN PARK | 13 WILDWOOD PARK |
| 7 MEADOWBROOK PARK | |



Source: SEWRPC.

because of the many interacting relationships existing between living organisms and their environment, the destruction or deterioration of an important 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 a 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 foundations for pavements and structures, wet basements, excessive operation of sump pumps, excessive clear-water 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 natural resource features in the Grafton study area should thus be apparent.

Primary Environmental Corridors: As shown on Map 5, the primary environmental corridors within the study area are located within and adjacent to the Village and generally follow the major streams and rivers of the study area. These corridors encompass about 1,678 acres, or about 14 percent of the study area. Of this total, about 101 acres, or 6 percent, are located in the Village of Grafton. The remaining 1,577 acres, or 94 percent, are located in the remainder of the study area. Of the 1,678 acres of primary environmental corridors located in the study area, about 10 acres, or 1 percent, are held in public ownership, including about 8 acres in Lime Kiln Park, one acre in Mill Pond Park, and one acre in the Mill Pond River Access Site. The remaining 1,668 acres are held in nonpublic 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 study area. 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 village 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 study area, protect its natural beauty, and provide valuable recreation opportunities.

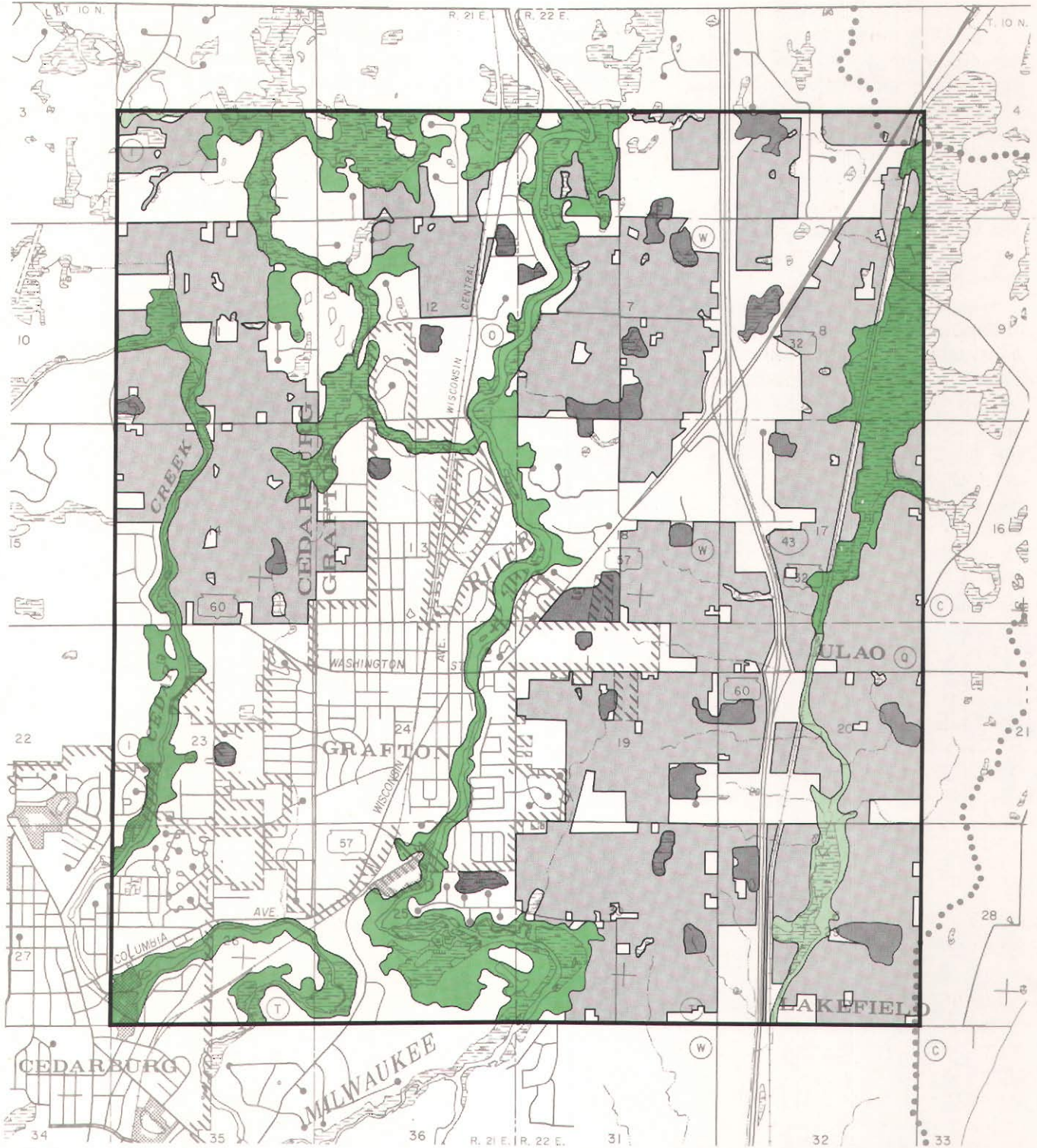
Secondary Environmental Corridors: As shown on Map 5, secondary environmental corridors in the Village of Grafton study area are located along two intermittent streams and encompass a total of 97 acres, or about 1 percent of the study area. There are no secondary environmental corridors within the Village of Grafton.

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 open, natural uses as development proceeds within the study area, particularly when the opportunity is presented to incorporate the corridors into urban stormwater detention areas, associated drainageways, and neighborhood parks.





Isolated Natural Features: In addition to the environmental corridors, other, small pockets of concentrations of natural resource base elements exist within the study area. 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,

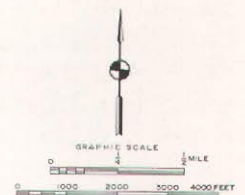
Map 5

ENVIRONMENTAL CORRIDORS, ISOLATED NATURAL AREAS, AND PRIME AGRICULTURAL LANDS IN THE VILLAGE OF GRAFTON STUDY AREA



LEGEND

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



Source: SEWRPC.

and lend unique and aesthetic character and natural diversity to an area. As shown on Map 5, isolated natural areas are located throughout the study area and encompass 318 acres, or about 3 percent of the study area. Of this total, 18 acres, or about 6 percent, are located within the Village of Grafton.

Prime Agricultural Land

For planning purposes it is useful to distinguish between prime agricultural lands and other farming areas. Prime agricultural lands are those lands which, in terms of farm size and soil characteristics, are best 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 of at least 100 acres in size. The Southeastern Wisconsin Regional Planning Commission, using these

criteria for the identification of prime agricultural lands, prepared a farmland preservation plan for Ozaukee County, including those farmlands in the Village of Grafton study area. This plan is documented in SEWRPC Community Assistance Planning Report No. 87, A Farmland Preservation Plan for Ozaukee County, Wisconsin. Prime agricultural lands identified in this plan within the study area are shown on Map 5. In 1985, these areas encompassed about 3,824 acres, or about 33 percent of the study area. Of this total, about 16 acres, or less than 1 percent, were located in the Village of Grafton.

A number of important public purposes are served by the preservation of prime agricultural lands. Such public purposes include the maintenance of agricultural reserves, energy conservation, the maintenance of open space, the protection of environmentally significant areas, the control of public costs, the preservation of the local economic base, and the preservation of the rural lifestyle. Recommendations regarding the preservation of prime agricultural lands in the study area 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 related open space preservation, acquisition, and development objectives. Because the study viewed all park and open space facilities as an integral part of an area-wide system, the objectives addressed community and neighborhood, as well as regional, park and open space facilities. This chapter sets forth the park and open space objectives which will guide the formulation of a park and open space plan for the Village of Grafton.

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 Village of Grafton.

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 Village 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 Village adequate opportunities to participate in intensive nonresource-oriented outdoor recreation activities.
3. The provision of sufficient recreation facilities to afford the resident population of the Village 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 Village 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 Village 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 Village.
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 park and open space preservation, acquisition, and development objectives is a planning principle and a set of planning standards. These are set forth in Appendix A, which sets forth the regional park and open space objectives, principles, and standards, 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 Village of Grafton 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 Grafton

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 and neighborhood parks and associated intensive nonresource-oriented recreational facilities and for the protection of certain natural features within their area of jurisdiction is delegated to local units of government.

Chapter IV

RECOMMENDED PLAN

INTRODUCTION

The primary purpose of the park and open space planning program for the Village of Grafton 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 Village 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 probable 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 future 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 presented the park and open space preservation, acquisition, and development objectives, principles, and standards, and indicated that there are different types of park and open space objectives to be attained by different levels of government, namely: 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, and 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, and soccer, and children's playground activities, and 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, logically the responsibility of all levels of government. The Regional Planning Commission's regional park and open space plan 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 recommendations 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. The second section of the chapter describes anticipated future population levels and distribution for the Village of Grafton, identifies the need for local village park and open space sites and facilities, and sets forth the recommended park plan for the Village. The third section of the chapter outlines the steps required to implement the recommended plan.

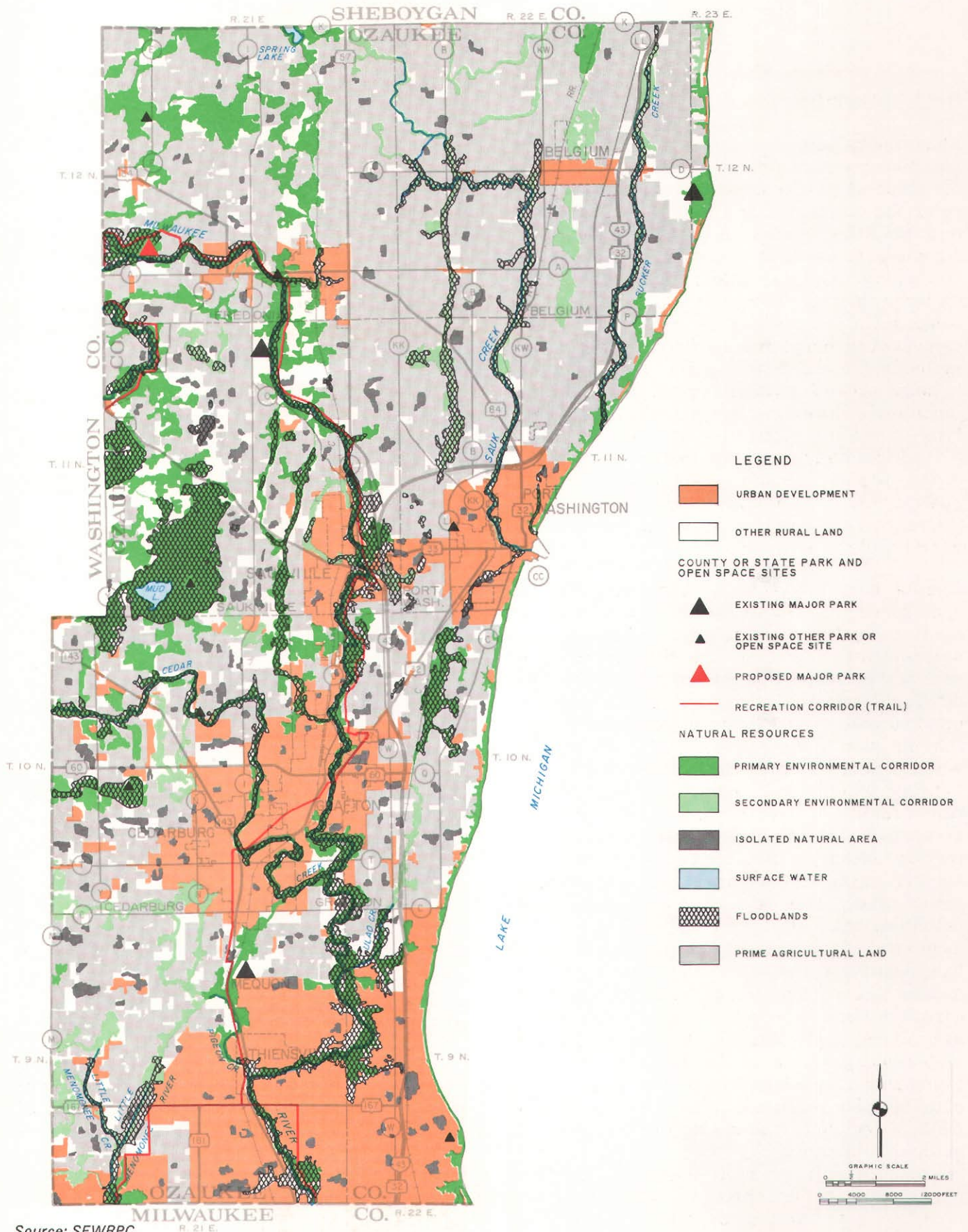
AREAWIDE CONSIDERATIONS

The regional park and open space plan contains recommendations which, if implemented, would provide residents of Ozaukee County, including residents of the Village of Grafton, opportunities to participate in a wide range of resource-oriented outdoor recreation activities. The recommendations are concerned with the provision of major parks, which provide opportunities for intensive resource-oriented outdoor recreation activities such as camping, swimming, and picnicking; the provision of recreation corridors, which provide opportunities for various trail-oriented outdoor recreation 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. A summary of the recommendations contained in the regional plan as updated and amended as it relates to Ozaukee County is presented on Map 6.¹

¹*The Regional Planning Commission staff, in cooperation with the staff of the Ozaukee County Park Commission, has recently completed an update of the regional park and open space plan as that plan relates to Ozaukee County. This plan update is documented in SEWRPC Community Assistance Planning Report No. 133, A Park and Open Space Plan for Ozaukee County. This plan was adopted by the Ozaukee County Board of Supervisors on July 1, 1987, and serves as an amendment to the initial regional plan. This plan includes the refined delineation of environmental corridors in Ozaukee County, as well as the refined delineation of prime agricultural lands in the County presented in this report.*

Map 6

RECOMMENDED PARK AND OPEN SPACE PLAN FOR OZAUKEE COUNTY



Source: SEWRPC.

