



A PARK AND OPEN SPACE PLAN FOR THE CITY OF MUSKEGO

WAUKESHA COUNTY WISCONSIN

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Special acknowledgement is due Jacqueline Schweitzer, former Recreation Director, for her contribution to the preparation of this report.

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

**COMMUNITY ASSISTANCE PLANNING REPORT
NUMBER 202**

**A PARK AND OPEN SPACE PLAN
FOR THE CITY OF MUSKEGO
WAUKESHA COUNTY, WISCONSIN**

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

January 1992

Inside Region \$3.00
Outside Region \$6.00

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SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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January 21, 1992

The Honorable Wayne G. Salentine
Mayor of the City of Muskego
and Members of the Common Council
W182 S8200 Racine Avenue
P. O. Box 903
Muskego, Wisconsin 53150

Gentlemen:

The City of Muskego, in August of 1989, requested that the Southeastern Wisconsin Regional Planning Commission assist the City in the preparation of a park and open space plan. Acting in response to that request, and working under the direction of the City Parks and Recreation Board, the Regional Planning Commission staff has now completed the requested park and open space plan for the City of Muskego.

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

Implementation of the plan presented in this report will, over time, provide for an integrated system of parks and open space sites within the City, a system that will 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 City cannot be overemphasized. The City of Muskego contains many high-quality natural resource amenities, including scenic lakes and streams, attractive and environmentally important woodlands and wetlands, and good wildlife habitat. These resource amenities are as irreplaceable as they are invaluable, and, once lost, will be lost forever. Action taken now not only will preserve these natural resources and, therefore, the natural beauty, cultural heritage, and overall quality of the City for all time, but will also facilitate the provision of a park and open space system that can provide the residents of the City 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 City in the preparation of the requested park and open space plan. The Commission stands ready, upon request, to assist the City in the implementation of the recommended plan over time.

Sincerely,



Kurt W. Bauer
Executive Director

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Chapter I

INTRODUCTION

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

A variety of parks and 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 City of Muskego 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 City, 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. The regional 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. The Muskego Park and Recreation Board, on August 1, 1989, requested that the Regional Planning Commission assist the City in the preparation of a park and open space plan for the City. It is envisioned that the adoption of this plan by the City would make the City eligible to apply for and receive federal and state aids in partial support for the acquisition and development of needed park and open space sites and facilities within the City.

The findings and recommendations of the requested park and open space planning effort, an effort carried out under the direction of the Muskego Parks and Recreation Board, are set forth in this report. Chapter II of this report presents information about the City pertinent to park and open space planning, including information on the resident population, land use pattern, and natural resource base of the City, together with information on the existing park sites and open space lands within the City. 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 City. Chapter IV presents a description of park and open space needs in the City, 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 CITY OF MUSKEGO

INTRODUCTION

An understanding of the important man-made and natural resource features of the City of Muskego is essential to the preparation of a sound park and open space plan. This chapter presents information on the existing resident population, land use pattern, park and open space sites, and natural resource base of the City of Muskego.

DESCRIPTION OF THE CITY OF MUSKEGO

The City of Muskego is located in southeastern Waukesha County and encompasses an area of about 35.8 square miles. As shown on Map 1, the City is bounded on the north by the City of New Berlin, on the east by the City of Franklin in Milwaukee County, on the south by the Town of Norway in Racine County, and on the west by the Village of Big Bend and the Town of Vernon. Important arterial streets and highways, including STH 36, and STH 45, serve the City, as well as a network of county and local trunk highways.

Resident population levels are an important consideration in any park and open space planning effort. Data on the historic resident population levels in the City are presented in Table 1. As indicated in Table 1, between 1900 and 1930, the resident population of the Town of Muskego increased very slowly from 1,349 persons in 1900 to 1,576 persons in 1930, or by only 227 persons or 17 percent over the 30-year period. Between 1930 and 1950, the resident population increased more rapidly, to 2,495 persons in 1940, an increase of 58 percent over the 1930 level, and to 4,157 persons in 1950, or an increase of 66 percent over the 1940 level. Between 1950 and 1960, the resident population increased dramatically, to 8,888 persons, an increase of 4,731 persons or 114 percent over the 1950 level. In 1964 the area of the Town was incorporated as a city, and the Town of Muskego ceased to exist. As further indicated in Table 1, the resident population of the City continued to increase, but at a more moderate rate, between

Table 1

**POPULATION WITHIN THE CITY OF
MUSKEGO: SELECTED YEARS 1900-1990**

Year	Total Population			
	Number		Change from Preceding Census	
	Town	City	Absolute	Percent
1900	1,349	--	--	--
1910	1,318	--	-31	-2.3
1920	1,294	--	-24	-1.8
1930	1,576	--	282	21.8
1940	2,495	--	919	58.3
1950	4,157	--	1,662	66.6
1960	8,888	--	4,731	113.8
1970	--	11,573	2,685	30.2
1980	--	15,277	3,704	32.0
1990	--	16,813	1,536	10.1

NOTE: In 1964, the Town of Muskego was incorporated as the City of Muskego, and the Town of Muskego ceased to exist.

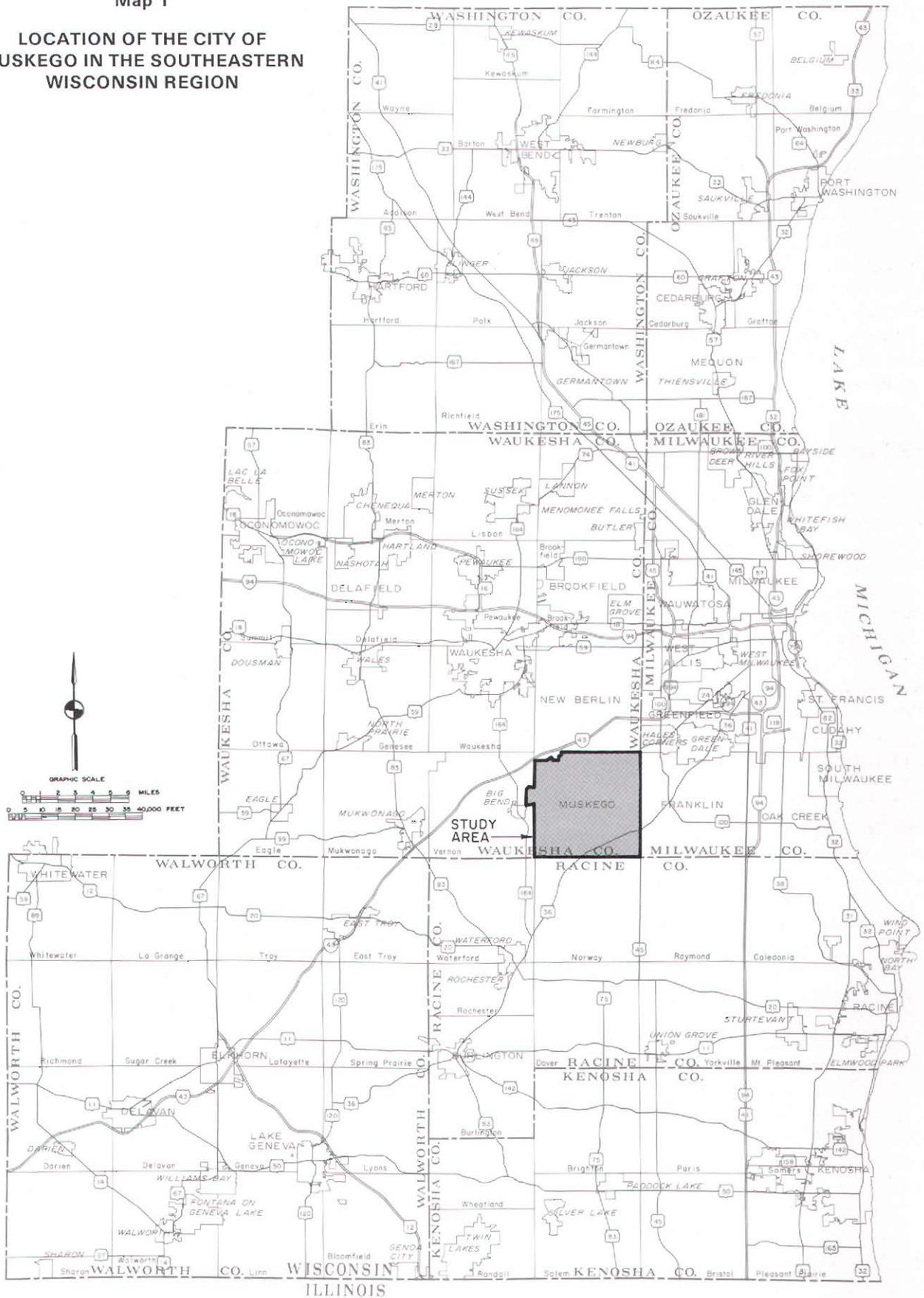
Source: U. S. Bureau of the Census and SEWRPC.

1960 and 1980. By 1970, the population was 11,573 persons, or 2,685 persons or 30 percent over the 1960 level; and by 1980, the population was 15,277 persons, or 3,704 persons or 32 percent over the 1970 level. The 1990 resident population of the City of Muskego was 16,813 persons, an increase of 1,536 persons or about 10 percent over the 1980 resident population of 15,277 persons.

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 City of Muskego in 1950 and selected succeeding years is shown on Map 2. In 1950, there were only small concentrations, encompassing about 579 acres combined, of urban development in the Town. These concentrations were located primarily along the shorelines of Little Muskego

Map 1

LOCATION OF THE CITY OF MUSKEGO IN THE SOUTHEASTERN WISCONSIN REGION



Source: SEWRPC.

Lake, Bass Bay, and Lake Denoon. In the years after 1950, additional large areas were developed within the City. As further shown on Map 2, by 1963 an additional 1,428 acres of land, a 247 percent increase over the 1950 urban development area, were developed for urban use in the northeastern portion of the City, around Little Muskego Lake, and on the eastern shore of Big Muskego Lake. By 1970, an additional 290 acres of land, a 14 percent increase over the 1963 urban development area, were developed throughout the City for urban use. By 1980 large areas, an additional 1,253 acres or 55 percent over the 1970 urban development area, were developed for urban use. By 1990, about an additional 419 acres, or 12 percent over the 1980 urban development area, were developed for urban use.

The amount of land devoted to the various types of land uses in the City in 1985 is presented in Table 2. As indicated in Table 2, agricultural uses still accounted for about 10,701 acres, or 47 percent of the total area of the City. Other rural land uses, including surface waters, woodlands, wetlands, and other open lands, combined encompassed 7,383 acres, or 32 percent of the total area of the City. Thus, in 1985, about 18,084 acres, or 79 percent of the total area of the City in 1985, were still in rural uses. Residential lands accounted for 3,075 acres, or about 13 percent of the City and 63 percent of the urban lands; while other urban uses combined covered about 1,777 acres, or 8 percent of the total area of the City, and 37 percent of the urban lands. Thus, about 4,852 acres, or 21 percent of the total area of the City, were in urban uses in 1985.

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 City in 1990 indicates that there were 72 such sites, which together encompassed a total of about 953 acres, or about 4 percent of the total area of the City. As shown on Map 3 and indicated in Table 3, 41 sites and 544 acres, 57 percent of the sites and 57 percent of the included area were publicly owned. The remaining 31 sites, encompassing 409 acres, were privately owned.

Table 2

EXISTING LAND USE IN THE CITY OF MUSKEGO: 1985

Category	Acres	Percent of Subtotal	Percent of City
Urban			
Residential	3,075	63.4	13.4
Commercial	64	1.3	0.3
Industrial	51	1.0	0.2
Transportation	996	20.5	4.4
Governmental and Institutional	251	5.2	1.1
Recreational	415	8.6	1.8
Subtotal	4,852	100.0	21.2
Rural			
Agricultural	10,701	59.2	46.6
Woodlands	1,003	5.5	4.4
Wetlands	2,712	15.0	11.8
Surface Water	2,965	16.4	12.9
Other Open Lands	703	3.9	3.1
Subtotal	18,084	100.0	78.8
Total	22,936	--	100.0

Source: SEWRPC.

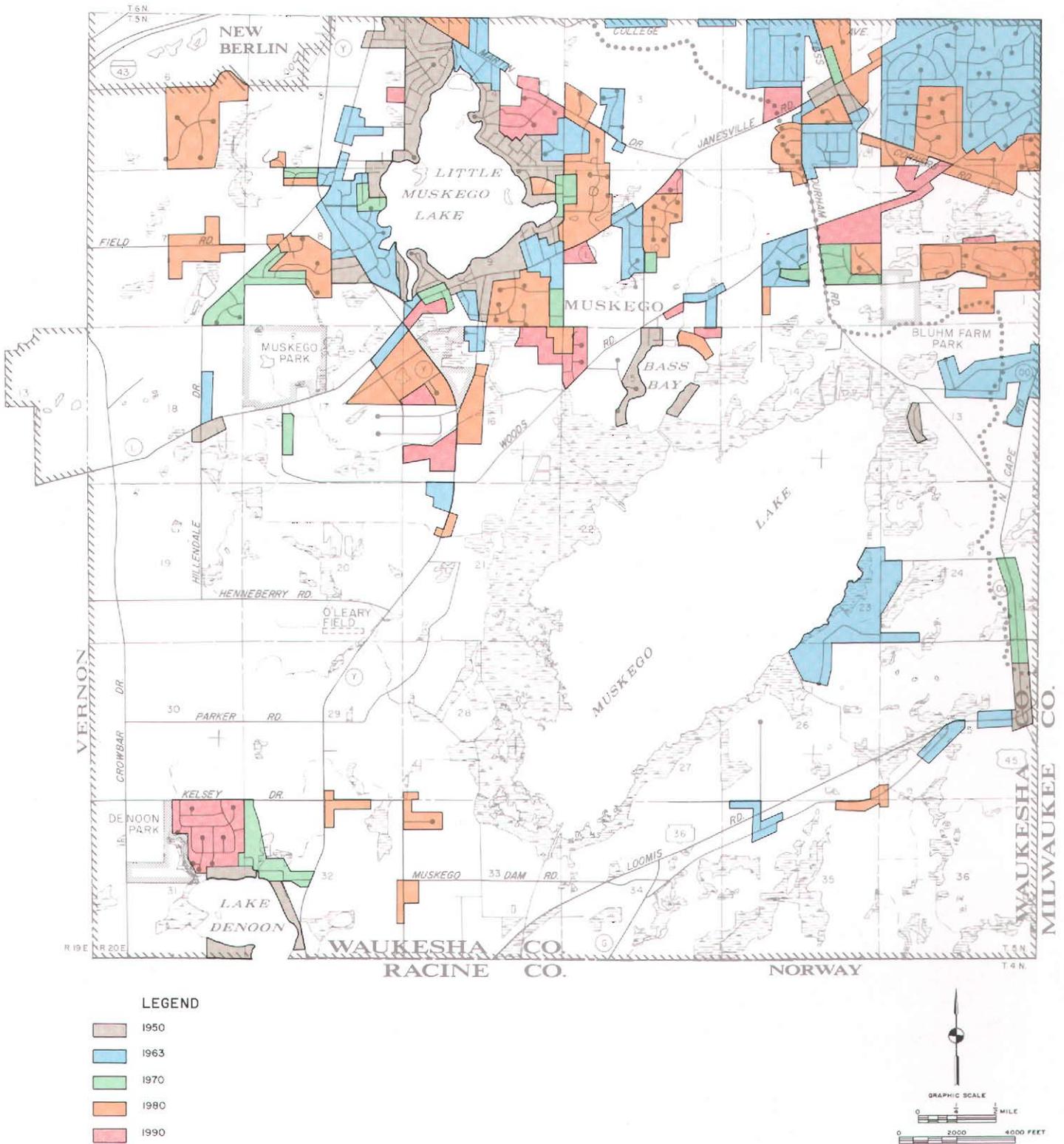
As indicated in Table 4, in 1990 there were three baseball diamonds, 11 playfields, 12 play-grounds, 12 league softball diamonds, seven sandlot softball diamonds, and 13 tennis courts located in publicly owned park and outdoor recreation sites in the City of Muskego.

