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COMMUNITY ASSISTANCE PLANNING REPORT NUMBER 108 (2nd Edition)

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

Prepared by the

Southeastern Wisconsin Regional Planning Commission
P.O. Box 1607
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March 2001

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Chapter I

INTRODUCTION

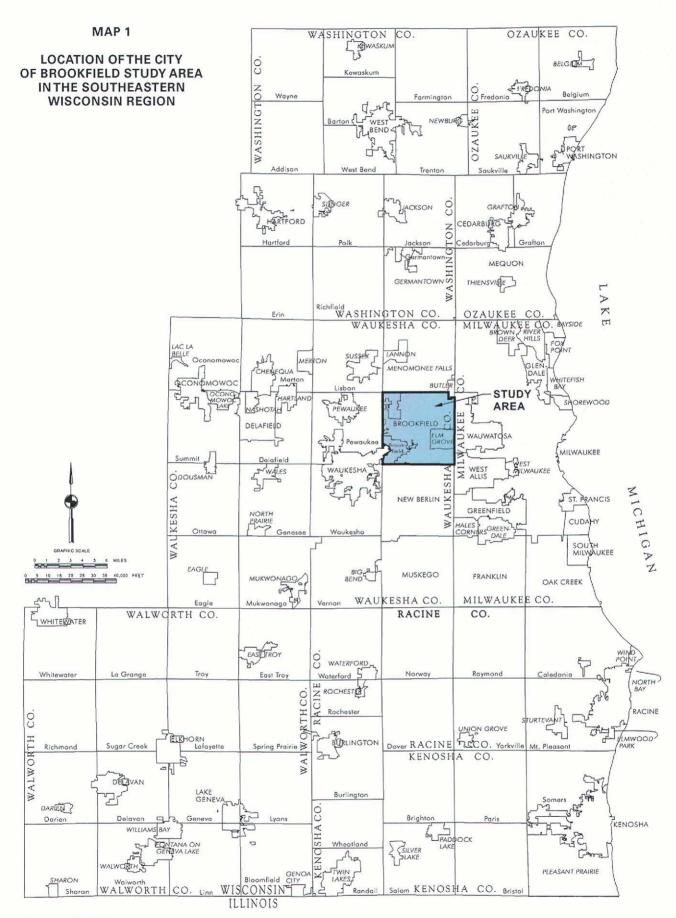
In 1990, the City of Brookfield Common Council adopted a park and open space plan. The plan, which was prepared with the assistance of the Southeastern Wisconsin Regional Planning Commission (SEWRPC), is documented in SEWRPC Community Assistance Planning Report No. 108, A Park and Open Space Plan for the City of Brookfield, August 1991. That report sets forth a set of park and open space acquisition and development objectives and supporting standards relative to the needs and values of the citizens of the Brookfield area, and a recommended plan designed to meet the adopted objectives and standards. The plan also includes specific recommendations directed at the protection of wetlands, woodlands, and floodlands within the City. The plan has a design year of 2010.

In 1999 and 2000, the City conducted an evaluation and update of the plan. The evaluation and update are documented in this report. This updated plan, which has a design year of 2020, was adopted by the City Park and Recreation Commission on August 14, 2000, and by the City Plan Commission on November 13, 2000. The plan update was adopted by the City of Brookfield Common Council on March 6, 2001.

EVALUATION AND UPDATE PROCESS

This park plan update compares the anticipated population growth and distribution used to design the existing plan to current population estimates and forecasts. Additional recreational lands or facilities needed to serve the anticipated 2020 population level and distribution were identified through application of the objectives and standards adopted in 1990 and consideration of the findings of a community needs assessment conducted in January 1999. The status of existing plan recommendations as they apply to the City and to other units of government with responsibility for providing recreational sites and facilities in the study area are also analyzed and documented, and new or revised recommendations are presented. Lastly, the costs associated with implementing the recommendations of the updated park and open space plan are presented.

¹ Documented in the report Community Needs Assessment Research Report, January 1999, conducted for the City of Brookfield Department of Parks, Recreation and Forestry by PSR, Ltd. of Brookfield, Wisconsin



STUDY AREA

The study area used for this plan update is the same as that used for the plan adopted in 1990. The study area, shown on Map 1, includes all of the City of Brookfield and the Village of Elm Grove, and that portion of the Town of Brookfield located in U.S. Public Land Survey Township 7 North, Range 20 East. The study area encompasses 23,044 acres, or about 36 square miles. The City of Brookfield in 1995 comprised 17,453 acres, or about 76 percent of the study area. The size of the City increased by about 568 acres since the first edition of this plan was prepared.

RECOMMENDATIONS OF THE PARK AND OPEN SPACE PLAN ADOPTED IN 1990

Park and Open Space Sites and Facilities

The Regional Planning Commission, as part of the regional park and open space planning program completed in 1977, formulated a comprehensive set of park and open space preservation, acquisition, and development objectives. Complementing each of these objectives is a planning principle and a set of planning standards. In applying these objectives, principles, and standards in the year 2010 park and open space plan, a need was identified for additional neighborhood and community parks and for recreational facilities such as baseball diamonds, playfields, and tennis courts.

To meet the identified needs, the park and open space plan for the City of Brookfield documented in the first edition of this report made the following recommendations:

- The acquisition and development of two new neighborhood parks by the City;
- The acquisition of additional lands and facility development at four existing City parks: Camelot Park, Endicott Park, Mary Knoll Park, and Mitchell Park;
- Facility development at six existing City parks: Brookfield Manor Park, Meadows of Brookfield Park, Krueger Park, Lilly Heights Park, Three Meadows Park, and Weston Hills Park;
- The acquisition and development of a new City nature center;
- The acquisition of additional land adjacent to Brookside Elementary School (now the Elmbrook School District Administrative Center); and
- The development of a 17-mile system of recreational trails to link the five community parks owned by the City and the regional system of recreation corridors. The trail system is proposed to be located within or adjacent to primary environmental corridors to the extent practicable.

Environmental Corridors

It was recommended that all primary environmental corridors in the Brookfield study area be held in a combination of public and private ownership for natural resource preservation, flood control, and limited outdoor recreation purposes. Secondary environmental corridors were recommended to be preserved in essentially natural, open uses and protected through appropriate land use regulation, or acquired as part of stormwater detention areas, drainageways, or neighborhood parks. Furthermore, it was recommended that isolated natural resource areas be protected through appropriate land use regulation or be acquired by the City for use in proposed neighborhood parks.

Protection of Wetlands, Woodlands, and Floodlands

The City park and open space plan adopted in 1990 recommends the preservation of certain wetlands, woodlands, and floodlands located outside the primary environmental corridor. These resources are proposed to be protected through a combination of public acquisition, easements, and land use regulation.

REPORT FORMAT

The findings and recommendations of the City park plan update are set forth in this report. Following this introductory chapter, Chapter II presents information about the City pertinent to park and open space planning, including information on anticipated population levels and distribution, the land use pattern, and existing park and open space sites and facilities within the study area. Chapter II also includes a comparison between existing inventory data and data used to prepare the plan adopted in 1990. The implementation status of adopted plan recommendations is presented in Chapter III. Chapter IV summarizes other planning programs affecting the plan, describes the park and open space objectives, principles, and standards used to prepare the plan, and presents a summary of the needs assessment conducted by the City. The new 2020 park and open space plan is presented in Chapter V. Chapter VI presents a summary of the plan.

Chapter II

INVENTORY FINDINGS

The proper formulation of a park and open space plan requires the collection of pertinent data relating to population levels, the pattern of land use development, existing park and open space sites and facilities, and natural resources within the area concerned. These data for the City of Brookfield study area are presented in this chapter. A comparison of similar data from the 2010 City park plan, which was adopted by the City in 1990 and included inventory information gathered in 1989, is also provided.

RESIDENT POPULATION OF THE BROOKFIELD STUDY AREA

Historical, existing, and projected future population levels are important considerations in planning for the park and open space needs of a community. Data on the historical resident population of both the City of Brookfield and the Brookfield study area are shown in Table 1. The 2010 park plan was based on data from the 1980 U.S. Census and 1989 population estimates from the Wisconsin Department of Administration (WDOA). That information, as well as updated information from the 1990 Census and 1998 WDOA estimates, is shown on Table 1.

The 1989 WDOA population estimate of 34,782 persons in the City of Brookfield appeared to follow the trend of population growth experienced between the 1980 and 1990 Census. The 1989 WDOA estimate of 45,895 persons for the entire study area was slightly higher than the 1990 census figure of 45,677 persons. Population estimates for 1998 for the City of Brookfield indicate that the City's population grew by 1,857 persons, or about 5 percent, from 35,184 to 37,041 residents between 1990 and 1998. The population of the study area grew about 3,866 persons, or about 9 percent, from 45,677 to about 49,543 persons during the period from 1990 to 1998. The projected population of the study area used in the formulation of the 2010 park and open space plan was 49,500 persons, about the same as the WDOA population estimate of 49,543 persons in the study area in 1998.

It should be noted that urban development in the study area is approaching buildout conditions. The Village of Elm Grove is almost completely developed, and only a limited number of vacant or agricultural parcels without environmental constraints are available for development in the City and Town of Brookfield. Projected population and household levels for the study area under "buildout" conditions, that is, full development of all land suitable for urban use, were developed as part of the Waukesha County Development Plan. Under full buildout conditions, the population of the study area is expected to increase to 54,100 persons, an increase of 8,400 persons, or about 18 percent, over the 1990 census level of approximately 45,700 persons. The buildout population was used to prepare this update of the City park and open space plan.

Table 1

POPULATION WITHIN THE BROOKFIELD STUDY AREA: 1900-1998

			Popu	lation ^a			
		City of Brookfield	·	Bro	ookfield Study Are	ab	
		Chang Preceding			Change Preceding		
Year	Number	Absolute	Percent	Number	Absolute	Percent	
1900	1,		• •	2,174			
1910		· • •	• •	2,132	-42	-1.9	
1920			••	1,973	-159	-7.5	
1930				2,547	574	29.1	
1940	••			4,196	1,649	64.7	
1950			••	7,425	3,229	77.0	
1960	19,812			26,796	19,371	260.9	
1970	31,761	11,949	60.3	43,265	16,469	61.5	
1980	34,035	2,274	7.2	45,134	1,869	4.3	
1989	34,782	747	2.2	45,895	761	1.7	
1990	35,184	1,149	3.4	45,677	543	1.2	
1998	37,041	1,857	5.3	49,543	3,866	8.5	

^a 1989 and 1998 population data are estimates from the Wisconsin Department of Administration. Population data for other years are from the U.S. Census.

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

The pattern of development in the City and the remainder of the study area envisioned by the Waukesha County Development Plan¹ under buildout conditions is virtually identical to the land use pattern shown on Map 20, the Recommended Park and Open Space Plan for the City of Brookfield, set forth in the first edition of this report. The higher population for the study area anticipated under the County Development Plan is due primarily to a higher percentage of multi-family dwellings in the study area, particularly in the Town of Brookfield, than envisioned by the 2010 park plan.

EXISTING LAND USE

Information on the amount of land devoted to the various types of land uses in the City of Brookfield and the remainder of the study area in 1995 is presented on Map 2 and Table 2. The study area totals about 23,044 acres. Residential uses occupied 9,789 acres, or about 43 percent of the study area, while other urban uses combined occupied 7,659 acres, or about 33 percent of the study area. Natural resources consisting of upland woodlands, wetlands and surface water together encompassed 3,787 acres, or about 16 percent of the study area. Agricultural and other open lands accounted for 1,748 acres, or about 8 percent of the study area.

b Includes the City of Brookfield, the Village of Elm Grove, and the Town of Brookfield. The City of Brookfield was incorporated in 1954, and the Village of Elm Grove was incorporated in 1955.

¹ The recommended land use plan under buildout conditions is shown on Map 87 on page 361 of SEWRPC Community Assistance Planning Report No. 209, A Development Plan for Waukesha County, Wisconsin, August 1996.

Map 2

EXISTING LAND USE IN THE BROOKFIELD STUDY AREA: 1995

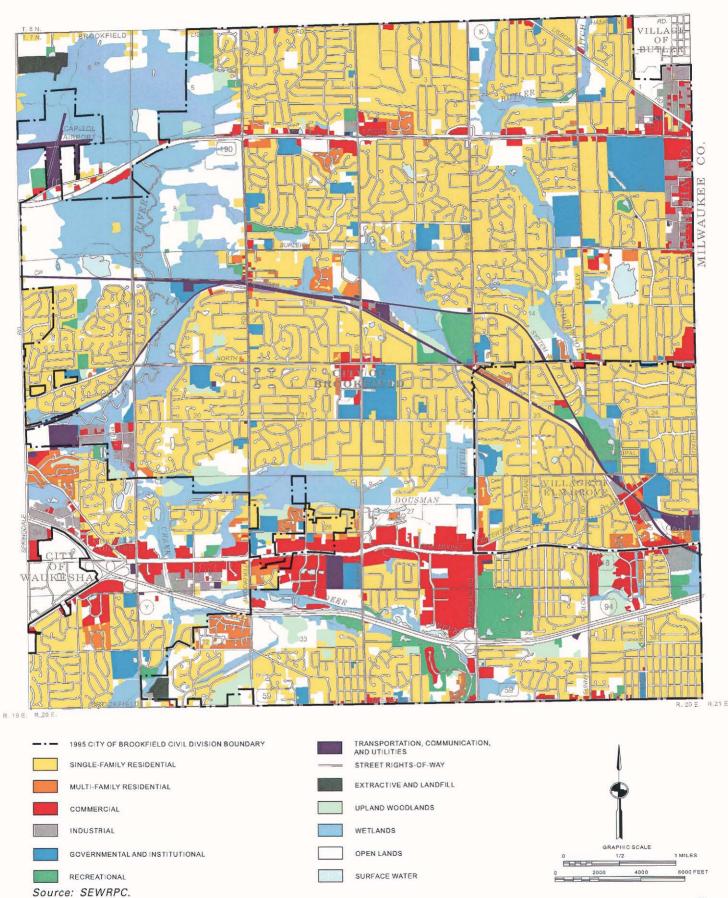


Table 2

LAND USE IN THE BROOKFIELD STUDY AREA: 1995

	City of B	rookfield		nder of Area	Study Area Total		
Land Use Category	Acresa	Percent	Acresa	Percent	Acres ^a	Percent	
Urban							
Residential			\				
Single-Family Residential	7,262	41.6	2,100	37.6	9,362	40.6	
Multi-Family Residential	262	1.5	165	2.9	427	1.9	
Commercial	913	5.3	323	5.8	1,236	5.4	
Industrial	241	1.4	104	1.9	345	1.5	
Transportation, Communications, and Utilities ^b	2,711	15.5	946	16.9	3,657	15.9	
Governmental and Institutional	639	3.7	177	3.2	816	3.5	
Recreational ^C	435	2.5	100	1.8	535	2.3	
Undeveloped Urban ^d	896	5.1	174	3.1	1,070	4.6	
Subtotal	13,359	76.6	4,089	73.2	17,448	75.7	
Nonurban	_	_					
Wetlands	2,269	13.0	932	16.7	3,201	13.9	
Upland Woodlands	357	2.0	49	0.9	406	1.8	
Surface Water	147	0.8	33	0.6	180	0.8	
Extractive and Landfill	19	0.1	42	0.8	61	0.3	
Agricultural and Other Open Lands	1,302	7.5	446	7.9	1,748	7.5	
Subtotal	4,094	23.4	1,502	26.9	5,596	24.3	
Total	17,453	100.0	5,591	100.1 ^e	23,044	100.0	

^a Includes associated street rights-of-way and off-street parking areas for each land use category.

Source: SEWRPC.

The City of Brookfield encompassed 17,453 acres, or about 27 square miles, in 1995. Residential uses occupied 7,524 acres, or about 43 percent of the City. Other urban uses combined occupied 5,835 acres, or about 33 percent of the City. Thus, in 1995, there were 13,359 acres, or about 77 percent of the area within the City, in urban uses. Upland woodlands, wetlands, and surface water together encompassed 2,773 acres, or about 16 percent of the City. Agricultural and other open lands accounted for 1,302 acres, or about 8 percent of the City. In all, 4,100 acres, or about 23 percent of the City of Brookfield, were in nonurban uses in 1995.

b Includes railroad and freeway rights-of-way and communication, utility, and transit station properties.

^c Includes only those lands developed and used for intensive recreational use (ballfields, picnic areas, etc.). Undeveloped land within park sites used for hiking trails or other passive uses is included in the "agricultural and other open lands" category.

d Includes undeveloped lands associated with urban areas, such as excess street rights-of way, undeveloped platted lots, and residual lands or outlots attendant to existing urban development which are not expected to be developed.

e Total exceeds 100 percent due to rounding.

PARK AND OPEN SPACE SITES

Existing Park and Open Space Sites and Facilities

In 1999, there were 83 park and open space sites in the Brookfield study area, which together encompassed a total of 2,854 acres, or about 12 percent of the study area. This compares to a total of 69 sites, encompassing 1,975 acres, in 1989; an increase of 14 sites and 879 acres.

As indicated by Map 3 and Table 3, 57 park and open space sites were publicly owned. Public sites encompassed 2,209 acres, or 69 percent of the sites and 77 percent of the area devoted to such uses. The table includes sites owned by Waukesha County, local governments, and public school districts as public sites. It should be noted that school events and school district policies may limit the availability and use of facilities located on public school grounds to the general public. The remaining 26 sites, encompassing 645 acres, are privately owned.

As shown by Table 4, in 1999 the following publicly-owned recreational facilities were located in the Brookfield study area: four regulation baseball diamonds, 48 basketball goals, 10 ice-skating rinks, 45 soccer fields, 26 playgrounds, 24 league ball diamonds, 22 sandlot ball diamonds, and 55 tennis courts. Playfields were located at 22 public sites in the study area. Other outdoor recreation facilities available at public park and open space sites in the study area include two swimming pools and a swimming beach, an indoor ice rink, hiking and cross-country ski trails, sledding hills, and fishing ponds.

Recreational facilities available at privately owned sites included 35 basketball goals, one outdoor ice-skating rink, seven soccer fields, 13 playgrounds, 10 sandlot ball diamonds, 21 tennis courts, three swimming pools or beaches, two 18-hole golf courses, two driving ranges, a mini-golf course, and an indoor ice-skating rink. Playfields were located at eight private sites in the study area.

City of Brookfield Park System

In 1999, the City of Brookfield owned 33 park and open space sites, encompassing a total of 1,679 acres, or about 10 percent of the City. This represents an increase of three sites and 387 acres since 1989. Much of this increase can be attributed to an increase in the number of acres of environmental corridor lands owned by the City. The increase of about 400 acres includes a loss of about 173 acres from that portion of Mitchell Park recently transferred from the City to Waukesha County for development of Fox Brook Park. Additional information on changes to the City park system between 1989 and 1999 is included in Chapter III.

Park and open space sites owned by the City are shown on Map 4 and listed in Table 5. A brief description of each of the 33 City-owned sites is presented below.

Beverly Hills Park

Beverly Hills Park is a 23-acre neighborhood park located in the northwestern portion of the City. Existing facilities include an ice-skating pond, playground, basketball court, sandlot ball diamond, two tennis courts, and a shelter building. The site encompasses wetlands within an isolated natural resource area.