Major Parks and Trail Facilities

The regional plan, as amended, recommends that the State and County assume responsibility for the provision of major parks,² including four major outdoor recreation sites in the County—MeeKwon Park, a 239-acre county-owned park located south of the study area in the City of Mequon providing a regulation 18-hole golf course, a winter sports area, and a nature trail; Hawthorne Hills Park, a 285-acre county-owned park located north of the study area in the Town of Saukville providing a regulation 18-hole golf course, a winter sports area, a group camping area, a picnic area, and a nature trail; Harrington Beach Park, a 636-acre state-owned park located along the Lake Michigan shoreline in the Town of Belgium providing a swimming beach, picnic areas, and other facilities; and a new 165-acre major park located along the Milwaukee River in the Town of Fredonia proposed for acquisition and development by Ozaukee County. It is anticipated that these state- and county-owned major parks in the County will provide adequate opportunities for intensive resource-oriented outdoor recreation activities for the residents of Ozaukee County, including the residents of the Village of Grafton.

The regional plan also recommends that the State and County provide about 38 miles of recreational trails within a system of recreation corridors.³ Within Ozaukee County, the proposed Milwaukee River recreation corridor would traverse the study area and provide, within the study area, about five miles of trails for hiking and biking. It is anticipated that the recreation corridors in the County would provide adequate opportunities for participation in trail-oriented

²Major parks (or Type I and Type II parks) are defined as large, public general-use outdoor recreation sites which provide opportunities for such resource-oriented activities as camping, golfing, picnicking, and swimming, and which have a large area containing significant natural resource amenities.

³A recreation corridor is defined as a trail at least 15 miles in length located within areas of scenic, scientific, historic, or cultural interest which provides opportunities for such linear outdoor recreation activities as biking, hiking, horseback riding, nature study, and ski touring.

outdoor recreation activities for the residents of the County, including the residents of the Village of Grafton.

Open Space Preservation

The location and extent of the important open space lands in the study area—including primary and secondary environmental corridors, isolated natural areas, and prime agricultural lands—are described in Chapter II of this report. It is recommended that these open space lands be preserved in order to maintain a high level of environmental quality in, and protect the natural beauty of, the area, as well as provide valuable recreation activities for residents. Such preservation would also help to avoid the creation of serious and costly environmental and developmental problems.

VILLAGE CONSIDERATIONS

Local units of government, including the Village of Grafton, are responsible for providing intensive nonresource-oriented sites and facilities, such as village parks providing ball diamonds, children's play areas, and tennis courts. The need to provide village parks and outdoor recreation facilities is dependent upon both the existing and probable future size and distribution of the resident population of the Village. This section, therefore, describes such population levels and distribution in the Village, identifies the need for local parks and outdoor recreation facilities, and sets forth the plan for the acquisition and development of village parks and facilities.

Existing and Probable Future Population Levels and Distribution

The need for outdoor recreation sites and facilities is defined, for purposes of this report, as the shortfall in the number and areas of such sites, and in the number and type of such facilities, as indicated by a comparison of the existing supply of such sites and facilities with the existing and probable future demands for such sites and facilities. The existing supply of recreation sites and facilities was described in Chapter II of this report. The existing and anticipated future demand for recreation sites and facilities was determined by applying the adopted planning standards presented in Chapter III of this report to the existing and probable future resident population levels of the Village of Grafton. The adopted park and open space planning stand-

ards specify requirements for the quantity and spatial distribution of outdoor recreation sites and facilities. The application of these standards to the existing and anticipated future population levels in the Village provides an estimate of the existing and probable future demand for specific types of outdoor recreation sites and facilities. This demand, when compared with the existing supply of such sites and facilities, yields an estimate of the existing and probable future need. Because the existing and probable future population level and distribution within the Village are important determinants of existing and probable future outdoor recreation needs, data on the existing size and distribution of the population, together with corresponding data on the future size and distribution of population, are required.

As noted in Chapter II of this report, the resident population of the Village of Grafton was 8,381 persons in 1980. Current population estimates for the Village indicate that the population has increased slightly since 1980. The January 1, 1988, preliminary population estimate for the Village, as prepared by the Wisconsin Department of Administration, was 9,066 persons, an increase of 685, or about 8 percent, over the 1980 population level.

The future population size and distribution presented in this section are based upon information presented in SEWRPC Technical Report No. 11 (2nd Edition), The Population of Southeastern Wisconsin. Forecast conditions presented in this report attempt to deal with the uncertainty which currently exists in the nation, State, and Region concerning probable future population conditions by evaluating birth, death, and migration rates, changing lifestyles, and the changing age distribution of the population. The planned future population of the Region, Ozaukee County, and the Village of Grafton urban service area is described below.

Planned Future Population—the Region and Ozaukee County: Traditionally, long-range planning has involved the preparation of a single forecast of levels of population. This approach works well in periods of relative stability, when historic trends and factors underlying population changes can be reasonably expected to extend over the plan design period. During periods of major changes in social and economic conditions, however, when there is great uncertainty concerning whether

historic trends will continue, an alternative to this traditional approach is required. One such alternative approach proposed in recent years is termed “alternative futures.” Under this approach, the development and evaluation of alternative plans is based not upon a single, most probable forecast of future conditions, but rather on a number of futures chosen to represent the range of conditions which may be expected to occur over the plan design period. The alternative futures used under this approach are selected to represent the reasonable extremes of a range of future conditions.

The Commission utilized the “alternative futures” approach to develop the series of projections presented herein. Using this approach, three alternative future scenarios were postulated, two intended to identify extremes and one intended to identify an intermediate future—that is, a future that lies between the extremes. Critical social and economic factors that could be expected to have an impact upon mortality, fertility, and migration rates over the next 25 years within the United States, the State, and the Region were examined, and a reasonably extreme range of values was established for each component of population change. The “most reasonably optimistic” scenario of population change was provided by combining all factors that were internally consistent to create favorable conditions for population growth in the Region, and the “most reasonably pessimistic” scenario was provided by similarly combining all factors that would create unfavorable conditions for population growth in the Region.⁴

The population projections for the seven-county Southeastern Wisconsin Region for the year 2010 range from a high of approximately 2,316,100 persons under the optimistic population scenario to about 1,517,100 persons under the pessimistic scenario, with the intermediate population level being 1,872,200 persons. These population levels represent an increase of about 31 percent and

⁴A more detailed description of the forecast resident population of southeastern Wisconsin for the year 2010, including a description of the optimistic, pessimistic, and intermediate scenarios, is presented in SEWRPC Technical Report No. 11 (2nd Edition), The Population of Southeastern Wisconsin, June 1984.

6 percent under the optimistic and intermediate projections, respectively, and a decrease of about 14 percent under the pessimistic projection, when compared with the 1980 regional population of 1,764,900 persons.

In Ozaukee County, resident population levels in the year 2010 may be expected to be 139,000 persons under the optimistic scenario; 81,900 persons under the intermediate scenario; and 57,700 persons under the pessimistic scenario. These alternative futures indicate increases of about 72,000 persons, or about 107 percent, under the optimistic projection, and 14,900 persons, or about 22 percent, under the intermediate projection, and a decrease of about 9,300 persons, or about 14 percent, under the pessimistic projection when compared with the resident population level of 67,700 persons in Ozaukee County in 1980.

Planned Future Population—Grafton Urban Service Area: For park planning purposes for the Village of Grafton, it is important to identify the anticipated future resident population requiring neighborhood and community park sites and facilities. By applying the alternative futures approach described above to the Village of Grafton urban service area within the centralized population allocation framework⁵ provided in the adopted regional land use plan, it was determined that the population of the Grafton urban service area requiring park and open space sites and facilities by the year 2010 would be about 20,900 persons under the optimistic scenario, 12,400 persons under the intermediate scenario, and 8,100 persons under the pessimistic scenario. These alternative futures indicate increases of about 12,200 persons, or 140 percent, under the optimistic scenario, and about 3,700 persons, or 43 percent, under the intermediate scenario, and a decrease of about 600 persons, or about 7 percent, under the pessimistic scenario, when compared with the 1988 Village of Grafton preliminary population estimate of about 9,100 persons. The intermediate scenario population allocation of 12,400 persons by the year 2010 represents a moderate population growth between the optimistic and pessimistic extremes, and was selected for use in the park and open space plan for the Village of Grafton.

⁵*The centralized population allocation framework is discussed in SEWRPC Technical Report No. 25, Alternative Futures for Southeastern Wisconsin, December 1980.*

In addition to information on the overall size of the anticipated future population in the Grafton urban service area, information on population distribution—both existing and planned future distribution—is important to a determination of existing and probable future outdoor recreation needs, including the need for neighborhood and community parks and for outdoor recreational facilities, such as ball diamonds, playgrounds, and tennis courts. The 1985 land use inventory, as presented in Chapter II of this report, served as the basis for the identification of the location and extent of the existing urban service area. This urban service area is shown on Map 7 and encompasses the developed land located within the corporate limits of the Village in 1985, as well as small concentrations of urban uses adjacent to the Village. As already noted, the 1988 preliminary estimate of the population of the Village was about 9,100 persons.

As already noted, the plan design year population would be about 12,400 persons. The additional urban residential areas which would generally require urban recreation sites and facilities by the plan design year are also shown on Map 7. It is anticipated that urban parks and outdoor recreation facilities would be provided only for the existing and planned urban residential areas shown on Map 7.

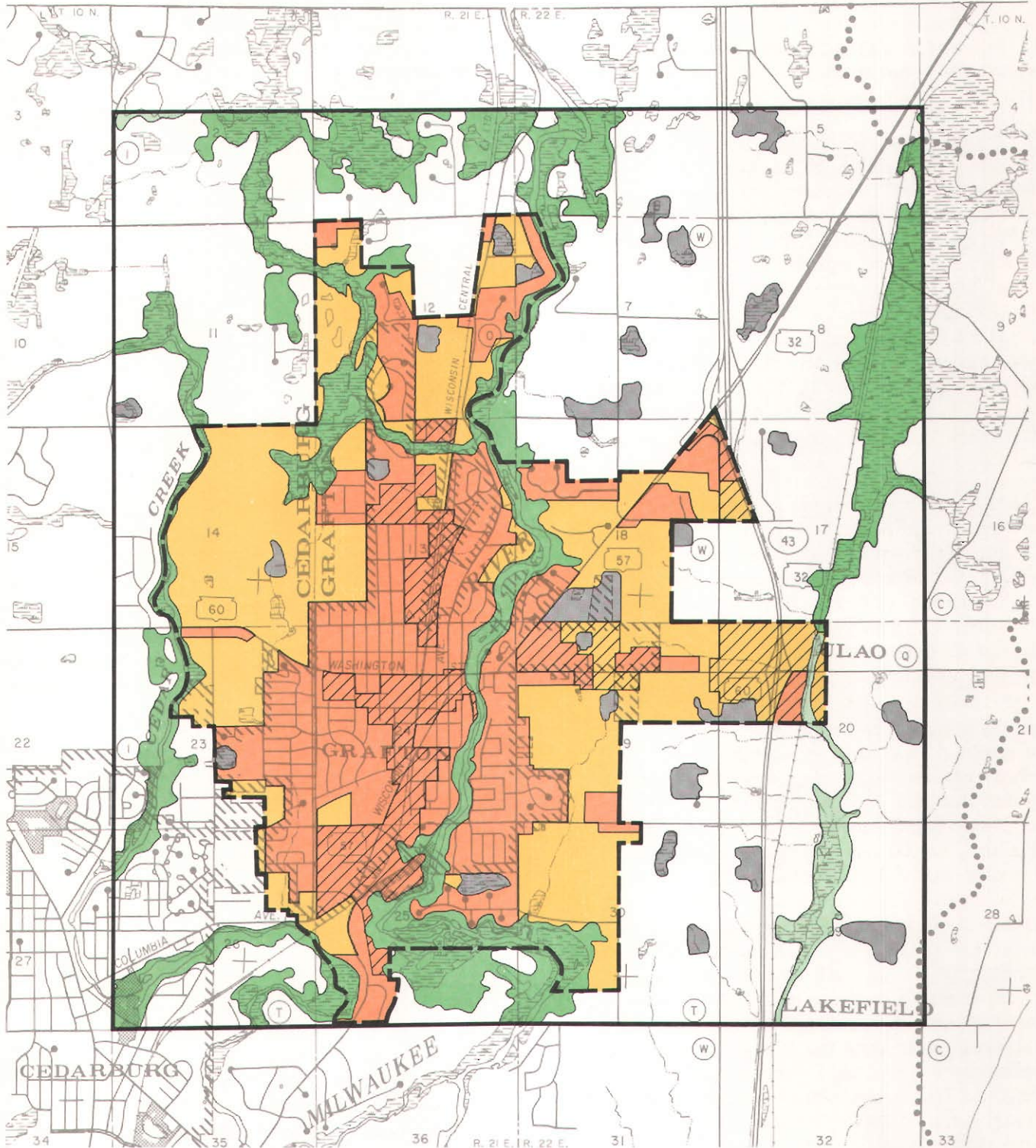
Outdoor Recreation Site and Facility Needs

The park and open space acquisition and development objectives, as presented in Chapter III of this report, are concerned with the provision of adequate outdoor recreation sites and facilities for the resident population. The accompanying standards, as set forth in Appendix A of this report under Objectives No. 1 and No. 2, specify per capita and accessibility requirements for urban outdoor recreation sites and facilities.