City of Muskego Sites

The City of Muskego, in 1990, owned 35 park and open space sites encompassing a total of 259 acres, or about 1 percent of the total area of the City. As indicated in Table 5, the City's sites ranged in size from 18 lake-access sites smaller than an acre around Little Muskego Lake to the 53-acre Denoon Park in the southwestern portion of the City. As further indicated in Table 5, the City of Muskego park system included three community parks and the City Hall Complex, a special site of communitywide interest, consisting of the Civic Center site, the Old Muskego Settlement Centre site, and an undeveloped open space site; five neighborhood parks and one undeveloped neighborhood park site; four natu-

Map 2

HISTORICAL URBAN GROWTH IN THE CITY OF MUSKEGO: SELECTED YEARS 1950-1990



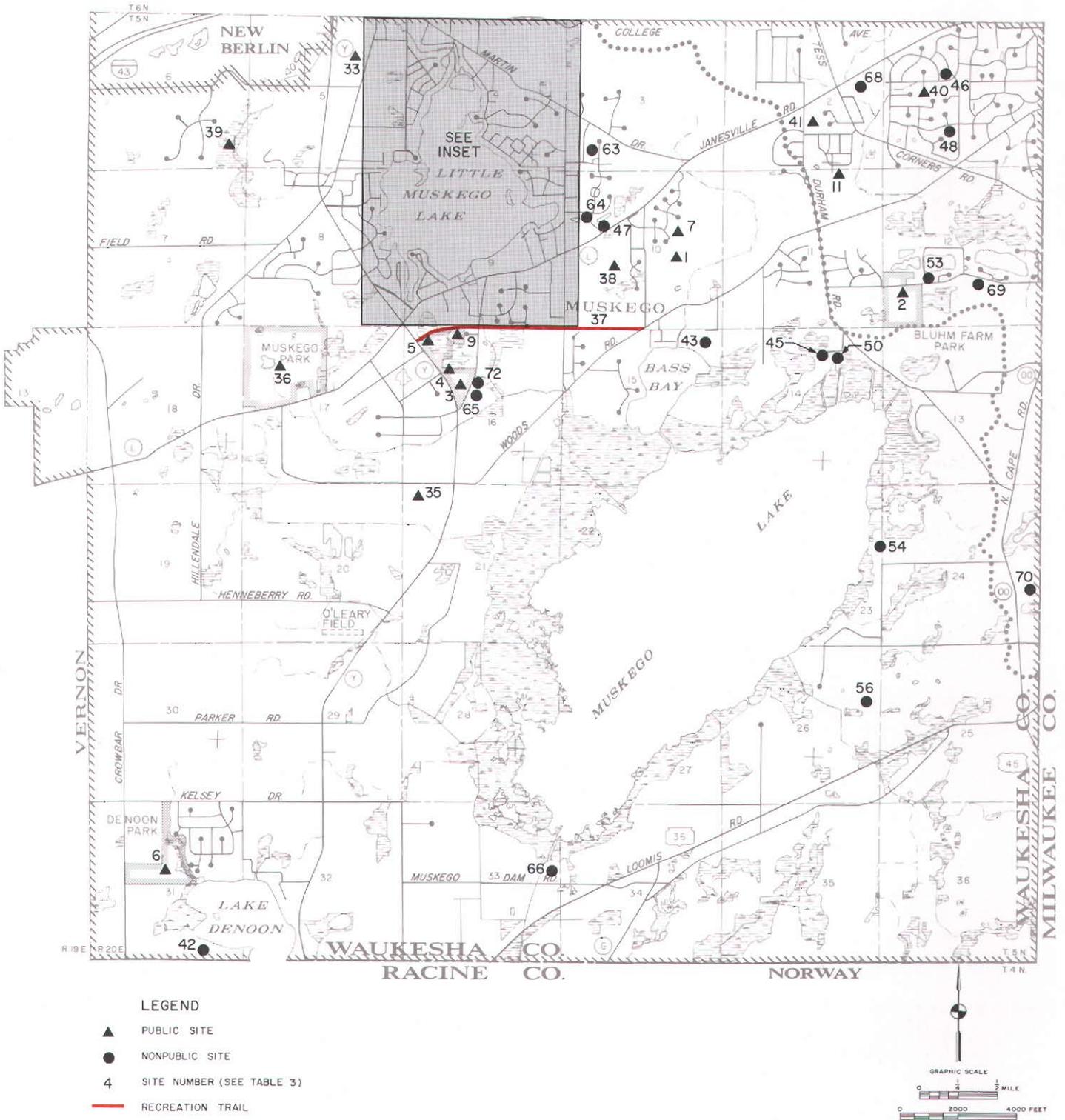
Source: SEWRPC.

ral resource preservation and open space sites; 18 lake-access sites; and the recreation trail. The locations of the sites owned by the City are shown on Map 4. A description of each of the 35 sites is presented below:

1. **Bluhm Farm Park:** Bluhm Farm Park is a 50-acre community park site located in the northeast portion of the City. Existing facilities include a baseball diamond, two softball diamonds, picnic areas, a children's play area, an open shelter, and indoor rest rooms. The site also encompasses woodlands within an isolated natural area.
2. **City Hall Complex:** The City Hall Complex area is located in the north-central portion of the City and consists of the Civic Center, including the City Hall and Library, Old Muskego Settlement Centre, and undeveloped municipal lands. This site is also used for special community events. These three sites together cover a total of 34 acres and encompass wetlands within an isolated natural area.
3. **Denoon Park:** Denoon Park is a 53-acre community park located on the northwestern shore of Lake Denoon in the southwestern portion of the City. Existing facilities include a baseball diamond, basketball court, playfield areas, two tennis courts, a children's play area, picnic areas, a soccer field, trails, and lake-access and boat-launch facilities. The site also encompasses wetlands and woodlands within the primary environmental corridor associated with Lake Denoon.
4. **Guernsey Meadows Park:** Guernsey Meadows Park is a nine-acre open space site located in the north-central portion of the City providing opportunities for nature study and encompasses woodlands within an isolated natural area.
5. **Holz Island:** Holz Island is a two-acre open space site located along the eastern shore of Little Muskego Lake in the northern portion of the City encompassing lands within the primary environmental corridor.
6. **Horn Field:** Horn Field is a 12-acre neighborhood park located in the north-central portion of the City. Existing facilities include a baseball diamond, a children's play area, a shelter building and rest rooms. The site encompasses wetlands within an isolated natural area.
7. **Idle Isle Park:** Idle Isle Park is a seven-acre community park, classified by the City as Lake-Access Site No. 18, located at the northern end of Little Muskego Lake. In addition to lake-access facilities, other facilities at the site include a swimming beach, a children's play area, a volleyball court, a shelter, and a concession stand.
8. **Jensen Park:** Jensen Park is a four-acre neighborhood park located north of Little Muskego Lake in the northwestern portion of the City. Existing facilities at the site include a softball diamond, children's play area, and a community center building.
9. **Kurth Park:** Kurth Park is a seven-acre neighborhood park located in the northeastern portion of the City. Existing facilities include a softball diamond, a playfield area, a basketball goal, a children's play area, two soccer fields, two tennis courts, and rest rooms.
10. **Lake-Access Sites:** The City of Muskego provides 19 sites with access to Little Muskego Lake. Map 3 shows the location and extent of each of these access sites. These 19 sites together encompass an area of about 12 acres and include the following sites: No. 1, Pearl Drive, which provides an area for lake access, No. 2, Emerald Drive, which provides an area for lake access, a fishing pier and picnic tables, No. 3, Diamond Drive, which provides an area for lake access and a fishing pier, No. 4, Jensen Park A, which provides an area for lake access, picnic tables, and a basketball court, No. 5, Ruby Drive A, which provides an area for lake access, No. 6, Ruby Drive B, which provides an area for lake access, No. 7, Hillview Drive, which provides an area for lake access and a boat launch, No. 8, Shore Drive, which provides an area for lake access, No. 9, Oak Court, which provides an area for lake access and a boat launch, No. 10, Lochcrest Boulevard, which provides an area for lake access and a fishing pier, No. 11, Oak Grove, which provides an area for lake access, No. 12, Park Avenue, which pro-

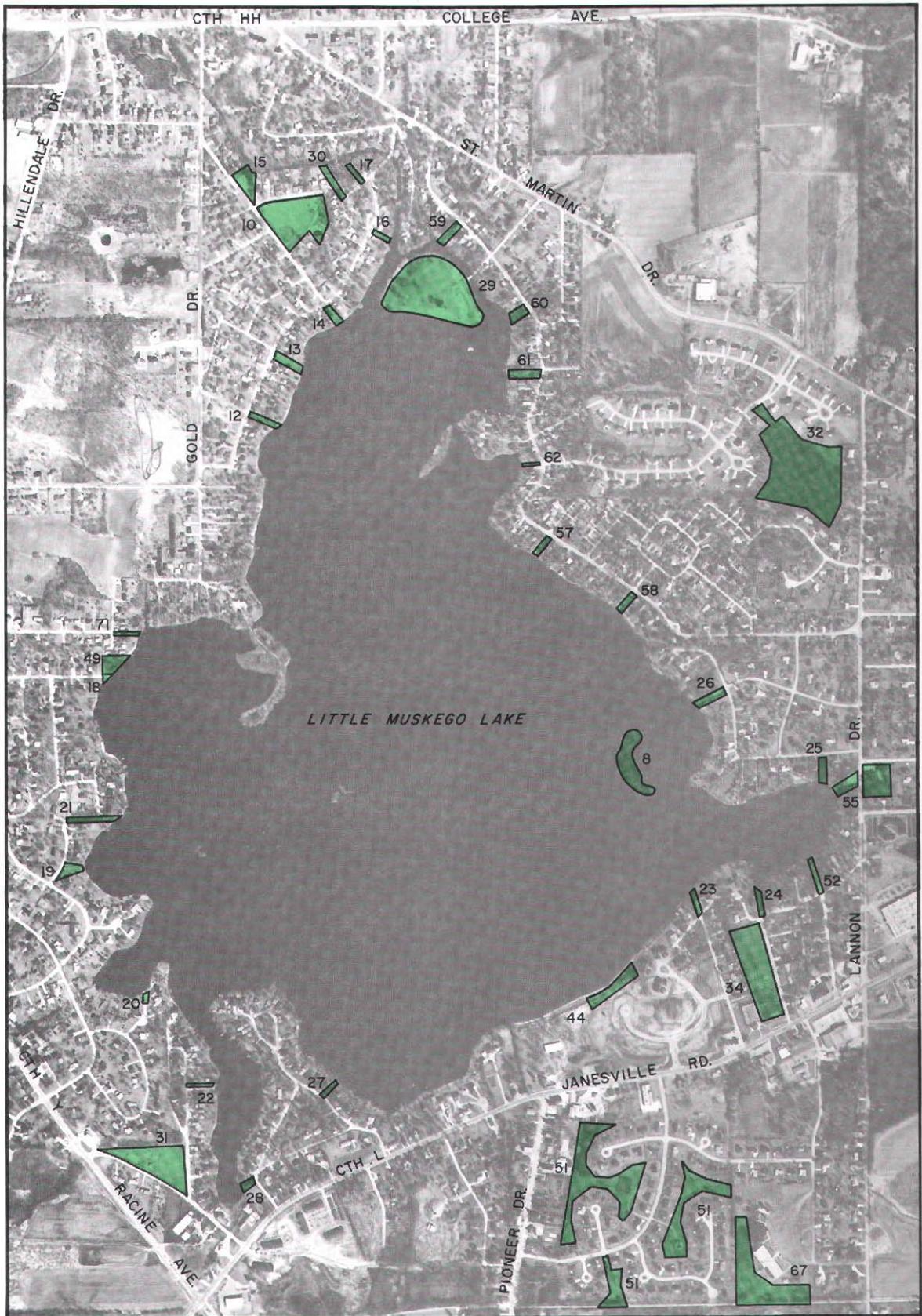
Map 3

PARK AND OPEN SPACE SITES IN THE CITY OF MUSKEGO: 1990



Source: City of Muskego Parks and Recreation Board and SEWRPC.

Map 3 Inset



INSET GRAPHIC SCALE
0 300 600 FEET
DATE OF PHOTOGRAPHY: MARCH 1990

Table 3

PARK AND OPEN SPACE SITES IN THE CITY OF MUSKEGO: 1990

Number on Map 3	Site Name	Ownership	Acreage
	Public		
1	Bay Lane Middle and Country Meadows Schools	School District	19
2	Bluhm Farm Park	City of Muskego	50
--	City Hall Complex	City of Muskego	34
3	Civic Center		
4	Old Muskego Settlement Centre		
5	Undeveloped City Land		
6	Denoon Park	City of Muskego	53
7	Guernsey Meadows	City of Muskego	9
8	Holz Island	City of Muskego	2
9	Horn Field	City of Muskego	12
10	Jensen Park	City of Muskego	4
11	Kurth Park	City of Muskego	7
--	Lake-Access Sites	City of Muskego	12
12	No. 1 Pearl Drive		
13	No. 2 Emerald Drive		
14	No. 3 Diamond Drive		
15	No. 4 Jensen Park ^a		
16	No. 5 Ruby Drive A		
17	No. 6 Ruby Drive B		
18	No. 7 Hillview Drive		
19	No. 8 Shore Drive		
20	No. 9 Oak Court		
21	No. 10 Lockcrest Boulevard		
22	No. 11 Oak Grove		
23	No. 12 Park Avenue		
24	No. 13 Michi Drive		
25	No. 14 Shubring Drive		
26	No. 15 Pleasant View Drive		
27	No. 16 Kingston Drive		
28	No. 17 Cook Drive		
29	No. 18 Idle Isle Park ^a		
30	No. 19 Ruby Drive C		
31	Lions Park	City of Muskego	4
32	Marlan Meadows	City of Muskego	10
33	Mill Valley School	School District	15
34	Muskego Elementary School	School District	5
35	Muskego High School	School District	43
36	Muskego Park	Waukesha County	209
37	Muskego Recreation Trail	City of Muskego	--b
38	Parkland Plaza	City of Muskego	15
39	Ridges Subdivision Park	City of Muskego	27
40	Schmidt Park	City of Muskego	7
41	Tess Corners School	School District	7
--	Subtotal 41 Sites	--	544

Table 3 (continued)

Number on Map 3	Site Name	Ownership	Acreage
	Nonpublic		
42	Amann's Acres	Private	7
43	Aud-Mar Resort	Private	22
44	Bay Breeze Condominiums	Private	1
45	Black Duck Inn	Private	12
46	Fountainwood Pool	Private	4
47	Freedom Square Condominiums	Private	3
48	Hale Park Meadows	Private	17
49	Hillview Association Access	Private	1
50	The Hunters Nest Resort	Private	8
51	Kristin Down Subdivision Outlots	Private	8
52	Krogman's Access Lot No. 1	Private	-. ^c
53	Lake Lore Estates Subdivision Outlot	Private	2
54	Lakeshore Inn	Private	35
55	Lakeview Tavern	Private	2
56	Muskego Lakes Country Club	Private	243
--	Muskego Shores Access Lots	Private	1
57	Lot No. 1		
58	Lot No. 2		
--	Oak Ridge Access Lots	Private	1
59	Lot No. 1		
60	Lot No. 2		
61	Lot No. 3		
62	Lot No. 4		
63	Parkland Subdivision Outlot No. 1	Private	4
64	Parkland Subdivision Outlot No. 2	Private	1
65	Pioneer Center	Private	1
66	Rep's Dam Tavern	Private	3
67	St. Leonard School	Private	4
68	St. Paul's School	Private	6
69	Tudor Oaks Open Space	Private	11
70	Valley Green Golf Course	Private	11
71	Wentland Drive Access Lot	Private	-. ^c
72	Windsong	Private	1
--	Subtotal 31 Sites	--	409
--	Total 72 Sites	--	953

^aFor purposes of this report, Jensen Park and Idle Isle Park will be referred to and treated as park sites, rather than lake-access sites.