Brookfield Manor Park

Brookfield Manor Park is a 31-acre special park located in the southern portion of the City. The site encompasses wetlands within a portion of the primary environmental corridor along Deer Creek. Since adoption of the existing park plan in 1990, hiking trails have been developed at the park.

Brookfield Soccer Park

Brookfield Soccer Park is a 51-acre special park/regional playfield located in the northwestern portion of the City. The original site, which was 31 acres, was transferred from the Elmbrook School District to the City in 1993. The City acquired an additional 20 acres in 1996. Nine soccer fields and associated parking are provided at the park. The park also includes a playground, picnic tables, a picnic shelter, and a wetland area.

Map 3

PARK AND OPEN SPACE SITES IN THE BROOKFIELD STUDY AREA: 1999

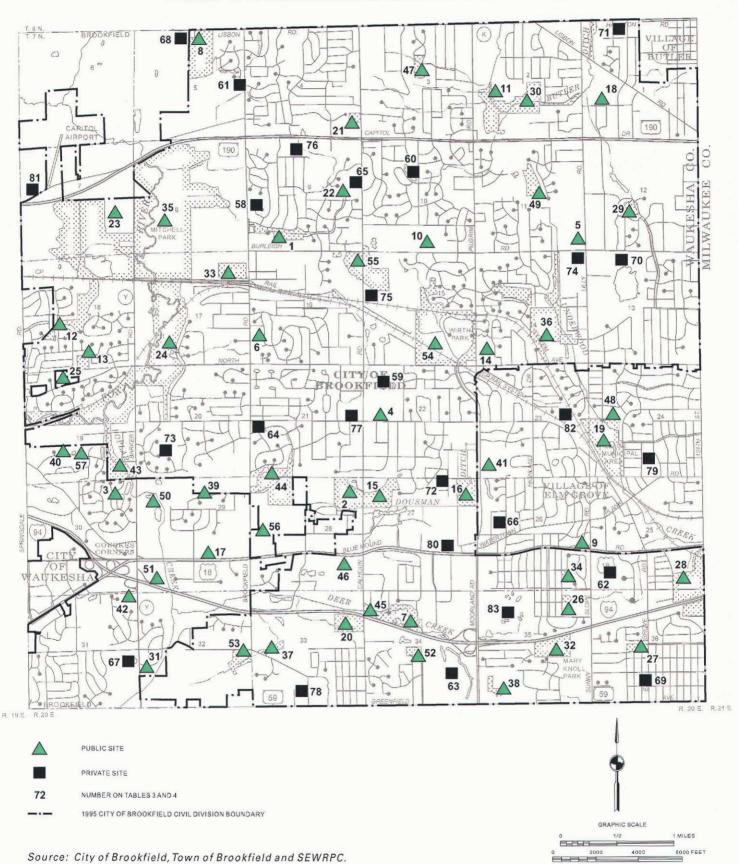


Table 3

PARK AND OPEN SPACE SITES IN THE BROOKFIELD STUDY AREA: 1999

		U.S. Public Land Survey		
Site Name	Number on Map 3	Section Location ^a	Ownership	Size (acres)
Public	10 10 10 10	1		
Beverly Hills Park	1	09	City of Brookfield	23
Black Forest Corridor	2	28	City of Brookfield	54
Brook Park	3	30	Town of Brookfield	18
Brookfield Central High School	4	22	Elmbrook School District	36
Brookfield East High School	5	11	Elmbrook School District	52
Brookfield Elementary School	6	16	Elmbrook School District	:4
Brookfield Manor Park	7	34	City of Brookfield	31
Brookfield Soccer Park	8	05	City of Brookfield	51
Brunner Park	9 .	26	Village of Elm Grove	1
Burleigh Elementary School	10	10	Elmbrook School District	15
Butler Ditch Corridor	11	01,02	City of Brookfield	46
Camelot Park	12	18	City of Brookfield	36
Canterbury Park	13	18	City of Brookfield	7
Dixon Elementary School	14	14	Elmbrook School District	4
Dousman Ditch Corridor	15 16	. 27 27	City of Brookfield	23
Dousman-Dunkel-Behling Historic Site and Park	17	27	City of Brookfield Waukesha County	21 33
Eble Park Elmbrook School District Administration Center	18	01	Elmbrook School District	3
Elm Grove Village Park	19	24	Village of Elm Grove	69
Endicott Park	20	33	City of Brookfield	17
Fairview Park	21	04	City of Brookfield	8
Fairview South School	22	09	Elmbrook School District	4
Fox Brook County Park	23	07	Waukesha County	173
Fox River Corridor	24	7,17,18,19,20	City of Brookfield	321
Hillside School	25	19	Elmbrook School District	4
Indian Heights Park	26	35	City of Brookfield	2
Kinsey Park	27	36	City of Brookfield	6
Krueger Park	28	25,36	City of Brookfield	65
Lamplighter Park	29	12	City of Brookfield	9
Lilly Heights Park	30	02	City of Brookfield	34
Marx Park	31	32	Town of Brookfield	18
Mary Knoll Park	32	35	City of Brookfield	20
McCoy Park	33	17	City of Brookfield	19
Meadows of Brookfield Park	34	26	City of Brookfield	5
Mitchell Park	35	08,17	City of Brookfield	433
Mound Zion Park	36	14	City of Brookfield	47
Open Space Site No. 1	37	33	City of Brookfield	6
Open Space Site No. 2	38	35	City of Brookfield	6
Open Space Site No. 3	39 40	29 19	Town of Brookfield Town of Brookfield	12 7
Open Space Site No. 4	41	23	Elmbrook School District	18
Pilgrim Park Middle SchoolPleasant Hill School	42	31	Waukesha School District	10
Poplar Creek Corridor	43	19	City of Brookfield	28
Rolling Meadows Park	44	21,28	City of Brookfield	41
Ruby Park	45	34	City of Brookfield	8
Swanson Elementary School	46	28	Elmbrook School District	8
Three Meadows Park	47	03	City of Brookfield	6
Tonawanda Elementary School	48	24	Elmbrook School District	3
Underwood Creek Corridor	49	11,14,25,36	City of Brookfield	51
Undeveloped Town Land	50	29	Town of Brookfield	15
Undeveloped Town Land	-51	29	Town of Brookfield	3
Westchester Park	52	34	City of Brookfield	6
Weston Hills Park	53	32	City of Brookfield	23
Wirth Park	54	15	City of Brookfield	146
Wirth Park Wetlands	55	10,15,16	City of Brookfield	80
Wisconsin Hills Middle School	56	28	Elmbrook School District	9
Wray Park	57	19	Town of Brookfield	11
Subtotal – 57 sites				2,209
a to the contract of the contr		1	1 .	

Table 3 (continued)

Site Name	Number on Map 3	U.S. Public Land Survey Section Location ^a	Ownership	Size (acres)
Private				1000
Academy of Basic Education (Brookfield Academy)	58	08.09	Private	119
Amy Montessori School	59	22	Private	1
Arrowhead Lake Park	60	10	Private	12
Berkshire Hills Community Center	61	05	Private	2
Bishops Woods	62	25, 36	Private	41
Brookfield Hills Golf Course	63	34	Private	96
Christ the Lord School	64	21	Private	1 1
Christian Liberty Academy	65	09	Private	1
Elm Grove Lutheran School	66	26	Private	6
Elmbrook Church	67	31	Private	5
FMI Soccer Club Park	68	05	Organizational	77
Heritage Christian Elementary School	69	36	Private	' '3
Highlander Elite Tennis and Racquet Club	70	13	Private	10
Immanuel Lutheran School	71	01	Private	2
Indianwood Park	72	27	Private	14
Liberty Highlands Open Space Site	73	20	Private	7
Milwaukee Christian School	74	14	Private	3
Ponds of Brookfield	75	15	Private	22
St. Dominic School	76	09	Private	6
St. John Vianny School	70	21	Private	7
St. Luke School	78	33	Private	1 4
St. Mary School	78	24	Private	4
	80	27	1	2
Storms Golf Range	80		Commercial	17
Tee Aire Golf Range	1 .	07	Commercial	20
Western Racquet Club Westmoor Country Club	82 83	23 35	Private Private	157
Subtotal – 26 sites				645
Total – 83 sites				2.854

^aAll located in U. S. Public Land Survey Township 7 North, Range 20 East.

Source: City of Brookfield, Town of Brookfield, and SEWRPC.

Camelot Park

Camelot Park is a 36-acre neighborhood park located in the western portion of the City. The park has been expanded by 22 acres since the existing park plan was adopted in 1990. Facilities at the park developed before 1990 include a basketball court, ice-skating rink, playground, sandlot softball field, and a picnic area. Newly developed facilities include two tennis courts, a playfield, a walking trail, and accessibility improvements to comply with the Americans with Disabilities Act.

Canterbury Park

Canterbury Park is a seven-acre neighborhood park/regional playfield located in the western portion of the City. Existing facilities include two soccer fields, a league ball diamond, and a paved parking lot.

Dousman-Dunkel-Behling Historic Site and Park

The Dousman-Dunkel-Behling Historic Site and Park is a 21-acre historic site located in the central portion of the City. The Dousman-Dunkel-Behling Inn, a historic structure once located in the northwest quadrant of the

Table 4
SELECTED OUTDOOR RECREATION FACILITIES IN THE BROOKFIELD STUDY AREA: 1999

			<u>i_</u> _								
Site Name	Number on Map 3	Regulation Baseball	Basketball Goal	ice Skating	Soccer Fields	Playfields	Playground	Ball Diamond (league)	Ball Diamond (sandlot)	Tennis Court	Other Facilities
Public					- 1	1.5					
Beverly Hills Park	1 1		2	x			1		1	2	Picnic Area
Brook Park	3	۱						l			Fishing Ponds
Brookfield Central High School	4	l	l	l	2	×	l	2	l	9	Football/Track Field
Brookfield East High School	5	1	l		3	x		2		9	Football/Track Field
·	6					,					Nature Trail
Brookfield Elementary School		••	2		/		1	••	2	••	l
Brookfield Manor Park	7				••					••	Hiking Trail
Brookfield Soccer Park	8	"			9		1	ļ 		••	Restroom/Clubhouse Building
Brunner Park	9				••		••	••			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Burleigh Elementary School	10		3		2	×	1		2	5	-
Camelot Park	12	••	2	×	••	×	1	••	1	2	Picnic Area and Walking Trail
Canterbury Park	13)		2	••		1			* *.
Dixon Elementary School	14		2	۱	١	١	1 1	·	1 1		· .
Dousman-Dunkel-Behling Historic Site & Park	16	<i>-</i> -	••	••							Picnic Area
Eble Park	17							l	1		Indoor Ice Rink
Elmbrook School District Administration Center	18	'	4	••		×	1		1		
Elm Grove Village Park	19		2	••	7	×	1	2	1	6	Sand Volleyball,, Swimming Pool, Fitness Trail,, Picnic Area
Endicott Park	20			×	1	×	1	1 1		••	Picnic Area
Fairview Park	21		2	×	1 1		1	1			Volleyball
Fairview South School	22		2		1	×			1		1 to a second
Fox Brook County Park	23	l			 		1 1				Beach, Picnic Area
Hillside School	25		2	l	l	l x	1 1				
Indian Heights Park	26	l		1	1			l			
	27	::				1	1			1	Picnic Area
Kinsey Park		1	"	X		-:			••		
Krueger Park	28	1	2	1 ::	1	X	1	1		\	Picnic Area
Lamplighter Park Lilly Heights Park	29 30		2	×		X	1		1 1	7.7	Picnic Area Walking Trail and Picnic Area
l		1	1		١.	· •	1	١ .	 	١,	Picnic Area
Marx Park	31	ì	2		1	X		2		2	
Mary Knoll Park	32					×	1		··	4	Picnic Area
McCoy Park	33	1 .			1		1				Picnic Area
Meadows of Brookfield Park	34							••-	••		· · · · · ·
Mitchell Park Mound Zion Park	35					x		48	••		Cross-Country Skiing, Nature/Hiking Trails, Archery, Picnic Areas, Sledding Hill, Pet Exercise Area, Canoe Access
Pilgrim Park Middle School	41	1		1	6	x		\	2	l	1,177
Pleasant Hill School	42	1	4		1	x	1 1	l	2	۱	
	44	::		×			1 .		\	1	Picnic Area
Rolling Meadows Park Ruby Park	45	::	2	1	::	::	::	::	::	::	Picnic Area
	٠	1	'	"	':	1	".	••	"	1	FIGHIC AIRS
Swanson Elementary School	46	"	-		1	X		**	'		
Three Meadows Park	47		-	×		×	1		1		Walking Trail, Picnic Area, Sledding Hill
Tonawanda Elementary School	48	\ ·•	5				1	\	2	\	
Westchester Park	52					••			·-		Sledding Hill
Weston Hills Park	53		••		1	×	1	1		••	Sledding Hill, Picnic Area, Walking Trail
Wirth Park	54	1		×	3	×	2	6		8	Sledding Hill, Picnic Areas, Swimming Pool, Nature Trails, Walking Trails, Cross-Country SkiTrails, Sand Volleyball
Wisconsin Hills Middle School	56		6		2	X			2	6	
Wray Park	57		2				. 1	1	••	2	Fishing Pond
Subtotal		4	48	10	45	22	26	24	22	55	<u>••</u>

Table 4 (continued)

Site Name	Number	Regulation	Basketbali Goal	ice Skating	Soccer	Playfields		Ball Diamond	Ball Diamond (sandlot)	Tennis Court	Other Facilities
Site Name	on Map 3	Baseball	Goal	ice Skating	Fields	Piayneids	Playground	(league)	(sandiot)	Court	Other Facilities
Private		' '		l ·				, in the			
Academy of Basic Education	58		4	•-		X	1				
(Brookfield Academy)	60		••	×			1	••	••	1 1	•• ;
Arrowhead Lake Park											Swimming, Fishing Pond
Berkshire Hills Community Center	61)]						4	Swimming Pool
Brookfield Hills Golf Course	63								· •		18-Hole Golf Course
Christ the Lord School	64		4				1		••		
Christian Liberty Academy	65		1 1				1		1		••
Elm Grove Lutheran School	66	\	2		1	×	1	\	2	1	
Elmbrook Church	67						1				••
FMI Soccer Club Park	68				4					••	••
Heritage Christian Elementary School	69		2			×	1		1		• •
Highlander Elite Tennis and Racquet Club	70						••			4	Indoor Tennis and Racquetball Courts
Immanuel Lutheran School	71					×	1		1		
Indianwood Park	72									••	••
Milwaukee Christian School	74		4			×	1	••	1		•-
Ponds of Brookfield	75										Indoor ice Rink
St. Dominic School	76		6		1		1		2		••
St. John Vianny School	77		4		1	×	1			••	••
St. Luke School	78		3			×	1	••	1		
St. Mary School	79		4			×	1		1	\ ••	••
Storms Golf Range	80		••		•••	•• ,	••				Driving Range/ Mini Golf
Tee Aire Golf Range	81				••	••	••				Driving Range/ Mini Golf
Western Racquet Club	82		1 .			••				12	Handball Court, Swimming Pool
Westmoor Country Club	83					••	••				18-Hole Golf Course
Subtotal	••	0	35	1	7	8	13	0	10	21	••
Total		4	83	11	52	30	39	24	32	76	•

⁸Ball diamonds at Mitchell Park are Little League diamonds.

Source: City of Brookfield Department of Parks, Recreation and Forestry and SEWRPC.

intersection of Pilgrim Parkway and Bluemound Road, is now located at the site. The site also encompasses weflands within the primary environmental corridor along Dousman Ditch.

Endicott Park

Endicott Park is a 17-acre district park located in the southern portion of the City. Existing facilities include an ice-skating rink, a soccer field, a playfield, a playground, a picnic area, a league ball diamond, and a parking lot. The site encompasses wetlands within a secondary environmental corridor. The site was acquired by the City from the Elmbrook School District in 2000.

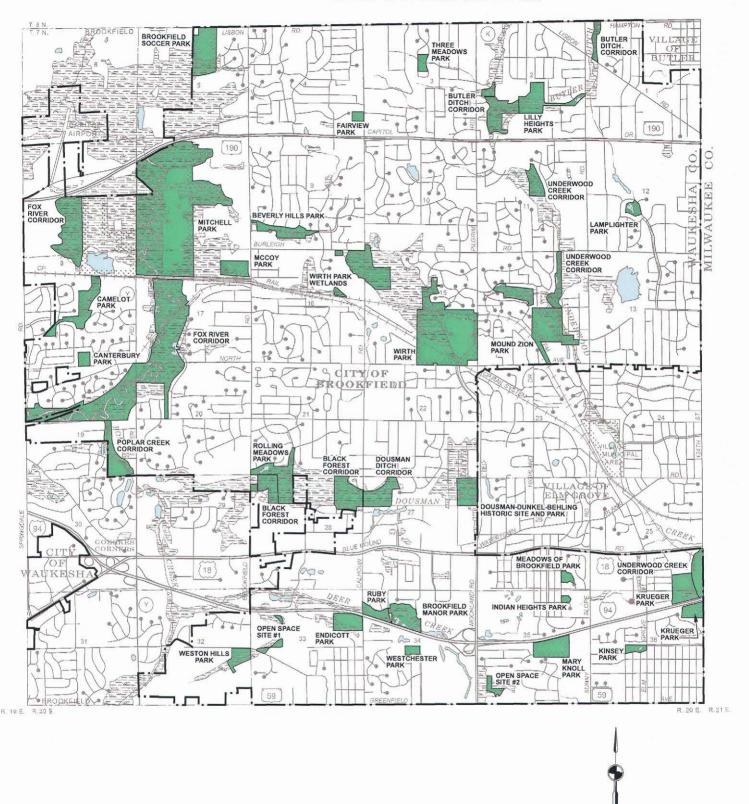
Fairview Park

Fairview Park is an eight-acre neighborhood park located in the northern portion of the City. Existing facilities include a basketball court, an ice-skating rink, a soccer field, a playground, a league ball diamond, a volleyball court, and a parking lot.

Indian Heights Park

Indian Heights Park is a two-acre open space site located in the southeastern portion of the City.

Map 4
CITY OF BROOKFIELD PARK AND OPEN SPACE SYSTEM: 1999



1 MILES

GRAPHIC SCALE

Table 5
CITY OF BROOKFIELD PARK AND OPEN SPACE SYSTEM: 1999

	Area	
Site Name	(acres)	Site Description ^a
Parks		
Beverly Hills Park	23	Neighborhood park
Brookfield Manor Park	31	Special park
Brookfield Soccer Park	51	Special park/Regional playfield
Camelot Park	36	Neighborhood park
Canterbury Park	7	Neighborhood park/Regional playfield
Dousman-Dunkel-Behling Historic Site and Park	21	Historic site
Endicott Park	17	District park
Fairview Park	8	Neighborhood park
Indian Heights Park	2	Open space site
Kinsey Park	6	Neighborhood park
Krueger Park	65	District park
Lamplighter Park	9	Neighborhood park
Lilly Heights Park	34	Neighborhood/District park
Mary Knoll Park	20	District park
McCoy Park	19	Regional playfield
Meadows of Brookfield Park	5	Undeveloped neighborhood park
Mitchell Park	433	Multi-Community park
Mound Zion Park	47	Special park
Rolling Meadows Park	41	Neighborhood park
Ruby Park	8	Neighborhood park
Three Meadows Park	6	Neighborhood park
Westchester Park	6	Special/Neighborhood park
Weston Hills Park	23	Neighborhood park
Wirth Park	146	Community park
Subtotal - 24 sites	1,064	
Environmental Corridors and		
Resource Preservation Areas		
Black Forest Corridor	54	Open space site
Butler Ditch Corridor	46	Open space site
Dousman Ditch Corridor	23	Open space site
Fox River Corridor	321	Open space site
Poplar Creek Corridor	28	Open space site
Underwood Creek Corridor	51	Open space site
Wirth Park Wetlands	80	Open space site
Open Space Site No. 1 (isolated wetland)	6	Open space site
Open Space Site No. 2 (isolated wetland)	6	Open space site
Subtotal - 9 sites	615	
Total - 33 sites	1,679	

^aThe City of Brookfield has classified its parks into the following categories: Multi-community park-250 acres or larger; community park-100 to 249 acres; district park-25 to 99 acres; neighborhood park-five to 24 acres; special park; regional playfield; historic site; and open space sites.