Park and open space development Objective No. 1 calls for the provision of an integrated system of public parks and related open space areas which will offer the resident population adequate opportunities to participate in a wide variety of outdoor recreation activities. The system to be provided under this objective includes parks and other public outdoor recreation sites in urban areas. Urban parks and outdoor recreation sites which provide facilities for intensive nonresource-oriented recreation activities have been termed "general-use" outdoor recreation sites. Type III general-use sites range in size from 25 to 99 acres and generally

Map 7

EXISTING AND PLANNED DEVELOPMENT WITHIN THE VILLAGE OF GRAFTON URBAN SERVICE AREA



LEGEND

- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL AREA
- URBAN SERVICE AREA BOUNDARY
- OTHER LANDS OUTSIDE THE URBAN SERVICE AREA
- GENERALIZED EXISTING URBAN DEVELOPMENT
- PLANNED URBAN DEVELOPMENT
- GENERALIZED NONRESIDENTIAL AREA

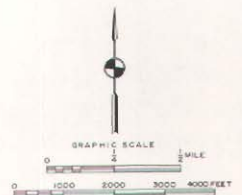


Table 6

**PER CAPITA ACREAGE REQUIREMENTS FOR URBAN OUTDOOR
RECREATION SITES IN THE GRAFTON URBAN SERVICE AREA**

Public General-Use Outdoor Recreation Sites	Minimum Standard Net Acreage Requirement (acres per 1,000 persons) ^a	Existing Net Acres	Per Capita Acreage Requirements			
			1988 (existing urban population: 9,100)		Plan Design Year 2010 (planned urban population: 12,400)	
			Net Acreage Requirement ^b	Net Acreage Need ^c	Net Acreage Requirement ^b	Net Acreage Need ^c
Parks	3.9	46 ^d	35.5	--	48.4	2
Schools	2.5	53 ^e	22.8	--	31.0	--

^aStandard per capita acreage requirements are set forth under Objective No. 1 in Appendix A.

^bThe acreage requirement for public, general-use outdoor recreation sites was determined by multiplying the standard acreage requirement times the appropriate population in thousands of persons.

^cAcreage need was determined by subtracting the existing acres from the acreage requirement. If the remainder was a negative number, the minimum acreage requirement was exceeded, and no per capita acreage need was identified.

^dThis total includes the area developed for outdoor recreation purposes in the five existing village-owned community and neighborhood parks as follows: Heritage Settlement Park—4 acres; Lime Kiln Park—28 acres; Meadowbrook Park—7 acres; Mill Pond Park—3 acres; and Wildwood Park—4 acres.

^eThis total includes the acreage of only the school lands used for outdoor recreation facilities.

Source: SEWRPC.

have a communitywide service radius, while Type IV general-use sites are less than 25 acres in size and have a neighborhoodwide service area. Such sites typically provide opportunities for nonresource-oriented activities such as baseball, softball, and tennis. These sites generally attract users from a small service area and are provided primarily to meet the outdoor recreation demand of residents of urban areas. The per capita and accessibility standards for public community and neighborhood sites are appropriately applied only to the population of the Grafton urban service area.

Urban Site Per Capita and Accessibility Needs:

There are two kinds of public general-use sites—parks, and public school-owned playgrounds and playfields. Although not generally perceived as parks, school outdoor recreation sites provide areas for the pursuit of intensive nonresource-oriented recreation activities in urban areas. As indicated in Table 6, application of the standard acreage requirements to the existing 1988 and plan design year 2010 urban service area popu-

lation indicates that such requirements are generally met by the existing outdoor recreation sites in the urban service area.

Urban areas may have a need for additional urban parks if the spatial distribution of existing parks does not provide sufficient access for residents of the urban service area. Accordingly, in order to determine which portions of the Grafton urban service area lack adequate access to urban parks, appropriate service areas were delineated around existing parks for both the existing urban service area and the plan design year 2010 urban service area. The existing and planned urban residential portions of the Grafton urban service area not adequately served were thus identified.

According to standards prescribed under Objective No. 1, community parks (Type III parks)—those parks ranging in size from 25 to 99 acres and providing community-oriented facilities such as baseball diamonds, softball diamonds, and swimming pools—should be provided within

two miles of each resident of an urban area having a population greater than 7,500 persons. Thus, it was appropriate to apply the accessibility standards for community parks in the Grafton urban service area. In the Village of Grafton in 1988, there was one community park—Lime Kiln Park. As shown on Map 8, the southern portion of the existing and planned urban residential area in the Grafton urban service area was within two miles of this site. The northern portion of the urban service area was beyond this two-mile service area.

According to the standards prescribed under Objective No. 1, the service radius of Type IV neighborhood parks varies with population density. In this regard, the service radius of a neighborhood park is 0.5 mile in a high-density urban area, 0.75 mile in a medium-density urban area, and 1.0 mile in a low-density urban area. The existing and planned future urban density within the Grafton urban service area has been classified generally as medium density, and therefore the 0.75-mile service radius for neighborhood parks was applied. Within the Grafton urban service area, there were four existing neighborhood parks—Heritage Settlement Park, Meadowbrook Park, Mill Pond Park, and Wildwood Park. In addition, Lime Kiln Park was also considered to meet the need for a neighborhood park, and therefore five parks were included in the neighborhood park accessibility analysis. It is important to note that in the neighborhood park accessibility analysis, such sites generally provide facilities for children's outdoor recreation activities, such as playground and playfield activities, ice skating, and basketball and other court games. Such facilities within a neighborhood park should be accessible through a convenient and safe pedestrian circulation pattern. Therefore, in the accessibility analysis for such sites and facilities, certain natural and man-made features—including major arterials, railroads, the Milwaukee River, and other natural or man-made features which serve to clearly and physically separate urban residential areas from neighborhood parks and outdoor recreation facilities—were considered as barriers preventing pedestrian access. As shown on Map 9, large areas of the existing and plan design year 2010 urban residential areas of the Grafton urban service area are not served by the existing neighborhood parks.

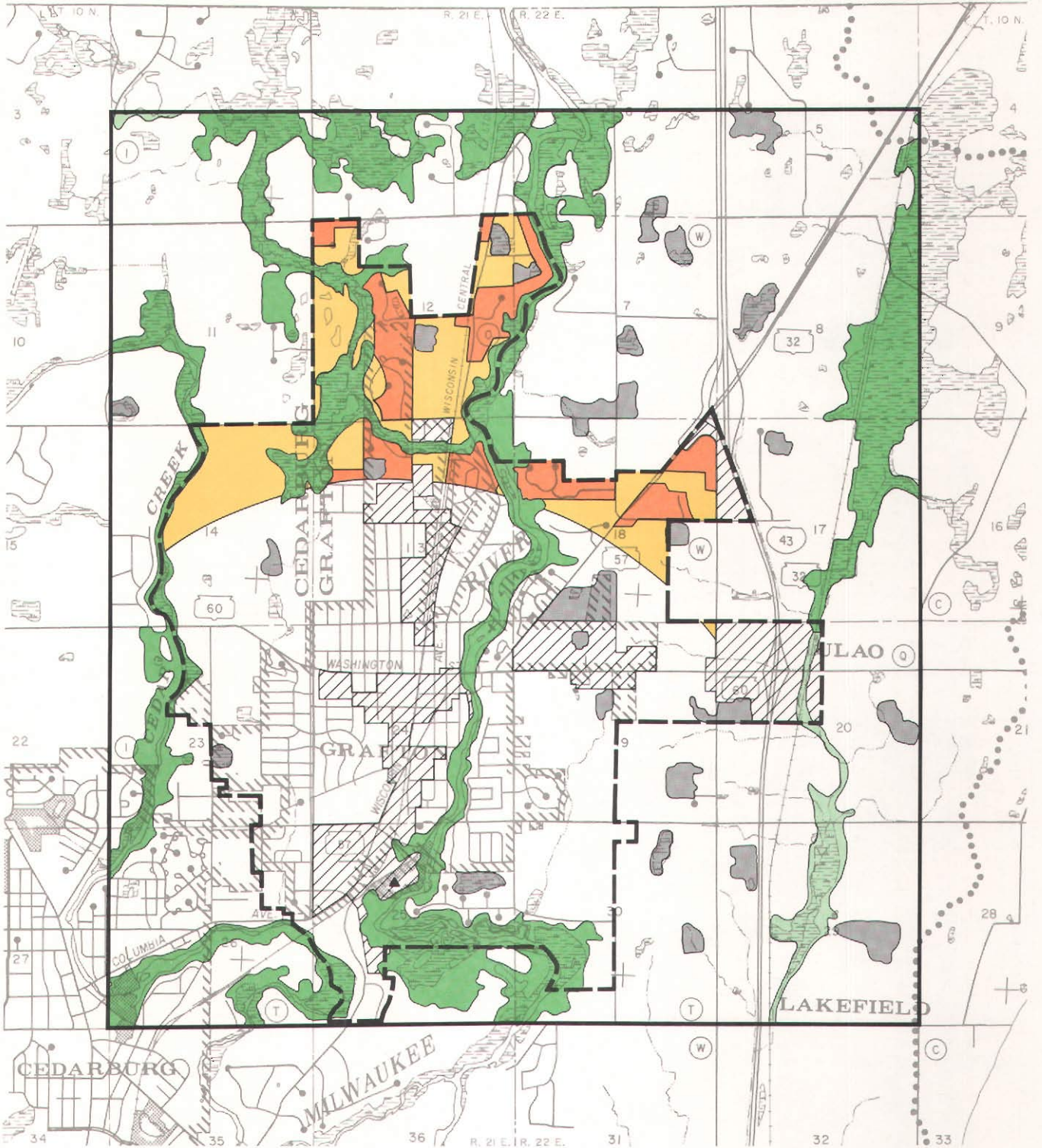
Urban Outdoor Recreation Facility Per Capita and Accessibility Needs: Objective No. 2 calls for the provision of sufficient outdoor recreation facilities to allow the resident population adequate opportunity to participate in intensive nonresource-oriented outdoor recreation activities, such as baseball, softball, and tennis. The standards under Objective No. 2 for selected facilities were applied to both the existing 1988 and the plan design year 2010 population of the Grafton urban service area. A summary of the application of these standards is presented in Table 7. As indicated in Table 7, the per capita standards for baseball, playfield, playground, and tennis facilities have been met for both the existing and the plan design year urban service area population. As further indicated in Table 7, application of the per capita standard for softball diamonds indicates that two additional softball diamonds are needed in 1988 and a total of three additional softball diamonds would be needed by the plan design year 2010.

Urban areas may also have a need for additional outdoor recreation facilities because the spatial distribution of such facilities does not provide sufficient access for residents of the area. Accordingly, in order to determine which portions of the urban service area lack adequate access to certain intensive nonresource-oriented outdoor recreation facilities, appropriate service areas—as described in the standards under Objective No. 2—were delineated around certain selected facilities on a base map. The existing and plan design year residential areas within the urban service area not adequately served by such facilities are discussed below:










1. Baseball diamond: As shown on Map 10, baseball diamonds were located at the Grafton Elementary and High School and Woodview Elementary and John Long Middle Schools. Since the maximum service radius of a baseball diamond is two miles, application of the accessibility requirement for baseball diamonds in the existing and plan design year 2010 Grafton urban service area indicates that virtually all of the urban service area would be served by the existing distribution of baseball diamonds. Only a small area in the southern portion of the Grafton urban service area would not be served.