^bThe Muskego Recreation Trail, located on a Wisconsin Electric Power Company right-of-way, is about 1.4 miles in length.

^cLess than one-half acre in size.

Source: Muskego Parks and Recreation Board and SEWRPC.

Table 4

SELECTED OUTDOOR RECREATION FACILITIES IN THE CITY OF MUSKEGO: 1990

Number on Map 3	Site Name	Regulation Baseball Diamond	Basketball Goal	Ice-Skating Rink	Picnic Area	Playfield	Playground	Softball Diamond (league)	Softball Diamond (sandlot)	Swimming Beach	Tennis Court	Other Facilities
1	Public Bay Lane Middle and Country Meadows Schools	--	12	--	--	1	1	4	--	--	--	--
2	Bluhm Farm Park	1	--	--	1	--	1	2	--	--	--	Open shelter, rest rooms
6	Denoon Park	1	2	--	1	1	1	--	--	--	2	Lake access and boat launch, trails soccer field, volleyball, horseshoes
9	Horn Field	1	1	--	--	--	1	--	--	--	--	Shelter, rest rooms
10	Jensen Park	--	--	--	--	--	1	1	--	--	--	Community center
11	Kurth Park	--	1	--	--	1	1	1	--	--	2	Volleyball, two soccer fields, enclosed shelter, rest rooms
15	Lake-Access Site No. 4, Jensen Park	--	4	--	--	--	--	--	--	--	--	--
29	Lake-Access Site No. 18, Idle Isle Park	--	--	--	1	1	1	--	--	1	--	Volleyball, enclosed shelter, rest rooms, lake access and boat launch
31	Lions Park	--	2	--	--	1	1	--	1	--	--	Enclosed shelter, rest rooms
33	Mill Valley School	--	3	--	--	1	1	3	--	--	--	--
34	Muskego Elementary School	--	4	--	--	1	1	--	1	--	--	--
35	Muskego High School	--	--	--	--	1	--	1	--	--	6	Track, football field, two soccer fields
36	Muskego Park	--	--	--	5	1	--	--	1	1	1	Camping
37	Muskego Recreation Trail	--	--	--	--	--	--	--	--	--	--	Biking, hiking, cross-country skiing
40	Schmidt Park	--	--	--	--	1	1	--	1	--	2	--
41	Tess Corners School	--	--	--	--	1	1	--	3	--	--	--
--	Subtotal	3	29	--	8	11	12	12	7	2	13	--
42	Nonpublic Amann's Acres	--	--	--	1	--	--	--	--	1	--	Lake access, volleyball, boat launch
44	Bay Breeze Condominiums	--	--	--	--	--	--	--	--	--	1	--
45	Black Duck Inn	--	--	--	1	--	--	--	--	--	--	Lake access, trapshooting
46	Fountainwood Pool	--	--	--	--	--	--	--	--	--	1	Pool
47	Freedom Square Condominiums	--	--	--	--	--	--	--	--	--	2	--
49	Hillview Association Access	--	--	--	1	--	--	--	--	1	--	Lake access
50	The Hunters Nest Resort	--	--	--	1	--	--	--	--	--	--	Lake access, trapshooting
51	Kristin Down Subdivision Outlot	--	--	--	--	--	--	--	--	--	2	Pool, rest rooms
53	Lake Lore Estates Subdivision Outlot	--	--	--	--	--	--	--	--	1	2	Pond
54	Lakeshore Inn	--	--	--	--	--	--	--	--	--	1	Trapshooting, lake access
63	Parkland Subdivision Outlot No. 1	--	--	--	--	1	--	--	--	--	--	--
64	Parkland Subdivision Outlot No. 2	--	--	--	1	--	--	--	--	--	--	--
65	Pioneer Center	--	--	--	--	--	--	--	--	--	--	Pool
66	Rep's Dam Tavern	--	--	--	1	--	--	--	--	--	--	Lake access, trapshooting, boat launch, volleyball
67	St. Leonard School	--	--	--	--	1	1	--	--	--	--	--
68	St. Paul's School	--	4	--	--	1	1	--	1	--	--	--
72	Windsong	--	--	--	--	--	--	--	--	--	--	Pool
--	Subtotal	--	4	--	6	3	2	--	1	3	9	--
--	Total	3	33	--	14	14	14	12	8	5	22	--

Source: City of Muskego Parks and Recreation Board and SEWRPC.

Table 5

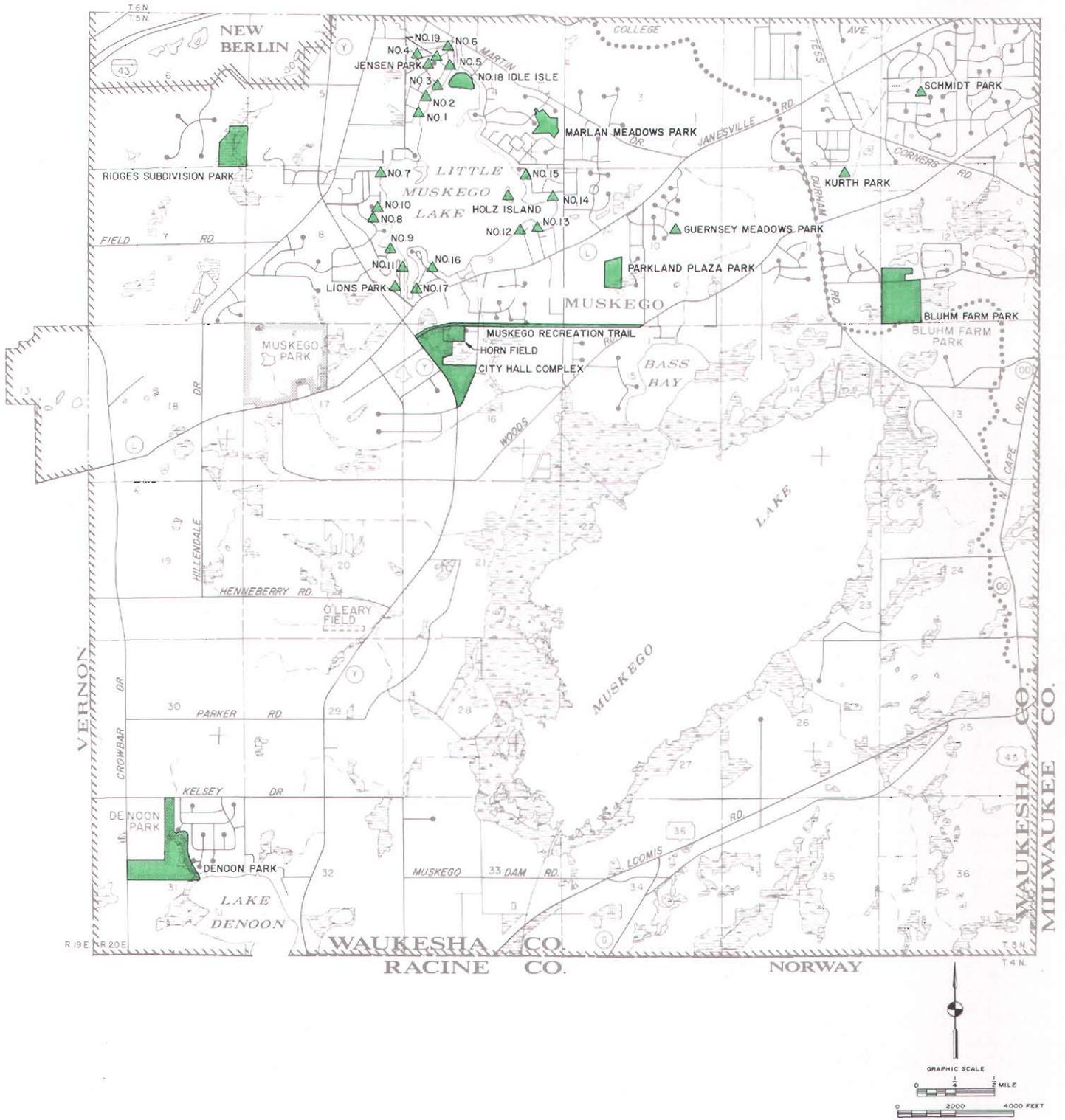
CITY OF MUSKEGO PARK SYSTEM: 1990

Site Name	Acreage	Site Description
Bluhm Farm Park	50	Community park
City Hall Complex	34	Special community park
Civic Center		
Old Muskego Settlement Centre		
Undeveloped City Land		
Denoon Park	53	Community park
Guernsey Meadows Park	9	Open space site
Holz Island	2	Open space site
Horn Field	12	Neighborhood Park
Jensen Park	4	Neighborhood park
Kurth Park	7	Neighborhood park
Lake-Access Sites	12	
No. 1 Pearl Drive	--	Lake-access site
No. 2 Emerald Drive	--	Lake-access site
No. 3 Diamond Drive	--	Lake-access site
No. 4 Jensen Park	--	Lake-access site
No. 5 Ruby Drive A	--	Lake-access site
No. 6 Ruby Drive B	--	Lake-access site
No. 7 Hillview Drive	--	Lake-access site
No. 8 Shore Drive	--	Lake-access site
No. 9 Oak Court	--	Lake-access site
No. 10 Lochcrest Boulevard	--	Lake-access site
No. 11 Oak Grove	--	Lake-access site
No. 12 Park Avenue	--	Lake-access site
No. 13 Michi Drive	--	Lake-access site
No. 14 Shubring Drive	--	Lake-access site
No. 15 Pleasant View Drive	--	Lake-access site
No. 16 Kingston Drive	--	Lake-access site
No. 17 Cook Drive	--	Lake-access site
No. 18 Idle Isle Park	--	Community park
No. 19 Ruby Drive C	--	Lake-access site
Lions Park	4	Neighborhood park
Marlan Meadows Park	10	Open space site
Muskego Recreation Trail	13	Trail
Parkland Plaza Park	15	Undeveloped neighborhood park
Ridges Subdivision Park	27	Open space site
Schmidt Park	7	Neighborhood park
Total 35 sites	259	--

Source: City of Muskego Parks and Recreation Board and SEWRPC.

Map 4

CITY OF MUSKEGO PARK AND OPEN SPACE SITES: 1990



Source: City of Muskego Parks and Recreation Board and SEWRPC.

vides an area for lake access, a fishing pier and picnic tables, No. 13, Michi Drive, which provides an area for lake access and a fishing pier, No. 14, Shubring Drive, which provides an area for lake access, No. 15, Pleasant View Drive, which provides an area for lake access and a boat launch, No. 16, Kingston Drive, which provides an area for lake access and a fishing pier, No. 17, Cook Drive, which provides an area for lake access, including snowmobile access, No. 18, Idle Isle Park, as described above, provides an area for lake access, a boat launch ramp and related parking, a fishing pier, and picnic areas, and No. 19, Ruby Drive C, which provides an area for lake access. Each of these sites, except No. 18, Idle Isle Park, is less than one-half of one acre in size. Each of the 19 lake access sites encompass lands within the primary environmental corridor.

11. Lion's Park: Lion's Park is a four-acre neighborhood park located west of Little Muskego Lake in the northwestern portion of the City. Existing facilities include a playfield area, a children's play area, a basketball court, and an enclosed shelter and rest rooms.
12. Marlan Meadows Park: Marlan Meadows Park is a 10-acre open space site located east of Little Muskego Lake in the northern portion of the City. The site encompasses woodlands within an isolated natural area.
13. Muskego Recreation Trail: Muskego Recreation Corridor is a 1.4-mile hiking and biking trail. The site is located along the Wisconsin Electric Power Company right-of-way between the Civic Center complex and CTH Y on the west and Woods Road/Baylane on the east in the central portion of the City.
14. Parkland Plaza Park: Parkland Plaza Park is a 15-acre undeveloped neighborhood park located in the north-central portion of the City encompassing wetlands within an isolated natural area.

15. Ridges Subdivision Park: Ridges Subdivision Park is a 27-acre open space site located in the northwestern portion of the City which encompasses wetlands within a secondary environmental corridor.

16. Schmidt Park: Schmidt Park is a seven-acre neighborhood park located in the northeastern portion of the City. Existing facilities include a playfield area, a children's play area, and two tennis courts.

ENVIRONMENTAL CORRIDORS AND PRIME AGRICULTURAL LAND

Ecological balance and natural beauty within an area are important determinants of the ability of that area to provide a pleasant and habitable environment for all forms of life and to maintain its inhabitants' 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 City of Muskego.

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.¹ Primary environmental corridors include a wide variety of the important resource and resource-related elements mentioned above 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, air, and water pollution abatement and in favorable climate modification. In addition, 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 the source of domestic, municipal, and industrial water supply, and upon which low flows of rivers and streams may depend. Similarly, the destruction of ground cover may result in soil erosion, stream siltation, more rapid runoff, and

¹A more detailed description of the identification and delineation of environmental corridors in southeastern Wisconsin is presented in *SEWRPC Technical Record, Volume 4, No. 2, pages 1 through 21.*

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 City of Muskego should, thus, be apparent.

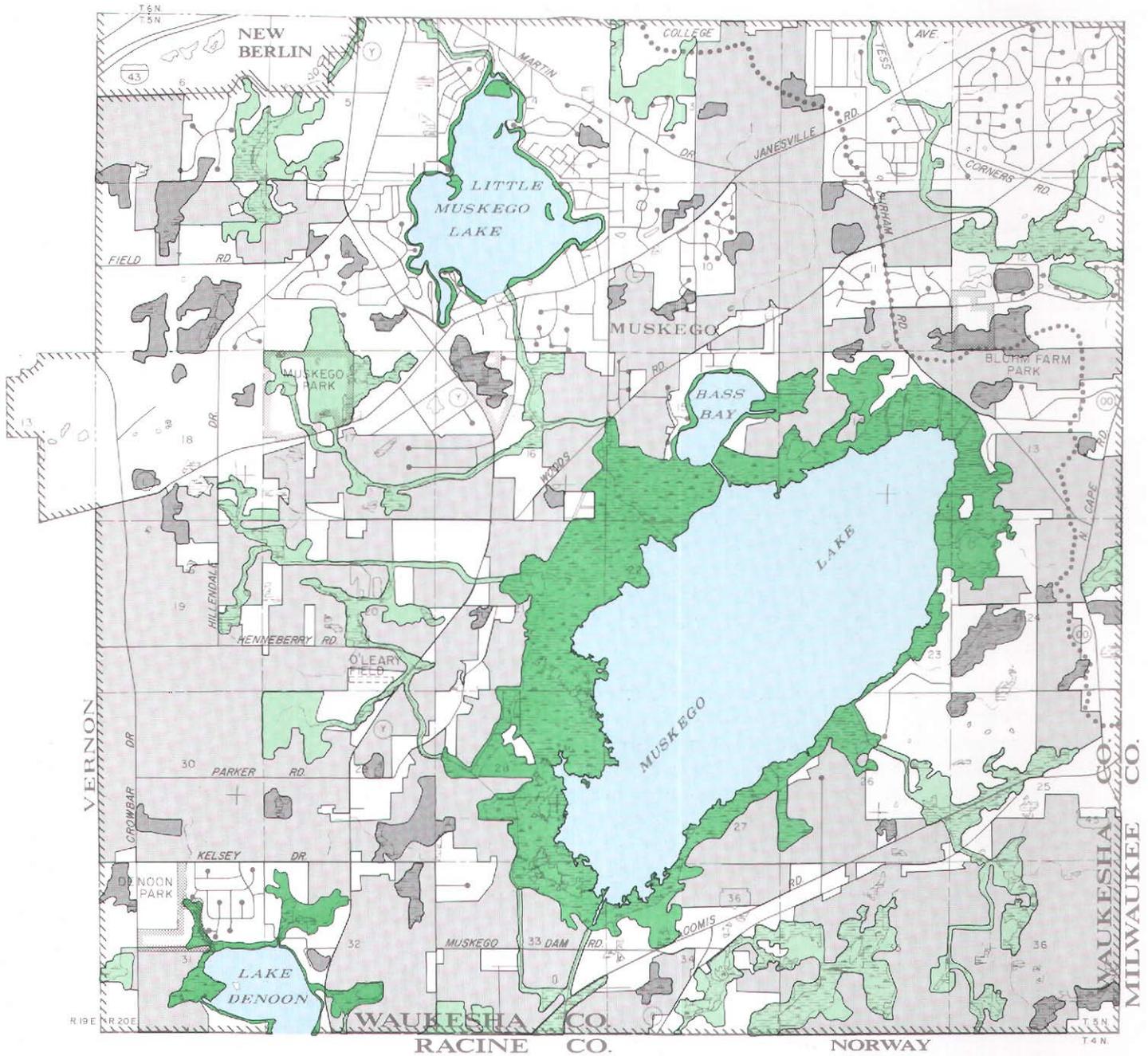
The location and extent of the environmental corridors in the City of Muskego in 1985 are shown on Map 5. As already noted, a wide variety of resource features occurs within the environmental corridors. A number of individual resource features often occupy the same location within these corridors. For example, a single area may be classified as wetlands, floodlands, shorelands, wildlife habitat, and poor soils. As another example, a single area may be classified as woodlands, an area of steep slope, a scenic viewpoint, and wildlife habitat. However, certain resource features within the environmental corridors are mutually exclusive. Moreover, these features characterize the types of resources generally found in individual environmental corridor segments. In order to characterize the types of natural resource base and related elements within the primary and secondary environmental corridors and isolated natural areas, the following four resource categories have been identified: 1) surface water; 2) wetlands; 3) woodlands; and 4) other resource features, generally including wildlife habitat areas and either areas of steep slopes or areas of wet, poorly drained, or organic soil. An additional nonresource category consists of those lands devoted to intensive urban uses.