Source: City of Brookfield Department of Parks, Recreation and Forestry, and SEWRPC.

Kinsey Park

Kinsey Park is a six-acre neighborhood park located in the southeastern portion of the City. An ice-skating rink, a playground, a picnic area, a shelter building, and pond are provided at the site. The site also encompasses woodlands within an isolated natural resource area.

Krueger Park

Krueger Park is a 65-acre district park located in the southeastern portion of the City. It includes a 16-acre site formerly known as Cardinal Park and a seven-acre site formerly known as Harvey Park. Existing facilities include a regulation baseball diamond, soccer field, playground, league ball diamond, a basketball court developed since 1990, a picnic area, and a paved parking lot. The site encompasses wetlands within the primary environmental corridor along the South Branch of Underwood Creek.

Lamplighter Park

Lamplighter Park is a nine-acre neighborhood park located in the northeastern portion of the city. Existing facilities include a basketball court, an ice-skating pond, a playground, a sandlot ball diamond, and a picnic area.

Lilly Heights Park

Lilly Heights Park is a 34-acre neighborhood/district park located in the northeastern portion of the City and includes a parcel of undeveloped land located adjacent to, and northwest of, the currently developed seven-acre site. Existing facilities developed before 1990 include an ice-skating pond, a playfield, a shelter building, and a parking lot. Additional facility development since 1990 includes a sandlot ball diamond, a playground, a playfield, picnic areas, and a walking trail. The site also encompasses wetlands within the primary environmental corridor along Butler Ditch.

Consideration by the City has been given to designating Lilly Heights Park as a neighborhood park and providing a district park to serve the northeastern portion of the City adjacent to the Elmbrook School District Administration Center, formerly the Brookside Elementary School. A formal resolution has been adopted by the Common Council approving this direction.

Mary Knoll Park

Mary Knoll Park is a 20-acre district park located in the southeastern portion of the City. The site provides four tennis courts, a playground developed since 1990, a playfield, a picnic area, and a parking lot. The site encompasses woodlands within an isolated natural resource area.

McCov Park

McCoy Park is a 19-acre regional playfield located in the western portion of the City. Existing facilities include a regulation baseball diamond, a playground, a soccer field developed since 1990, a concession stand and restrooms, and a picnic area. The site encompasses a portion of the primary environmental corridor along the Fox River.

Meadows of Brookfield Park

Meadows of Brookfield Park is a five-acre undeveloped neighborhood park site located in the southeastern portion of the City.

Mitchell Park

Mitchell Park is a 433-acre multi-community park located in the northwestern portion of the City. A portion of the park, located on the west side of Barker Road, was transferred to Waukesha County in 1997 and has been developed as Fox Brook County Park. Facilities at the City's Mitchell Park, all developed since adoption of the existing park plan in 1990, include four Little League baseball diamonds, playfields, a trail system for hiking and cross-country skiing, an archery range, a sledding hill, a pet exercise area, picnic areas, and walk-in and canoe access to the Fox River.

Mound Zion Park

Mound Zion Park is a 47-acre special park located in the central portion of the City. The park includes a portion of Zion Woods, a 55-acre natural area of countywide or regional significance.

Rolling Meadows Park

Rolling Meadows Park is a 41-acre neighborhood park located in the central portion of the City. The site encompasses a pond that serves as an ice-skating rink in the winter, and wetlands within a primary environmental corridor.

Ruby Park

Ruby Park is an eight-acre neighborhood park located in the southern portion of the City. A basketball court and a picnic area are provided at the park. The park also encompasses wetlands within the primary environmental corridor along Deer Creek.

Three Meadows Park

Three Meadows Park is a six-acre neighborhood park located in the northern portion of the City. Since 1990, the park has been developed with an ice-skating rink, a playfield, a playground, a sandlot ball diamond, a walking trail, a picnic area, and a sledding hill.

Westchester Park

Westchester Park is a six-acre special/neighborhood park located in the southern portion of the City. Existing facilities include a sledding hill. The site encompasses woodlands within the primary environmental corridor along Deer Creek.

Weston Hills Park

Weston Hills Park is a 23-acre neighborhood park located in the southwestern portion of the City. Since 1990 the park has been developed with a soccer field, playfield, playground, league ball diamond, sledding hill, picnic area, and walking trail. The site encompasses wetlands within a portion of a secondary environmental corridor.

Wirth Park

Wirth Park is a 146-acre community park located in the central portion of the City. Existing facilities developed before 1990 include two baseball diamonds (one regulation and one league), an ice-skating rink, playfields, a soccer field, playground, four league softball diamonds, eight tennis courts (four lighted), a swimming pool, two picnic shelters, concession stand, picnic areas, a sledding hill, and nature and walking trails. The site encompasses wetlands within a portion of the primary environmental corridor located along Underwood Creek.

Since adoption of the existing plan in 1990, an area known as Wirth Park South, located adjacent to North Avenue in the southwest portion of Wirth Park, has been developed with two soccer fields, a league ball diamond, a playground, two sand volleyball courts, and a sledding hill.

Waukesha County Parks

Waukesha County owns two park sites in the study area. Fox Brook Park is located in the City of Brookfield on the west side of Barker Road, between the CP Rail System tracks and Capitol Drive. The park was formerly part of the City's Mitchell Park. Fox Brook Park, which encompasses 173 acres, was opened in June 1999 and includes a lake and swimming beach, beach house, playground, and trails. The park also includes wetlands within the primary environmental corridor.

The County also owns Eble Park, located on the northeast corner of Bluemound Road and Janacek Road in the Town of Brookfield. The 33-acre site includes an indoor ice rink and a wetland area. The ice rink is open for public skating at certain hours and is also available for lease by local hockey teams.

Trail Facilities

Opportunities for trail related outdoor recreation activities, such as bicycling, hiking, nature study, and cross country skiing are provided at trail facilities within park and open space sites in the study area, as noted on Table 4. The City also provides a number of bicycle and pedestrian facilities in street rights-of-way. The City adopted a bikeway master plan² in 1988 that calls for bikeways to be provided along virtually all arterial streets in the City. The plan also calls for a limited number of off-street bikeways and bikeways along residential streets. Streets that have been improved to provide on-street bicycle lanes or paved shoulders for bicycle travel are shown on Map 5. Map 5 also shows bicycle/pedestrian paths that are located in street rights-of-way but separated from motor vehicle traffic by a lawn or planting area.

NATURAL RESOURCE FEATURES

Environmental Corridors

One of the most important tasks completed by the Southeastern Wisconsin Regional Planning Commission was the identification and delineation of those areas in the Region in which concentrations of the best remaining elements of the natural resource base occur. The protection and preservation of such areas in essentially natural, open uses is critical to maintaining both the ecological balance and natural beauty of the Region and the study area.

Identification of environmental corridors is based on the presence of one or more of the following important elements of the natural resource base: 1) lakes, rivers, and streams and their associated shorelands and floodlands, 2) wetlands, 3) woodlands, 4) prairies, 5) wildlife habitat areas, 6) areas of wet, poorly drained, and organic soils, and 7) areas of rugged terrain and high-relief topography. The presence of elements that are closely related to the natural resource base, including park and open space sites, historic sites, scenic view points, and natural areas are also considered in the delineation of environmental corridors.

The delineation of these 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.³ Primary environmental corridors include a wide variety of these important resource and resource-related elements and are at least 400 acres in size, two miles in length, and 200 feet in width. Secondary environ-mental corridors generally connect with the primary environmental corridors and are at least 100 acres in size and one mile in length. In addition, smaller concentrations of natural resource features that have been separated physically from the environmental corridors by intensive urban or agricultural uses have also been identified. These areas, which are at least five acres in size, are referred to as isolated natural resource areas.

Primary Environmental Corridors

As shown on Map 6, primary environmental corridors within the Brookfield study area are located generally along the Fox River and other major streams, including large wetland areas associated with the Fox River in the northwestern portion of the study area and with Underwood Creek in the vicinity of Wirth Park. As shown on Table 6, primary corridors encompass 3,980 acres, or about 17 percent of the study area, and 2,816 acres, or about 16 percent, of the City of Brookfield, which represents an increase of 50 acres in the number of acres of primary corridor since 1989.

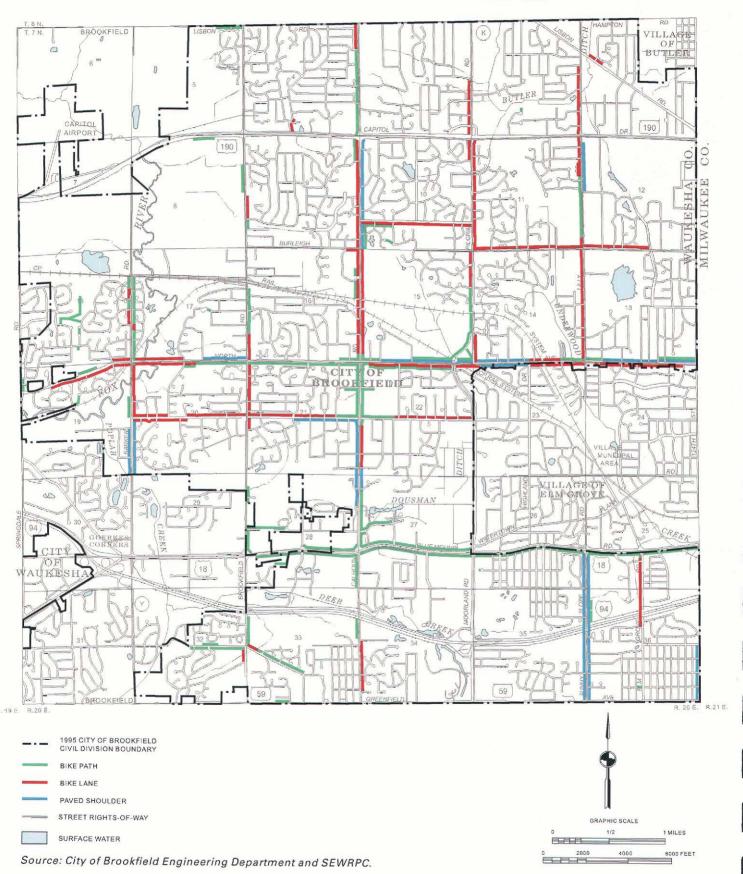
The primary environmental corridors include the best remaining woodlands, wetlands, and wildlife habitat areas and are, in effect, a composite of the best remaining residual elements of the natural resource base of the Brookfield study area. These corridors have truly immeasurable environmental and recreational value. The

² Documented in the report entitled Bikeway Master Plan, Brookfield, Wisconsin, prepared by R.A. Smith & Associates, Inc., for the Brookfield Bicycle and Pedestrian Safety Committee, April 1988.

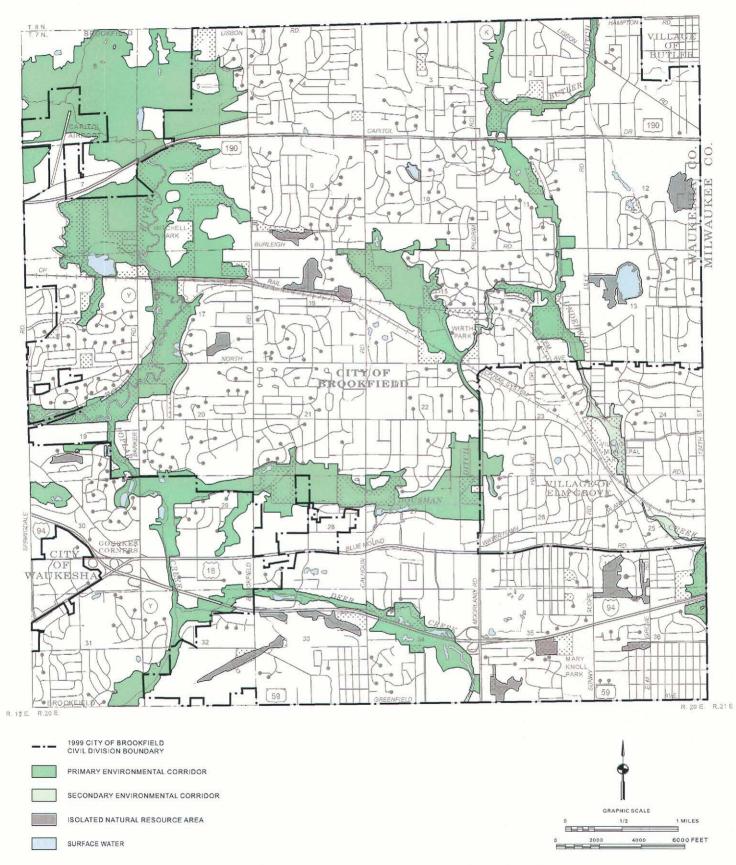
³ A detailed description of the process used to delineate environmental corridors in Southeastern Wisconsin is presented in SEWRPC Technical Record Vol. 4, No. 2, pages 1 through 21.

Map 5

EXISTING BIKEWAYS IN THE BROOKFIELD STUDY AREA: 1999



Map 6
ENVIRONMENTALLY SIGNIFICANT LANDS IN THE BROOKFIELD STUDY AREA



Source: SEWRPC.

Table 6
ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL RESOURCE AREAS IN THE BROOKFIELD STUDY AREA

	City of Brookfield		Remainder of Study Area		Study Area Total	
Corridor Type	Acres	Percent ^a	Acres	Percent ^b	Acres	Percent ^C
Primary Environmental Corridor Secondary Environmental Corridor Isolated Natural Resource Area	2,816 17 276	16.1 0.1 1.6	1,164 75 9	20.8 1.3 0.2	3,980 92 285	17.3 0.4 1.2
Total	3,109	17.8	1,248	22.3	4,357	18.9

^aPercent of total City area (17,453 acres) within corridor.

Source: SEWRPC.

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 park and open space plan. Their preservation in an essentially open, natural state, including park and open space uses and very low density residential uses, will serve to maintain a high level of environmental quality, protect the natural beauty, and provide valuable recreation opportunities within the City of Brookfield and the remainder of the study area.

Secondary Environmental Corridors

As shown on Map 6, secondary environmental corridors in the Brookfield study area are generally located along Underwood Creek in the Village of Elm Grove and along intermittent streams tributary to Deer Creek. As shown by Table 6, there are about 17 acres of secondary corridor in the City of Brookfield and about 75 acres in the remainder of the study area. Secondary corridors encompass 92 acres, or less than 1 percent, of the study area. This represents a decrease of about 10 acres from the 1989 total of 102 acres of secondary corridor.

Secondary environmental corridors facilitate surface water drainage and provide corridors for the movement of wildlife and for the movement and dispersal of seeds for a variety of plant species. Such 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, neighborhood parks, or trail corridors.

Isolated Natural Resource Areas

In addition to the environmental corridors, other smaller concentrations of natural resource base elements exist within the study area. These pockets are generally isolated from the environ-mental corridors by urban development. Although separated from the environ-mental corridor network, these isolated natural resource areas have important natural values. Isolated natural resource areas may provide the only available wildlife habitat in an area, provide good locations for local parks and open space areas, and lend aesthetic character and natural diversity to an area. As shown on Map 6 and Table 6, isolated natural resource areas were located throughout the study area and encompass 285 acres, or about 1 percent of the study area. All but nine acres of the isolated natural resource areas are located in the City of Brookfield. This represents an increase of about 115 acres since 1989,

^bPercent of remainder of study area (5,591 acres) within corridor.

^CPercent of total study area (23,044 acres) within corridor.

much of which can be attributed to an increase in the size of the isolated natural resource area in Section 13 surrounding the former Sileno gravel pit.

Natural Areas and Critical Species Habitat Sites

Natural areas in Southeastern Wisconsin were identified in 1994 as part of the regional natural areas study. Natural areas are defined as tracts of land or water so little modified by human activity, or sufficiently recovered from the effects of such activity, that they contain intact native plant and animal communities believed to be representative of the landscape before European settlement. Natural areas are classified into one of the following three categories: natural areas of statewide or greater significance (NA-1), natural areas of countywide or regional significance (NA-2), or natural areas of local significance (NA-3). Classification of an area into one of these three categories is based on consideration of the diversity of plant and animal species and community types present; the structure and integrity of the native plant or animal community; the extent of disturbance by human activity, such as logging, grazing, water level changes, and pollution; the commonness of the plant and animal communities present; any unique natural features within the area; the size of the area; and the educational value. Because the inventory of natural areas and critical species habitat sites was conducted after the first edition of the City park plan was completed, there is no comparable information included in the 2010 plan.

Five natural area sites, encompassing 398 acres, were identified in the City of Brookfield in 1994. One of the natural areas, the Theater Swamp, is located primarily in the Village of Menomonee Falls, with about three acres extending into the City. The natural areas are shown on Map 7 and described on Table 7.

The inventory of natural area sites also identified one critical species habitat site in the City, the Elm Grove Road Pond, which is also shown on Map 7 and described on Table 7. Critical species habitat sites are areas outside natural areas that support rare, threatened, or endangered plant or bird species. The Elm Grove Road Pond supports two endangered plant species.

SUMMARY

This chapter has presented a general description of the City of Brookfield study area, including a description of population levels, existing land uses, existing park and open space sites, and natural resource features. The key findings of this chapter are summarized below:

- 1. The 1998 population estimate for the City was 37,041 residents. The 1998 population estimate for the entire study area was 49,543 residents. This plan update is based on a projected buildout population of 54,100 persons in the study area. This compares to a projected study area population of 49,500 persons used to prepare the 2010 park plan.
- 2. In 1995, land developed with urban uses encompassed 13,359 acres, or about 77 percent of the City. Nonurban uses, including wetlands, woodlands, surface water, and other open lands, encompassed 4,100 acres, or about 23 percent of the City. In comparison, urban uses comprised about 66 percent of the City and nonurban uses the remaining 34 percent of the City in 1985.
 - In the study area as a whole, urban uses occupied 17,448 acres, or about 76 percent of the study area, in 1995. Nonurban uses, including wetlands, woodlands, surface water, and other open lands, encompassed 5,535 acres, or about 24 percent of the study area. In 1985, about 64 percent and 36 percent of the study area were in urban and nonurban uses, respectively.
- 3. In 1999, there were 83 park and open space sites in the Brookfield study area, which together encompassed a total of 2,854 acres, or about 12 percent of the study area. Fifty-seven of the 83 sites,

⁴ Documented in SEWRPC Planning Report No. 42, A Regional Natural Areas and Critical Species Habitat Protection and Management Plan for Southeastern Wisconsin, September 1997.