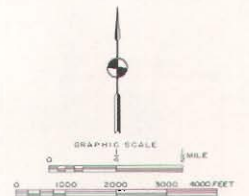
Map 8

AREAS IN THE GRAFTON URBAN SERVICE AREA NOT SERVED BY A COMMUNITY PARK



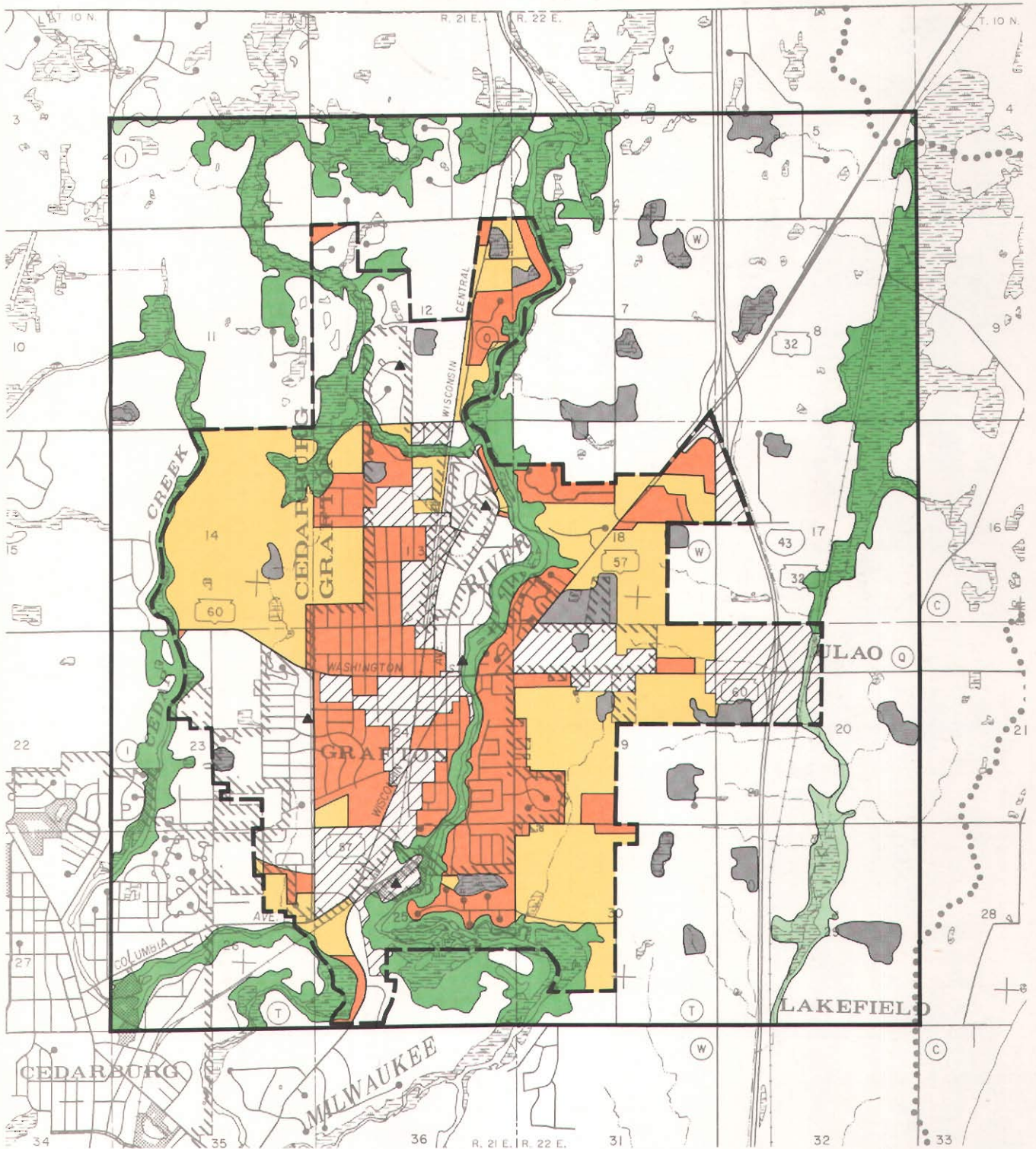
LEGEND

- | | | | |
|---|--|---|--|
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | EXISTING COMMUNITY PARK |
|  | SECONDARY ENVIRONMENTAL CORRIDOR |  | EXISTING GENERALIZED URBAN RESIDENTIAL AREA NOT SERVED BY A COMMUNITY PARK |
|  | ISOLATED NATURAL AREA |  | PLANNED GENERALIZED URBAN RESIDENTIAL AREA NOT SERVED BY A COMMUNITY PARK |
|  | URBAN SERVICE AREA BOUNDARY |  | GENERALIZED NONRESIDENTIAL AREA |
|  | OTHER LANDS OUTSIDE THE URBAN SERVICE AREA | | |












Source: SEWRPC.

AREAS IN THE GRAFTON URBAN SERVICE AREA NOT SERVED BY A NEIGHBORHOOD PARK



LEGEND

- | | | | |
|---|--|---|---|
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | EXISTING NEIGHBORHOOD PARK |
|  | SECONDARY ENVIRONMENTAL CORRIDOR |  | EXISTING GENERALIZED URBAN RESIDENTIAL AREA NOT SERVED BY A NEIGHBORHOOD PARK |
|  | ISOLATED NATURAL AREA |  | PLANNED GENERALIZED URBAN RESIDENTIAL AREA NOT SERVED BY A NEIGHBORHOOD PARK |
|  | URBAN SERVICE AREA BOUNDARY |  | GENERALIZED NONRESIDENTIAL AREA |
|  | OTHER LANDS OUTSIDE THE URBAN SERVICE AREA | | |

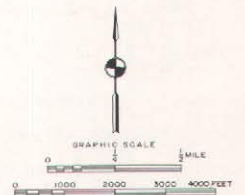


Table 7

PER CAPITA REQUIREMENTS FOR SELECTED OUTDOOR RECREATION FACILITIES IN THE EXISTING AND PLANNED VILLAGE OF GRAFTON URBAN SERVICE AREA

Facility	Existing Quantity of Facility ^a	Minimum Standard Requirement (facility per 1,000 persons) ^b	1988 Existing Urban Population: 9,100		Plan Design Year 2010 Urban Population: 12,400	
			Facility Requirement ^c	Facility Need ^d	Facility Requirement ^c	Facility Need ^d
Baseball Diamond	2	0.10	0.9	--	1.2	--
Playfield	6	0.50	4.6	--	6.2	--
Playground	12	0.42	3.8	--	5.2	--
Softball Diamond	4	0.60	5.5	2	7.4	3
Tennis Court	11	0.60	5.5	--	7.4	--

^aThis total includes only facilities at sites within the plan design year urban service area.

^bStandard per capita facility requirements are set forth under Objective No. 2 in Appendix A.

^cThe facility requirement was determined by multiplying the minimum standard requirement times the appropriate population in thousands of persons.

^dFacility need was determined by subtracting the existing quantity of facility from the facility requirement and rounding the remainder to the nearest integer. If the remainder was a negative number, the minimum facility requirement was exceeded, and no per capita facility need was identified.

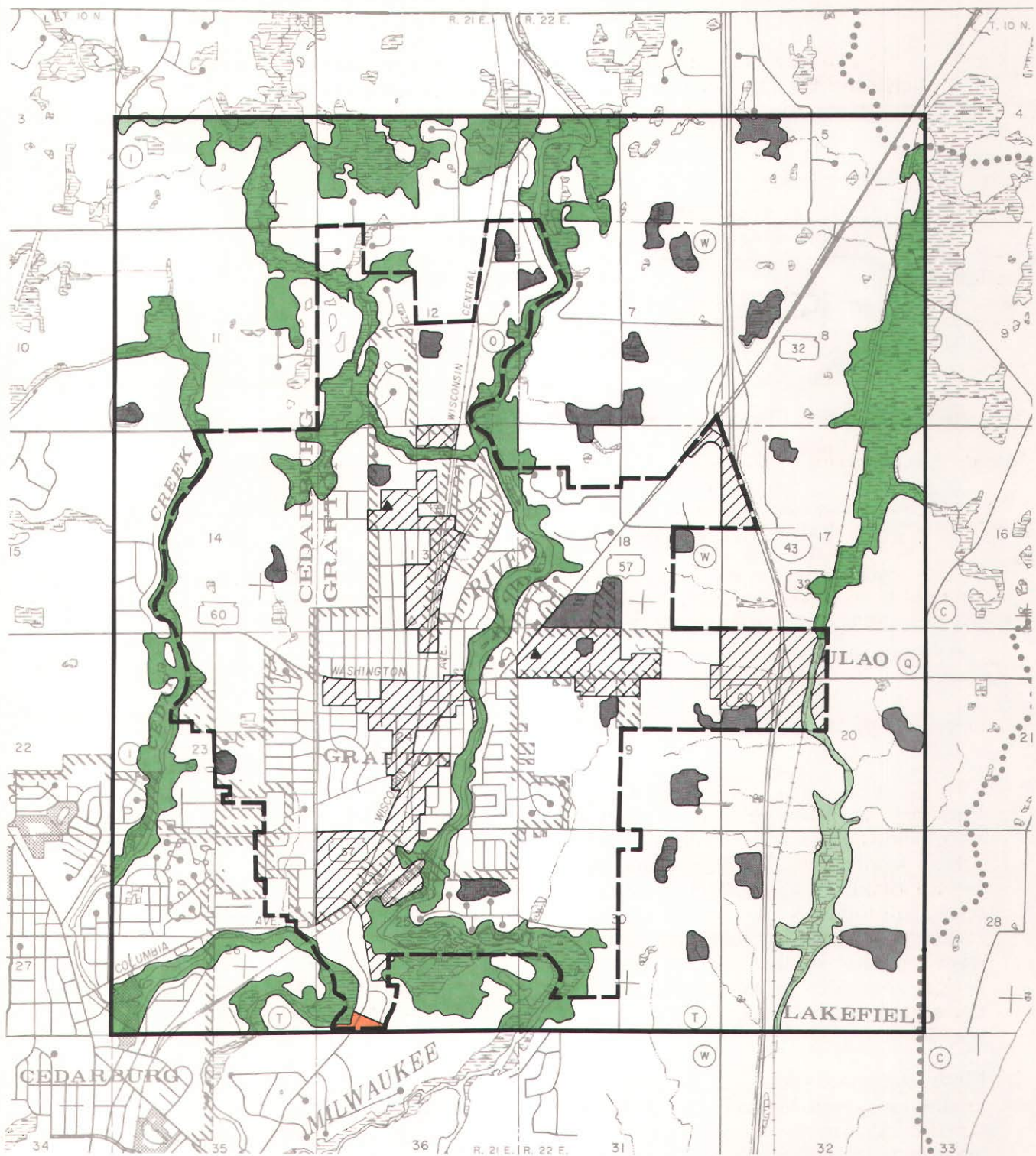
Source: SEWRPC.

2. **Playfield:** As shown on Map 11, playfields were located at six sites within the Grafton urban service area. Since the maximum service radius of a playfield is about 0.5 mile, application of the accessibility requirement for playfields indicates that large portions of the existing and plan design year 2010 urban service area are not served by the existing distribution of playfields.
3. **Playground:** As shown on Map 12, playground areas were located at 12 sites in the Grafton urban service area. Since the maximum service radius of a playground is also about 0.5 mile, application of the accessibility requirement for playgrounds indicates that small areas throughout the existing urban service area are not served by the existing distribution of playgrounds. As further shown on Map 12, large areas in the eastern, western, and southeastern portions of the plan design









year 2010 urban service area would not be served by the existing distribution of playgrounds.

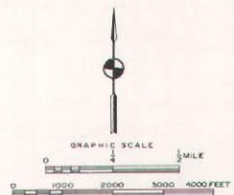
4. **Softball diamond:** As shown on Map 13, softball diamonds were located at Woodview Elementary and John Long Middle Schools and at Kennedy School. In addition, there is a softball diamond at Thorson School, located adjacent to the Grafton urban service area boundary in the City of Cedarburg, which serves a portion of the Grafton urban service area. Since the maximum service radius of a softball diamond is about 1.0 mile, application of the accessibility requirement for softball diamonds in the existing urban service area indicates that small portions of the area are not served by the existing softball diamonds. However, as further shown on Map 13, a large area in the eastern portion and smaller areas in the northern, western, and southeastern portions of the plan