Primary Environmental Corridors: As shown on Map 5, the primary environmental corridors within the City are located around the following major lakes within the City: Big Muskego Lake, including Bass Bay; Denoon Lake; and Little Muskego Lake. These corridors encompass a total area of about 4,752 acres, or about 21 percent of the total area of the City.

The generalized natural resource composition of the primary environmental corridors is summarized in Table 6. As indicated in Table 6, of the total 4,752 acres of primary environmental corridors in the City in 1985, about 2,942 acres,

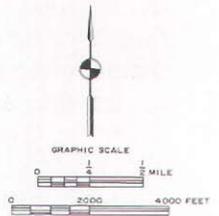
Map 5

ENVIRONMENTAL CORRIDORS, ISOLATED NATURAL AREAS,
AND PRIME AGRICULTURAL LANDS IN THE CITY OF MUSKEGO



LEGEND

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



Source: SEWRPC.

Table 6

**GENERALIZED NATURAL RESOURCE COMPOSITION OF THE ENVIRONMENTAL
CORRIDORS AND ISOLATED NATURAL AREAS IN THE CITY OF MUSKEGO: 1985**

Natural Resource Feature	Natural Resource Composition								Urban		Total	
	Surface Water		Wetlands		Woodlands		Other Resources					
	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent	Acres	Percent
Primary Environmental Corridor	2,942	61.9	1,535	32.3	88	1.9	99	2.0	88	1.9	4,752	100.0
Secondary Environmental Corridor	24	1.6	610	40.2	440	29.0	386	25.4	57	3.8	1,517	100.0
Isolated Natural Area	18	2.3	275	36.2	376	49.5	82	10.8	9	1.2	760	100.0

Source: SEWRPC.

or 62 percent, were in surface water; about 1,535 acres, or 32 percent, were in wetlands; about 88 acres, or 2 percent, were in woodlands; and about 99 acres, or 2 percent, were occupied by other natural resource features. Developed urban uses encompassed the remaining 88 acres, or 2 percent, of the primary environmental corridors in the City.

Of the total 4,752 acres of primary environmental corridors located in the City, about 31 acres, or 1 percent, were held in public ownership in 1990; about 46 acres, or 1 percent, were held in compatible nonpublic outdoor recreation ownership. As already noted, an additional 2,942 acres, or 62 percent, were in surface waters. The remaining 1,733 acres, or 36 percent, were held in other 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 City. 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 City of Muskego park and open space plan. Their preservation in an essentially open, natural state 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 are located along minor streams and drainage-ways throughout the City and encompass a total of 1,517 acres, or about 7 percent of the total area of the City. As indicated in Table 6, of the total 1,517 acres of secondary environmental corridors in the City in 1985, about 24 acres, or 2 percent, were in surface water; about 610 acres, or 40 percent, were in wetlands; about 440 acres, or 29 percent, were in woodlands; and about 386 acres, or 25 percent, were occupied by other natural resource features. Developed urban uses encompassed the remaining 57 acres, or 4 percent, of the secondary environmental corridors in the City. Of the total 1,517 acres of secondary environmental corridors in the City, about 148 acres, or 10 percent, were held in public ownership in 1990; about 43 acres, or 3 percent, were held in compatible nonpublic outdoor recreation ownership; and the remaining 1,326 acres, or 87 percent, were held in other nonpublic ownership.

The secondary environmental corridors are often remnants of primary environmental corridors which have been developed for intensive agricultural and urban purposes. Secondary environ-

mental 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 City, 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 or concentrations of natural resource base elements exist within the City. These pockets are isolated from the environmental corridors by urban development or agricultural use, and although separated from the environmental corridor network, these isolated natural areas have important natural values. Isolated natural areas may provide the only available wildlife habitat in an area, provide good locations for local parks and natural areas, and lend unique and aesthetic character and natural diversity to an area. As shown on Map 5, isolated natural areas are located throughout the City and encompass 760 acres, or about 3 percent of total area of the City. As indicated in Table 6, of the total 760 acres of isolated natural areas in the City in 1985, about 18 acres, or about 2 percent, were in surface water; about 275 acres, or about 36 percent, were in wetlands; about 376 acres, or about 50 percent, were in woodlands; and about 82 acres, or about 11 percent, were occupied by other natural resource features. Developed urban uses encompassed the remaining 9 acres, or 1 percent, of the isolated natural areas in the City.

In 1990, of the total of 760 acres of isolated natural areas in the City, about 55 acres, or 7 percent, were held in public ownership; about eight acres, or 1 percent, were held in compatible

nonpublic outdoor recreation ownership; and the remaining 697 acres, or 92 percent, were held in other nonpublic ownership.

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 Waukesha County Park and Planning Commission, using these same criteria for the identification of prime agricultural lands, prepared a farmland preservation plan for Waukesha County, including those farmlands in the City of Muskego. This plan, documented in Waukesha County Agricultural Land Preservation Plan, 1981, was adopted by the County in 1984. Prime agricultural lands identified in this plan within the City are shown on Map 5. In 1985, these areas encompassed about 7,259 acres, or about 32 percent of the total area of the City.

A number of important public purposes are served through the preservation of prime agricultural lands. These include the maintenance of agricultural reserves, the conservation of energy, 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 City are presented in Chapter IV of this report.

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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 these park and open space objectives, which will guide the formulation of a park and open space plan for the City of Muskego.

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 City of Muskego.

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 City 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 City 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 City 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 City 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 City adequate opportunities to participate in extensive waterbased 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 City.
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 specific 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 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 City of Muskego 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 as well as the public sector, the latter composed of the various levels, units, and agencies of government operating in the City. 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 recreation 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 City of Muskego 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 City 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 resident 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 that 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, 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 section 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 City of Muskego, identifies the need for local park and open space sites and facilities, and sets forth the recommended park plan for the City. The third section of the chapter outlines the steps required to implement the recommended plan.

AREAWIDE PLAN CONSIDERATIONS

The regional park and open space plan contains recommendations which, if implemented, would provide residents of Waukesha County, including residents of the City of Muskego, 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, cross-country skiing, and horseback riding; 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 it relates to Waukesha County is presented on Map 6.¹ This plan has been adopted by Waukesha County and is, in effect, a plan for the County as well as the Region.

Major Parks and Trail Facilities

The regional plan recommends that the state and county levels of government assume responsibility for the provision of major parks.² The regional plan recommends that the Wisconsin Department of Natural Resources (DNR) and Waukesha County provide a total of 21 major outdoor recreation sites in the County as part of a system of 70 such parks in southeastern Wisconsin. One major park, Muskego Park, is located in the City. Muskego Park, a 209-acre county-owned site providing swimming, picnicking, camping, and other facilities, is located in the northwestern portion of the City. It is anticipated that the state- and county-owned major parks in the County, including Muskego Park, would provide adequate opportunities for intensive resource-oriented outdoor recreation activities for the residents of Waukesha County, including the residents of the City of Muskego.

The regional plan also recommends that the State and County provide about 146 miles of recreational trails in Waukesha County as part of an interconnected 500-mile system of recrea-

tion corridors³ in southeastern Wisconsin. While there are no existing or proposed recreation corridors in the City of Muskego, two such trail corridors, the proposed Fox River recreation corridor and the existing Root River recreation corridor, would be located adjacent to the City under the regional plan. The Fox River Trail would be located west of the City along the main stem of the Fox River and would provide, in Waukesha County, about 37 miles of trails for biking, hiking, nature study, and cross-country skiing. The Root River Trail corridor is located east of the City in Milwaukee County's Root River Parkway in the City of Franklin. The Root River Trail would provide, in Milwaukee County, about 22 miles of trails for biking, hiking, horseback riding, nature study, and cross-country skiing.

Open Space Preservation

The location and extent of the important open space lands in the City, 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 to provide valuable recreation activities for residents. Such preservation would also help to avoid the creation of serious and costly environmental and developmental problems.

¹The Regional Planning Commission staff, in cooperation with the staff of the Waukesha County Park and Planning Commission, has completed an update of the regional park and open space plan. This plan, adopted by the Waukesha County Board in February 1990, serves as an amendment to the initial plan and includes the refined delineation of environmental corridors in Waukesha County as well as the refined delineation of prime agricultural lands in the County. The plan is documented in SEWRPC Community Assistance Planning Report No. 137, A Park and Open Space Plan for Waukesha County.

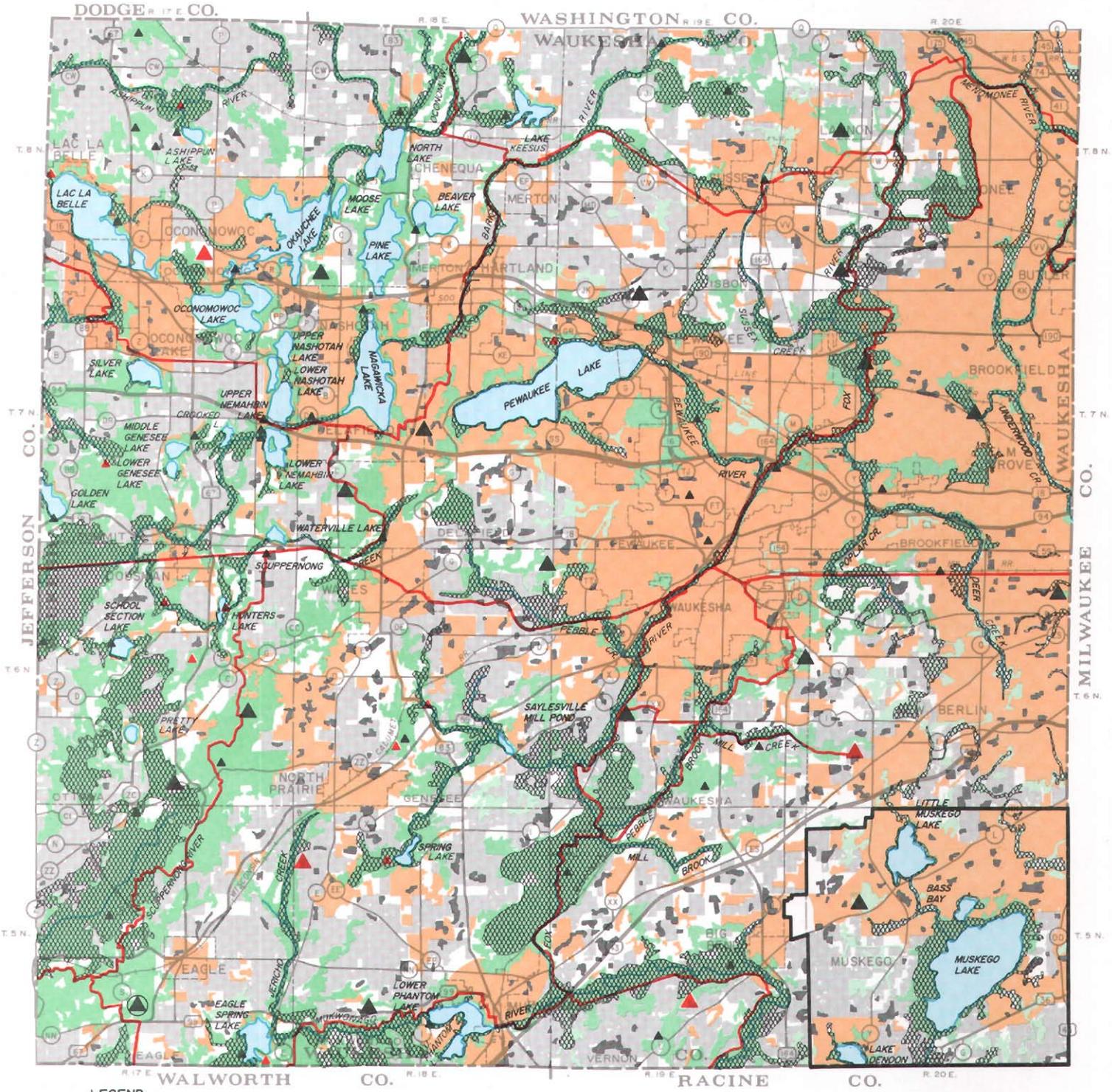
²Major parks (or Type I and Type II parks) are defined as large, public, general-use outdoor recreation sites which provide opportunities for such resource-oriented activities as camping, golfing, picnicking, and swimming, and have a large area containing significant natural resource amenities.

CITY OF MUSKEGO PLAN CONSIDERATIONS

Local units of government, including the City of Muskego, are responsible for providing urban community and neighborhood parks and intensive nonresource-oriented facilities, such as ball diamonds, children's play areas, and tennis courts. The need to provide local parks and outdoor recreation facilities is dependent upon

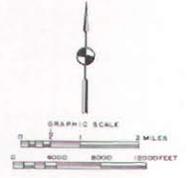
³A recreation corridor is defined as a trail at least 15 miles in length located within areas of scenic, scientific, historic, or other cultural interest, which provides opportunities for such linear outdoor recreation activities as biking, hiking, horseback riding, nature study, and cross-country skiing.

A PARK AND OPEN SPACE PLAN FOR WAUKESHA COUNTY



LEGEND

- | | | |
|--|--|----------------------------------|
| URBAN DEVELOPMENT | EXISTING OTHER PARK OR OPEN SPACE SITE | SECONDARY ENVIRONMENTAL CORRIDOR |
| OTHER RURAL LAND | PROPOSED MAJOR PARK | ISOLATED NATURAL AREA |
| COUNTY OR STATE PARK AND OPEN SPACE SITES | PROPOSED OTHER PARK OR OPEN SPACE SITE | SURFACE WATER |
| EXISTING MAJOR SPECIAL SITE | RECREATION CORRIDOR (TRAIL) | FLOODLANDS |
| EXISTING MAJOR PARK | NATURAL RESOURCES | PRIME AGRICULTURAL LAND |
| | PRIMARY ENVIRONMENTAL CORRIDOR | |



Source: SEWRPC.

both the existing and probable future size and upon the distribution of the resident population of the urban service area concerned. This section, therefore, describes such population levels and distribution in the City, identifies the need for local parks and outdoor recreation facilities, and sets forth the plan for the acquisition and development of 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 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 has been 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 City of Muskego. The adopted park and open space planning standards 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 and distribution in the City 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 City are an important determinant 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.

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 South-eastern 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, Waukesha County, and the City of Muskego urban service area is described below.