Map 7

NATURAL AREAS AND CRITICAL SPECIES HABITAT SITES IN THE BROOKFIELD STUDY AREA: 1994

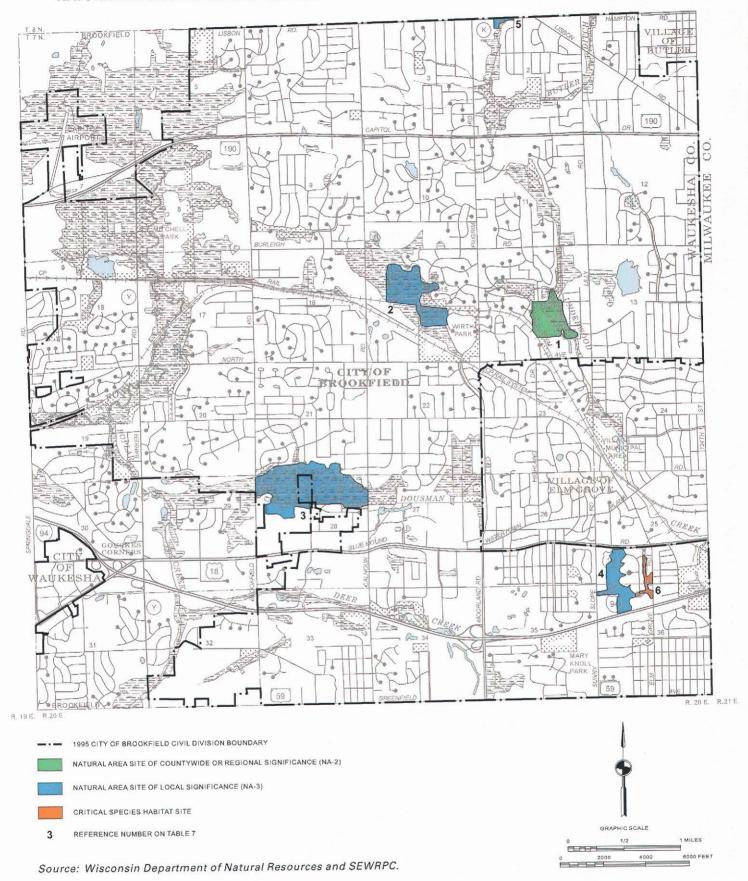


Table 7

NATURAL AREAS AND CRITICAL SPECIES HABITAT SITES IN THE BROOKFIELD STUDY AREA: 1994

Number on Map 7	Area Name	Classification Code ^a	Location	Ownership	Size (acres)	Description and Comments
1	NA-2 (RSH) T7N, R20E Section 14 City of Brookfield and Private			55	A small but mature and relatively undisturbed dry-mesic hardwoods stand, located on a northeast-facing slope. Dominated by red oak, sugar maple, and basswood. Contains American gromwell (<i>Lithospermum latifolium</i>), a Statedesignated special concern species. Lowlands to east support a good-quality sedge meadow	
2	Wirth Swamp	NA-3	T7N, R20E Section 15 City of Brookfield	City of Brookfield and Private	85	Degraded floodplain forest of lowland hardwoods, disturbed by ditching, residential en- croachment, and Dutch elm disease
3	Brookfield Swamp	NA-3	T7N, R20E Sections 21, 28 City of Brookfield	City of Brookfield and Private	203	Lowland hardwood forest of silver maple, green ash, and American elm, degraded by ditching, residential encroachment, and Dutch elm disease
4	Bishops Woods	NA-3 (RSH)	T7N, R20E Sections 25, 36 City of Brookfield	Private	52	Formerly one of the best dry-mesic hardwood stands in the Region, now degraded and reduced in size because of business park development. Small areas are still of good quality, but there is severe loss of forest interior. Dominant trees include sugar maple, red oak, and basswood
5	Theater Swamp	NA-3	T8N, R20E Section 35 Village of Menomonee Falls T7N, R20E Section 2 City of Brookfield	Village of Menomonee Falls and Private	91 ^b	Moderate-quality dry-mesic and wet-mesic hardwoods, with local areas of higher quality supporting large swamp white oaks. Dredged stream channel contains runoff from surrounding residences and abundant green algae
6	Elm Grove Road Pond	CSH (RSH)	T7N, R20E Section 25 City of Brookfield	Private	7	Contains two State-designated endangered plant species, Carex crus-corvi (crow-spur sedge) and Carex lupuliformis (hop-like sedge)

⁸ NA-2 identifies Natural Area sites of countywide or regional significance

NA-3 identifies Natural Area sites of local significance

RSH, or Rare Species Habitat, identifies those sites which support rare, threatened, or endangered animal or plant species officially designated by the Wisconsin Department of Natural Resources CSH identifies critical species habitat sites.

Source: Wisconsin Department of Natural Resources and SEWRPC.

encompassing 2,209 acres, were publicly owned. The remaining 26 sites, encompassing 645 acres, were privately owned.

In 1989, there were 69 park and open space sites in the study area, encompassing 1,975 acres. The number of publicly-owned sites increased from 49 to 57, and the number of acres in public sites

b Three acres are located in the City of Brookfield; the remaining 88 acres are located in the Village of Menomonee Falls.

increased from 1,603 to 2,209 between 1989 and 1999. Much of this increase can be attributed to additional environmental corridor lands acquired by the City.

- 4. In 1999, the City of Brookfield park system consisted of 33 park and open space sites encompassing 1,679 acres, or about 10 percent of the City. Of this total, 1,064 acres were located in park sites and the remaining 615 acres were located in environmental corridors and other resource preservation areas. This represents an increase of three sites and 387 acres from 1989. The City also transferred about 173 acres of park land from Mitchell Park to Waukesha County for development of Fox Brook County Park.
- 5. There are 3,980 acres in primary environmental corridor, 92 acres in secondary environmental corridor, and 285 acres in isolated natural resource areas in the Brookfield study area, for a total of 4,357 acres, or about 19 percent of the study area. In the City of Brookfield, there are 2,816 acres in primary environmental corridor, 17 acres in secondary environmental corridor, and 276 acres in isolated natural resource areas, for a total of 3,109 acres, or about 18 percent of the City. These figures represent an increase of about 50 acres of primary corridor and about 115 acres in isolated natural resource areas since 1989.
- 6. There were five natural areas and one critical species habitat site located entirely or partially within the City in 1994. Natural areas within the City encompass 398 acres. The critical species habitat site encompasses seven acres. The inventory of natural areas and critical species habitat sites was conducted after the first edition of the City park plan was completed; hence no comparable information was included in the 2010 plan.

Chapter III

STATUS OF 2010 PLAN RECOMMENDATIONS

The 2010 City of Brookfield Park and Open Space Plan, adopted in 1990, contains a number of recommendations regarding the acquisition of park and open space sites and the development of recreational facilities. While most of the recommendations are directed to the City of Brookfield, there are also recommendations to other units and agencies of government with jurisdiction within the study area, including the Village of Elm Grove, the Town of Brookfield, Waukesha County, and the Wisconsin Department of Natural Resources. This chapter summarizes the recommendations made in the adopted park and open space plan and indicates those recommendations that had been implemented by 1999 and those remaining to be implemented. This chapter also summarizes changes to the plan approved by the City through amendments to the plan.

SUMMARY OF PARK PLAN AMENDMENTS APPROVED BY THE CITY OF BROOKFIELD

The City of Brookfield has adopted four amendments to the 2010 park plan. The amendments are described below:

- 1. On December 7, 1992, the City of Brookfield Common Council adopted a resolution amending the proposed boundaries of Endicott Park. The park currently encompasses 17 acres and is located on land leased to the City from the Elmbrook School District. The plan amendment continues to recommend that the City acquire the 17-acre site, and further recommends that the park be expanded to 37 acres through the acquisition of two adjacent parcels identified in the resolution.
- 2. On July 20, 1993, the City of Brookfield Common Council adopted a resolution identifying land near Brookside Elementary School (now the Elmbrook School District Administrative Center) as the preferred site for a new community park, known as the Northeast Regional Park, and Lilly Heights Park as the alternative community park site. The 2010 park plan had designated Lilly Heights Park as a joint neighborhood/community park site. Lilly Heights Park will continue to serve as a neighborhood park regardless of where the community park is developed.
- 3. On March 21, 1995, the City of Brookfield Common Council adopted a resolution calling for the development of an area designated as Wirth Park South, located in the southwestern portion of Wirth Park between North Avenue and the CP Rail System right-of-way. The resolution recommended that the site be developed with two soccer fields, a ball diamond, a playground, two

¹ The City acquired Endicott Park from the School District in 2000.

courts, a sledding hill, picnic areas, trails, and support facilities. A trail connecting Wirth Park South to facilities in Wirth Park was also recommended. By 1999, all of the improvements had been completed.

4. On August 7, 1990, the City of Brookfield Common Council adopted a resolution approving a revised location for a proposed trail connecting Mitchell Park and Beverly Hills Park. The new trail location crosses the proposed Brookfield Academy athletic field grounds.

STATUS OF PARK PLAN RECOMMENDATIONS TO BE IMPLEMENTED BY THE CITY OF BROOKFIELD

The adopted 2010 park and open space plan recommendations and the implementation status of each recommendation are summarized on Table 8. The table is organized into five sections: the outdoor recreation element, the open space preservation element, the wetland preservation plan, the woodland preservation plan, and the floodland protection plan. The first two sections correspond to recommendations made in the body of the first edition of this report, while the last three correspond to recommendations contained in Appendices A, B, and C of the earlier report.

Outdoor Recreation Element

Recommendations Related to Parks

Recommendations made in the existing plan under the outdoor recreation element related to the acquisition and development of new or existing parks include:

- The acquisition and development of two new neighborhood parks by the City;
- The acquisition of additional lands and facility development at four existing City parks: Camelot Park, Endicott Park, Mary Knoll Park, and Mitchell Park;
- Facility development at six existing City parks: Brookfield Manor Park, Meadows of Brookfield Park, Krueger Park, Lilly Heights Park, Three Meadows Park, and Weston Hills Park;
- The acquisition and development of a new City nature center;
- Continued maintenance and improvements needed to comply with the requirements of the federal Americans with Disabilities Act of 1990 (ADA) were recommended for 11 parks; and
- Continued use of Brookfield Soccer Park, which was then owned by the Elmbrook School District, as a soccer facility.

As shown on Table 8, the following activities related to park acquisition and development had been completed by the City by 1999:

- Acquisition from the Elmbrook School District of the Brookfield Soccer Park, which was subsequently enlarged to 51 acres and developed with three additional soccer fields;
- Acquisition and development of all recommended facilities at Camelot Park, Three Meadows Park, and Weston Hills Park;
- Acquisition of the Mound Zion Woods for future development of a City nature center;
- Development of certain recommended facilities at the Brookfield Manor Nature Preserve, Krueger Park, and Mary Knoll Park;
- Completion of ADA-related improvements at Wirth Park; and
- Partial ADA improvements at the Dousman-Dunkel-Behling Historic Site and Park, Beverly Hills Park, Canterbury Park, Endicott Park, Fairview Park, Kinsey Park, Lamplighter Park, McCoy Park, Rolling Meadows Park, and Ruby Park.

Table 8

CITY OF BROOKFIELD PARK AND OPEN SPACE PLAN STATUS OF 2010 PLAN RECOMMENDATIONS

20		ity of Brookfield en Space Plan Recommendation	Recommendation Fully Implemented	Recommendation Partially Implemented	Recommendation Remaining to be Implemented
	door Recreation	Element			
	Parks	4.00.			•
	1. Park Site A Acquisition:	(Imperial Site)			x
	Facilities:	Softball Diamond) x
	raciiiles.	Playfield			X
		Playground		ļ	X
		Picnicking			×
		Restrooms			X
		Appropriate support facilities			×
	2. Park Site B	40 A (Office Plaif Assilable)			· x
	Acquisition: Facilities:	12 Acres (Sileno Pit if Available) Playfield			l â
	raciilles.	Playground			×
		Picnicking			X
		Appropriate support facilities	1	•	X
		Restrooms			X
;		anor Nature Preserve		}	
	Acquisition:				×
	Facilities:	Picnicking Trails		×	^
		Appropriate support facilities			x
		Bridge over Deer Creek			X
		Maintenance & ADA Accessibility			X
		Improvements		4	
•	4. Camelot Park			Į.	
	Acquisition:	20 Acres	Xp		•
	Facilities:	Softball Field	X X		
		Tennis Courts (2) ^C Playfield) î		1.
		Trails ^C	x		
		Picnicking	X		1
		Appropriate support facilities	X		
		Maintenance & ADA Accessibility	X		
		Improvements			
	5. Endicott Park				
	Acquisition: Facilities:	20 Acres ^d Lighted Softball Diamond			×
	racinues.	Lighted Tennis Courts			X
		Playfield			X
		Picnicking	,		X
		Trails			X
		Appropriate support facilities		×	×
		Maintenance & ADA Accessibility Improvements		^	
	6. Krueger Park	•			
	Facilities	Playfield			×
		Basketball Goals (2) ^C	X		1
		Picnic			X
		Appropriate support facilities			X
		Trail under IH 94			X
		Trail connecting to Underwood Creek trail in Milwaukee County			^
		Maintenance and ADA Accessibility		x	
,		Improvements			
	7. Lilly Heights	•			
	Facilities:	Softball (lighted)	,		X
		Softball (not lighted)	X		
		Lighted tennis courts	<u> </u>		X

Table 8 (continued)

2010		City of Brookfield en Space Plan Recommendation	Recommendation Fully Implemented	Recommendation Partially Implemented	Recommendation Remaining to be Implemented
-		Playfield	X	:	
		Playground	X		
		Picnicking	l \hat{x}	· ·	
		Appropriate support facilities) x		
		Maintenance & ADA Accessibility) \hat{x}		
		Improvements	^	,	
		•		·	
8.	Mary Knoll F				
	Acquisition:	Up to 35 acres			X
	Facilities:	Playfield		X	×
		Softball			^
		Playground	X		
		Picnicking		·	X
		Trails		i	1 X
		Appropriate support facilities	1		X
		Restrooms			X
		Maintenance & ADA Accessibility		X	
		Improvements		1	
9.	Meadows of	Brookfield Park			
	Facilities:	Playfield		· ·	x
		Playground			X
		Picnicking		1	X
		Appropriate support facilities			X
		Maintenance & ADA Accessibility		Ì	X
		Improvements			
40	Mitchell Parl				
10.				X (76.4 acres)	
	Acquisition:			A (76.4 acres)	χg
	Facilities:	Swimming beach ^g			Xg
		Changing facilities ^g	Į.		Xa
		River access		X	
		Picnic shelters	1	1	X
		Group picnic area			×
		Informal picnic areas		X	
		Hiking	1	X	
		Ski-touring		X	
		Nature study trails		X	
		Playfields			X
		Youth baseball complex ^C		X	
		Playgrounds			X
		Archery range ^C		X	1
		Lighted tennis courts	*		X
		Sledding hill ^C	X		1
		Open area for special events			x
		Pet exercise area ^C	×		
		Restrooms			×
		Community center & pavilion			X
		Performing arts center		1	X
		Parking		X	
		Appropriate support facilities		x	Ì
		Maintenance & ADA Accessibility		l	e e
				1 ^	
		Improvements		The second second	
11.	Three Mead				1
	Facilities:	Playfield	X		1
		Soccer	X		1
		lce skating rink ^C	- X		1
	•	Playground	- X		1
		Sledding hill ^C	X		1
		Picnicking	X		
		Appropriate support facilities	X		
		Maintenance and ADA Accessibility		X	
		Improvements	1	The state of the s	

Table 8 (continued)

201		ity of Brookfield en Space Plan Recommendation	Recommendation Fully Implemented	Recommendation Partially Implemented	Recommendatio Remaining to be Implemented
12.	Weston Hills	Park			
	Facilities:	Playfield	l x	•	
		Softball diamond ^C	x	·	
		Playground	l x		
		Soccer field ^C	x		
		Picnicking	l		
		Sledding hill ^C	l		
) x	·	
		Appropriate support facilities Maintenance & ADA Accessibility Improvements	, x		
			l		
13.	Mound Zion		X	`	
	Acquisition:				
	Facilities:	Nature Trails			X
		Picnicking		\	X
		Nature center building			X
14.	Soccer Park	•			
	Acquisition:	31 Acres ⁱ	×	1	
	Facilities:	Soccer fields (3) ^C	X		
15	Dousman-Du	inkel-Behling Historic Site and Park		1	
13.	Facilities:	Maintenance & ADA Accessibility		×	
		Improvements			, and the second
16.	Beverly Hills				
	Facilities:	Maintenance & ADA Accessibility Improvements		×	
17.	Canterbury P	ark			·
	Facilities:	Maintenance & ADA Accessibility Improvements		×	
18	Fairview Parl	·			
10.	Facilities:	Maintenance & ADA Accessibility Improvements		×	
40	Kinana Dani	mprovements	*		
19.	Kinsey Park Facilities:	Maintenance & ADA Accessibility		×	
		Improvements			
20.	Lamplighter		. [, ,
	Facilities:	Maintenance & ADA Accessibility Improvements		×	
21.	McCoy Park		· 1		
	Facilities:	Soccer field ^C	X		
		Maintenance & ADA Accessibility Improvements	×		
22.	Rolling Mead	dows Park	1		1
	Facilities:	Maintenance & ADA Accessibility Improvements		, X	
23	Ruby Park	•			
20.	Facilities:	Maintenance & ADA Accessibility Improvements		×	
0.4	Manachani	•			1
24.	Westchester		,	1	×
	Facilities:	Maintenance & ADA Accessibility Improvements			_ ^
25.	Wirth Park ^j				1
	Facilities:	Maintenance & ADA Accessibility Improvements	×		
B. Re	ecreation Trail				
	Beverly Hills				
•••		Acquisition-3 miles		x	
		estruction		77	×

Table 8 (continued)

City of Brookfield 2010 Park and Open Space Plan Recommendation	Recommendation Fully Implemented	Recommendation Partially Implemented	Recommendation Remaining to be Implemented
Civic Center Trail Corridor Acquisition–4 miles Trail Construction		X X	
 Clearwater Lakes Trail Corridor Acquisition-1 mile Trail Construction 		×	×
4. Elm Grove Trail ^l Corridor Acquisition–4 miles Trail Construction	x	x	
5. Lilly Heights Corridor Acquisition–1 mile Trail Construction		××	
 Pilgrim Road Trail Corridor Acquisition–3 miles Trail Construction 	×	×	
 Rolling Meadows Trail^m Corridor Acquisition–4 miles Trail Construction 		X X	
II. Open Space Preservation Element			
A. Primary Environmental Corridor			*
Black Forest Corridor Public Acquisition		X (Approx. 46 of 212	
		acres acquired)	4.
2. Butler Ditch Corridor Public Acquisition		×	
		(Approx. 40 of 114 acres acquired)	
Deer Creek Corridor Public Acquisition			X (80 acres to be acquired)
4. Dousman Ditch Corridor		;	4344
Public Acquisition		(Approx. 23 of 220 acres acquired)	
5. Fox River Corridor			
Public Acquisition		(Approx. 90 of 1,074 acres acquired)	
6. Poplar Creek Corridor Public Acquisition		X (Approx 25 of 194	
		(Approx. 25 of 184 acres cquired)	
7. Underwood Creek Corridor Public Acquisition		X (Approx. 8 of 146 acres acquired)	
Wirth Park Wetlands Corridor Public Acquisition		X (Approx. 80 of 192 acres acquired)	
B. Secondary Environmental Corridors and Isolated Natural Areas (such areas to be protected and preserved to extent needed and practicable)		X (Approx. 12 of 156 acres acquired)	

Table 8 (continued)

5.	City of Brookfield 2010 Park and Open Space Plan Recommendation	Recommendation Fully Implemented	Recommendation Partially Implemented	Recommendation Remaining to be Implemented
111.	Wetland Preservation Plan ⁿ A. Wetlands within Primary Environmental Corridor to be preserved by the City of Brookfield		X (Approx. 304 of 1,324 acres acquired)	
	B. Additional Large Wetlands to be preserved by the City of Brookfield		X (Approx. 12 of 137 acres acquired)	
	C. Wetlands less than five acres outside primary environmental corridor proposed for consideration for protection through Public Land Use Regulation			×
IV.	Woodland Preservation Plan			
	A. Woodlands to be preserved in existing City Parks	X (33 acres acquired)		
	B. Woodlands to be preserved as additions to City parks		X (Approx. 31 of 41 acres acquired)	
	C. Woodlands to be preserved through rural residential development	X (48 acres protected)		,
	D. Woodlands to be preserved through conservation easement or deed restriction			X (18 acres to be protected)
V.	Floodland Preservation Plan			
	Floodlands within primary environmental corridor to be preserved		X (Approx. 191 of 391 acres protected)	

^aThis site is currently owned by the Elmbrook School District.