AREAS IN THE GRAFTON URBAN SERVICE AREA NOT SERVED BY A BASEBALL DIAMOND



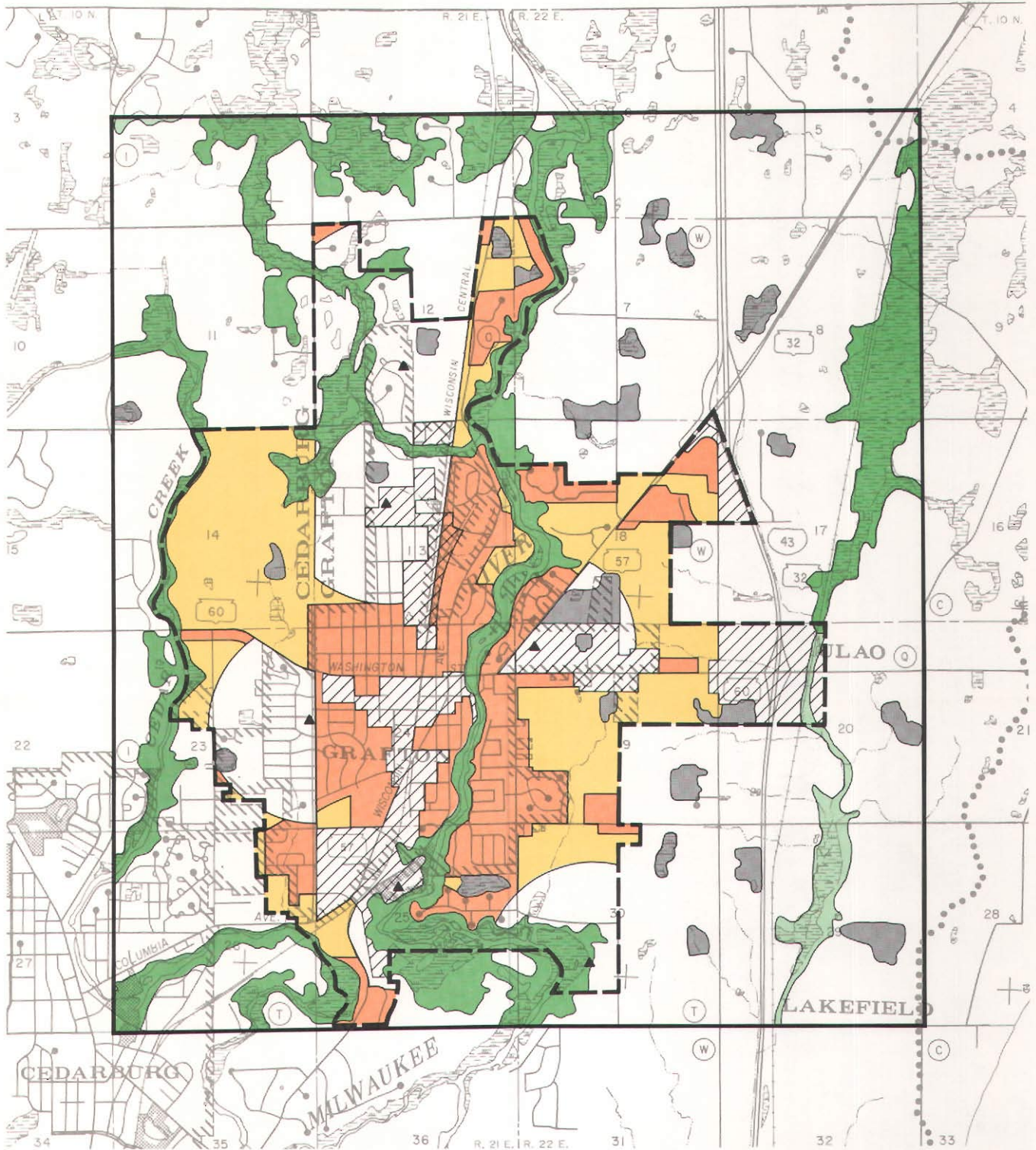
LEGEND

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|---|--|---|--|
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | EXISTING BASEBALL DIAMOND |
|  | SECONDARY ENVIRONMENTAL CORRIDOR |  | EXISTING GENERALIZED URBAN RESIDENTIAL AREA NOT SERVED BY A BASEBALL DIAMOND |
|  | ISOLATED NATURAL AREA |  | GENERALIZED NONRESIDENTIAL AREA |
|  | URBAN SERVICE AREA BOUNDARY | | |
|  | OTHER LANDS OUTSIDE THE URBAN SERVICE AREA | | |












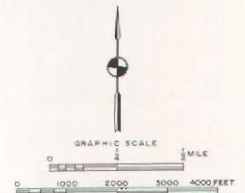
Source: SEWRPC.

AREAS IN THE GRAFTON URBAN SERVICE AREA NOT SERVED BY A PLAYFIELD

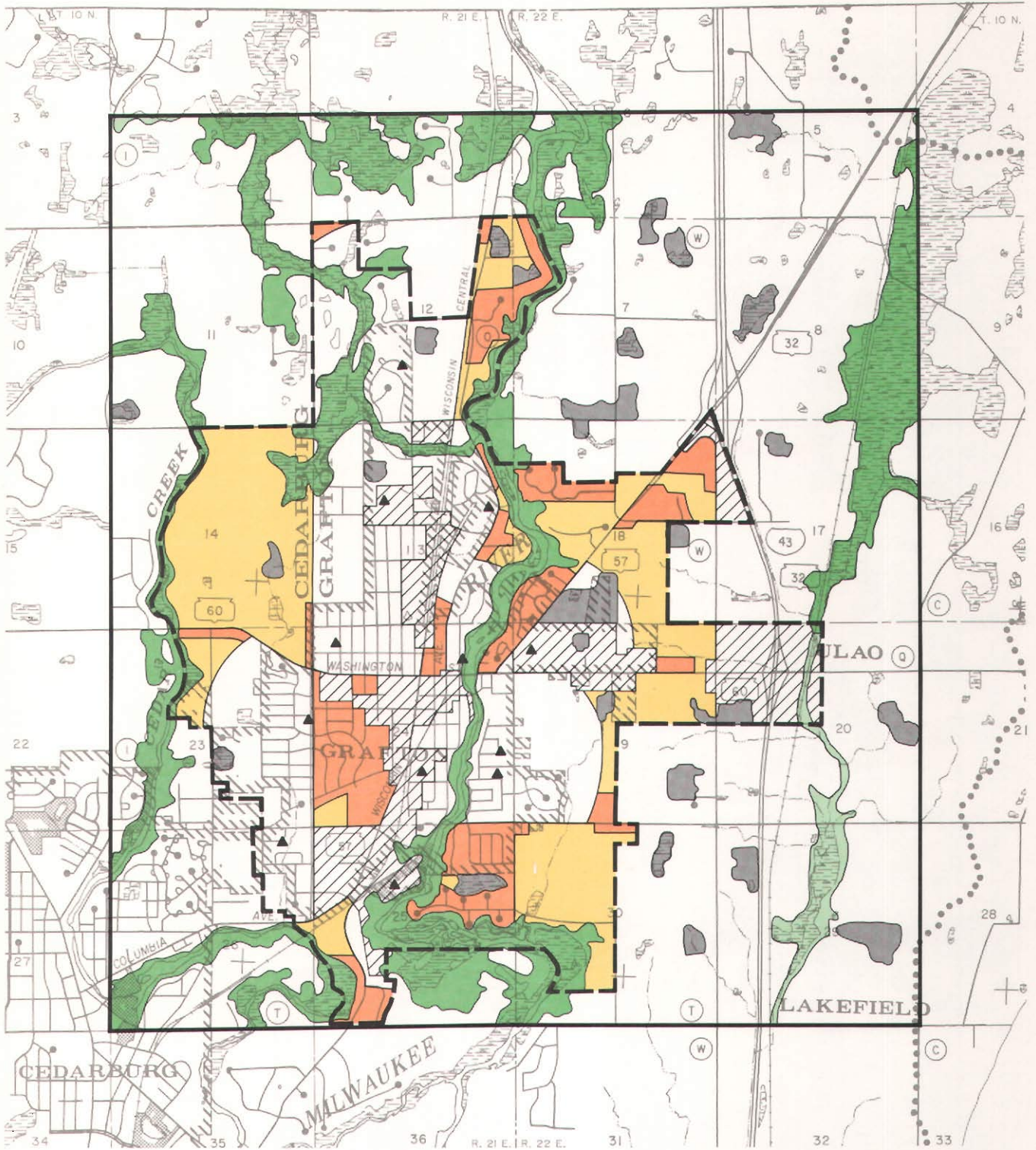


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





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|---|--|---|--|
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | EXISTING PUBLIC PLAYFIELD |
|  | SECONDARY ENVIRONMENTAL CORRIDOR |  | EXISTING GENERALIZED URBAN RESIDENTIAL AREA NOT SERVED BY A PUBLIC PLAYFIELD |
|  | ISOLATED NATURAL AREA |  | PLANNED GENERALIZED URBAN RESIDENTIAL AREA NOT SERVED BY A PUBLIC PLAYFIELD |
|  | URBAN SERVICE AREA BOUNDARY |  | GENERALIZED NONRESIDENTIAL AREA |
|  | OTHER LANDS OUTSIDE THE URBAN SERVICE AREA | | |

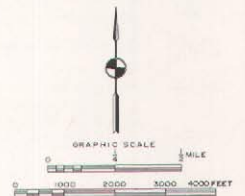


AREAS IN THE GRAFTON URBAN SERVICE AREA NOT SERVED BY A PLAYGROUND

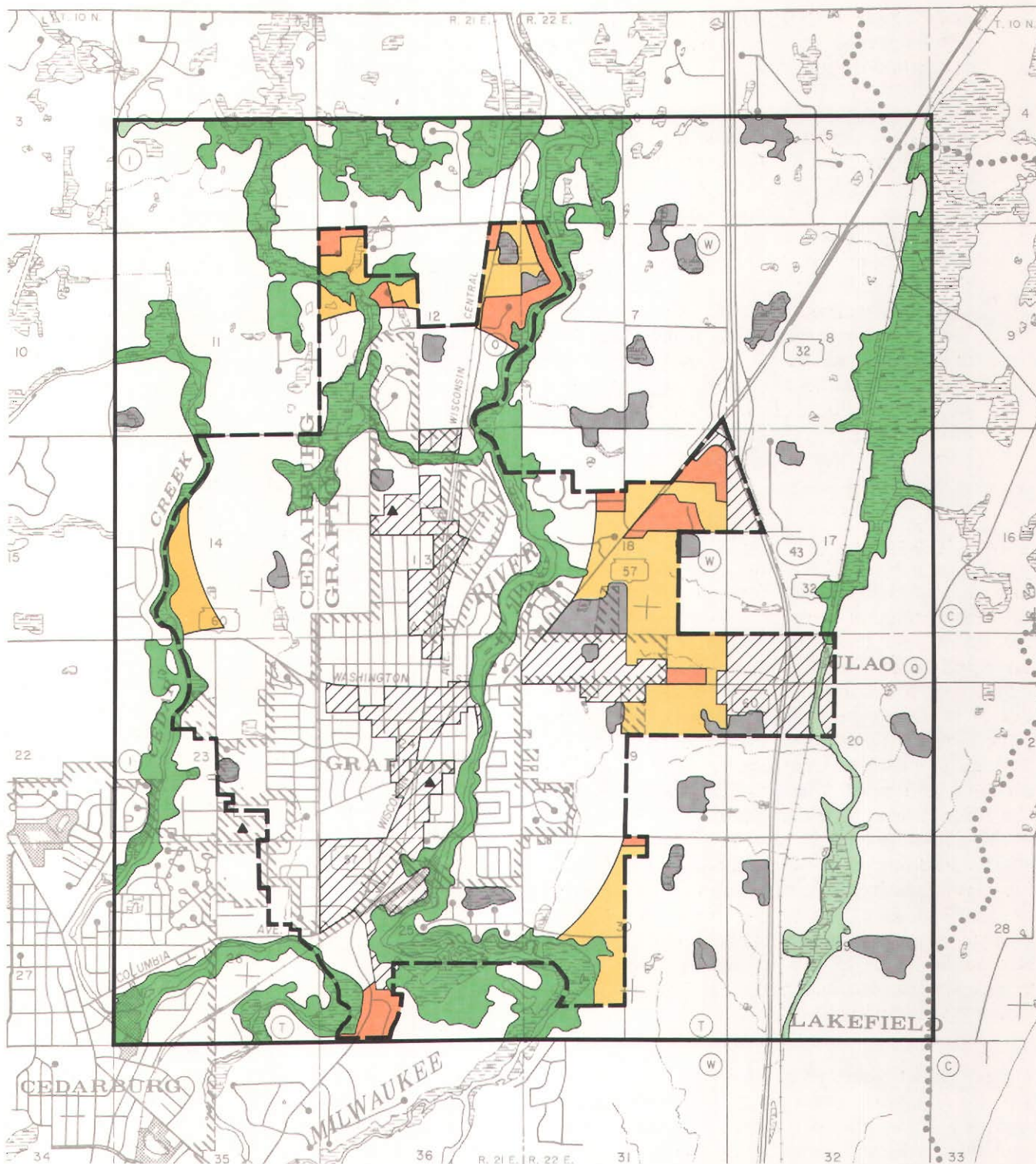


LEGEND

- | | | | |
|---|--|---|--|
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | EXISTING PLAYGROUND |
|  | SECONDARY ENVIRONMENTAL CORRIDOR |  | EXISTING GENERALIZED URBAN RESIDENTIAL AREA NOT SERVED BY A PLAYGROUND |
|  | ISOLATED NATURAL AREA |  | PLANNED GENERALIZED URBAN RESIDENTIAL AREA NOT SERVED BY A PLAYGROUND |
|  | URBAN SERVICE AREA BOUNDARY |  | GENERALIZED NONRESIDENTIAL AREA |
|  | OTHER LANDS OUTSIDE THE URBAN SERVICE AREA | | |

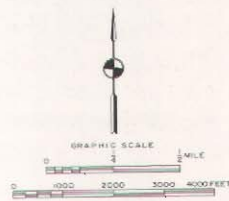


AREAS IN THE GRAFTON URBAN SERVICE AREA NOT SERVED BY A SOFTBALL DIAMOND



LEGEND

- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL AREA
- URBAN SERVICE AREA BOUNDARY
- OTHER LANDS OUTSIDE THE URBAN SERVICE AREA
- ▲ EXISTING SOFTBALL DIAMOND
- EXISTING GENERALIZED URBAN RESIDENTIAL AREA NOT SERVED BY A SOFTBALL DIAMOND
- PLANNED GENERALIZED URBAN RESIDENTIAL AREA NOT SERVED BY A SOFTBALL DIAMOND
- GENERALIZED NONRESIDENTIAL AREA



design year 2010 urban service area would not be served by the existing distribution of softball diamonds.