Planned Future Population—the Region and Waukesha 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 social and economic 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 as to whether historic trends will continue, alternatives to this traditional approach may be required. One such alternative approach proposed in recent years, and utilized to a limited extent at the national level for public and quasi-public planning purposes, is termed “alternative futures.” Under this approach, the development, test, and evaluation of alternative plans is based not upon a single, most probable forecast of socioeconomic conditions, but upon a number of alternative futures chosen to represent a range of conditions which may be expected to occur over the plan design period.

Recognizing the increasing uncertainty inherent in estimating future population levels under the rapidly changing socioeconomic conditions existing in the United States, the Regional Planning Commission began to incorporate the alternative futures approach into its planning program in the late 1970s, the first known attempt to apply this approach to areawide and local planning in the United States. In the exploration of alternative futures for the South-eastern Wisconsin Region, an attempt was made first to identify all those external factors which may be expected to directly or indirectly affect development conditions in the Region, together with the likely range of prospects for these factors. Three alternative scenarios for regional growth and change, involving different assumptions regarding three major external factors, the cost and availability of energy, population lifestyles, and economic conditions, were thus defined. Two scenarios are intended to represent the low-growth and high-growth extremes of possible future growth and change, respectively, while the third scenario is intended to represent

the intermediate future, or a future that lies between the extremes. A set of population and employment projections was then developed for each scenario. Alternative land use plans emphasizing either a centralized or a decentralized development pattern were then prepared for selected growth scenarios. Three decentralized land use plans reflecting current trends in the distribution of population and economic activity in the Region were prepared, one each for the low-, intermediate-, and high-growth scenario. In addition, a centralized land use plan which attempts to accommodate the anticipated increases in population and economic activity by promoting a more compact, centralized regional settlement pattern was also prepared.

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 high-growth decentralized land use scenario, to about 1,517,100 persons under the low-growth decentralized land use scenario; with the intermediate-growth centralized land use scenario population level being 1,872,200 persons. These population levels represent an increase of about 33 percent and 7 percent under the high-growth and intermediate-growth projections, respectively, and a decrease of about 13 percent under the low-growth projection, when compared with the 1985 regional population of 1,742,700 persons.

In Waukesha County, resident population levels in the year 2010 may be expected to be 529,800 persons under the high-growth decentralized land use scenario; 364,300 persons under the intermediate-growth centralized land use scenario; and 253,600 persons under the low-growth decentralized land use scenario. These alternative futures indicate an increase of about 243,900 persons, or about 85 percent, under the high-growth projection; an increase of about 78,400 persons, or about 27 percent, under the intermediate-growth projection; and a decrease of about 32,300 persons, or about 11 percent, under the low-growth projection, when compared with the resident population level of 285,900 persons in Waukesha County in 1985.

Planned Future Population—Muskego Urban Service Area: For park planning purposes, it is important to establish an anticipated future resident population for the City. By applying the alternative futures approach described above, it was determined that the year 2010 resident

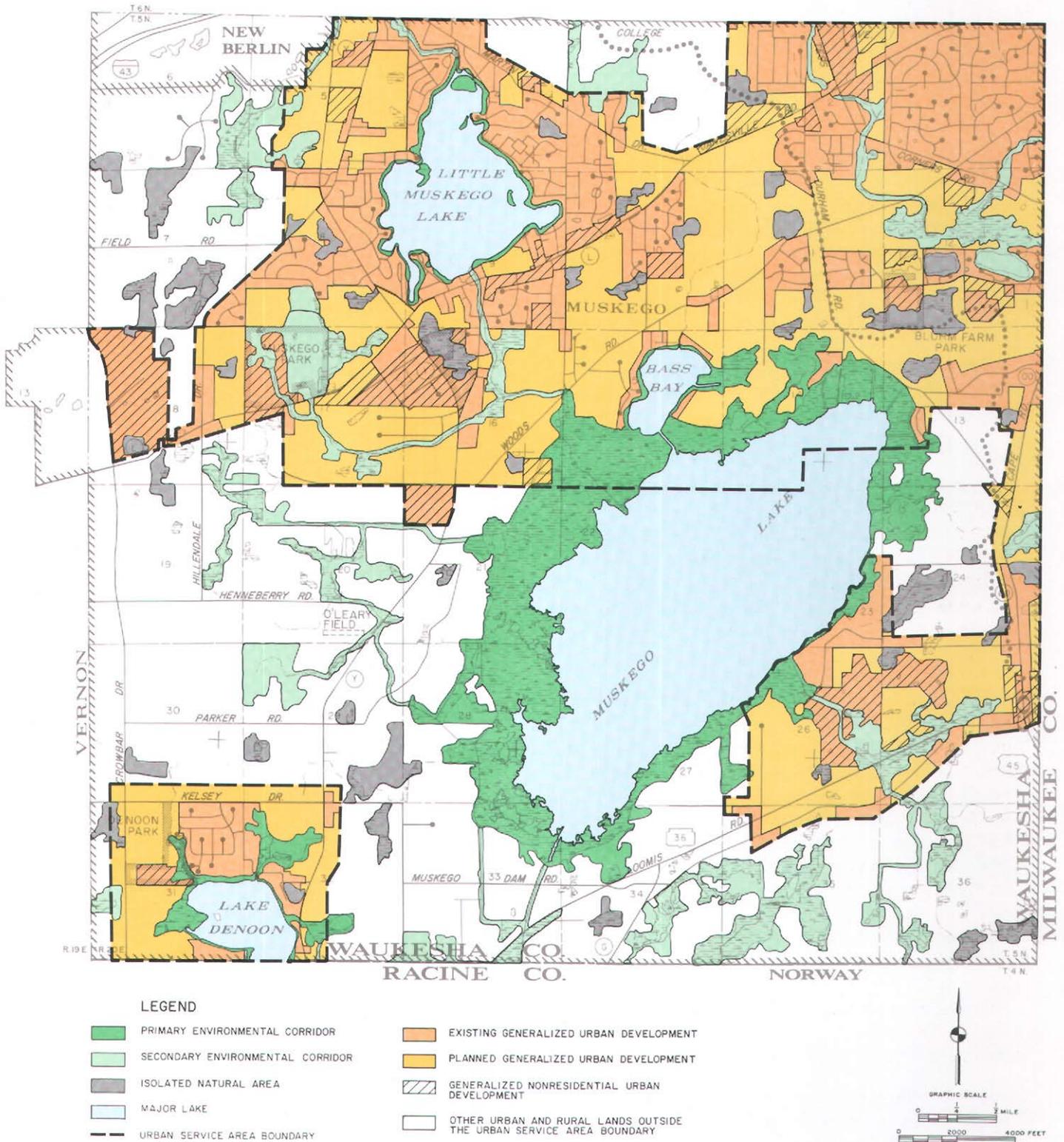
population of the City would approximate 20,000 persons under the intermediate-growth forecast and centralized land use scenario. The year 2010 resident population of the City, however, could be as high as 29,500 persons under the high-growth forecast and decentralized land use scenario; or as low as 16,000 persons under the low-growth forecast and decentralized land use scenario. The forecasts under these alternative futures growth scenarios indicate increases of about 13,700 persons, or 87 percent, under the high-growth scenario; about 4,200 persons, or 27 percent, under the intermediate-growth scenario; and about 200 persons, or about 1 percent, under the low-growth scenario, when compared with the 1985 City of Muskego resident population estimate of 15,800 persons. The high-growth decentralized land use scenario resident population forecast of 29,500 persons by the year 2010 was selected by the City of Muskego Park and Recreation Board for use in the park and open space plan for the City of Muskego.

In addition to information on the overall size of the anticipated future population in the City of Muskego, information on both existing and planned future population 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 residential lands in the City. The lands located within the existing and planned urban service area in the City are shown on Map 7. This urban service area encompasses the developed land located in the northern and eastern portions of the City, as well as the developed lands adjacent to Lake Denoon in the southwestern portion of the City. It is estimated that the resident population of the urban service area was 14,700 persons, or about 93 percent of the estimated 15,800 residents of the City, in 1985.

The selected plan design year 2010 population in the planned urban service area would be about 28,300 persons, or about 96 percent of the planned 2010 resident population of about 29,500 persons. The additional urban residential areas which would generally require urban recreation sites and facilities by the plan design year are

Map 7

EXISTING AND PLANNED DEVELOPMENT WITHIN THE CITY OF MUSKEGO URBAN SERVICE AREA



Source: SEWRPC.

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 Objective Nos. 1 and 2, specify per capita acreage 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 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 non-resource-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 demands of residents of urban areas. The per capita and accessibility standards for community and neighborhood parks are appropriately applied only to the population of the Muskego 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 7, application of the standard acreage requirements to the existing 1985 and plan design year 2010 urban service area population indicates that such requirements are

generally met by the existing outdoor recreation sites in the urban service area. Application of the standard acreage requirements to the plan design year 2010 urban service area population indicates a per capita need for about 35 acres of additional park lands by the plan design year 2010.

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 Muskego urban service area lack adequate access to urban parks, appropriate service areas are 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 Muskego urban service area not adequately served are, thus, identified. Copies of the maps delineating these service areas are available for viewing at the Muskego City Hall and at the offices of the Southeastern Wisconsin Regional Planning Commission.

According to standards prescribed under Objective No. 1, community parks (Type III parks), which range 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 with a population greater than 7,500 persons. Thus, it was appropriate to apply the accessibility standards for community parks in the plan design year 2010 Muskego urban service area. In the City of Muskego in 1990 there were five community parks, Bluhm Farm Park, the City Hall Complex, Denoon Park, Idle Isle, and Muskego Park. These parks are geographically distributed throughout the Muskego urban service area, with the result that virtually the entire existing and planned urban residential areas are within two miles of one of these sites. Only a small area in the southeast portion of the urban service area was beyond the 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.

Table 7

**PER CAPITA ACREAGE REQUIREMENTS FOR URBAN OUTDOOR
RECREATION SITES IN THE MUSKEGO 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			
			1985 Existing Urban Population: 14,700		Plan Design Year 2010 Planned Urban Population: 28,300	
			Net Acreage Requirement ^b	Net Acreage Need ^c	Net Acreage Requirement ^b	Net Acreage Need ^c
Parks	3.9	75 ^d	57.3	--	110.4	35
Schools	2.5	89 ^e	36.8	--	70.8	--

^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 by 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 acreage used for intensive outdoor recreation purposes in eight existing developed parks in the Muskego urban service area, including Bluhm Farm Park, 25 acres; Denoon Park, 18 acres; Horn Field, five acres; Jensen Park, four acres; Kurth Park, seven acres; Idle Isle Park, five acres; Lions Park, four acres; and Schmidt Park, seven acres.

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

Source: SEWRPC.

The existing and planned future urban density within the Muskego urban service area has been classified generally as medium, and, therefore, the 0.75-mile service radius for neighborhood parks was applied. There were five existing neighborhood parks in the Muskego urban service area, Horn Field, Jensen Park, Kurth Park, Lions Park, and Schmidt Park. In addition, Bluhm Farm Park, the City Hall Complex, Denoon Park, Idle Isle, and Muskego Park were also considered to meet the need for a neighborhood park, and, therefore, 10 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, 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, and other natural and 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. Application of the accessibility standards for the existing neighborhood parks in the City of Muskego urban service area indicate that they generally serve only scattered portions of the existing urban residential areas. Additional

Table 8

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

Facility	Existing Quantity of Facility ^a	Minimum Standard Requirement (facility per 1,000 persons) ^b	1985 Existing Population: 14,700		Plan Design Year 2010 Population: 28,300	
			Facility Requirement ^c	Facility Need ^d	Facility Requirement ^c	Facility Need ^d
Baseball Diamond	3	0.10	1.5	--	2.8	--
Playfield	18	0.50	7.4	--	14.2	--
Playground	12	0.42	6.2	--	11.9	--
Softball Diamond	12	0.60	8.8	--	17.0	5
Tennis Court	13	0.60	8.8	--	17.0	4

^aThis total includes only those 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 by 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.

large planned residential areas throughout the plan design year 2010 urban service area would not be served by the existing 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 1985 and the plan design year 2010 population of the Muskego urban service area. A summary of the application of these standards is presented in Table 8. As indicated in Table 8, the per capita standards for baseball, playfield, playground, softball and tennis facilities have been met for the existing urban service area population. Application of the per capita standard for these facilities to the planned year 2010 population of the Muskego urban service area indicates that five additional softball diamonds and four additional tennis courts would be needed by the 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, need to be identified. The existing and plan design year residential areas within the urban service area not adequately served by such facilities are thus identified.

Application of an appropriate service area to baseball and softball diamonds indicates that only a small portion of the existing and plan design year 2010 Muskego urban service area would not be served by the existing distribution of baseball and softball diamonds. Application of an appropriate service area to playfields, playgrounds, and tennis courts indicate that large portions of the existing and plan design year 2010 urban service area are not served by the existing distribution of such facilities.

Other 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 in Appendix A of this report. In addition, other park site and facility needs have been identified by the City of Muskego Parks and Recreation Board and staff. Such needs include the acquisition of additional lands at the City Hall Complex, Kurth Park, Parkland Plaza Park, and Ridges Subdivision Park; the acquisition of the area known as Kaminski Woods in the southwestern portion of the City for resource preservation and limited outdoor recreation uses; and the acquisition and development of a lake-access site on Big Muskego Lake. In addition, the Board identified a need to provide additional bike routes in the City connect existing and proposed park and open space sites to the system of trails in the City. Specific locations for such routes should be identified as detailed planning and design for residential development occurs. The Board also identified a route which would connect CTH L to the existing municipally owned bike path in the central portion of the City and a route along Moorland Road, when this road is extended into the City of Muskego.

Open Space Preservation Needs

In the previous section of this chapter, an analysis of needs relating to Objective Nos. 1 and 2 was conducted by applying recreation site and facility standards under those objectives to the existing and planned population in the Muskego 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 City.

Environmental Corridors: As already noted, the environmental corridors and isolated natural areas in the City of Muskego encompass a wide variety of valuable natural resources, as described in Chapter II of this report. By protecting these resources, flood damage can be reduced, soil erosion abated, water supplies protected, air cleansed, 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 clear water infiltration and inflow into sanitary sewerage systems, and poor drainage.

Prime Agricultural Lands: Prime agricultural lands in the City of Muskego, as described in Chapter II of this report, encompass about 7,259 acres, or about 32 percent of the total area of the City. Under the plan, certain prime agricultural lands within the proposed urban service area of the City of Muskego are planned for conversion to residential and other urban land uses. About 2,664 acres, or about 37 percent of the prime agricultural lands in the City in 1985, would be so converted. The remaining 4,595 acres, or 63 percent, would be maintained in agricultural use and protected for such use through public land use regulation.

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 City can be achieved through the maintenance of the existing primary and secondary environmental corridors and isolated natural area 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 City of Muskego, as 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 Muskego urban service area. Under the park and open space plan for the City of Muskego, then, it is recommended that one new urban community park, seven new urban neighborhood parks and two new open space sites be acquired and developed within the City. Recommendations for additional acquisition and development at existing

parks include the acquisition of additional land and the development of outdoor recreation facilities at the City Hall Complex, Parkland Plaza Park, and Ridges Subdivision Park; the acquisition of additional land at Kurth Park; and the provision of additional facilities of Bluhm Farm Park. In addition, it is recommended that the City maintain the existing facilities at all its other parks. It is also recommended that the City provide about 23 miles of trails to connect Muskego County Park and four community and neighborhood parks in the City, Bluhm Farm Park, Denoon Park, Horn Field, and Parkland Plaza, and three proposed new City parks. The recommended plan is shown on Map 8 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 City of Muskego includes recommendations directed at county and state agencies of government for the provision of resource-oriented outdoor recreation sites and facilities in Waukesha County, including the provision of major parks and recreation corridors to serve the residents of the City of Muskego. The plan also includes recommendations for the protection of important natural resource features within the City of Muskego, 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 Muskego 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 City of Muskego. It describes the specific actions required to implement the park and open space plan, including a description of required actions by the Wisconsin Department of Natural Resources, the Waukesha County Park and Planning Commission, and the City of Muskego.