^bA total of 20.7 acres have been acquired.

^CFacility not specifically recommended in 2010 park plan.

^dThis 17-acre site was acquired by the City from the Elmbrook School District in 2000. A 1992 amendment to the previous park plan recommended the acquisition of an additional 20 acres, for a total site area of 37 acres.

^eThe 2010 park plan was amended on May 4, 1993 to designate a new district park to serve the northeast portion of the City. Refer to text for additional information.

^fThat portion of Mitchell Park located west of Barker Road, encompassing 173 acres, was sold to Waukesha County in 1997. The County has developed Fox Brook Park on the site. The County park plan calls for the County to acquire certain lands adjacent to the park for resource protection purposes that were recommended for City acquisition in the City park plan.

⁹Waukesha County has developed a swimming beach and beach house at Fox Brook Park. These facilities will not be developed at Mitchell Park.

^hMound Zion Park was identified as the Brookfield Nature Center in the 2010 park plan.

¹The 2010 plan recommended that the City acquire the site, which was then 31 acres, from the Elmbrook School District if such acquisition was necessary to ensure continued use of the site as a soccer facility. The City has acquired both the original 31 acres and an adjacent 20 acres.

JThe 2010 plan was amended on March 21, 1995, to include facility development in the southwest portion of Wirth Park. Additional information is provided in the text.

^kA seventh trail, the Fox River trail, is to be developed by Waukesha County. About four miles of the trail are proposed to be located in the study area; however, the trail has not yet been developed in the study area.

About two miles of the Elm Grove trail are to be located in the Village of Elm Grove.

^mAbout one mile of the Rolling Meadows trail is to be located in the Town of Brookfield.

ⁿThe wetlands preservation plan also contains recommendations directed to the Village of Elm Grove and the Town of Brookfield. See text for more information.

Source: City of Brookfield Department of Parks, Recreation and Forestry and SEWRPC.

The City has also transferred portions of Mitchell Park to Waukesha County for development of Fox Brook County Park, and developed several new facilities on the City-owned portion of Mitchell Park. Development of neighborhood-level recreational facilities has been completed at Lilly Heights Park.

Based on the plan amendments adopted by the City and described earlier in this chapter, the City has developed facilities at Wirth Park South which were not called for in the original plan. A number of other facilities not specifically called for in the original plan have been developed at certain sites and are noted on Table 8.

The following recommendations of the 2010 plan remain to be implemented:

- Acquisition and development of two new neighborhood parks;
- Additional acquisition at Endicott Park;
- Development of a nature center building, trails, and picnic areas at the Brookfield Nature Center;
- Development of picnic areas and additional trails at the Brookfield Manor Nature Preserve;
- Additional facilities at Endicott Park, Krueger Park, Mary Knoll Park, Meadows of Brookfield Park, and Mitchell Park; and
- Additional minor ADA improvements at the Dousman-Dunkel-Behling Historic Site and Park, Beverly Hills Park, Canterbury Park, Endicott Park, Fairview Park, Kinsey Park, Lamplighter Park, McCoy Park, Rolling Meadows Park, and Ruby Park.

In addition, the plan as amended calls for land acquisition and development of lighted softball fields and tennis courts at the Northeast Regional Park. The park, which was originally proposed to be located adjacent to Lilly Heights neighborhood park, is now proposed to be located adjacent to the Elmbrook School District Administrative Center near the intersection of Lilly and Lisbon Roads. The Administrative Center is the former Brookside Elementary School.

Recommendations Related to Trails

The outdoor recreation element of the plan recommends a 24-mile system of recreational trails to link the City's community parks and connect to the regional system of recreation corridors, with about 17 miles to be constructed by the City. The trail system supplements the City bikeway system plan described in the previous chapter. The 2010 park plan calls for five trails to provided by the City: the Lilly Heights trail, the Pilgrim Road trail, the Beverly Hills trail, the Civic Center trail, and the Clearwater Lakes trail. Three additional trails recommended by the 2010 plan are to be developed in cooperation with other units of government with jurisdiction in the study area. They include the Fox River trail, to be provided by Waukesha County in cooperation with the City and Town of Brookfield; the Elm Grove trail, to be provided in cooperation with the Village of Elm Grove; and the Rolling Meadows trail, to be provided in cooperation with the Town of Brookfield.

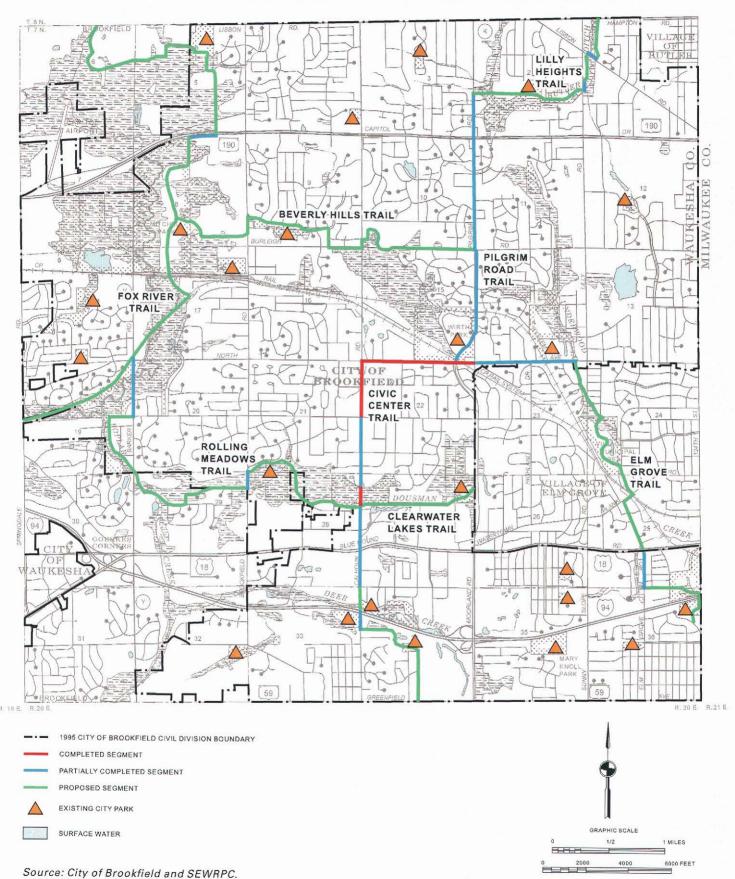
With the exception of the Beverly Hills and Rolling Meadows trails, all of the proposed trails contain both onstreet and off-street segments. To date, the City's efforts have been directed towards providing on-street bike lanes and paved shoulders for bicycle travel, or bicycle paths in street rights-of-way that can accommodate both bicyclists and pedestrians. Map 8 depicts completed and proposed trail segments. Partially completed trail segments, which include cases where a bikeway has been constructed on only one side of a street or where bikeways have been constructed on both sides of a street but no off-street path is provided for pedestrians, are also included on Map 8. Thus far, about 1.5 miles of the proposed 17-mile City trail system have been completed and about six miles have been partially completed.

Open Space Preservation Element

The 2010 plan recommends that the City acquire primary environmental corridor lands within eight corridors: the Black Forest, Butler Ditch, Deer Creek, Dousman Ditch, Fox River, Poplar Creek, Underwood Creek, and Wirth Park Wetlands corridors. In all, a total of 2,222 acres within the corridors, consisting of wetlands, floodlands, and surface water, are to be publicly acquired. Of the 2,222 acres, 1,020 are proposed to be acquired by the City of

Map 8

STATUS OF RECREATIONAL TRAIL SYSTEM RECOMMENDED BY THE 2010 CITY PARK PLAN



Brookfield. To date, the City has acquired 312 acres of environmental corridor lands. The location of City-owned open space sites is shown on Map 4 in Chapter II.

The plan further recommends that Waukesha County acquire 967 acres within the Fox River corridor, that the Town of Waukesha acquire 313 acres in the Black Forest, Deer Creek, and Poplar Creek corridors, and that the Village of Elm Grove acquire seven acres in the Dousman Ditch corridor. No environmental corridor acquisitions have been made in the study area by the County, Village, or Town since adoption of the City plan.

Wetland Preservation Plan

A wetland preservation plan was adopted as an element of the City's park and open space plan. The wetland preservation plan was prepared under the guidance of the Wetlands Management Task Force, formed in 1989 by the City of Brookfield Plan Commission. The plan consists of a wetland preservation component, a woodlands preservation component, and a floodland preservation component, which are described in the following sections.

Preservation of Wetlands

A wetlands preservation plan is set forth in Appendix A of the first edition of this report. The plan recommends that all wetlands within primary environmental corridors and all additional wetlands of five acres or larger outside primary environmental corridors be acquired and protected. A total of 3,229 acres of wetlands in the study area are recommended to be protected through public ownership; with 2,308 to be protected through City ownership and the remaining 921 to be protected by Waukesha County, the Village of Elm Grove, or the Town of Brookfield.

Of the 2,308 acres to be protected by the City, 847 acres were in City ownership by 1991. Since 1991, the City has acquired 316 additional acres of wetlands, for a total of 1,163 acres of wetlands in City ownership in 1999. Wetland areas acquired by the City between 1991 and 1999 include portions of wetlands within the Fox River corridor, portions of the Wirth Park wetland corridor, portions of the Underwood Creek corridor within and adjacent to the Mound Zion park site and west of Lilly Heights Park, wetlands within the Dousman Ditch corridor, and portions of two isolated wetlands south of IH 94. The 316 acres of wetlands acquired by the City includes 56 acres within the Fox River corridor west of Fox Brook County Park that were designated in the plan for County acquisition. The City was able to acquire the wetlands through dedication as part of the Gateway West development project.

To fulfill the recommendations of the plan, the City should acquire about 1,200 additional acres of wetlands. Waukesha County should acquire remaining wetlands within the Fox River corridor, the Village of Elm Grove should acquire the wetland area north of and adjacent to the Village park, and the Town of Brookfield should acquire wetlands within the primary environmental corridor along Deer and Poplar Creeks within the Town.

Preservation of Woodlands

The woodland preservation plan, set forth in Appendix B of the first edition of this report, recommends that woodlands within primary environmental corridors be preserved. In 1989, there were 15 such woodlands encompassing 140 acres in the study area, with 12 woodlands encompassing 119 acres within the City. Five woodlands, encompassing 33 acres, are protected within Mitchell, McCoy, Wirth, Camelot, and Westchester City parks. The plan recommends that the City acquire one woodland encompassing 10 acres as an addition to Mitchell Park and acquire a second woodland encompassing 31 acres as part of the proposed City nature center (Mound Zion Park). As of 1999, the City had acquired the 31-acre woodland as part Mound Zion Park. As noted in Chapter II, the Mound Zion woodland was identified as a Natural Area of countywide or regional significance in the Regional Planning Commission's 1994 inventory of natural areas in Southeastern Wisconsin.

The woodland preservation plan further recommends that two woodlands, together encompassing 18 acres, remain in private ownership and be protected through conservation easements or deed restrictions. To date, one woodland is wholly protected through deed restriction and one woodland is partially protected through deed restriction.

Three of the remaining woodlands, encompassing 27 acres, are located in the City and three others, encompassing 21 acres, are located in the Town of Brookfield. These six woodlands are to be retained in private ownership and developed for very low-density residential uses to preserve the woodlands to the extent practicable.

Preservation of Floodlands

The wetland preservation plan includes recommendations for the protection of areas within the 100-year recurrence interval floodplain, termed floodlands, within the primary environmental corridor. Wetlands located in floodlands are protected under the wetland preservation plan. Recommendations for the protection of floodlands that are not covered by wetland vegetation, such as floodlands in agricultural production, are set forth in Appendix C of the first edition of this report. The plan calls for the acquisition of such floodlands, recognizing that floodlands in an urbanizing area formerly used for agricultural purposes, if left undeveloped, will revert to wetlands and provide flood storage and other benefits. The plan further calls for acquired floodlands to be restored to wetlands. The Wetlands Management Task Force did, however, determine that an easement held by the City providing for public access and permitting construction of flood control structures and conduct of other flood control measures could be considered an acceptable substitute for fee-simple acquisition of the lands concerned.

In 1989, there were about 600 acres of primary environmental corridor lands consisting of non-wetland floodlands in the study area, of which 391 acres were located in the City. Such floodlands were located adjacent to the Fox River corridor in the western portion of the study area, along Poplar Creek in the southwestern portion of the study area, along Deer Creek and Dousman Ditch in the south-central portion of the study area, and along Butler Ditch in the northeast portion of the study area.

Of the 391 acres of non-wetland floodlands within primary environmental corridors in the City, about 146 acres are in City parks or open space sites, about five acres are in Fox Brook County Park, and an additional 40 acres are in compatible private recreation use (Brookfield Hills Golf Course), as of 1999. The balance of about 200 acres remains to be acquired within the City. Of the approximately 200 acres of floodlands outside the primary environmental corridors in the remainder of the study area, about 23 acres are owned by the Town of Brookfield within Brook Park and Marx Park.

STATUS OF PLAN RECOMMENDATIONS TO BE IMPLEMENTED BY OTHER UNITS OF GOVERNMENT

Wisconsin Department of Natural Resources

The Wisconsin Department of Natural Resources (WDNR) administers State and Federal grant programs for the acquisition and development of land for outdoor recreation and resource protection purposes. In order for the City to be eligible to apply for such funds, it must adopt a local park plan that complies with WDNR requirements. The 2010 plan was approved by the WDNR. It is anticipated that this plan will also be approved by the WDNR so that the City will retain its eligibility to apply for and receive available State and Federal grant funds to implement the plan.

Milwaukee and Waukesha Counties

Recommendations Related to County Parks

The 2010 plan calls for Milwaukee and Waukesha Counties to maintain the existing major parks adjacent to the Brookfield study area, including Currie and Greenfield parks in Milwaukee County and Menomonee, Minooka, and Wanaki parks in Waukesha County. This recommendation has been fulfilled.

The 2010 City park plan also calls for Waukesha County to develop the Ryan property in Pewaukee as a major park. Since adoption of the City plan, a new park and open space plan has been adopted by Waukesha County. The new County plan, which was adopted in 1996, does not recommend development of the Ryan property as a major park. The new County plan does, however, recommend that the County develop a new major park in the

² Documented in Chapter XIII of SEWRPC Community Assistance Planning Report No. 209, A Development Plan for Waukesha County, Wisconsin, August 1996.

City of Brookfield. The new park, Fox Brook Park, is located on the west side of Barker Road on a portion of land that was once part of the City's Mitchell Park. The park, which opened in June 1999, contains a lake, swimming beach, beach house, playground, and trails. The development of Fox Brook Park fulfills the recommendation for development by Waukesha County of an additional major park to serve residents of the study area.

Recommendations Related to County Trails

The 2010 plan calls for Milwaukee County to maintain existing trails within the Little Menomonee River, Menomonee River, Root River, and Underwood Creek parkways, and for Waukesha County to maintain the New Berlin Trail. These recommendations have been fulfilled. The 2010 plan also calls for Waukesha County to develop a trail within the Fox River corridor. Although portions of the Fox River trail have been completed within Waukesha County, no trail segments have yet been developed in the Brookfield study area. Development of the Fox River trail is called for in the new County park plan, and should remain a recommendation of this updated City plan.

Village of Elm Grove

The 2010 plan calls for the Village to maintain existing facilities at the Village Park, which has been done, and to acquire lands as necessary for the development of the proposed Elm Grove trail. The trail would connect Wirth Park and Krueger Park by way of Elm Grove Village Park. The Village portion of the trail, which is about two miles long, has not yet been developed. The City portion of the trail along North Avenue from Wirth Park to Underwood Creek has been improved for bicycle travel with bike lanes or paved shoulders on both sides of North Avenue; however, no pedestrian accommodation has been provided.

Town of Brookfield

The 2010 plan calls for the Town to acquire additional lands and develop additional facilities at Marx Park, provide facilities at Wray Park, and to acquire lands as necessary for the development of a one-mile segment of a trail connecting Mitchell Park and Endicott Park. By 1999, the Town had expanded Marx Park by six acres and developed a playground, ballfields, tennis courts, basketball goals, a picnic shelter and playfields at the Park. Wray Park had been developed with two basketball goals, a playground, a league ball diamond, two tennis courts, and a fishing pond. The recommendations in the 2010 plan for park acquisition and development have been completed. The one-mile portion of the Rolling Meadows trail to be located in the Town of Brookfield has not yet been developed.

In addition to the park improvements noted above, the Town has acquired a new park site, known as Brook Park, north of the intersection of Barker Road and Brook Park Drive. The park is about 15 acres in size and consists of lawn areas and two drainage detention basins that serve as fishing ponds.

SUMMARY

The City of Brookfield has fulfilled many of the recommendations made in the 2010 park plan related to acquisition and development of City parks and preservation of important natural resources within the City. The City has also cooperated with Waukesha County to assist the County with development of a new major County park in the City. Remaining implementation measures include acquisition and development of two new neighborhood parks and the northeast regional park, and completion of the recreational trail system. The following chapter will evaluate the need for additional park sites and recreational facilities in the City and the remainder of the study area.

Chapter IV

FRAMEWORK FOR PLAN DEVELOPMENT

Previous chapters of this report have presented the results of inventories and analyses of the population, existing land uses, natural resources, and park and open space sites in the City and study area. This chapter describes additional important factors to be considered in the preparation of the new park and open space plan. Specifically, this chapter describes pertinent City, County, and regional plan recommendations; key findings of a needs assessment conducted by the City; probable future population levels in the study area in the year 2020; and a set of park and open space objectives, principles, and standards which will be used as a guide in the preparation of the plan update. The recommended plan is presented in Chapter V.

PLANS AFFECTING THE CITY PARK AND OPEN SPACE PLAN

Sound planning practice requires that each community plan or plan element be properly related to adopted local, county, and regional plans. Plans that should be considered and appropriately incorporated into this updated park and open space plan include the newly-adopted City of Brookfield 2020 Master Plan, recent stormwater management plans for areas within the City, the Waukesha County Development Plan, which includes a park and open space plan element, and the natural areas plan for Southeastern Wisconsin.