5. Tennis Court: As shown on Map 14, tennis courts were located at Grafton Elementary and High School, Kennedy School, and Meadowbrook Park. Since the maximum service radius of a tennis court is about 1.0 mile, application of the accessibility requirement for tennis courts indicates that the existing urban service area was generally served by the existing courts. However, as further shown on Map 14, a large area in the western portion and smaller areas in the northern and south-eastern portions of the plan design year 2010 urban service area would not be served by the existing distribution of tennis courts.

Other Urban Site and Facility Need Considerations: The preceding section described per capita and accessibility needs for urban parks and selected intensive nonresource-oriented outdoor recreation facilities. These needs were based on an application of standards presented under Objectives No. 1 and No. 2 presented in Appendix A of this report. In addition, other urban park facility needs have been identified by the Village of Grafton Community Activities Commission and staff. Such facility needs include the replacement of the swimming pool facilities at Meadowbrook Park and the provision of a shelter building at the recently acquired undeveloped community park site in the eastern portion of the Grafton urban service area. In addition, a need to provide a neighborhood park and related facilities in the western portion of the urban service area south of STH 60 along Cedar Creek was identified.

Open Space Preservation Needs

In the previous section of this chapter, an analysis of needs relating to Objectives No. 1 and No. 2 was conducted by applying recreation site and facility standards under those objectives to the existing and planned population of the Grafton urban service area. It is important to note that there are equally important needs relating to the considerations addressed by Objective No. 6—that is, the need to preserve and protect the underlying and sustaining natural resource base of the study area.

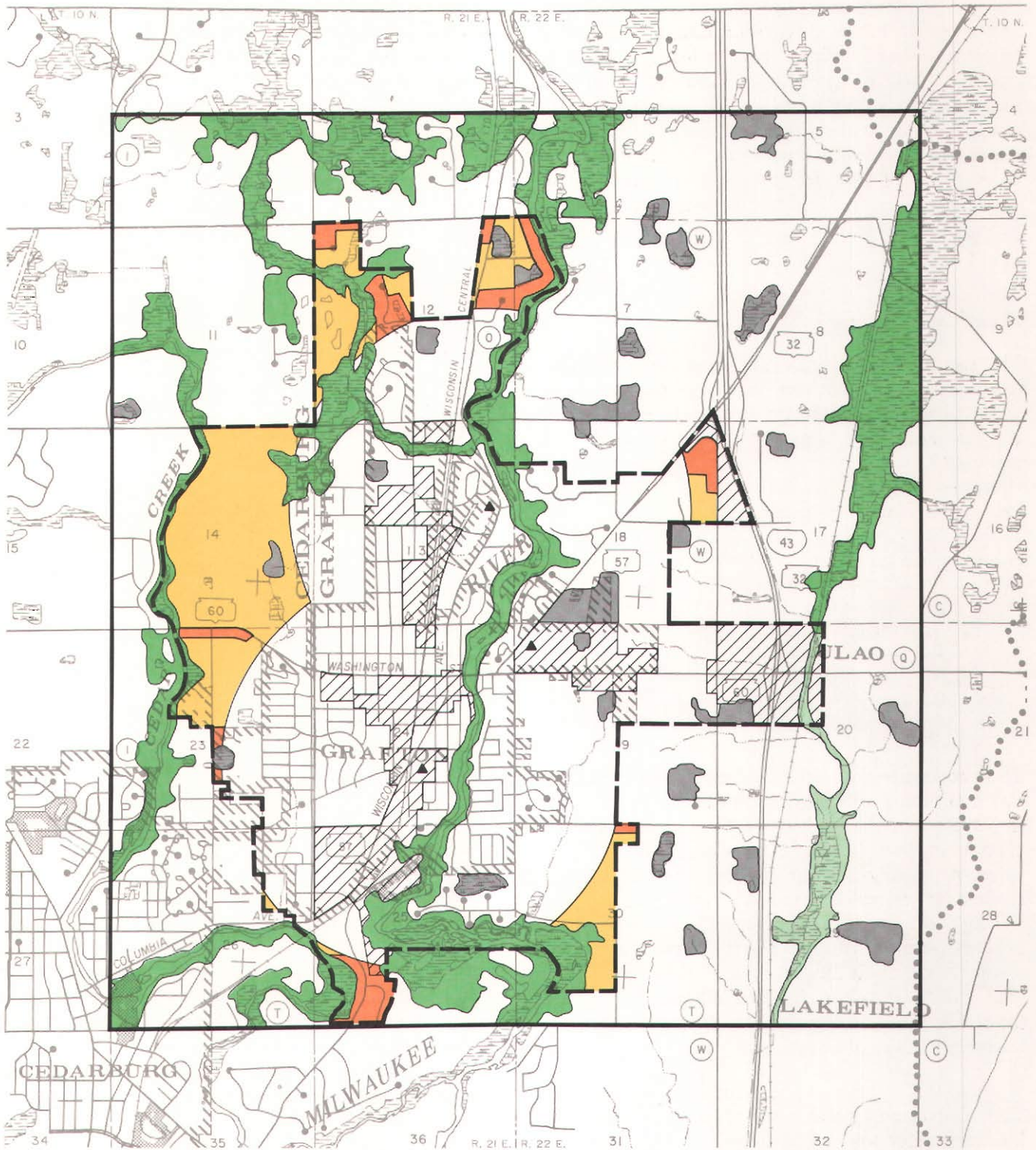
As already noted, the environmental corridors and isolated natural areas in the Grafton study area encompass a wide variety of valuable natural resources. These resource features were described in Chapter II of this report. By protecting these resources, flood damage can be reduced, soil erosion abated, water supplies protected, air cleansed, and wildlife populations enhanced, and continued opportunities provided for scientific, educational, and recreational pursuits. Conversely, the intrusion of urban land uses into these corridors can, because of the soil limitations, high groundwater table, and flood hazards, result in the creation of serious and costly problems such as faulty foundations for pavement and structures, wet basements, excessive clearwater infiltration and inflow into sanitary sewerage systems, and poor drainage.

The preservation of high-quality open space lands to protect the underlying and sustaining natural resource base and to enhance the general social and economic well-being and environmental quality of the study area can be achieved through the maintenance of the existing primary and secondary environmental corridors and isolated natural features in essentially natural, open space uses and through the maintenance of important agricultural lands in agricultural use. The need to protect these features cannot be related to per capita or accessibility requirements, since the achievement of the open space preservation objective is essentially independent of any population level or distribution and relates rather to the location, character, and extent of the various elements of the natural resource base.










Recommended Plan

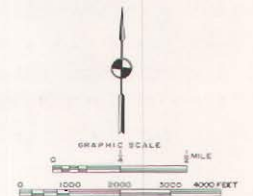
The analysis of the need for park and open space sites and facilities in the Village of Grafton described in previous sections of this chapter indicates that additional park and open space sites and facilities are required to meet the outdoor recreation needs of the residents of the existing and planned future Grafton urban service area. Under the park and open space plan for the Village of Grafton, then, it is recommended that the Village ultimately acquire and develop four new village parks distributed throughout the Grafton urban service area; develop the recently acquired undeveloped community park; and replace the swimming facilities at Meadowbrook Park. In addition, it is recommended that the Village maintain facili-

AREAS IN THE GRAFTON URBAN SERVICE AREA NOT SERVED BY A TENNIS COURT



LEGEND

- | | | | |
|--|--|---|--|
|  | PRIMARY ENVIRONMENTAL CORRIDOR |  | EXISTING TENNIS COURT |
|  | SECONDARY ENVIRONMENTAL CORRIDOR |  | EXISTING GENERALIZED URBAN RESIDENTIAL AREA NOT SERVED BY A TENNIS COURT |
|  | ISOLATED NATURAL AREA |  | PLANNED GENERALIZED URBAN RESIDENTIAL AREA NOT SERVED BY A TENNIS COURT |
|  | URBAN SERVICE AREA BOUNDARY |  | GENERALIZED NONRESIDENTIAL AREA |
|  | OTHER LANDS OUTSIDE THE URBAN SERVICE AREA | | |



ties at the existing village-owned park and open space sites. It is also recommended that the Village provide about six miles of trails to connect certain community and neighborhood parks in the Village and link these parks to the proposed county recreation trail. The recommended plan is shown on Map 15, and a detailed description of the site acquisition and development recommendations is presented in the following section.

PLAN IMPLEMENTATION

The recommended park and open space plan for the Village of Grafton includes recommendations directed at county and state agencies of government for the provision of resource-oriented outdoor recreation sites and facilities in Ozaukee County, including major parks and recreation corridors to serve the residents of the Village of Grafton. The plan also includes recommendations for the protection of important natural resource features within the Grafton study area, including the protection of environmental corridors, isolated natural areas, and prime agricultural lands. Finally, the plan includes recommendations for the provision of outdoor recreation sites and facilities within the Grafton urban service area.

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 Village of Grafton. It describes the specific actions required to implement the park and open space plan, including a description of actions that must be taken by the Wisconsin Department of Natural Resources, Ozaukee County, and the Village of Grafton.

Wisconsin Department of Natural Resources

The Wisconsin Department of Natural Resources has authority and responsibility in the areas of park development, natural resource protection, water quality maintenance, and water use regulation. Because of this broad range of authority and responsibility, certain Department functions have importance in the implementation of the park and open space plan. The Department has the obligation to prepare a comprehensive statewide outdoor recreation plan

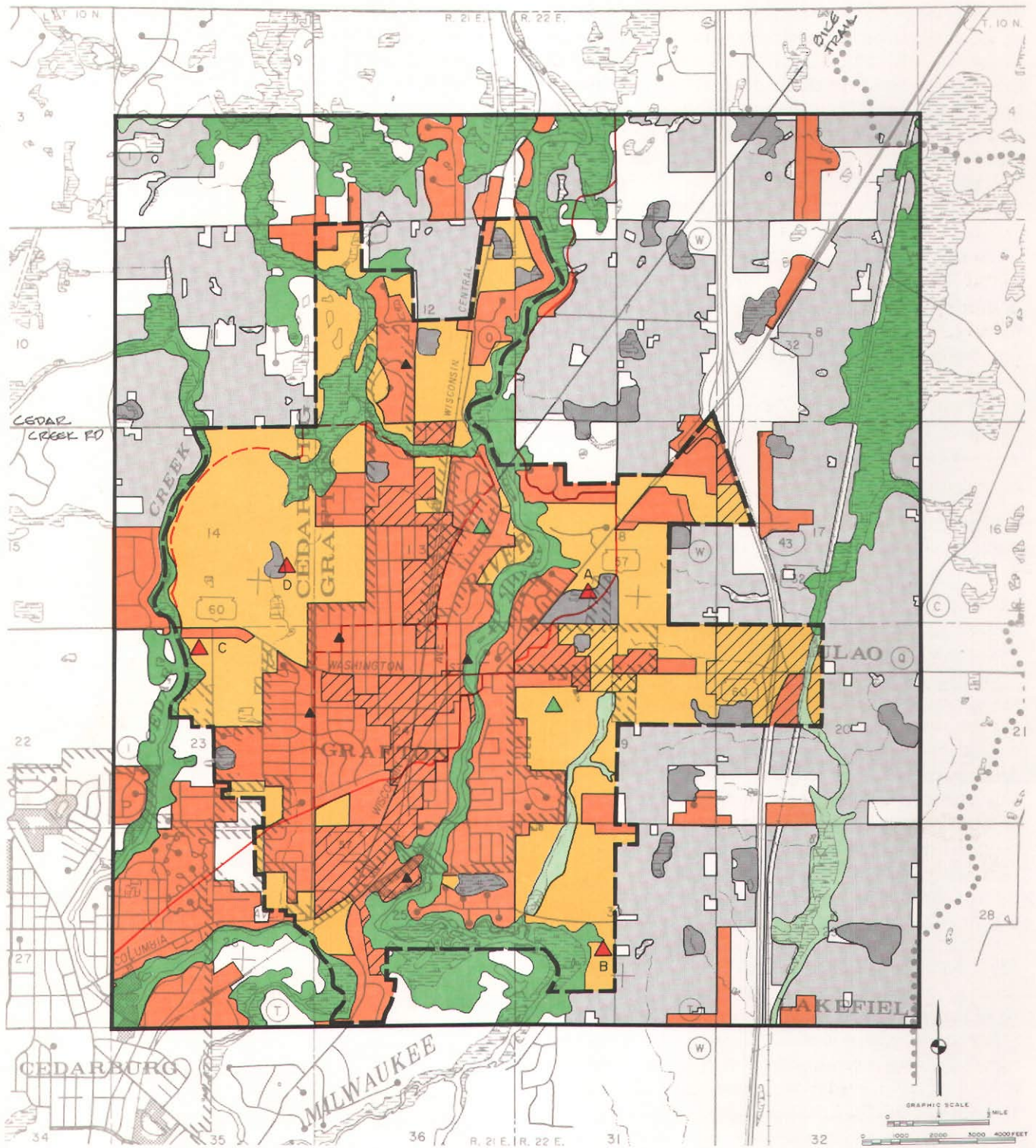
and to develop long-range statewide conservation and water resource plans; the authority to protect, develop, and regulate the use of state parks, forests, fish and game, lakes and streams, certain plant life, and other outdoor resources; and the authority to administer the federal grant program known as the Land and Water Conservation (LAWCON) fund program within the State. The Department also has the obligation to establish standards for floodplain and shoreland zoning and the authority to adopt, in the absence of satisfactory local action, shoreland and floodplain zoning ordinances.