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 responsibilities, certain DNR 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 DNR 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 to the park and open space plan for the City of Muskego, it is important that the Department approve and adopt the park and open space plan in order to facilitate the receipt by the City of state and federal outdoor recreation grants in support of plan implementation. In addition, the DNR 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 City.

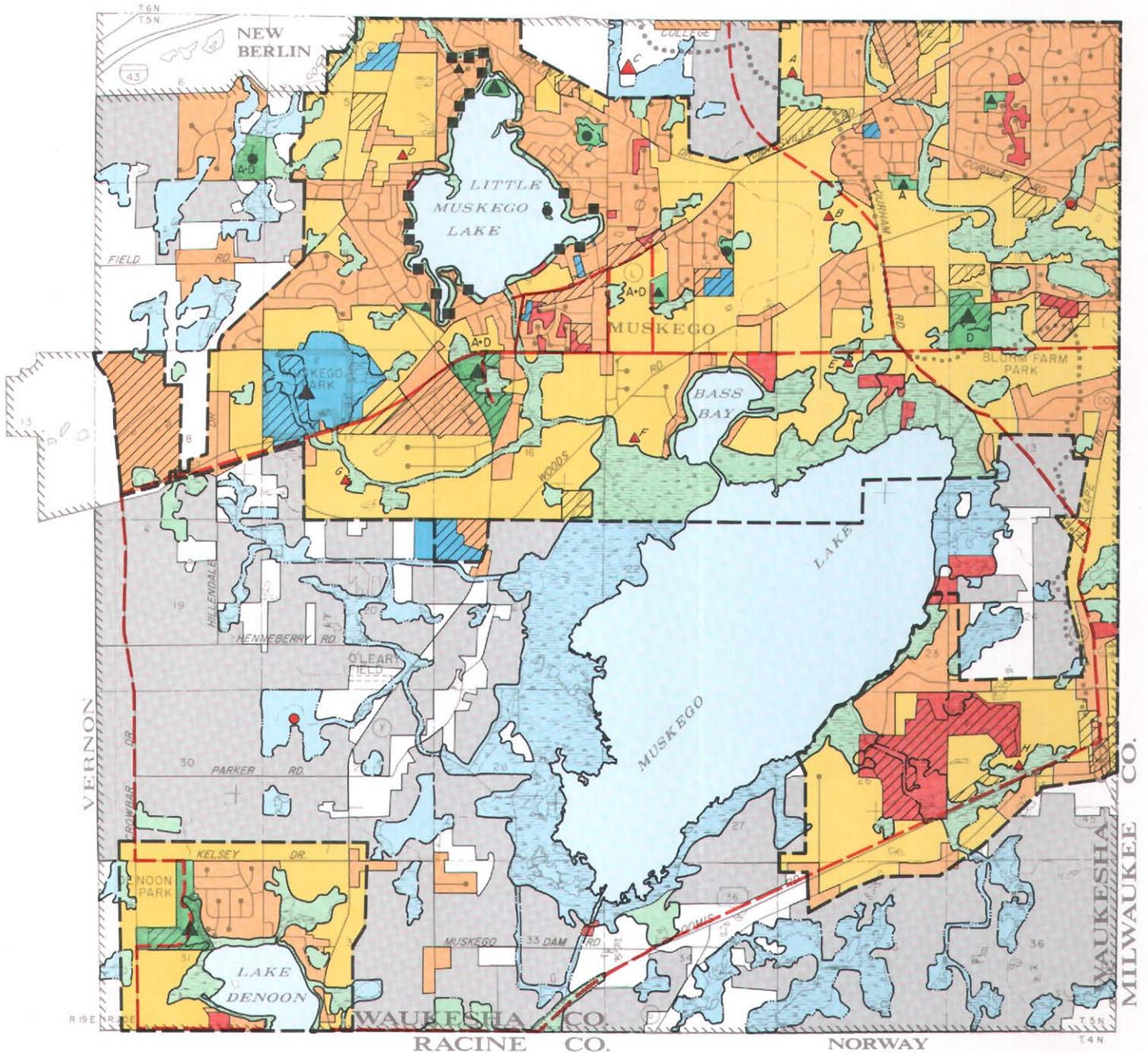
Waukesha County

Waukesha County has the authority and responsibility for the acquisition, development, and maintenance of the major parks in Waukesha County, including Muskego County Park. It is recommended that Waukesha County maintain existing facilities at Muskego County Park for use by the residents of Waukesha County, including residents of the City of Muskego.

City of Muskego

Under the recommended plan, the City of Muskego would have responsibilities for the provision of a variety of outdoor recreation sites and facilities, including the acquisition and development of one new community park, seven new neighborhood parks, and two new open space sites; the acquisition of additional land and the development of outdoor recreation facilities at the City Hall Complex, Parkland Plaza Park, and Ridges Subdivision Park; the acquisition of additional land at Kurth Park; the provision of

RECOMMENDED PARK AND OPEN SPACE PLAN FOR THE CITY OF MUSKEGO



LEGEND

- URBAN SERVICE AREA BOUNDARY
- EXISTING GENERALIZED URBAN DEVELOPMENT : 1985
- PLANNED GENERALIZED URBAN DEVELOPMENT : 2010
- GENERALIZED NONRESIDENTIAL URBAN DEVELOPMENT
- OTHER LANDS OUTSIDE THE URBAN SERVICE AREA

NATURAL RESOURCE FEATURES

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

OWNERSHIP OF NATURAL RESOURCE FEATURES

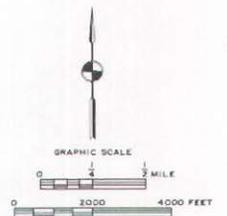
- EXISTING CITY OWNERSHIP: OPEN SPACE PRESERVATION
- PROPOSED CITY OWNERSHIP: OPEN SPACE PRESERVATION

- EXISTING OTHER PUBLIC OWNERSHIP: OPEN SPACE PRESERVATION OR OUTDOOR RECREATION USE
- EXISTING PRIVATE OWNERSHIP: OPEN SPACE PRESERVATION THROUGH PUBLIC LAND USE REGULATION
- EXISTING PRIVATE OWNERSHIP: PARK OR OUTDOOR RECREATION USE

PARK AND OPEN SPACE SITES

- EXISTING COMMUNITY PARK
- PROPOSED COMMUNITY PARK
- EXISTING NEIGHBORHOOD PARK
- PROPOSED NEIGHBORHOOD PARK
- EXISTING OTHER CITY PARK
- PROPOSED OTHER CITY PARK
- EXISTING LAKE ACCESS SITE
- EXISTING CITY TRAIL
- PROPOSED CITY TRAIL

- PROPOSED PARK IDENTIFICATION LETTER
- EXISTING PARK: ADDITIONAL ACQUISITION
- EXISTING PARK: ADDITIONAL DEVELOPMENT



Source: SEWRPC.

additional facilities at Bluhm Farm Park; the provision of trails linking four existing and three recommended City of Muskego parks and Muskego County Park; the provision of a lake-access site to Big Muskego Lake; and the maintenance of other existing park sites and facilities. In addition, the City would be responsible for the protection of the important natural resource features within its borders. Implementation of these recommendations would result in the attainment of park acquisition and development and open space preservation objectives presented in Chapter III of this report. Specific implementation activities for the City in the acquisition and development of park and outdoor recreation sites and facilities and the preservation of the important natural resources within the City are presented below.

City Parks and Outdoor

Recreation Sites and Facilities:

Proposed New Community and Neighborhood

Parks: Under the park and open space plan for the City of Muskego, it is recommended that the City acquire one new community park and seven new neighborhood parks and develop needed outdoor recreational facilities at these eight sites. The location of the eight proposed new City parks are shown on Map 8, while the proposed facility development of these sites is summarized in Table 9 and described below.

1. Park Site A—Park Site A is a neighborhood park proposed to be located in U. S. Public Land Survey Section 2 in the northern portion of the Muskego urban service area (see Map 8). The site would encompass approximately 20 acres. Facilities proposed for this site include a playfield, a playground, an area for picnicking and other passive recreation pursuits, and appropriate support facilities.
2. Park Site B—Park Site B is a neighborhood park proposed to be located in U. S. Public Land Survey Section 11 in the northeastern portion of the Muskego urban service area (see Map 8). The site would encompass approximately 25 acres. Facilities proposed for this site include a playfield, a playground, an area for picnicking and other passive recreational pursuits, and appropriate support facilities.
3. Park Site C—Park Site C is a community park proposed to be located in U. S. Public Land Survey Section 3 in the northern portion of the Muskego urban service area (see Map 8). The site would encompass approximately 60 acres, including 18 acres of woodlands within a secondary environmental corridor. Facilities proposed for this site include a playfield, a playground, two lighted league softball diamonds, six lighted tennis courts, an area for picnicking and other passive recreational pursuits, and appropriate support facilities, including rest rooms.
4. Park Site D—Park Site D is a neighborhood park proposed to be located in U. S. Public Land Survey Section 5 in the northwestern portion of the Muskego urban service area (see Map 8). The site would encompass approximately 15 acres. Facilities proposed for this site include a playfield, a playground, three tennis courts, an area for picnicking and other passive recreational pursuits, and appropriate support facilities, including rest rooms.
5. Park Site E—Park Site E is a neighborhood park proposed to be located in U. S. Public Land Survey Section 14 in the central portion of the Muskego urban service area (see Map 8). The site would encompass approximately 15 acres, including one acre of wetland within an isolated natural area and three acres of woodlands within a primary environmental corridor. Facilities proposed for this site include a playfield, a playground, an area for picnicking and other passive recreational pursuits, and appropriate support facilities.
6. Park Site F—Park Site F is a neighborhood park proposed to be located in U. S. Public Land Survey Section 15 in the central portion of the Muskego urban service area (see Map 8). The site would encompass approximately 30 acres, including nine acres of wetlands within a primary environmental corridor. Facilities proposed for this site include a playfield, a playground, two softball diamonds, three tennis courts, an area for picnicking and other passive recreational pursuits, and appropriate support facilities, including rest rooms.

Table 9

**ACQUISITION AND DEVELOPMENT COSTS OF PROPOSED COMMUNITY AND NEIGHBORHOOD
PARK SITES UNDER THE PARK AND OPEN SPACE PLAN FOR THE CITY OF MUSKEGO**

Proposed Park Site	Proposed Facility Development	Costs	Development Costs	Acquisition Costs	Total
A	Playfield	\$10,000	\$ --	\$ --	\$ --
	Playground	10,000	--	--	--
	General development	42,000	62,000	60,000	122,000
B	Playfield	10,000	--	--	--
	Playground	10,000	--	--	--
	General development	42,000	62,000	75,000	137,000
C	Playfield	10,000	--	--	--
	Playground	10,000	--	--	--
	Two league softball diamonds with lights	130,000	--	--	--
	Six tennis courts with lights	90,000	--	--	--
	Shelter, rest rooms	40,000	--	--	--
	General development	173,000	453,000	216,000	669,000
D	Playfield	10,000	--	--	--
	Playground	10,000	--	--	--
	Three tennis courts	35,000	--	--	--
	Shelter, rest rooms	40,000	--	--	--
	General development	42,000	137,000	45,000	182,000
E	Playfield	10,000	--	--	--
	Playground	10,000	--	--	--
	General development	42,000	62,000	49,000	111,000
F	Playfield	10,000	--	--	--
	Playground	10,000	--	--	--
	Two softball diamonds	30,000	--	--	--
	Three tennis courts	35,000	--	--	--
	Shelter, rest rooms	40,000	--	--	--
	General development	42,000	167,000	68,000	235,000
G	Playground	10,000	--	--	--
	Three tennis courts	35,000	--	--	--
	General development	42,000	87,000	33,000	120,000
H	Playfield	10,000	--	--	--
	Playground	10,000	--	--	--
	Softball diamond	15,000	--	--	--
	Three tennis courts	35,000	--	--	--
	Shelter, rest rooms	40,000	--	--	--
	General development	42,000	152,000	62,000	214,000
--	Total	--	\$1,182,000	\$608,000	\$1,790,000

NOTE: The cost of acquisition of new proposed neighborhood park sites in the City of Muskego was estimated as follows: wetlands within environmental corridors and isolated natural areas, \$500 per acre; woodlands within environmental corridors and isolated natural areas, \$5,000 per acre; and all other lands, \$3,000 per acre.

Source: SEWRPC.

7. Park Site G—Park Site G is a neighborhood park proposed to be located in U. S. Public Land Survey Section 17 in the western portion of the Muskego urban service area (see Map 8). The site would encompass approximately 11 acres. Facilities proposed for this site include a playground, three tennis courts, an area for picnicking and other passive recreational pursuits, and appropriate support facilities.
8. Park Site H—Park Site H is a neighborhood park proposed to be located in U. S. Public Land Survey Section 25 in the southeastern portion of the Muskego urban service area (see Map 8). The site would encompass approximately 30 acres, including 15 acres of wetland within a secondary environmental corridor. Facilities proposed for this site include a playfield, a playground, a league softball diamond, three tennis courts, an area for picnicking and other passive recreational pursuits, and appropriate support facilities, including rest rooms.

The acquisition and development costs for the eight proposed new City of Muskego park sites are estimated to total \$1,790,000, of which \$608,000, or about 34 percent, would be expended for park site acquisition, while about \$1,182,000, or the remaining 66 percent, would be expended for park site development (see Table 9).

Proposed New Open Space Sites: Under the park and open space plan for the City of Muskego, it is also recommended that two additional new sites be acquired and developed, as needed, for open space preservation and passive recreational use. As shown on Map 8, the first additional City open space site would be located along the secondary environmental corridor in U. S. Public Land Survey Section 12. It is anticipated that a picnic area and playground would be provided at this site. The second site would be located within the secondary environmental corridor in U. S. Public Land Survey Section 29. This site, known as Kaminski Woods, would be acquired for resource preservation purposes and would be developed for limited outdoor recreation use after the plan design year 2010. The acquisition and development costs for the two proposed sites combined are estimated to total about \$487,000, of which about \$467,000, or about 96 percent, would be expended

for land acquisition, and about \$20,000, or about 4 percent, would be expended for development of the play area and picnic facilities at the site in Section 12.

Existing Outdoor Recreation Sites and Facilities:

Under the park and open space plan for the City of Muskego, it is recommended that the City acquire additional lands and provide additional recreation facilities at the City Hall Complex, Parkland Plaza Park, and Ridges Subdivision Park; acquire additional lands at Kurth Park; and provide additional facilities at Bluhm Farm Park. A description of the proposed acquisition and development at these five existing City park sites is presented below:

1. Bluhm Farm Park—Bluhm Farm Park is a 50-acre community park site located in the northeast portion of the City. It is recommended that six lighted tennis courts be developed at the site.
2. City Hall Complex—The City Hall Complex is a 34-acre special community park site located in the north-central portion of the City and consists of the Civic Center, including the City Hall and Library, the Old Muskego Settlement Centre, and undeveloped city land. It is recommended that an additional nine acres of wooded land located between Horn Park and City Hall be acquired as an addition to this site and that the upland portion of the undeveloped City land north of the Settlement Centre be developed for special community events, including the City's annual festival.
3. Kurth Park—Kurth Park is a seven-acre neighborhood park located in the northeastern portion of the City. It is recommended that an additional two acres providing access to Woods Road be acquired as an addition to this site.
4. Parkland Plaza Park—Parkland Plaza Park is a 15-acre undeveloped neighborhood park located in the north-central portion of the City. It is recommended that an additional 15 acres be acquired for use for stormwater management purposes. It is also recommended that a picnic area, playground, three tennis courts, and appropriate support facilities, including rest rooms, be developed at this site.

Table 10

ADDITIONAL ACQUISITION AND DEVELOPMENT COSTS AT EXISTING PARK AND OPEN SPACE SITES UNDER THE PARK AND OPEN SPACE PLAN FOR THE CITY OF MUSKEGO

Site	Proposed Additional Acquisition		Proposed Additional Facilities Development			Total Additional Acquisition and Development Cost
	Acres	Cost	Facility	Unit Cost	Total Cost	
Bluhm Farm Park	--	--	Six lighted tennis courts	\$90,000	\$ 90,000	\$ 90,000
City Hall Complex	9	\$ 27,000	-- ^a	--	-- ^a	27,000
Kurth Park	2	6,000	--	--	--	6,000
Parkland Plaza Park	15	38,000	Playground	10,000	--	--
			Three tennis courts	35,000	--	--
			Shelter, rest rooms	40,000	--	--
			General development	42,000	127,000	165,000
Ridges Subdivision Park	16	72,000	Trails	10,000	10,000	82,000
Total	42	\$143,000	--	--	\$227,000	\$370,000

^aThe development of specific facilities and associated facility development costs should be determined by the City's festival park committee.