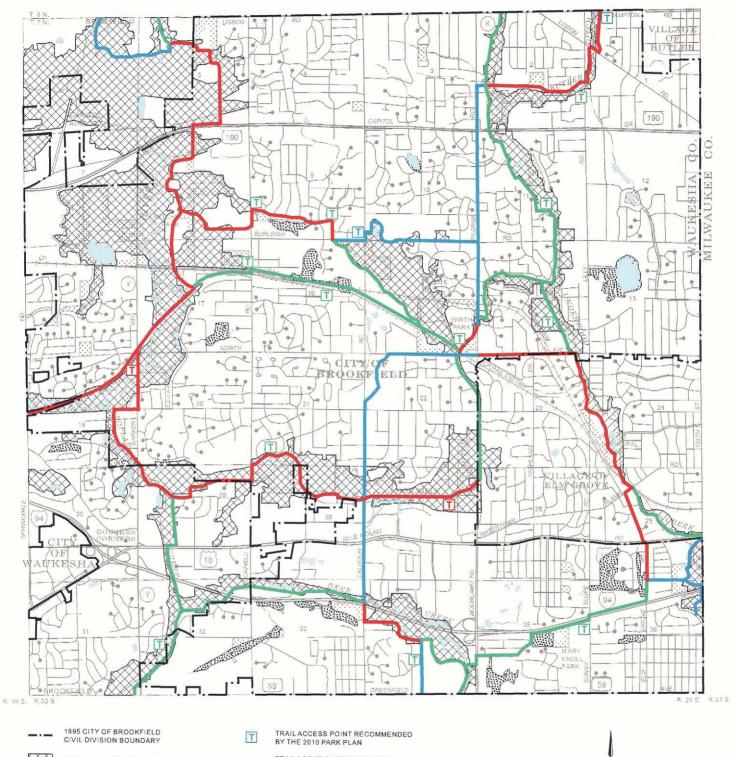
City Of Brookfield 2020 Master Plan

The City of Brookfield Plan Commission adopted a 2020 Master Plan in January 2000. The new plan contains a number of recommendations relevant to this park and open space plan update, including:

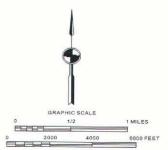
• Development of the City-wide trail system recommended in the first edition of this report, which proposed a trail system that would connect existing and proposed parks within the City and would connect to the regional trail network. The 2020 Master Plan, which refers to the trail system as the "Emerald Way," recommends that certain trails shown within street rights-of-way in the first edition of this park plan be relocated to off-street alignments within environmental corridors. A comparison between the trail system recommended in the first edition of this report and the "Emerald Way" recommended by the 2020 Master Plan is shown on Map 9. Map 9 also shows the potential trail access points and rest stops recommended by the Master Plan, in comparison to those shown on the 2010 park plan.

The 2020 Master Plan further recommends the construction of facilities for pedestrian and bicycle travel on all arterial streets and on selected land access streets. Such facilities would complement the off-street trail system. This recommendation is consistent with recommendations made in the City Bicycle Plan and the first edition of this report.

COMPARISON OF THE BROOKFIELD TRAIL SYSTEM RECOMMENDED BY THE 2010 PARK PLANTO THE "EMERALD WAY"







Source: City of Brookfield and SEWRPC. 40

• The need for additional measures to address stormwater management within the City. Such measures include adoption of a stormwater management ordinance, floodplain management, construction of additional detention ponds, and acquisition of lands within the 100-year recurrence interval floodplain. The 2020 Master Plan recommends that selected lands within existing environmental corridors be acquired to serve as stormwater and floodwater storage areas and as open space or recreational areas in dry-weather periods. The 2020 Master Plan further recommends that stormwater and floodwater management recommendations be integrated with the park and open space plan.

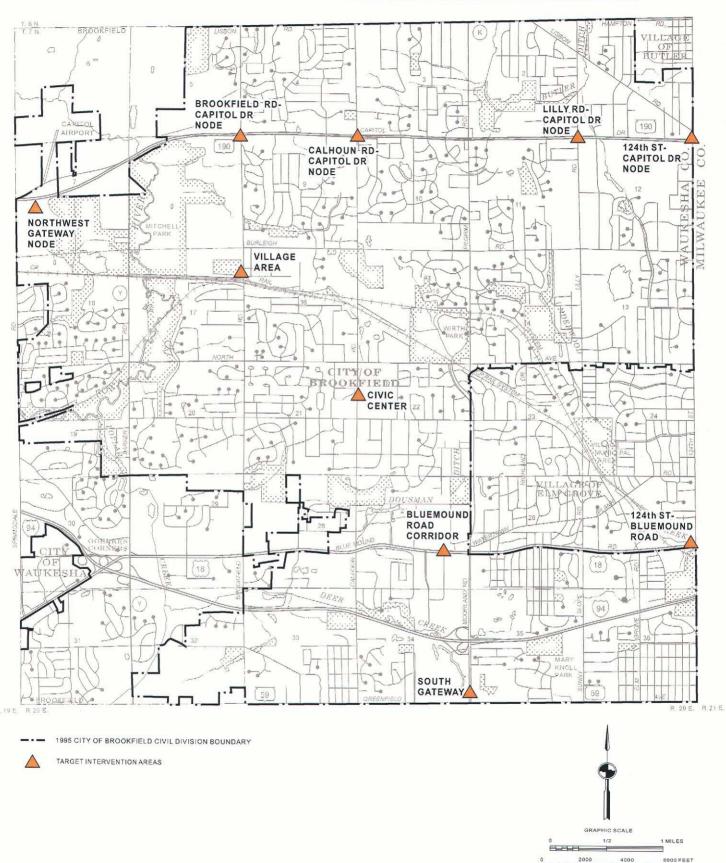
The previous park and open space plan includes a floodplain preservation element that recommends that all wetlands within the primary environmental corridor be acquired by the City for open space, water quality, and stormwater management purposes. The plan further recommends that additional undeveloped floodplain areas within the primary environmental corridor be preserved in natural, open uses and acquired by the City where appropriate.

In many cases, the floodplain includes areas located outside the primary environmental corridor. Recommendations made in the previous park and open space plan related to floodplain management will be reevaluated to determine if acquisition of land outside environmental corridors is necessary. Recommendations for such additional acquisition, however, must be based on detailed stormwater and floodplain management plans adopted by the City. Such planning efforts are described in the following section of this chapter.

- The development of multi-family and life-cycle housing within or adjacent to areas identified as "target intervention areas." Such areas, shown on Map 10, were determined to represent potentially highly desirable locations for multi-family housing due to their proximity and good pedestrian access to shopping areas and other services. The Master Plan also calls for the preparation of detailed neighborhood plans to guide the type and location of development within the target intervention areas, including appropriate amenities. Such neighborhood plans should take into account the need to provide recreational spaces and facilities to serve residents within these areas.
- The adoption of a "No Net Loss" policy for park and open space lands. Such a policy recognizes that there may be circumstances under which it would be in the City's best interest to dispose of publicly-owned park or open space land for private development. Although the Master Plan does not endorse or recommend disposition of public lands, the "no net loss" policy seeks to assure that any loss of public land for private development is replaced by an equal or greater amount of land for park or resource protection (open space) purposes.
- Disposition of the "Wirth Park Remnant," a parcel of land located north of North Avenue and east of Pilgrim Parkway. The parcel is part of Wirth Park, but was physically separated from the rest of the park when Pilgrim Parkway was realigned in 1998. The Master Plan has proposed that the remnant parcel be sold for private development, or that a portion of the parcel be conveyed to the school district as an addition to the Dixon School site and the remainder sold for private development or retained in open space. The "no net loss" policy described in the preceding paragraph would require an equivalent amount of park or open space land to be acquired to replace any portion of the parcel sold for development.
- The development of educational and informational kiosks, commercial services, and other amenities in the Village Area to serve walkers and bicyclists traveling the "Emerald Way."
- The development of a park at the Civic Center. The master plan envisions that the park will serve as a center for cultural and recreational activities on a year-round basis; and specifically calls for the development of a water feature and an ice-skating rink in the park.

Map 10

TARGET INTERVENTION AREAS IDENTIFIED IN THE CITY OF BROOKFIELD 2020 MASTER PLAN



Source: City of Brookfield and SEWRPC.

STORMWATER MANAGEMENT PLANS

In the absence of adequate planning, the development of land for urban use may be expected to aggravate existing and create new stormwater management and flooding problems. The City has initiated several detailed stormwater and floodplain management plans to address existing problems and to avoid the creation of new problems.

The subcontinental divide between the Lake Michigan and Mississippi River basins traverses the City of Brookfield. As shown on Map 11, about the western half of the City is located in the Fox River watershed, draining to the Mississippi River, and the eastern half is located in the Menomonee River watershed, draining to Lake Michigan. The City completed a flood mitigation plan¹ in 2000 which sets forth current information regarding the status of flooding problems and planning for their mitigation, as well as plan implementation methods. The flood mitigation plan recommends continued implementation of the City's park and open space plan, including the acquisition of wetlands, floodlands, and other environmentally sensitive areas for resource protection, open space, and limited recreational uses.

A stormwater and floodland management plan for the Dousman Ditch and Underwood Creek subwatersheds in the City of Brookfield and Village of Elm Grove² was also completed in 2000. Recommendations related to this park and open space plan include the construction of a wet detention basin with a permanent pond area of 19 acres within the primary environmental corridor along the upper reach of Dousman Ditch west of Pilgrim Parkway; the construction of one "compensating storage area" northwest of the intersection of Lilly Road and North Avenue in the City of Brookfield; and a second storage area in the northern portion of Village Park in the Village of Elm Grove. The locations of the recommended detention basin and storage areas are shown on Map 12. It should be noted that a portion of the recommended storage area near the intersection of Lilly Road and North Avenue extends outside the existing environmental corridor.

Stormwater and floodland management plans for that portion of the South Branch of Underwood Creek subwatershed in the City of Brookfield and for the Butler Ditch subwatershed in the City of Brookfield and Village of Menomonee Falls are nearing completion.

County and Regional Plans

Waukesha County Development Plan

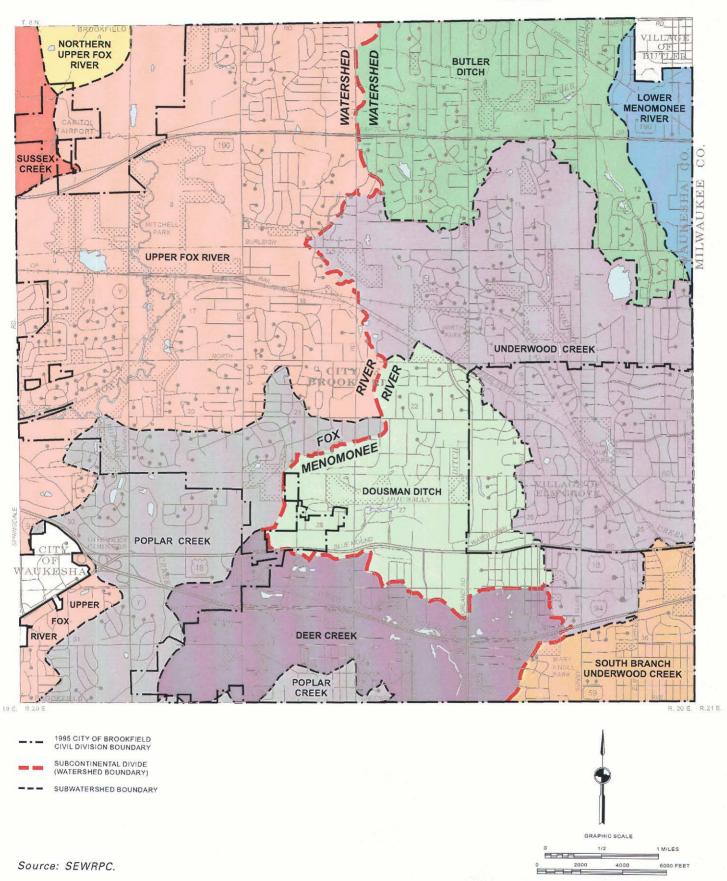
In 1992, Waukesha County requested the Regional Planning Commission to assist the County in preparing a development plan for Waukesha County. The adopted County development plan is documented in SEWRPC Community Assistance Planning Report No. 209, A Development Plan for Waukesha County, Wisconsin, August 1996. The development plan is comprised of four plan elements, a land use plan and supporting transportation, housing, and park and open space plans. While the development plan applies primarily to the thirteen civil towns which then comprised the unincorporated territory of the County, the plan is also intended to provide guidance to the incorporated cities and villages within the County.

¹ Documented in SEWRPC Community Assistance Planning Report No. 257, Flood Mitigation Plan for the City of Brookfield, Waukesha County, Wisconsin, October 2000.

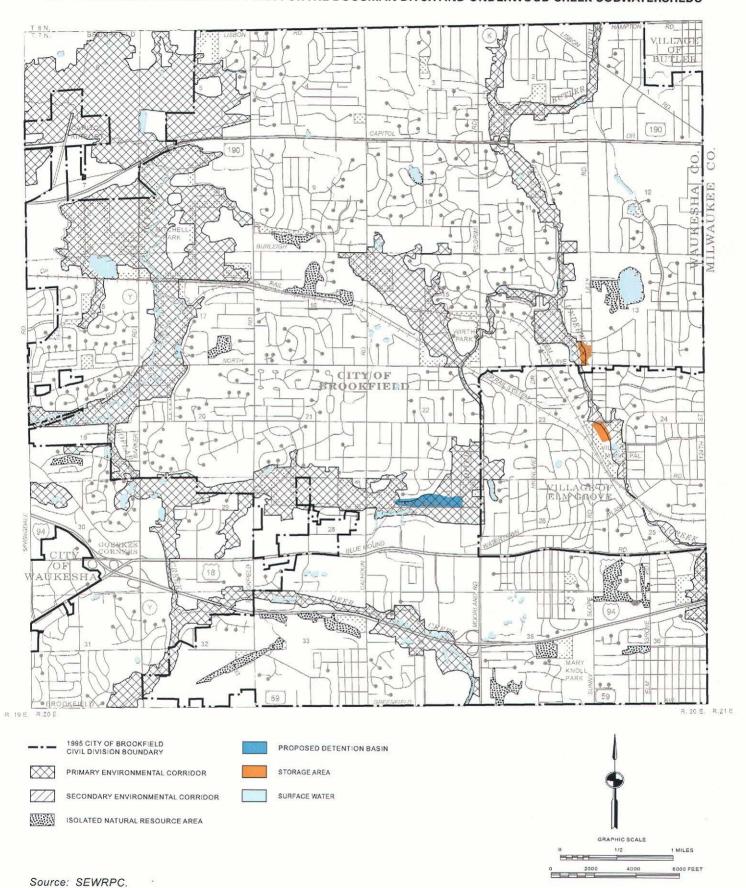
² Documented in SEWRPC Community Assistance Planning Report No. 236, A Stormwater and Floodland Management Plan for the Dousman Ditch and Underwood Creek Subwatersheds in the City of Brookfield and the Village of Elm Grove, Waukesha County, Wisconsin, February 2000.

³ The Town of Pewaukee has incorporated as a City since adoption of the County Plan.

Map 11
WATERSHED FEATURES IN THE BROOKFIELD STUDY AREA: 2000



LOCATION OF DETENTION BASINS AND STORMWATER STORAGE AREAS RECOMMENDED BY THE STORMWATER AND FLOODLAND MANAGEMENT PLAN FOR THE DOUSMAN DITCH AND UNDERWOOD CREEK SUBWATERSHEDS



The land use element of the County development plan reflects conditions that may be expected upon full development of areas proposed for urban land uses. Full development, or "buildout" conditions, would probably not occur until after the year 2050. As noted in Chapter II of this report, the pattern of development in the City and the remainder of the study area envisioned by the Waukesha County Development Plan under buildout conditions is virtually identical to the land use pattern shown on Map 20, the Recommended Park and Open Space Plan for the City of Brookfield, set forth in the first edition of this report. A somewhat higher population for the study area is anticipated under the County Development Plan (54,100 persons) compared to that anticipated by the first edition of this report (49,500 persons), due primarily to a higher percentage of multi-family dwellings in the study area than what was envisioned by the 2010 park plan.

The adopted 2020 Master Plan for the City of Brookfield also closely conforms to the land use pattern shown in the County development plan and in the first edition of this report. A 2020 population level of 38,200 residents in the City is anticipated under the plan, which is a slight increase over the 1998 City population of 37,040 residents estimated by the Wisconsin Department of Administration. It should be noted, however, that the City population is expected to increase to 38,800 residents in 2010, followed by a decrease as the population ages and homes earlier occupied by families are occupied by "empty nesters."

Regional and County Park and Open Space Plans

The adopted regional park, outdoor recreation, and related open space plan, as described in SEWRPC Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin—2000, November 1977, identifies existing and probable future park and open space needs within the Region and recommends a system of large regional resource-oriented parks, recreation corridors, and smaller urban parks, together with their attendant recreational facility requirements, to meet these needs. The portion of the regional park plan that applies to Waukesha County, including the City of Brookfield study area, was revised in 1989 and is documented in SEWRPC Community Assistance Planning Report No. 137, A Park and Open Space Plan for Waukesha County. In 1996, the County plan was updated and included as an element of the adopted Waukesha County Development Plan. The plan consists of both an open space preservation element and an areawide outdoor recreation element, intended to, respectively, protect areas containing important natural resources and to provide resource-oriented recreational sites and facilities.

The outdoor recreation sites recommended under the park and open space component of the Waukesha County Development Plan within the City of Brookfield study area include the two existing major park sites within the City, Wirth Park and Fox Brook Park. The plan recommends that these parks continue to be maintained by the City and Waukesha County, respectively. Under the plan, no new major parks are proposed for development within the study area.

The County park plan also calls for the County to acquire the primary environmental corridor along the Fox River for its entire length within the County, including that segment within the study area. The plan further recommends that a trail be provided within the corridor.

Regional Natural Areas Plan

Natural areas in Southeastern Wisconsin were identified in 1994 as part of the regional natural areas study. Five natural area sites, encompassing 398 acres, were identified in the study area in 1994; with all but about 20 acres of that total located in the City of Brookfield. The inventory of natural area sites also identified a seven-acre critical species habitat site in the City. The natural areas and critical species habitat site are shown on Map 7 and described on Table 7 in Chapter II.

The regional natural areas plan recommends the protection and preservation of such areas in the Region as an important supplement to the open space preservation recommendations of the regional and County land use and

⁴ Documented in SEWRPC Planning Report No. 42, A Regional Natural Areas and Critical Species Habitat Protection and Management Plan for Southeastern Wisconsin, September 1997.

park and open space plans. The primary purpose of the plan is to identify the most significant remaining natural areas and critical species habitat sites in the Region, and to recommend means for their protection and management. The plan identifies potential sites to be placed in public or private protective ownership, and other sites to be protected, insofar as it is possible, through zoning and other regulatory means without protective ownership. It also recommends that a detailed management plan be prepared and implemented for each site placed under protective ownership.