More specifically, in relation to the implementation of the park and open space plan for the Village of Grafton, it is important that the Department approve and adopt the park and open space plan in order to facilitate the receipt by the Village of state and federal outdoor recreation grants in support of plan implementation. In addition, the Department of Natural Resources should use available regulatory authority to guide urban development in accordance with the location and extent of the urban service area proposed under this plan and to enhance environmental quality within the Village.

Ozaukee County

Ozaukee County is responsible jointly with the Towns of Cedarburg and Grafton for the protection of important natural resources in the regulatory shoreland area of the unincorporated portions of the study area. The plan recommends that the County and the Towns cooperate in the placement of all environmental corridors and isolated natural areas in an appropriate conservancy zoning district and in the placement of all prime agricultural lands in an agricultural land preservation zoning district and that, outside the regulatory shoreland area, the Towns protect such resources in the appropriate zoning district. The proper application of the conservancy district zoning would generally ensure the preservation of the natural resource features within the environmental corridors and isolated natural areas in the unincorporated portions of the study area. The placement of all identified prime agricultural lands in an agricultural land preservation zoning district would assure the protection and continued use of such lands for agricultural purposes. These measures generally would result in the attainment of the open space preservation objectives presented in Chapter III of this report.

RECOMMENDED PARK AND OPEN SPACE PLAN FOR THE VILLAGE OF GRAFTON



LEGEND

- URBAN SERVICE AREA BOUNDARY
- EXISTING URBAN DEVELOPMENT: 1985
- PLANNED URBAN DEVELOPMENT: 2000
- GENERALIZED NONRESIDENTIAL AREA
- OTHER LANDS OUTSIDE THE URBAN SERVICE AREA

- NATURAL RESOURCE AREA**
- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL AREA
- PRIME AGRICULTURAL LAND

- PARK AND OPEN SPACE SITES**
- PROPOSED NEW VILLAGE PARK SITE
- A** SITE IDENTIFICATION LETTER
- PROPOSED DEVELOPMENT AT AN EXISTING VILLAGE PARK SITE
- SELECTED OTHER EXISTING VILLAGE PARK SITES
- PROPOSED RECREATION CORRIDOR
- PROPOSED VILLAGE TRAIL

In addition, the County would be responsible for the acquisition of certain lands within the proposed Milwaukee River Parkway in the study area. Under the park and open space plan for Ozaukee County,⁶ it is recommended that the primary environmental corridor lands along the main stem of the Milwaukee River north of the Village of Grafton be acquired by Ozaukee County as part of the proposed 950-acre Milwaukee River Parkway.⁷ Within the study area, the Milwaukee River Parkway would encompass about 175 acres and would provide multiple benefits, including the protection of the important elements of the natural resource base; the provision of limited recreation opportunities; and the provision of natural, open areas to lend form and structure to urban development patterns, to enhance the natural beauty of the area, and to increase property values.

The County would also be responsible for the development of trails within the proposed Milwaukee River recreation corridor. Under the

⁶*This plan, as noted earlier in this chapter, is documented in SEWRPC Community Assistance Planning Report No. 133, A Park and Open Space Plan for Ozaukee County. Under this plan, Ozaukee County would be responsible for the acquisition of the primary environmental corridor lands along the main stem of the Milwaukee River from the Washington-Ozaukee County line downstream to the corporate limits of the Village of Grafton as part of the recommended Milwaukee River Parkway in Ozaukee County. Trails and other parkway facilities would be provided within the parkway by Ozaukee County.*

⁷*The term "parkway" is defined as an elongated area of publicly owned land generally encompassing important natural resource features and other open space lands. A parkway is usually located along a stream valley, ridge line, or other linear natural resource feature, and is intended to provide aesthetic and natural resource continuity and, at the same time, link park, outdoor recreation, and other open space lands within a total park and open space system. Linear outdoor recreation facilities are usually located within and adjacent to a parkway, providing trails for such activities as nature study, hiking, and cross-country skiing. In addition, parkway drives for pleasure driving can be provided within or adjacent to a parkway.*

park and open space plan for Ozaukee County, it is recommended that a 34-mile trail be developed generally along the main stem of the Milwaukee River by Ozaukee County for hiking, biking, and other trail-oriented activities. Within the study area, the proposed Milwaukee River trail facility would be about seven miles long (see Map 15).

Village of Grafton

Under the recommended plan, the Village of Grafton would be responsible for the development of the undeveloped community park; the provision of additional facilities, including replacement of the swimming pool at Meadowbrook Park; the acquisition and development of four new neighborhood parks; and the provision of six miles of trails linking four village parks and the proposed county recreation trail. In addition, the Village would be responsible for the maintenance of existing village park sites and for the protection of the important natural resource features within the Grafton urban service area. Implementation of these recommendations would result in the attainment of the park acquisition and development and open space preservation objectives presented in Chapter III of this report. Specific implementation activities that should be undertaken by the Village in the acquisition and development of park and outdoor recreation sites and facilities and the preservation of the important natural resources within the Grafton urban service area are presented below.

Undeveloped Community Park: It is recommended that the Village of Grafton develop the recently acquired undeveloped community park. As shown on Map 15, the site is located south of the Grafton Elementary and High School in the eastern portion of the Grafton urban service area, and encompasses about 27 acres of land. Facilities proposed for development at this site include a lighted league softball diamond, three tennis courts, a playfield, a children's play area, an area for picnicking and other passive recreational use, and support facilities.⁸ The cost of developing this site is estimated at \$310,000.

⁸*General park development and support facilities include landscaping, park lighting, and walkways; park furnishings such as picnic tables, benches, waste containers, and signs; and restrooms, a small shelter, and a parking lot.*

Meadowbrook Park: Meadowbrook Park is a seven-acre neighborhood park located in the northern portion of the Grafton urban service area (see Map 15). Facilities at this site include a swimming pool, a bath house, a concession stand, basketball goals, tennis courts, a picnic area, and a play area. Under the recommended plan, the Village of Grafton would replace the swimming facilities at this site. Under this proposal, the Village would utilize, to the maximum extent possible, existing pool equipment, such as the pool filter system, and replace the remaining pool facilities. The cost of replacing the swimming pool is estimated at \$350,000. In addition, it is recommended that the Village maintain and improve, as necessary, the remaining facilities at this site.

Proposed New Neighborhood Parks: It is recommended that the Village of Grafton acquire and develop, as needed as urban residential development takes place, four neighborhood park sites. The general size and location of, and facilities proposed for development within, each of the neighborhood sites are set forth below.

1. Park Site A—Park Site A is proposed to be located in the northeastern portion of the Grafton urban service area (see Map 15) and would encompass an area of about 45 acres, including about 37 acres of woodlands within an isolated natural area. Facilities proposed for the site include an area for picnicking and other passive recreational use, and appropriate support facilities including parking. In addition, this site is proposed to be located along the recreation corridor proposed to traverse the Milwaukee River Parkway, and hiking trail facilities would extend from the recreation corridor through this site.
2. Park Site B—Park Site B is proposed to be located in the southeastern portion of the Grafton urban service area (see Map 15). The site would encompass an area of about 10 acres, including about two acres of wetlands within the primary environmental corridor located along a tributary to the Milwaukee River. Facilities proposed for the site include a playfield area, a children's play area, and an area for picnicking and other passive recreational use.

3. Park Site C—Park Site C is proposed to be located in the western portion of the Grafton urban service area along Cedar Creek (see Map 15) and would encompass an area of about 10 acres, including about two acres of wetlands within the primary environmental corridor. Facilities proposed for the site include a playfield area, a children's play area, an area for picnicking and other passive recreational use, and appropriate support facilities including restrooms.
4. Park Site D—Park Site D is proposed to be located in the northwestern portion of the Grafton urban service area (see Map 15). The site would encompass an area of about 15 acres, including about four acres of woodlands within an isolated natural area. Facilities proposed for the site include a league softball diamond, tennis courts, a playfield area, an area for picnicking and other passive recreational uses, and appropriate support facilities, including a shelter building, restrooms, and parking.

It is also recommended that, in addition to those lands needed for drainage purposes in the southeastern portion of the Grafton urban service area, about two acres of land suitable for recreational use be established as a private recreation and open space site. Facilities proposed for this site include a children's play area and an area for passive recreational use.

The acquisition and development costs for the four neighborhood parks are estimated to total \$922,000, of which about \$357,000, or 39 percent, would be expended for park site acquisition (see Table 8); and about \$565,000, or about 61 percent, would be expended for park site development (see Table 9).

Trail Facilities: As shown on Map 15, the Milwaukee River recreation corridor is proposed to be located within the central portion of the Grafton urban service area, connecting with the trail on the Wisconsin Electric Power Company right-of-way in Cedarburg on the south and with the proposed trail in the proposed Milwaukee River Parkway. It is envisioned that this corridor would, within the Grafton urban service area, traverse the Kennedy School, the Mill Pond River Access Site, the Grafton Elementary and High School, and proposed Park Site A. As already noted, Ozaukee County would be responsible for the provision of trail facilities within this proposed corridor.

Table 8

ACQUISITION COSTS OF RECOMMENDED NEW VILLAGE PARKS

Park Site	Lands Within Environmental Corridors and Isolated Natural Areas				Lands Outside Environmental Corridors or Isolated Natural Areas		Total	
	Woodlands		Wetlands		Acres	Cost	Acres	Cost
	Acres	Cost	Acres	Cost				
A	37	\$185,000	--	\$ --	8	\$ 32,000	45	\$217,000
B	--	--	2	1,000	8	32,000	10	33,000
C	--	--	2	1,000	8	32,000	10	33,000
D	4	30,000	--	--	11	44,000	15	74,000
Total	41	\$215,000	4	\$2,000	35	\$140,000	80	\$357,000

NOTE: All costs are estimated in 1988 dollars.

Source: SEWRPC.

Under the park and open space plan for the Village of Grafton, it is recommended that the Village provide two additional trail segments providing six miles of trails combined. The first trail segment would link the three existing neighborhood parks—Meadowbrook Park, Mill Pond Park, and Wildwood Park—and 3rd Avenue Park, and connect these with the proposed Milwaukee River recreation corridor and trail facilities. These trails would be located generally within existing public outdoor recreation sites and road rights-of-way.

Under the plan, the second trail segment would be located within proposed parkway lands along Cedar Creek and Mole Creek. This segment would connect with Meadowbrook Park and the first segment on the east and with a proposed trail along Cedar Creek in the Cedarburg urban service area on the west (see Map 15).

Existing Outdoor Recreation Sites and Facilities:

It is recommended that the Village maintain all existing park sites and facilities. Maintenance activities at these sites may include the paving or resurfacing of parking lots and walkways; the resurfacing of volleyball, basketball, and tennis courts; making existing facilities handicapped-accessible; the provision, repair, or replacement of sports field lighting, park benches, picnic tables, and drinking fountains; the provision, repair, or replacement of restrooms, water supply facilities, maintenance and storage buildings, picnic shelters, community buildings, bath houses, and band shells; and the provision or

maintenance of lawns, gardens, and other landscape plantings.

Open Space Preservation: The location and extent of the environmental corridors and isolated natural areas within the Grafton urban service area are set forth in Chapter II of this report. Under the plan, it is recommended that these important natural resources be protected and preserved, where possible, in public ownership.

Primary Environmental Corridors: Primary environmental corridors in the Grafton urban service area encompass about 404 acres,⁹ including about 251 acres within the primary environmental corridor along the Milwaukee River, about 35 acres along Cedar Creek, and about 118 acres along Mole Creek. Of the 251 acres along the Milwaukee River, about 10 acres, or 4 percent, are held in public ownership within village park and open space sites. Under the plan, the remaining 241 acres, or 96 percent, located in the developed area of the Village would remain in private ownership and be protected through public land use regulation. Such lands would be considered for acquisition by the Village only as they become available for conversion to park and parkway uses.

⁹This total does not include the 114 acres of surface water of the Milwaukee River and Cedar Creek within the primary environmental corridors in the Grafton urban service area.