Source: SEWRPC.

5. Ridges Subdivision Park—Ridges Subdivision Park is a 27-acre open space site located in the northwestern portion of the City. It is recommended that an additional 16 acres of land, including 11 acres located within a secondary environmental corridor, be acquired as an addition to this site. It is also recommended that a winter sports area, including cross-country ski trails and access facilities, be provided at this site.

Each of the five existing parks proposed for additional acquisition or development is located in, or directly adjacent to, the Muskego urban service area and would provide additional outdoor recreational facilities for the urban residents of the City. As indicated in Table 10, the acquisition and development costs for these five sites are estimated to total \$370,000, of which about \$143,000, or 39 percent, would be expended for park site acquisition at four sites, and about \$227,000, or 61 percent, would be expended for park site development at three sites.

Other Existing City Parks: Under the park and open space plan for the City of Muskego, it is recommended that the City maintain all existing

City-owned park and open space sites and outdoor recreation facilities. The maintenance activities of these sites may include, as necessary, such activities as the provision, paving, and resurfacing of parking lots and walkways; resurfacing of court areas, such as volleyball, basketball, and tennis courts; making existing facilities handicapped-accessible; provision, repair, or replacement of such support facilities as sportsfield lighting, park benches, picnic tables, and drinking fountains; provision, repair, or replacement of footbridges, rest room facilities, water supply facilities, maintenance buildings, picnic shelters, and community buildings; and the maintenance of lawns, gardens, and other landscape plantings. In addition, such maintenance activities may also include the provision of additional playground equipment, playfield areas, picnic tables, and areas for passive recreational use.

It is also recommended that the City maintain all natural resource features within municipally owned sites in natural open uses, particularly its resources within the identified environmental corridors and isolated natural areas. Specifically, the surface waters, wetlands, and wood-

lands located within Bluhm Farm Park, the undeveloped portion of the City Hall Complex, Denoon Park, Guernsey Meadows Park, Holz Island, Marlan Meadows Park, and Ridges Subdivision Park sites should remain undeveloped and protected in natural, open uses.

Recreation Trail: As already noted, the recommended 500-mile regionwide system of recreation corridors in southeastern Wisconsin would provide sufficient opportunities for such trail activities as hiking, biking, horseback riding, cross-country skiing, and nature study to meet the needs of the resident population of the Region, including residents of the City of Muskego. Under the park and open space plan for the City of Muskego, it is recommended that a citywide system of supplementary local hiking and biking trails be developed to connect the existing and proposed City of Muskego park and open space sites and Muskego County Park. It is also recommended that a bicycle route which would connect to the City's existing trail be located along CTH L in the north-central portion of the City, and that a bicycle path or route be located along Moorland Road at such time as this road is constructed to extend into the City of Muskego from the City of New Berlin. It is envisioned that the proposed City of Muskego trail system would eventually connect to the existing Milwaukee County Root River Parkway and Trail to the east, to the existing Racine County Waterford-Wind Lake Trail to the south, and to the proposed Waukesha County Fox River Parkway and Trail to the west.

Under this proposal, the Muskego City trail system would be located primarily along the Wisconsin Electric Power Company (WEPCo) right-of-way and along existing road rights-of-way. Specifically, as shown on Map 8, the 23-mile City of Muskego trail, including the proposed bicycle routes along CTH L and the Moorland Road extension, would include the existing two-mile trail segment along the WEPCo right-of-way in the central portion of the City and an additional eight miles proposed to be located along WEPCo rights-of-way; about 11 miles proposed to be located along existing road rights-of-way; about one mile proposed to be located within proposed park and open space sites; and one mile proposed to be located within the existing City of Muskego park and open space sites. The trail would provide opportunities

for hiking and biking throughout the City's system and nature study and cross-country skiing along certain segments of the system.

It should also be noted that horseback riding is not now a permitted trail use on trails using power company rights-of-way. In addition, it should be noted that Waukesha County is now developing a horseback riding trail on a separate tread along a small segment of the County's Bugline Trail. If trail use conflicts can be avoided at the county trail, if erosion and other maintenance problems are minimized at the county trail, and if WEPCo policies concerning use of power company rights-of-way for horse trails are changed, the City should consider the use of certain segments of its recommended trail for horseback riding.

The total acquisition and development costs for the proposed system of recreation trails in the City of Muskego are estimated at \$1,028,000. About \$423,000, or 41 percent, would be expended for acquisition of trail rights-of-way; and about \$605,000, or 59 percent, would be expended for trail development.

Lake-Access Facility: Under the park and open space plan for the City of Muskego, it is recommended that a lake access facility be provided to Big Muskego Lake. The City should work with the Bass Bay-Big Muskego Lake District to identify a specific location for the site. It is anticipated that a boat launch area, a picnic area, a parking lot, and rest rooms would be provided. The acquisition and development costs for the site are estimated to total \$60,000, of which about \$10,000, or about 17 percent, would be expended for land acquisition, and about \$50,000, or about 83 percent, would be expended for development.

Open Space Preservation: Under the recommended plan, the City of Muskego would also be responsible for the protection of certain open space lands within the City, including preservation of the natural resources within the primary and secondary environmental corridors and isolated natural areas in natural, open uses and the protection of prime agricultural lands. Generally, upon full implementation of the plan, all primary and secondary environmental corridors and isolated natural areas within the Muskego urban service area and along the recommended trail system outside of the urban

service area would be held in public ownership for resource protection, flood control, limited outdoor recreation, and other open space uses. The remaining environmental corridors and isolated natural areas would be protected in private ownership in natural, open uses through public land use regulation. In addition, all prime agricultural lands located outside of the planned Muskego urban service area would be maintained in agricultural use and protected in such use through public land use regulation. A more detailed description of the recommendations for the preservation of the important natural resources and prime agricultural lands in the City is presented below.

Primary Environmental Corridors: Primary environmental corridors, as described in Chapter II, encompassed about 4,752 acres in the City in 1985, of which about 2,942 acres, or 62 percent, are the surface waters of Bass Bay, Big Muskego, Denoon, and Little Muskego Lakes. About 804 acres, or about 17 percent, are lands in the primary environmental corridor located within the Muskego urban service area or along the proposed City of Muskego trail system, excluding surface water, and, under the recommended plan, are proposed to be preserved in public ownership. Of these 804 acres, it is recommended that 26 acres be maintained in existing City ownership and that an additional 13 acres be acquired by the City for park purposes; and about 765 acres, including about 588 acres of wetlands, about 45 acres of woodlands, and about 132 acres of other resources, be acquired by the City for resource protection purposes. An additional 16 acres, or less than 1 percent of the total 4,752 acres of primary environmental corridors in the City, are located within the urban service area along the shoreline of Little Muskego Lake, and would be preserved in open uses through public land use regulation. The remaining 990 acres of primary environmental corridors, or about 21 percent of the total area of such corridors in the City, are located outside of the Muskego urban service area and, under the plan, would also be preserved in natural, open uses through public land use regulation.

Secondary Environmental Corridors: Secondary environmental corridors encompassed about 1,517 acres in the City in 1985. About 771 acres, or about 51 percent, are located within the Muskego urban service area, within existing or

proposed park or open space sites located outside the urban service area, or along the proposed Muskego City trail system and, under the recommended plan, are proposed to be preserved in public ownership. Of these 771 acres, it is recommended that 136 acres be maintained in the County's ownership as part of Muskego Park; and about 27 acres be maintained, as at present, in municipal ownership and that an additional 125 acres be acquired by the City for park purposes; and about 483 acres, including about 214 acres of surface water and wetlands, about 58 acres of woodlands, and about 211 acres of other resources, be acquired by the City. An additional 42 acres, or about 3 percent, would be maintained in private compatible outdoor recreation and open space use within the Muskego urban service area. The remaining 704 acres, or about 46 percent of the secondary environmental corridors in the City, are located outside of the Muskego urban service area and, under the plan, would be preserved in natural, open uses through public land use regulation.

Isolated Natural Areas: Isolated natural areas encompassed about 760 acres in the City in 1985. About 388 acres, or about 51 percent, are located within the Muskego urban service area or along the proposed City trail system and, under the recommended plan, are proposed to be preserved in public ownership. Of these 388 acres, it is recommended that 59 acres be maintained in existing municipal ownership and that an additional 33 acres be acquired by the City for park purposes; and about 296 acres, including about 105 acres of surface water and wetlands, about 132 acres of woodlands, and about 59 acres of other resources, be acquired by the City. An additional 9 acres, or about 1 percent, are also located within the urban service area and would be maintained in private compatible outdoor recreation and open space use. The remaining 363 acres, or about 48 percent of the isolated natural areas in the City, are located outside of the Muskego urban service area and, under the plan, would be preserved in natural, open uses through public land use regulation.

Prime Agricultural Lands: Prime agricultural lands, as described in Chapter II, encompassed about 7,259 acres in the City in 1985. Under the recommended plan, certain prime agricultural lands within the proposed urban service area are planned for conversion to residential and other

urban land uses. About 2,664 acres, or 37 percent of the prime agricultural land in the City in 1985, would be converted to urban use in the northern and eastern portions of the City. The remaining 4,595 acres, or 63 percent, in the southwestern portion of the City would be maintained in agricultural use and protected for such use through public land use regulation.

Other Plan Implementation Considerations: The park and open space plan for the City of Muskego proposes that the City acquire and develop additional new urban community and neighborhood parks, provide additional lands for facilities at certain of its existing parks, provide a system of recreation trails, and provide for the preservation of important natural resource features in the City. The boundaries of the proposed new urban community and neighborhood parks and of the proposed additions to existing parks should be determined within the context of detailed neighborhood unit development plans. The preparation of such plans will promote the efficient provision of urban facilities and services of all kinds. Such plans should identify the proposed locations of collector and local land access streets; drainageways; school sites; and parks, parkways, and bike trails. Future growth and development in the urban service area of the City should be accommodated in an orderly, coordinated fashion through the development of complete neighborhood units, thereby enabling the City 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 through the adoption of an official map, as well as through the enforcement of local zoning and 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.

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 on condition; the purchase and leaseback of land; the acquisition of land subject to life estate; the acquisition of tax-delinquent land; the acquisition of conservancy or 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.

Plan Costs: Implementation of the recommended park and open space plan for the City of Muskego as presented herein would require a total expenditure by the City of about \$3.7 million over the 20-year plan implementation period. As indicated in Table 11, about \$1.8 million, or about 49 percent, would be incurred for the acquisition and development of eight proposed new community and neighborhood parks; about \$0.5 million, or about 13 percent, for the acquisition and development of two other open space sites; about \$0.3 million, or about 8 percent, for additional acquisition at four existing City parks and development at three existing City parks; about \$1.0 million, or about 27 percent, for the acquisition and development of the proposed City trail system; and about \$0.1 million, or about 3 percent, for the acquisition and development of a proposed lake access facility.

The estimated acquisition and development costs of \$3.7 million would be distributed over the 20-year implementation period. Under the assumption that the population of the City would be about 29,500 persons by the year 2010, the average annual acquisition and development costs would be about \$187,000, or about \$8.03 per capita⁴ per annum. It should be noted that, to the extent that such costs are reduced through the use of alternative methods of land acquisition and through the use of any available state and federal funds for park and open space acquisition and development, these costs could be dramatically reduced. Thus, if all recommended new neighborhood parks and lands needed for trail development are acquired through the land subdivision dedication process, and if remaining acquisition and development costs are offset by

⁴The average annual per capita costs were derived by dividing the estimated average annual costs by the average annual population over the 20-year plan implementation period. The average population, determined by calculating the average of the 1990 population of about 17,000 persons and the plan design year 2010 population of about 29,500 persons, is 23,250 persons.

Table 11

**SUMMARY OF ACQUISITION AND DEVELOPMENT COSTS FOR THE CITY
OF MUSKEGO UNDER THE RECOMMENDED PARK AND OPEN SPACE PLAN**

Sites and Facilities	Acquisition			Development		Total Cost
	Sites	Acres	Cost	Sites	Cost	
Proposed New Community and Neighborhood Parks	8	206	\$ 608,000	8	\$1,182,000	\$1,790,000
Proposed New Open Space Sites . . .	2	106	467,000	1	20,000	487,000
Existing City Parks	4	42	143,000	3	227,000	370,000
Trail System	1	93	423,000	1	605,000	1,028,000
Lake-Access Facility	1	2	10,000	1	50,000	60,000
Total	16	449	\$1,651,000	14	\$2,084,000	\$3,735,000

Source: SEWRPC.

50 percent through the use of state and federal assistance funds, full implementation of the City of Muskego park and open space site acquisition and development recommendations could be reduced to about \$1,460,000, and over the 20-year plan implementation period, would be about \$73,000 per year, or about \$3.14 per capita per year. This compares to the three-year period from 1982 through 1984 when the capital expenditure of the City for acquisition and development of Denoon Park was about \$360,000, or an average annual expenditure of about \$120,000, or about \$7.59 per capita per year.

CONCLUSION

The primary purpose of the park and open space planning program for the City of Muskego is the

preparation of a sound and workable plan to guide the acquisition and development of lands and facilities needed to satisfy the outdoor recreation and open space needs of the existing and probable future population of the City, and to protect and enhance the underlying and sustaining natural resource base of the City. Implementation of the recommended plan as presented herein would assure the protection and preservation of the environmental corridors and isolated natural areas in the City; the maintenance of important agricultural lands in agricultural use; and the provision of a variety of park and open space sites and facilities geographically well distributed throughout the City, thereby meeting the existing and probable future outdoor recreation needs of the residents of the City of Muskego.

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
I ^g 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	--	--	--	--
II ⁱ Multi-Community	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	--	--	--	--
III ^k Community	25-99	2.2	Swimming pool or beach, picnic areas, boat launch, nature study area, softball and/or baseball diamonds, soccer and other playfields, tennis court, passive activity area ^h	2.0 ^l	--	0.9	Soccer and other playfield, baseball diamond, softball diamond, tennis court	0.5-1.0 ^m	--
IV ⁿ	Less than 25	1.7	Wading pool, picnic areas, softball and/or baseball diamonds, soccer and other playfields, tennis court, playground, basketball goal, ice-skating rink, passive activity area ^h	0.5-1.0 ^o	--	1.6	Soccer and other 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 land also can serve to physically connect existing and proposed public parks, thus forming a truly integrated park and recreation related open space system. Such open space lands, in addition, satisfy the human need for natural surroundings, serve to protect the natural resource base, and ensure that many scenic areas of natural, cultural, or historic interest assume their proper place as form determinants for both existing and future land use patterns.