The natural areas plan recommends that all but one of the identified natural areas be acquired by the City of Brookfield for protective management. The City currently owns portions of the Mound Zion Woods, Wirth Swamp, and Brookfield Swamp natural areas, and it is recommended that City ownership be extended in each case to include the entire natural area. It is also recommended that the City acquire the three-acre portion of the Theater Swamp natural area that extends into the City from the Village of Menomonee Falls. The natural areas plan recommends that the remaining natural area in the City, Bishops Woods, and the one critical species habitat site, the Elm Grove Road Pond, remain in private ownership and protected through zoning regulations.

CITY OF BROOKFIELD COMMUNITY NEEDS ASSESSMENT

A Community Needs Assessment was conducted by the City in the Fall of 1998. The primary purpose of the assessment was to provide the City with information regarding the existing level of use and additional needs related to City parks, recreational facilities, and recreational programs. The assessment consisted of a mail-back survey sent to 2,259 households in the City, including both homeowners and renters, or about 17 percent of all households in the City. A total of 721, or 33 percent, of the questionnaires mailed were returned.

Overall, survey respondents expressed satisfaction with the park system. Ninety percent replied that they were "Satisfied" or "Very Satisfied" with parks and public spaces in Brookfield, and 80 percent replied that they were "Satisfied" or "Very Satisfied" with the recreation programs offered by the City. Seventy-eight percent of respondents rated Park and Recreation Department facilities, programs, and services as "Very Important" or "Somewhat Important" to their overall quality of life. Protecting open space from development and preserving environmentally sensitive areas were each rated by 97 percent of respondents as "Very Important" or "Somewhat Important" to their overall quality of life.

Slightly over half of respondents indicated they had visited a park more than five times in the previous 12 months, with Wirth Park being named as the park visited most frequently. The most frequently used areas and facilities reported were picnic areas and shelters, nature areas and trails, pathways for biking, jogging, and walking, and undeveloped natural areas.

Facilities receiving the highest percentage of "Excellent" and "Good" ratings combined were soccer fields, the Senior Community Center, children's playgrounds, baseball and softball fields, and open play areas. More than 10 percent of respondents rated the quality of the following facilities or activities as "Poor:" pet exercise areas, cross-country ski trails, biking and jogging pathways, skating rinks and ponds, basketball courts, and landscaping in road medians.

Development of pathways for walking, jogging, and biking was identified by respondents as the recreational activity that should receive the highest priority from the City, with 71 percent indicating that such development was "Very Important" or "Important;" however, only 26 percent responded that they would be willing to pay more for pathway development. Other activities receiving strong support were development of nature areas and trails, playground areas, and landscaping and flower beds in street medians and other public areas. The percentage

⁵ The results of the assessment are documented in a report entitled Community Needs Assessment Research Report, January 1999. The report was prepared by PSR, Ltd. of Brookfield on behalf of the City of Brookfield Department of Parks, Recreation, and Forestry.

of respondents willing to pay more than the current amount for such activities was significantly lower than those rating the activities as "Important" or "Very Important" to them.

OBJECTIVES, PRINCIPLES, AND STANDARDS

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 sites and facilities as an integral part of an areawide system, the objectives addressed neighborhood, district, community, and multi-community or regional park and open space sites and facilities. The objectives, principles, and standards developed for the Regional Park and Open Space Plan were used to prepare the City park plan documented in the first edition of this report. Since that time, the regional standards have been modified to incorporate recent State regulations regarding lake access and to incorporate a standard for soccer fields. The regional park and open space objectives, principals, and standards are set forth in Appendix A.

The attainment of all objectives is considered desirable to provide residents of the City and study area with opportunities for high-quality recreational experiences. Under the regional park and open space plan, and the subsequent Waukesha County park and open space plan described earlier in this chapter, the responsibility for providing the necessary parks, open space lands, and associated recreational facilities is shared among various levels of government. The responsibility for acquisition and development of large resource-oriented parks and recreational facilities and acquisition of environmental corridors associated with major rivers and streams is largely delegated to the state and county levels of government. These recommendations will be met within the study area by the continued maintenance of Wirth Park and Mitchell Park by the City, the continued maintenance and development of Fox Brook Park by Waukesha County, and acquisition of the Fox River corridor and development of a trail within that corridor by Waukesha County.

The responsibility for providing smaller district and neighborhood parks and facilities for intensive outdoor recreational activities, as well as the acquisition of environmental corridors along smaller streams and the development of a local trail system, is delegated to the local level of government. The need for district and neighborhood parks and associated recreational facilities is described in the following sections.

Application of Standards to District and Neighborhood Parks

District and neighborhood parks generally provide public facilities for nonresource-oriented recreational activities. Nonresource-oriented activities are those that do not depend upon the presence of such natural resources as woodlands, slopes, lakes, or wide expanses of land. Nonresource-oriented facilities include ball diamonds, soccer fields, tennis courts, swimming pools, basketball courts, and playgrounds.

Two types of standards, per capita and accessibility standards, are used to help estimate the number, size, and distribution of outdoor recreation sites and facilities needed to serve the anticipated future population of the City

⁶ The City of Brookfield defines "district parks" as those parks ranging from 25 to 99 acres serving residents of several neighborhoods, and "community parks" as parks of 100 acres or more serving the entire City. District parks are termed "community parks" and community parks are termed "multi-community parks" by the Regional Planning Commission, and are referred to as such in Appendix A of this report.

⁷ The standard for lake access applies to Lake Michigan and to inland lakes with a surface area of 50 acres or more. Since no such lakes are located within the study area, this standard does not apply.

⁸ Resource-oriented recreational facilities include camping, golfing, picnicking, skiing, and beach swimming. Such facilities are dependent on the natural resources, such as woodlands and water bodies, of the site in which they are located. Facility requirements for these activities are set forth under Objective No. 3 in Appendix A.

Table 9

NEED FOR NEIGHBORHOOD, DISTRICT, AND COMMUNITY PARKS IN THE CITY OF BROOKFIELD

				Per Capita Acreage Requirements				
	Minimum Area		Existing 1998 37,040 Pe	•	Planned 2020 38,200 Pe	•		
Public Park Sites	Standard (acres per 1,000 persons)	Existing Acreage ^a	Net Acreage Requirement ^b	Net Acreage Need	Net Acreage Requirement ^b	Net Acreage Need		
Neighborhood	2.5	97	93		96			
District	3.5	122	130	8	134	12		
Community	5.0	185	185		191	6		
Total	11.0	404	408	8	421	18		

^aSee Table 10.

Source: City of Brookfield and SEWRPC.

of Brookfield. The per capita standards help estimate the total number of acres needed to satisfy requirements for park and recreational land based on the anticipated future resident population of the City.

The results of applying the per capita standards for the amount of area needed for outdoor recreation purposes based on the planned 2020 population levels for the City of Brookfield are presented in Table 9. Application of the per capita standards indicates a need for 18 additional acres of parkland for active recreational purposes by the year 2020. Table 10 lists the total area available at each existing park site for the development of recreational and related facilities; excluding wetlands and other areas unsuitable for development.

The per capita standards presented in Table 9 are those developed by the City of Brookfield, which differ from the standards developed by SEWRPC. The City's park service standards call for 11 acres of park land to be provided for each 1,000 City residents, allocated as follows: five acres of community parks per 1,000 residents; 3.5 acres of district parks per 1,000 residents, and 2.5 acres of neighborhood parks per 1,000 residents.

The accessibility or service area standards are intended to insure that public parks are spatially distributed in a manner that is convenient and efficient for the population they are intended to serve. Because the spatial distribution of anticipated urban development in the City has not changed significantly since the preparation of the previous park and open space plan, a new analysis based on the accessibility standards is not repeated in this plan.

The accessibility analysis for district and neighborhood parks contained in the first edition of this report called for the acquisition and development of two new neighborhood parks to serve residents in the north-central portion and eastern portion of the City. No new parks have been developed in these areas; thus the need to acquire and develop park sites in these two areas remains to be addressed.

Application of Standards to Recreational Facilities

The results of applying the adopted per capita facility standards for recreational facilities in the City are presented in Table 11. The existing quantity of each facility includes those located in public parks and schools and at private

^bThe acreage requirement for park sites was determined by multiplying the per capita acreage requirement by the anticipated 2020 population of 38,200 residents in the City of Brookfield.

Table 10

DEVELOPABLE AREA AT EXISTING
CITY OF BROOKFIELD PARKS: 1999

	Developable
·	Area
Park	(acres)
Neighborhood Parks	
Beverly Hills	15.2
Camelot	17.6
Canterbury	7.2
Fairview	7.6
Kinsey	6.1
Lamplighter	8.9
Meadows of Brookfield	4.6
Rolling Meadows	4.5
Ruby	1.0
Three Meadows	6.0
Westchester	5.6
Weston Hills	12.5
Subtotal	96.8
District Parks	
Brookfield Soccer ^a	33.8
Endicott	12.5
Krueger	38.4
Lilly Heights	15.4
Mary Knoli	19.8
	2.5
Subtotal	122.4
Community Parks	
Mitchell	89.0
Wirth	96.0
Subtotal	185.0
Total	404.2
Lilly Heights	19.8 2.5 122.4 89.0 96.0 185.0

^aBrookfield Soccer Park and McCoy Park, which the City classify as special parks, are classified here as district parks because they serve residents from several City neighborhoods.

Source: SEWRPC.

sites within the City. Facilities at private sites include those at private schools and subdivision park sites, and commercial recreational facilities.

As shown by Table 11, application of the standards identified a need for two additional basketball goals and two additional soccer fields. The accessibility analysis for recreational facilities contained in the first edition of this report called for the development of additional playfields, playgrounds, ball diamonds, and tennis courts to assure that such facilities are conveniently located to serve neighborhood residents. Table 8 in Chapter III indicates that a variety of such facilities should be developed at the two proposed new neighborhood parks and at Endicott Park; lighted tennis courts and a lighted ball diamond should be developed at Lilly Heights Park; additional playfields should be developed at Krueger Park and Mary Knoll Park; and playgrounds and playfields should be developed at Meadows of Brookfield Park and Mitchell Park.

SUMMARY

This chapter has presented a framework for updating the park and open space plan for the City of Brookfield, including a summary of other planning efforts affecting this plan, the results of a public opinion survey regarding park and recreational facilities in the City, the presentation of park and open space objectives and accompanying standards, and application of those standards to the City of Brookfield. The key components of this chapter are as follows:

- 1. The City of Brookfield 2020 Master Plan contains a number of recommendations relevant to this park and open space plan update, including the development of a trail system along environmental corridors; acquisition of open space lands for stormwater and floodwater management purposes; and the development of recreational facilities at the Village Area and the Brookfield Civic Center.
- 2. The stormwater and floodplain management plan for the Dousman Ditch and Underwood Creek subwatersheds recommends the construction of a wet detention basin within the primary environmental corridor along the upper reach of Dousman Ditch and the construction of two stormwater storage areas within the study area, which would be maintained in open space.
- 3. The need for major parks has been addressed by the Waukesha County Park and Open Space Plan. Under that plan, the new Fox Brook County Park and the City-owned Wirth Park were identified as major parks. No additional need for major parks exists within the study area.

Table 11

NEED FOR SELECTED OUTDOOR RECREATION FACILITIES IN THE CITY OF BROOKFIELD: 2020

	Minimum Per	Capita Standard ^a				
Activity	Facility	Owner	Facility per 1,000 Residents	Facility Need Based on Standard ^b	Existing Number of Facilities	Additional Facility Need ^c
Baseball	Diamond	Public Private Total	0.09 <u>0.01</u> 0.10	4 4	8 ^d	
Basketball	Goal	Public Private Total	0.91 <u>0.22</u> 1.13	35 	33 <u>28</u> 61	2 Public
Playfield Activities	Playfield	Public Private Total	0.39 <u>0.11</u> 0.50	15 <u>4</u> 19	18 <u>6</u> 24	
Playground Activities	Playground	Public Private Total	0.35 0.07 0.42	13 <u>3</u> 16	21 <u>10</u> 31	
Soccer	Field	Public Private Total	0.69 <u>0.17</u> 0.86	26 <u>7</u> 33	30 <u>1</u> 31	2 Public ^e
Softball	Diamond	Public Private Total	0.53 <u>0.07</u> 0.60	20 3 23	30 <u>7</u> 37	
Swimming	Pool	Public Private Total	0.015 0.015	1 -1	1 1 2	
Tennis	Court	Public Private Total	0.50 <u>0.10</u> 0.60	19 <u>4</u> 23	45 <u>9</u> 54	

^a Per capita facility requirements are set forth under Objective No.2 in Appendix A.

Source: SEWRPC.

4. A Community Needs Assessment was conducted by the City in the Fall of 1998. Overall, survey respondents expressed satisfaction with the park system. Ninety percent replied that they were "Satisfied" or "Very Satisfied" with parks and public spaces in Brookfield, and 80 percent replied that they were "Satisfied" or "Very Satisfied" with the recreation programs offered by the City. Development of pathways for walking, jogging, and biking was identified by respondents as the recreational activity that should receive the highest priority from the City. Other activities receiving strong support were development of nature areas and trails, playground areas, and landscaping and flower beds in street medians and other public areas.

^b The facility requirement was determined by multiplying the facility requirement per 1,000 residents by the anticipated 2020 City population of 38,200 persons.

^C The facility need was determined by subtracting the existing number of facilities from the facility need. In cases where the existing number of facilities exceeds the facility requirement, no facility need was identified. In cases where either the number of existing public facilities or the total number of facilities was less than the number called for under the standards, a need for additional public facilities to fulfill the requirement was identified.

^d Includes four Little League baseball diamonds at Mitchell Park.

^e It should be noted that Brookfield Academy has proposed the construction of four new soccer fields within the City of Brookfield. If constructed, the need for soccer fields under the standards will be met.

- 5. Application of the per capita standards for district and neighborhood parks indicated a need for an additional 18 acres of parkland to serve the anticipated 2020 City population. The accessibility analysis for district and neighborhood parks contained in the first edition of this report called for the acquisition and development of two new neighborhood parks to serve residents in the north-central and eastern portions of the City. A need still exists to acquire and develop park sites in these two areas.
- 6. Application of the per capita standards for recreational facilities indicates a need for two additional basketball goals and two additional soccer fields in the City. The accessibility analysis for recreational facilities contained in the first edition of this report called for the development of additional playfields, playgrounds, ball diamonds, and tennis courts to assure that such facilities are conveniently located to serve neighborhood residents. Table 8 in Chapter III indicates those recreational facilities recommended in the first edition of this report that have not yet been developed.

Chapter V

RECOMMENDED PLAN

The primary purpose of this park and open space planning program for the City of Brookfield is the preparation of a sound and workable plan to guide the acquisition of lands and the development of facilities needed to meet the outdoor recreation demands of the resident population of the City, and to protect and enhance the underlying and sustaining natural resource base. The recommended park and open space plan is presented in this chapter. This plan updates the park and open space plan documented in the first edition of this report, which was adopted by the City in 1990.

Important preliminary steps in the development of this plan included a review of park acquisition and development activities conducted to date to implement the previous park plan and amendments to that plan, and the collection of updated inventory information regarding land use, population, natural resources, and park and open sites and facilities within the City and study area. New or changed conditions affecting park and open space sites and recreational facilities, including pertinent recommendations from the City of Brookfield 2020 Master Plan, were also identified and incorporated, as appropriate, into this new plan.

The first part of this chapter summarizes areawide park and open space plan recommendations for the study area. The second section sets forth recommendations for the provision of local park and open space sites and associated recreational facilities in the City of Brookfield. A third section describes actions needed to implement the plan, including an estimate of the acquisition and development costs of recommended park and open space sites and facilities.

AREAWIDE PARK AND OPEN SPACE RECOMMENDATIONS

The regional park and open space plan, as amended by the park and open space plan for Waukesha County, contains recommendations which, if implemented, would provide residents of Waukesha County with opportunities to participate in a wide range of resource-oriented outdoor recreation activities. Under the County plan, one major park, the 173-acre Fox Brook Park, would be developed and maintained by the County within the study area. Fox Brook Park, formerly part of the City's Mitchell Park, was acquired by the County from the City of Brookfield in 1997. A swimming beach, bathhouse, sand volleyball courts, and a playground have been developed at the park, which opened to the public in 1999. An ADA-accessible walking path around the lake and group picnic facilities are expected to be completed in 2000. In addition to Fox Brook Park, Wirth Park, a 146-acre City-owned site, would continue to be maintained by the City. Wirth Park is designated as a major park in the County park plan.

The County also owns one special-use facility in the study area, the Eble Ice Arena, located in the Town of Brookfield. The County park plan recommends that the Ice Arena be maintained as part of the County park system.

The County plan also recommends that about 200 miles of recreational trails, as part of a larger regional trail system, be provided in the County to enable participation in such activities as biking, hiking, and cross-country skiing. A portion of the proposed Fox River trail is located in the northwestern portion of the City. A portion of the trail, which is to be located within the Fox River primary environmental corridor, is proposed to be located on an abandoned railroad right-of-way.

An existing segment of the regional trail system, the Underwood Creek trail, is located in the Underwood Creek primary environmental corridor on the east side of Krueger Park. It is recommended that the City trail system connect to the Underwood Creek trail.

CITY PARK AND OPEN SPACE RECOMMENDATIONS

Upon full implementation of the park and open space plan for the City of Brookfield, the City would provide a variety of parks and related outdoor recreation facilities; a variety of open space sites; and a system of recreation trails associated with primary environmental corridors linking the City's parks and the regional trail system. More specifically, upon full implementation of the plan, the City of Brookfield would provide one multi-community park (Mitchell Park) and one community park (Wirth Park); four district parks (Endicott Park, Krueger Park, Mary Knoll Park, and a new district park in the northeastern portion of the City); and 16 neighborhood parks, including three proposed new neighborhood parks and 13 existing neighborhood parks (Beverly Hills, Camelot, Canterbury, Fairview, Kinsey, Lamplighter, Lilly Heights, Meadows of Brookfield, Rolling Meadows, Ruby, Three Meadows, Westchester, and Weston Hills parks). The City park system also includes one historic site (Dousman-Dunkel-Behling site), a proposed nature center (Mound Zion), a soccer park, a community playfield (McCoy Park), and two special parks (Brookfield Manor Park and Indian Heights Park). The City would also provide recreational facilities at the Civic Center.

Under the recommended plan, the City would further provide a total of 27 miles of trails for hiking, biking, and related activities and three trail access sites. Existing and proposed City parks and the recreational trail system are shown on Map 13. A more detailed graphic summary of the plan is presented on a series of aerial photographs in Appendix B. Specific recommendations for existing and proposed parks in the City of Brookfield are presented below.