Table 9

DEVELOPMENT COSTS OF RECOMMENDED NEW VILLAGE PARKS

Park Site	Proposed Facility Development	Development Costs	Acquisition Costs ^a	Total Costs
A	Hiking trails	\$ 10,000		
	General development ^b	80,000		
	Subtotal	\$ 90,000	\$217,000	\$307,000
B	Playfield	\$ 15,000		
	Children's play area	10,000		
	General development ^c	45,000		
Subtotal	\$ 70,000	\$ 33,000	\$103,000	
C	Playfield	\$ 15,000		
	Children's play area	10,000		
	General development ^b	80,000		
Subtotal	\$105,000	\$ 33,000	\$138,000	
D	League softball and lights	\$ 65,000		
	Playfield	15,000		
	Tennis courts (3) and lights	45,000		
	General development ^d	175,000		
Subtotal	\$300,000	\$ 74,000	\$374,000	
4 Sites	Total	\$565,000	\$357,000	\$922,000

NOTE: All costs are estimated in 1988 dollars.

^aAcquisition costs for each recommended new village park are presented in detail in Table 8.

^bGeneral park development includes landscaping, park lighting, and walkways; park furnishings, such as picnic tables, benches, waste containers, and signs; and restrooms.

^cGeneral park development includes landscaping, park lighting, walkways, and park furnishings such as picnic tables, benches, waste containers, and signs.

^dGeneral park development includes landscaping, park lighting, and walkways; park furnishings such as picnic tables, benches, waste containers, and signs; and restrooms, a small shelter, and a parking lot.

Source: SEWRPC.

The 35 acres of primary environmental corridor lands along Cedar Creek in the Grafton urban service area are held in private ownership. Under the plan, about 13 acres, or 37 percent, would be acquired by the Village, as development occurs, for resource preservation, flood control, and limited recreation purposes. These lands are located on the east bank of Cedar Creek, and, for that area north of STH 60, would be utilized for trails and other parkway pur-

poses. The remaining 22 acres, or 63 percent, would remain in private ownership and be protected through public land use regulation.

Of the 118 acres of primary environmental corridor lands along Mole Creek in the Grafton urban service area, about 9 acres, or 8 percent, are located within Heritage Settlement Park and protected in natural, open uses. Under the plan, the remaining 109 acres, or 92 percent, would be

acquired by the Village for resource preservation, flood control, and limited recreation purposes, including trails and other parkway uses.

Secondary Environmental Corridors: Secondary environmental corridors in the Grafton urban service area encompass only about 11 acres, and are located along an unnamed intermittent stream at the eastern edge of the urban service area. Under the park and open space plan for the Village of Grafton, these lands would be preserved in natural, open uses for drainage purposes through public land use regulation.

In addition, an area along another unnamed intermittent stream in the southeastern portion of the urban service area has been identified by the Village as necessary for drainage and flood control use. Under the plan, this area, about 43 acres in size and one mile in length, would be acquired by the Village for drainage purposes as development occurs in this portion of the urban service area. This drainageway is shown as a secondary environmental corridor on Map 15.

Isolated Natural Areas: Isolated natural areas in the Grafton urban service area are located throughout the urban service area, and combined encompass about 102 acres. Under the plan, it is recommended that these lands be protected and preserved, to the extent possible, as needed for stormwater retention and detention, for drainageways, or for urban open space. In addition, under the plan, it is recommended that all or a portion of the identified isolated natural areas be acquired as part of neighborhood Park Sites A and D.

Other Plan Implementation Considerations: The park and open space plan for the Village of Grafton proposes that the Village develop one additional community park; acquire and develop four additional neighborhood parks; provide additional facilities, including replacement of the swimming pool at Meadowbrook Park; maintain existing village sites; and provide trail facilities; as well as provide for the preservation of the important natural resource features in the urban service area. The boundaries of the proposed new parks and the location of proposed trail facilities should be determined within the context of detailed neighborhood unit development plans for the Village. The preparation of such plans will promote the efficient provision of community facilities and services of all kinds. Such plans would show the proposed location of

collector and local land access streets, drainageways, school sites, and parks and parkways. Future growth and development in the urban service area should be accommodated in an orderly fashion through the development of complete neighborhood units, thereby enabling the Village to provide facilities and services, including parks and parkways, economically and efficiently as urban development occurs.

Once prepared, the detailed neighborhood unit development plans can be implemented by the Village through the revision, as necessary, and enforcement of the Village's official map, as well as through the enforcement of the Village's zoning and local subdivision control ordinances. The adopted official map and the zoning ordinances can serve to protect lands proposed for parks and parkways from incompatible urban encroachment. In addition, the acquisition of outdoor recreation and open space preservation lands can be facilitated by the use of a subdivision control ordinance which contains parkland dedication provisions.

It is also important to note that, while the usual manner of acquisition of parkland is the purchase of fee simple interest, there are methods of acquiring less than fee simple interest in the land. These other methods include the purchase and resale of land upon condition, the purchase and lease-back of land, the acquisition of land subject to life estate, the acquisition of tax delinquent land, the acquisition of conservancy easements, the acquisition of scenic easements, acquisition through gift or donation, and acquisition through dedication. In addition, "clustered" residential development design options can also be used to preserve open space and to reserve lands for outdoor recreation purposes.

This section of the chapter has identified specific responsibilities for the acquisition and development of park and parkway lands in the Grafton study area. To summarize, it is recommended that Ozaukee County acquire and develop the proposed Milwaukee River Parkway within the study area 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 study area as part of the system of recreation trails proposed to be located throughout the County within designated parkways and other environmental corridors, along the rights-of-way of railways and utilities, and on public roads. It is recommended that the

Village of Grafton be responsible for the provision of urban park sites and facilities in the Grafton urban service area which are logically part of the village park system. It is important to recognize, however, that while specific implementation responsibilities have been identified herein, the provision of needed park and parkway 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 Milwaukee River Parkway north of the Village is proposed to be a county responsibility, the Village should consult with the County to identify the specific lands required for parkway purposes. Once such lands are identified, the Village should continue to 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 Village to accept in dedication certain identified parkway lands as the land subdivision process proceeds, and then transfer ownership of such lands to the County for development. Similarly, it would be appropriate for the County to develop trail facilities in the recommended Milwaukee River recreation corridor within the Village, as needed, to assure continuity and conformity in the proposed countywide system of recreation corridors.

Plan Implementation Costs

Implementation of the recommended park and open space plan presented herein would require a total capital investment of about \$2,131,000 over the 23-year plan implementation period. About \$309,000, or about 15 percent of the total plan costs, would be incurred by Ozaukee County for the acquisition of Milwaukee River Parkway lands north of the Village within the study area, and for the development of trail facilities within the Milwaukee River recreation corridor within the study area.

As indicated in Table 10, about \$1,822,000, or about 85 percent of the total plan costs, would be incurred by the Village of Grafton. Of this total, about \$922,000, or about 51 percent, would be incurred for the acquisition and development of the four neighborhood parks; about \$114,000, or about 6 percent, for development of trails; and about \$126,000, or about 7 percent, for acquisi-

tion of certain primary environmental corridor lands. The remaining 36 percent of the cost can be attributed to the development costs of the undeveloped community park and the replacement of the swimming pool at Meadowbrook Park, which total about \$660,000 (see Table 10).

The estimated Village of Grafton park and open space acquisition and development costs of \$1,822,000 would be distributed over a 23-year plan implementation period. Thus, the average annual acquisition and development costs would be about \$79,217, or about \$7.38 per capita per year.¹⁰ 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 50 percent of the acquisition and development costs for village park and open space sites and facilities is obtained through state and federal aid, and if proposed neighborhood parks and primary environmental corridor lands are acquired through the subdivision dedication process, full implementation of the park and open space acquisition and development recommendations could be reduced to about \$669,500, and over the 23-year period would be about \$29,109 per year, or about \$2.71 per capita per year. Park and open space acquisition and development costs could be further offset by the continued use of subdivision dedication requirements or fees and through the use of the aforementioned methods of acquiring land at less than fee simple interest.

CONCLUDING REMARKS

The primary purpose of this park and open space plan for the Village of Grafton is the preparation of a sound and workable guide to the acquisition and development of lands and facilities needed to satisfy the outdoor recreation and open space

¹⁰The average annual per capita costs were derived by dividing the average annual cost by the average annual population over the 23-year plan implementation period. The average annual population of the Grafton urban service area—determined by calculating the average of the preliminary estimated 1988 village population of 9,066 persons and the plan design year 2010 urban service area population of 12,400 persons—is 10,733 persons.

Table 10

SUMMARY OF ACQUISITION AND DEVELOPMENT COSTS FOR THE VILLAGE OF GRAFTON UNDER THE RECOMMENDED PARK AND OPEN SPACE PLAN

Sites and Facilities	Acquisition			Development		Total Costs
	Sites	Acres	Cost	Sites	Cost	
Existing Parks	--	--	\$ --	2 ^a	\$ 660,000	\$ 660,000
Proposed Parks	4 ^b	80	357,000	4 ^b	565,000	922,000
Trail Facilities	--	--	--	--	114,000	114,000
Primary Environmental Corridors	2 ^c	122	126,000	--	--	126,000
Total	6	202	\$483,000	6	\$1,339,000	\$1,822,000

^aIncludes development of the undeveloped community park, and the replacement of the swimming pool at Meadowbrook Park.

^bIncludes acquisition of lands and development of facilities at four neighborhood parks.

^cIncludes acquisition of lands along Cedar Creek and Mole Creek.

Source: SEWRPC.

needs of the existing and probable future population of the Grafton urban service area and to protect and enhance the underlying and sustaining natural resource base. Implementation of the recommended plan would assure the protection and preservation of environmental corridors and isolated natural areas in the Grafton area; 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 urban service area, thereby meeting the existing and probable future recreation needs of the residents of the Grafton area.

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 ^a			
		Minimum Per Capita Public Requirements (acres per 1,000 persons) ^d	Typical Facilities	Maximum Service Radius (miles) ^b		Minimum Per Capita Public Requirements (acres per 1,000 persons) ^f	Typical Facilities	Maximum Service Radius (miles) ^c	
				Urban ^e	Rural			Urban ^e	Rural
19 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 ^h	10.0	10.0	--	--	--	--
11 ⁱ 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 ^h	4.0 ^j	10.0 ^j	--	--	--	--
111 ^k Community	25-99	2.2	Swimming pool or beach, picnic areas, boat launch, nature study area, playfield, softball and/or baseball diamond, tennis court, passive activity area ^h	2.0 ^j	--	0.9	Playfield, baseball diamond, softball diamond, tennis court	0.5-1.0 ^m	--
IV ⁿ	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 ^h	0.5-1.0 ^o	--	1.6	Playfield, playground, baseball diamond, softball diamond, tennis court, basketball goal	0.5-1.0 ^m	--

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 lands 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 and 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 recreation 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^D 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 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, baseball, ice-skating, playfield and playground activities, softball, 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 ⁹				Design Standards					Service Radius of Facility (miles) ^f
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 ⁵	Types II, III, and IV general use site	2.8 acres per diamond	Parking (30 spaces per diamond) Night lighting ^g Concessions and bleachers ^h 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 ⁴ -- 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 ^g Buffer	0.18 acre per diamond -- 0.80 acre per diamond	2.68	1.0
Swimming . . .	Pool	Public Nonpublic Total	0.015 ^v -- 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 ^g 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 ^W				Design Standards						Service Radius of Facility (miles) ^X
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 ^Y 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 tow 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 6 12 18	Types I, II, and III general use sites	40 square feet per linear foot (average)	Parking Bathroom-concessions Buffer area	0.2 acre per acre of beach 0.10 acre minimum 10 square feet per linear foot	.. ^Z	Natural beach Good water quality	10.0
			Lake Michigan 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 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 ^{aa}			Design Standards				
Activity	Facility	Per Capita Requirements (linear mile per 1,000 residents)	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: ^{ee} 6
200 or more	Minimum of 1 or 1 per 1,000 acres of usable surface ^{ff}	$\frac{A}{15.9} - \frac{D^{99}}{10}$ Minimum: ^{ee} 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^{hh} should be 10 miles.

3. A sufficient number of 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 fibre, 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.

- ^a 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 recreation sites do not generally contain natural areas which provide space for passive recreation use.
- ^b 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.
- ^c 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.
- ^d 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.
- ^e 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.
- ^f 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.
- ^g 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.
- ^h 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.
- ⁱ 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.
- ^j 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.
- ^k 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.
- ^l 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.
- ^m 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.
- ⁿ 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 storm water retention basins, areas of poor soils, and floodland areas.

- ^o 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 urban 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.
- ^p 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.
- ^q 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.
- ^r 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.
- ^s Each urban area having a population of 2,500 or greater should have at least one baseball diamond.
- ^t 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.
- ^u Each urban area should have at least one ice-skating rink.
- ^v Each urban area having a population of 7,500 or greater should have one public swimming pool or beach.
- ^w 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.
- ^x 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.
- ^y 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.
- ^z 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.
- ^{aa} 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.
- ^{bb} Bike routes are located on existing public roadways; therefore, no requirement is provided.
- ^{cc} 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.
- ^{dd} 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.
- ^{ee} 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.

ff 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.

99 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.

hh 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.