STANDARDS

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

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

OBJECTIVE NO. 2

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

PRINCIPLE

Participation in intensive nonresource-oriented outdoor recreation activities including basketball, baseball, soccer, 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 ^a				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 ^s	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 ^u -- 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	0.35	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	
		Nonpublic	1.47								
		Total	1.82								
Golf	Regulation 18 hole course	Public	0.013	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	
		Nonpublic	0.027								
		Total	0.040								
Picnicking	Tables	Public	6.35 ^y	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	
		Nonpublic	2.39								
		Total	8.74								
Skiing	Developed slope (acres)	Public	0.010	Types I, II, and III general use sites	1.0 acre per acre of developed slope	Chalet Parking Ski tows (and lifts) Buffer and maintenance Landscape	0.13 acre minimum 0.26 acre per acre of slope 0.40 acre per acre of slope 0.40 acre per acre of slope 0.36 acre per acre of slope	2.1	Suitable topography and soils (20 percent slope minimum) North or northeast exposure	25.0	
		Nonpublic	0.090								
		Total	0.100								
Swimming	Beach (linear feet)	Public Nonpublic Total	Major Inland Lakes	Types I, II, and III general use sites	40 square feet per linear foot (average)	Parking Bathhouse-concessions Buffer areas	0.2 acre per acre of beach 0.10 acre minimum 10 square feet per linear foot	-- ^z	Natural beach Good water quality	10.0	
			Lake Michigan								
			6								16
			12								--
18	16										

OBJECTIVE NO. 4

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

PRINCIPLE

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

STANDARD

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

Minimum Per Capita Public Facility Requirements ^{aa}			Design Standards				
			Typical Location of Facility	Minimum Facility Requirements (acres per linear mile)	Suggested Support Facilities and Backup Lands	Minimum Support Facility Requirements (acres per linear mile)	Resource Requirements
Activity	Facility	Per Capita Requirements (linear mile per 1,000 residents)					
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	$\frac{A}{16.6} - \frac{D}{10}$ Minimum: ^{ee} 6
200 or More	Minimum of 1 or 1 per 1,000 acres of usable surface ^{ff}	$\frac{A}{15.9} - \frac{D}{10}$ 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 boat launch ramps consistent with safe and enjoyable participation in extensive water-based outdoor recreation activities should be provided along the Lake Michigan shoreline within harbors-of-refuge. To meet this standard the following guidelines for the provision of launch ramps should be met:

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

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

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

OBJECTIVE NO. 6

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

PRINCIPLE

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

A. PRIMARY ENVIRONMENTAL CORRIDORS

PRINCIPLE

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

STANDARD

All remaining nonurban lands within the designated primary environmental corridors in the Region should be preserved in their natural state.

B. PRIME AGRICULTURAL LANDS

PRINCIPLE

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

STANDARDS

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

OBJECTIVE NO. 7

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

PRINCIPLE

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

STANDARD

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

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

^bThe 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.

^cThe 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.

^dFor 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.

^eUrban 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.

^fFor 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.

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

^hA 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.

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

^jIn 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.

^kType III sites are defined as intermediate size sites having a multi-neighborhood service area. Such sites rely more on the development characteristics of the area to be served than on natural resource amenities for location. Figure A-3 provides an example of a Type III park.

^lIn 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.

^mThe 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.

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

^oThe maximum service radius of Type IV parks is governed primarily by the population densities in the vicinity of the park. In high-density urban areas, each urban resident should reside within 0.5 mile of a Type IV park; in medium-density urban areas, each resident should reside within 0.75 mile of a Type IV park; and in low-density urban areas, each resident should reside within one mile of a Type IV park. It should be noted that the requirement for a Type IV park also is met by a Type I, II, or III park within 0.5-1.0 mile service radius in high-, medium-, and low-density urban areas, respectively. Further, it should be noted that in the application of the service radius criterion for Type IV sites, only multi-use 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.

^pA 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.

^qFacilities 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.

^rFor 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.

^sEach urban area having a population of 2,500 or greater should have at least one baseball diamond.

^tSupport 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.

^uEach urban area should have at least one ice-skating rink.

^vEach urban area having a population of 7,500 or greater should have one public swimming pool or beach.

^wFacilities 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.

^xParticipants 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.

^yThe 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.

^zA 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.

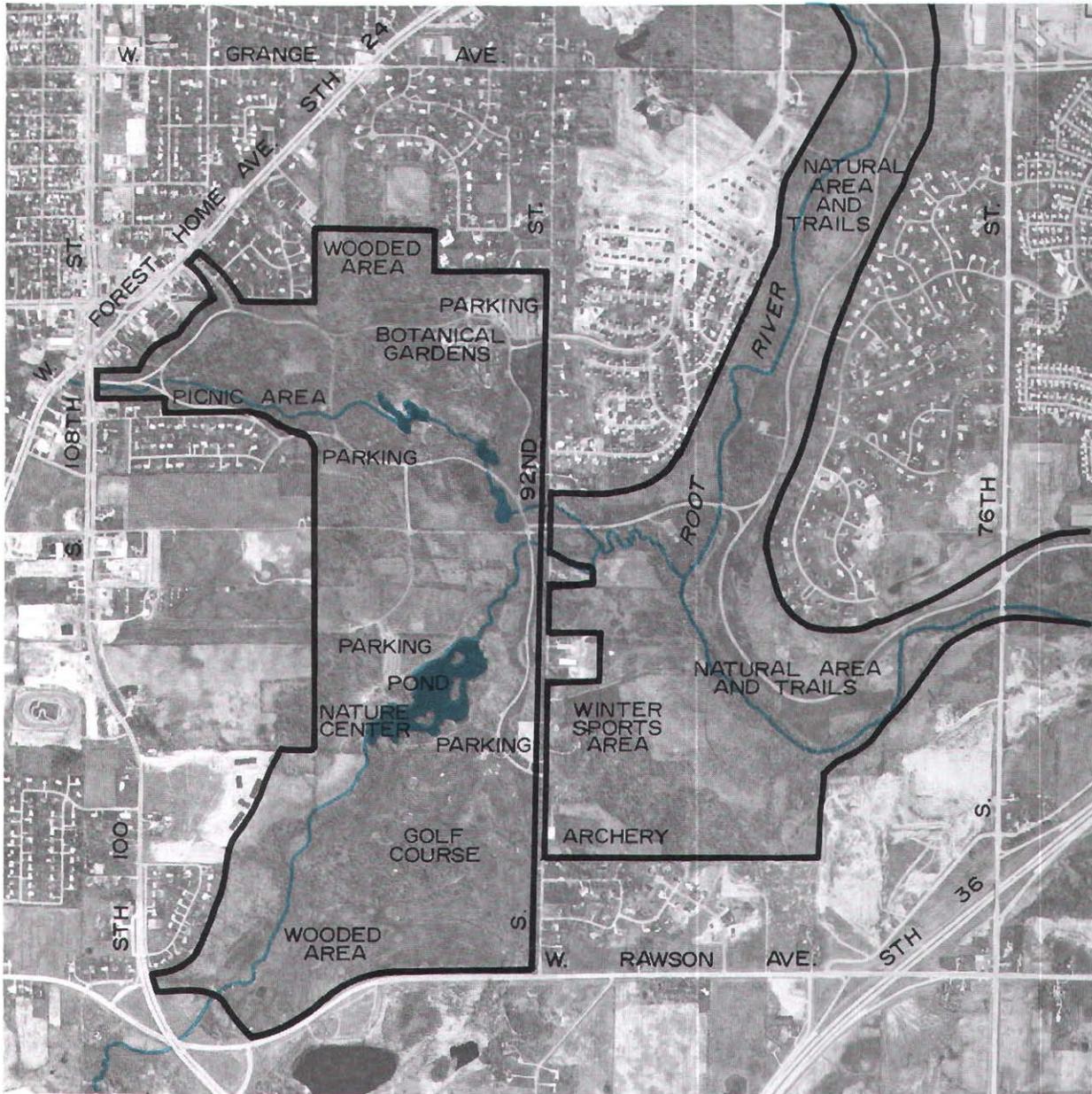
99 The survey of boat owners conducted under the regional park study indicated that, for lakes of 200 acres or more, the typical mix of fast boating activities is as follows: waterskiing—43 percent; motor boating—33 percent; and sailing—24 percent. The minimum area required per boat for safe participation 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.

Figure A-1

TYPICAL TYPE I PARK, WHITNALL PARK, MILWAUKEE COUNTY



Source: SEWRPC.

Figure A-2

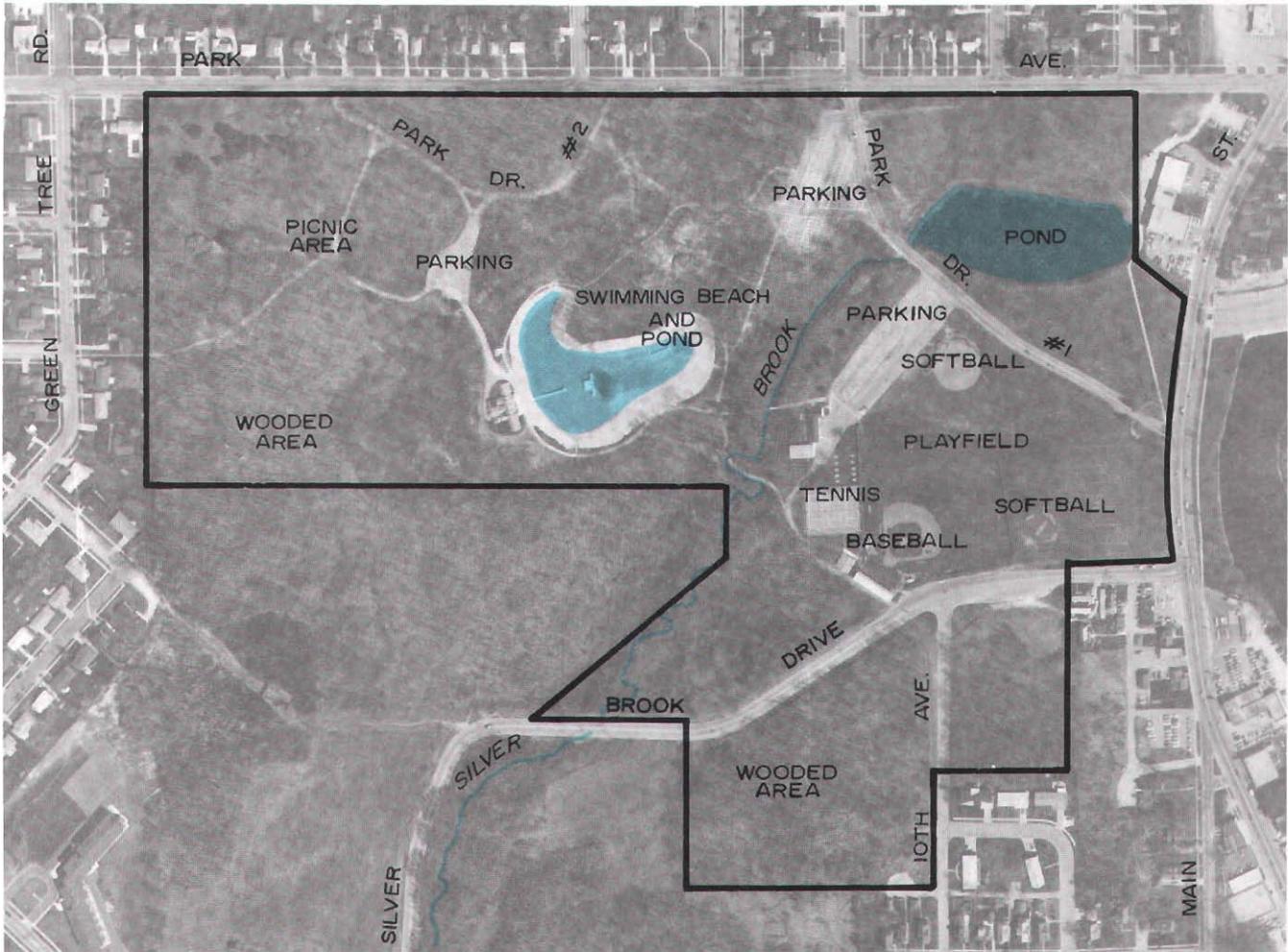
TYPICAL TYPE II PARK, MUSKEGO PARK, WAUKESHA COUNTY



Source: SEWRPC.

Figure A-3

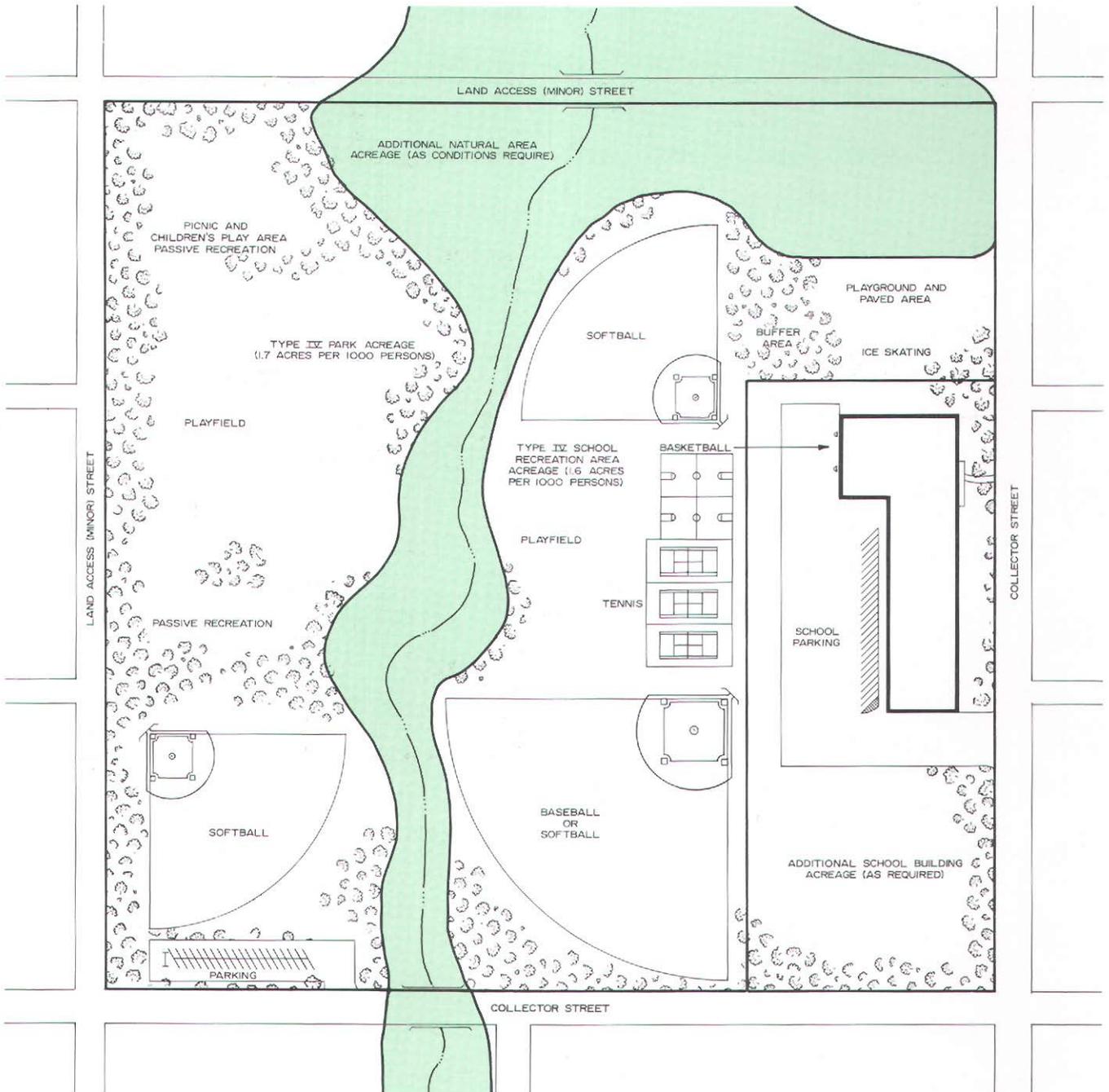
TYPICAL TYPE III PARK, REGNER PARK, WEST BEND, WASHINGTON COUNTY



Source: SEWRPC.

Figure A-4

TYPICAL TYPE IV NEIGHBORHOOD PARK AND SCHOOL RECREATION AREA



NOTE: See page 59 for the application of selected facility standards to a typical Type IV neighborhood park and school recreation area.

Source: SEWRPC.

A. Assumptions:

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

B. Outdoor Recreation Site Requirements:

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

C. Outdoor Recreation Facility Requirements:

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

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

D. Additional Acreage Requirements:

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

—In the typical Type IV site shown on page 58, the area for this use is approximately seven acres.

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

—In the typical Type IV site shown on page 58, the area for this use is approximately seven acres.

^aThough the provision of a baseball diamond is not strictly required through application of the standards, one baseball diamond replaced a softball diamond in the typical Type IV site shown on page 58.