Proposed New Parks

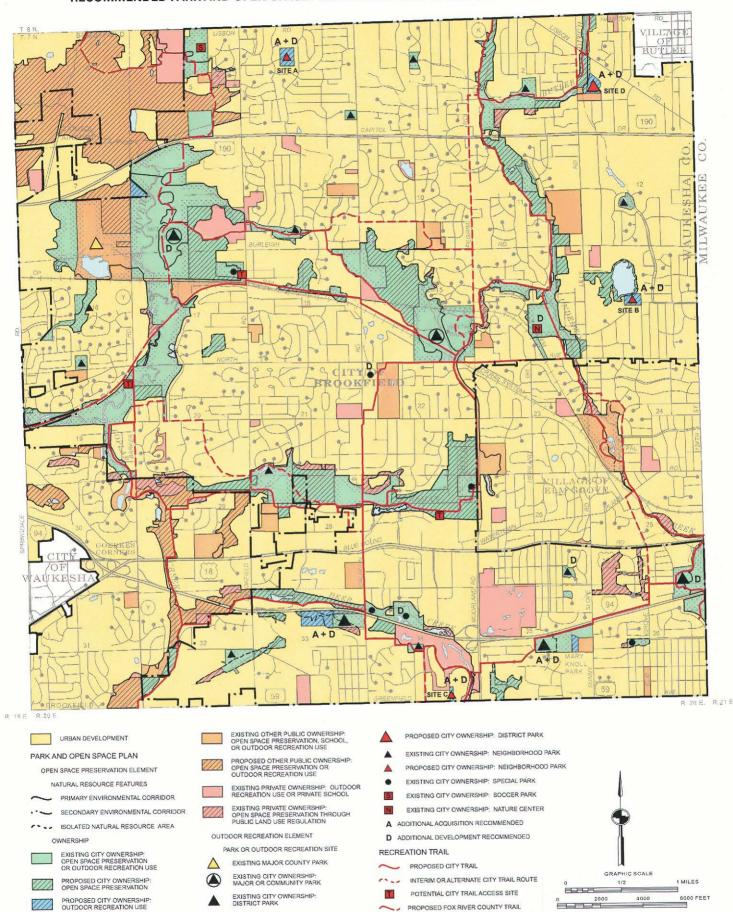
Under the park and open space plan for the City of Brookfield, it is recommended that the City acquire one new district park and three new neighborhood parks and develop needed outdoor recreational facilities at these four sites. In accordance with the City's 2020 Master Plan, it is also recommended that additional recreational facilities be developed at the Civic Center. The location of the five proposed new parks is shown on Map 13, and the proposed facility development at these sites is summarized in Table 13 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 4 in the northern portion of the City. The site would encompass about 12 acres. Facilities proposed for this site include a softball diamond, a playfield, a playground, an area for picnicking and other passive use, and appropriate support facilities. This site is owned by the Elmbrook School District, and, under the plan, would be acquired by the City for neighborhood park development.

At this time, the School District has indicated that it intends to retain the property for potential future development of a public school. If such development occurs in the future, it is recommended that the City work with the School District to develop joint school and park facilities at this site. A second alternative would be to develop the neighborhood park in Section 5, on the west side of Brookfield Road. This option is less desirable because of the limited amount of developable land in Section 5 and

Map 13

RECOMMENDED PARK AND OPEN SPACE PLAN FOR THE CITY OF BROOKFIELD STUDY AREA: 2020



Source: SEWRPC.

the difficulties in providing good pedestrian access from the residential areas in Section 4 to a site in Section 5.

- 2. Park Site B: Park Site B is a neighborhood park proposed to be located in Section 13 in the eastern portion of the City of Brookfield. The site would encompass approximately five to six acres. Facilities proposed for this site include a playfield, a playground, an area for picnicking and other passive use, and nature trails.
- 3. Park Site C: Park Site C is a neighborhood park proposed to be located in Section 34 in the southeastern portion of the City of Brookfield. Initially, the site would encompass approximately 2.5 acres; however, consideration would be given to acquiring additional land to the west of the proposed site if an opportunity to do so arises. Facilities proposed for the park include a playfield, a playground, a hard-surface court area, and an area for passive use.
- 4. Park Site D: Park Site D is a district park proposed to be located in Section 1 in the northeastern portion of the City. The site would encompass about 23 acres, including about 15 acres of conservancy lands associated with wetlands and floodlands along Butler Ditch. The site is located north of the Elmbrook School District Administration Center, formerly the Brookside Elementary School, and would include about six acres currently owned by the School District. Facilities proposed for this site include two lighted ball diamonds, a soccer field, and restrooms. Existing facilities on the former school site, which include a playground, sandlot ball field, basketball courts, and a playfield, would be retained.

The proposed new district park is intended to replace the proposed district park designated on the previous park plan at Lilly Heights Park in Section 2. The existing Lilly Heights Park will continue to serve as a neighborhood park and will also serve as an alternate site for the district park. In the event that acquisition of land in Section 1 for development of the district park is not possible, one or two lighted ball diamonds, a soccer field, and restrooms should be developed at Lilly Heights Park.

5. Civic Center Park: As noted in Chapter IV, the 2020 Brookfield Master Plan calls for the development of a park at the Brookfield Civic Center. The Master Plan envisions that the park will serve as a center for cultural and recreational activities on a year-round basis. Existing facilities at the Civic Center include the Memorial Fountain, landscaping, and picnic tables. Additional decorative lighting and formal landscaping with park benches should be provided at the site.

The acquisition and development costs for the three proposed new neighborhood parks and one new district park in the City of Brookfield are estimated to total \$1,345,000. As indicated in Table 13, \$750,000, or about 56 percent, would be expended for park site acquisition, and \$595,000, or about 44 percent, would be expended for park site development. The estimated cost for recommended improvements at the Civic Center is \$50,000.

It is also important to point out that undeveloped land able to accommodate needed outdoor recreation facilities to serve the residents of U.S. Public Land Survey Section 20 in the City of Brookfield is not available in this location. Therefore, should a site suitable for the provision of a playfield and a playground become available in this area of the City, it is recommended that the City consider the provision of one additional new neighborhood park in this location.

Additional Land Acquisition at Existing City Parks

Under the park and open space plan for the City of Brookfield, it is recommended that the City acquire additional lands at Endicott Park and Mary Knoll Park. More specifically, it is recommended that an additional 20 acres of land, including 10 acres of wetlands within an isolated natural resource area, be acquired as an addition to Endicott Park, and that the City obtain about 10 acres from the Elmbrook School District for park use as an addition to Mary Knoll Park. The total acquisition cost for the expansion of these two sites is estimated at about

\$585,000. Recommendations for facility development at these two sites are included in the following section. It is also recommended that about 10 acres of woodlands adjacent to the east side of Mitchell Park be acquired for resource protection purposes.

Additional Development at Existing City Parks

Under the park and open space plan for the City of Brookfield, it is recommended that the City develop two existing undeveloped park sites (Meadows of Brookfield Park and Mound Zion Park) and provide additional facilities at five existing partially developed park sites to meet identified outdoor recreation needs. The description of the proposed development at these seven sites is presented below.

- 1. Brookfield Manor Park: Brookfield Manor Park is a 31-acre site located in Section 34 in the southern portion of the City. The site encompasses wetlands, floodlands, and a small pond within the primary environmental corridor along Deer Creek. It is recommended that the site be developed as a special park. Trail facilities have been developed at the site. Additional facilities include an area for picnicking and other passive recreation use, additional trails, and appropriate support facilities, including a bridge over Deer Creek.
- 2. Endicott Park: Endicott Park is a 17-acre site located in U.S. Public Land Survey Section 33 in the southern portion of the City. The site was recently acquired by the City from the Elmbrook School District. It is recommended that 20 acres adjacent to the park be acquired as an addition to the park. The 37-acre site would encompass wetlands within an isolated natural resource area and would be developed as a district park. Additional facilities proposed for this site include a lighted softball diamond, lighted tennis courts, a playfield, an area for picnicking and other passive use, trails, and appropriate support facilities, including restrooms.
- 3. Krueger Park: Krueger Park is a 65-acre district park located north of IH 94 in Sections 25 and 36 in the southeastern portion of the City. The site encompasses wetlands and floodlands in the primary environmental corridor along Underwood Creek and includes the sites formerly known as Cardinal Park and Harvey Park. Existing facilities include two ball diamonds, a soccer field, a basketball court, and a playground. Additional facilities recommended to be developed at the park include a trail connecting Krueger Park to the Underwood Creek trail, a trail connection under IH 94, and restrooms.
- 4. Mary Knoll Park: Mary Knoll Park is a 20-acre site located in Section 35 in the southeastern portion of the City. The site encompasses woodlands within an isolated natural resource area, and a playground, playfield, and tennis courts are provided at the site. Under the plan it is recommended that the site be developed as a district park. Additional facilities proposed for this site include a softball diamond, an area for picnicking and other passive use, trails, and appropriate support facilities, including restrooms.
 - There are 35 acres of open land adjacent to the existing park that are owned by the Elmbrook School District. It is recommended that the City acquire 10 acres of School District land as an addition to the park in order to provide additional space for proposed park and open space uses.
- 5. Meadows of Brookfield Park: Meadows of Brookfield Park is a five-acre undeveloped park site located in Section 26 in the southeastern portion of the City. It is recommended that this site be developed as a neighborhood park. Facilities proposed for this site include a playfield area, a playground, an area for picnicking and other passive use, and appropriate support facilities.
- 6. Mitchell Park: Mitchell Park is a 433-acre multi-community park located in Sections 8 and 17 in the northwestern portion of the City of Brookfield. Facilities developed at the park to date include playfields, hiking and cross-country ski trails, an archery range, picnic areas, a sledding hill, and a pet exercise area. Canoe access to the Fox River is also provided. Four Little League baseball diamonds were developed on the north side of the park in 1999.

Mitchell Park will be the site of the Sharon Lynne Wilson Center for the Arts. Development of the arts center and an associated parking area is expected to begin in 2000. Additional facilities proposed at Mitchell Park include a pavilion, additional trails, two observation towers, and three group picnic areas. As previously noted, the park is proposed to be expanded by about 10 acres to include a wooded area to the east of the park.

7. Mound Zion Park: Mound Zion Park is an undeveloped 47-acre site consisting primarily of woodlands, most of which are located within the Mound Zion Woods Natural Area. Facilities proposed to be developed at the site include a nature center building, nature trails, and picnic areas.

The facilities proposed for development in the seven existing city parks, along with estimated development costs, are included in Table 12. As indicated in Table 12, facility development costs for these seven sites are estimated to total about \$5.1 million. Of this total, about \$4.2 million, or 82 percent, would be expended for the development of parks having a Citywide service area: Mitchell Park, Mound Zion Park, and Brookfield Manor Park. About \$0.8 million, or 16 percent, would be expended for development at three existing district parks: Endicott Park, Krueger Park, and Mary Knoll Park; and \$130,000, or 2 percent, would be expended for the development of an existing, but undeveloped, neighborhood park (Meadows of Brookfield).

Other Existing City Parks

Under the park and open space plan for the City of Brookfield, it is recommended that the City maintain all existing City-owned park and open space sites and outdoor recreation facilities. The maintenance activities at these sites may include, as necessary, such activities as the provision, paving, and resurfacing of parking lots and walkways; resurfacing of volleyball, basketball, and tennis court areas; making existing facilities accessible to disabled persons; provision, repair, or replacement of such support facilities as sportsfield lighting, park benches, picnic tables, and drinking fountains; provision, repair, or replacement of foot bridges, restroom facilities, water supply facilities, maintenance buildings, and picnic shelters; and the maintenance of lawns, gardens, and other landscape plantings. In addition, such maintenance activities may also include the provision of additional or replacement playground equipment, playfield areas, picnic tables, and areas for passive recreational use.

It is important to note that all proposed facility development should comply with the accessibility requirements set forth under Federal law in the Americans with Disabilities Act of 1990, as well as playground safety standards promulgated by agencies and organizations such as the Consumer Product Safety Commission, American Society of Testing Materials, National Recreation and Park Association, and the International Playground Equipment Manufacturing Association.

Parks within Target Intervention Areas

The City's 2020 Master Plan identified a number of "target intervention areas," which are shown on Map 10 in Chapter IV. Such areas have been determined to represent potentially highly desirable locations for multi-family housing due to their proximity and good pedestrian access to shopping areas and other services.

The Master Plan calls for the preparation of detailed neighborhood plans to guide the type and location of development within each target intervention area. Such neighborhood plans should take into account the need to provide recreational spaces and facilities to serve residents of these areas, such as play equipment for young children or formal landscaped areas for older residents. These "Pocket Parks" should be developed as recommended in each neighborhood plan as residential development occurs in the target intervention area. Pocket Parks are small yet important spaces framed by surrounding buildings and used by the public for either one or a variety of activities. It should be noted that such areas and facilities could be provided by the private rather than the public sector. This determination would be made by the City during the neighborhood planning and development process.

Table 12

RECOMMENDED ACQUISITION AND DEVELOPMENT AT PROPOSED AND EXISTING PARKS IN THE CITY OF BROOKFIELD

	Proposed Acquisition	Acquisition		Developme	
Site Name	(acres)	Cost	Proposed Facility Development	nt Cost	Total Cost
Proposed Site A ^a (Imperial Site)	12	\$ 360,000	Playfield Playground Basketball Court Softball Diamond General Development	\$ 20,000 40,000 10,000 30,000 60,000	
·			Subtotal	\$ 160,000	\$ 520,000
Proposed Site B ^a (Quarry Group)	5	\$ 120,000	Playfield Playground Basketball Court Nature Trails General Development Subtotal	\$ 20,000 40,000 10,000 20,000 40,000 \$ 130,000	\$ 250,000
Proposed Site C ^a (Brookfield Hills Site)	2	\$ 60,000	Playfield Playground Hard Surface Court General Development Subtotal	\$ 20,000 40,000 10,000 20,000 \$ 90,000	\$ 150,000
Proposed Site D ^a (Northeast District Park)	7 ^C	\$ 210,000	One to Two Softball Diamonds (lighted) Soccer Field Restrooms ^b General Development	\$ 100,000 20,000 50,000 45,000	130,000
· 			Subtotal	\$ 215,000	\$ 425,000
Civic Center			Landscaping/General Development	\$ 50,000	
			Subtotal	\$ 50,000	\$ 50,000
Brookfield Manor Park		1	Picnic Shelter Trails Footbridge General Development	\$ 25,000 25,000 25,000 100,000	
			Subtotal	\$ 175,000	\$ 175,000
Endicott Park	20	\$ 285,000	Softball Diamond (lighted) Three Tennis Courts (lighted) Playfield Restrooms ^b General Development	\$ 50,000 100,000 20,000 50,000 175,000	
· · · · · · · · · · · · · · · · · · ·			Subtotal	\$ 395,000	\$ 680,000
Krueger Park		* 1. .	Restrooms ^b Trail Connections	\$ 50,000 100,000	
			Subtotal	\$ 150,000	\$ 150,000
Mary Knoll Park	10	\$ 300,000	Softball Diamond Restrooms ^b Trails General Development	\$ 30,000 50,000 100,000 50,000	
		[.]	Subtotal	\$ 230,000	\$ 530,000

Table 12 (continued)

Site Name	Proposed Acquisition (acres)	Acquisition Cost	Proposed Facility Development	Development Cost	Total Cost
Meadows of Brookfield Park	••		Playfield Playground Basketball Court General Development	\$ 20,000 40,000 10,000 60,000	
			Subtotal	\$ 130,000	\$ 130,000
Mitchell Park	c		Community Events Area/ Arts Center/General Development Pavilion Picnic Areas/Shelter Trail System/Observation Towers	\$2,025,000 568,000 400,000 500,000	
			Subtotal	\$3,493,000	\$3,493,000
Mound Zion Park	-		Nature Center Building Trails General Development	\$ 400,000 50,000 100,000	
			Subtotal	\$ 550,000	\$ 550,000
Total	56	\$1,335,000		\$5,768,000	\$7,103,000

NOTE: All costs are expressed in 2000 dollars. A unit cost of \$35,000 per acre for woodlands, \$30,000 per acre for other developable lands, and \$1,000 per acre for undevelopable land (wetlands and floodlands) was used to estimate acquisition costs. Acquisition costs may be reduced by dedication in some cases.

Source: City of Brookfield and SEWRPC.

Other Considerations

As noted in Chapter IV, the realignment of Pilgrim Parkway in 1998 separated a small portion of Wirth Park, now located on the east side of Pilgrim Parkway, from the remainder of the park. The City's 2020 Master Plan has proposed that this remnant parcel be sold for private development, or that a portion of the parcel be conveyed to the school district as an addition to the Dixon School site and the remainder sold for private development or retained in open space. The Park Commission does not object to disposition of the remnant parcel, provided that the money earned from sale of the land is used to purchase additional park or open space lands.

Use of any financial proceeds from the sale to purchase additional park or open space lands would be consistent with the "no net loss" policy established by the City in the 2020 Master Plan. That policy recognizes that there may be circumstances under which it would be in the City's best interest to dispose of publicly-owned park or open space land for private development. Although the Master Plan does not endorse or recommend disposition of public lands, the "no net loss" policy seeks to assure that any loss of public land for private development is replaced by an equal or greater amount of land for park or resource protection (open space) purposes.

^aRefers to site reference letter on Map 13.

b_{Includes} the cost of extending water and sewer lines.

^CThe cost of an additional 15 acres of conservancy land proposed to be acquired adjacent to Site D and an additional 10 acres of woodlands proposed to be acquired adjacent to Mitchell Park are included in the open space acquisition costs.

Recreation Trails

Under the park and open space plan for the City of Brookfield, it is recommended that a citywide system of recreation trails be developed to connect existing and proposed parks together and to link these sites to the regional trail system. Under this proposal, the city trail system would be located within and adjacent to the primary environmental corridors in the City whenever possible. Development of a citywide trail system, referred to as the "Emerald Way," has also been recommended in the 2020 City Master Plan.

The proposed 38-mile trail system for the City and the remainder of the study area includes 31 miles in the City of Brookfield, five miles in the Town of Brookfield, and two miles in the Village of Elm Grove. The system has been divided into 11 trail segments: the Beverly Hills Trail, the Civic Center Trail, the Clearwater Lakes Trail, the Deer Creek Trail, the Elm Grove Trail, the Fox River Trail, the Lilly Heights Trail, the Poplar Creek Trail, the Rolling Meadows Trail, the Underwood Creek Trail, and the Village Center Trail. The location of each segment is shown on Map 14. As shown on Table 13, the estimated cost of developing the recommended trail system is about \$3.3 million, with the City of Brookfield responsible for about \$2.2 million of that total.

The trail system shown represents a combination of the trails recommended in the first edition of this report with the trails recommended as part of the "Emerald Way" in the 2020 Master Plan. Generally, the trails recommended by the Master Plan are located within primary environmental corridors whereas some segments of those trails were depicted within street rights-of-way in the earlier park plan. The Master Plan also identifies trails along Deer Creek, Poplar Creek, and the CP Rail System right-of-way which were not included in the first edition of the park plan. Map 9 in Chapter IV compares the trail systems recommended by each plan.

Generally, this plan depicts the trail system recommended by the Master Plan, but includes alternative routes within street rights-of-way should lands needed for trail development not be available for acquisition in a timely manner. This plan also includes the largely on-street Civic Center Trail recommended in the first edition of the park plan, which would provide access from residential areas to recreational and other public facilities at the Civic Center and the adjacent high school.

It is recommended that a separate, detailed study be conducted to precisely identify the location of the trail system. In addition to analyzing whether a given trail segment should be located within a street right-of-way or within an environmental or other off-street corridor, such a study should recommend trail widths, surfacing, and intended uses. Such uses could include bicycling, walking, jogging, cross-county-skiing, and roller-blading. The study should also determine whether two parallel trails would be needed within a corridor to separate bicyclists and roller-bladers from walkers and runners. The trail access sites and rest areas recommended in the Master Plan and this park and open space plan should also be evaluated and specific locations and facilities recommended. Lastly, the study should include more precise cost estimates, based on study recommendations.

A description of each trail segment follows:

- 1. Beverly Hills Trail: The Beverly Hills Trail is proposed to be about three miles in length and is located generally along the Fox River and Wirth Park wetlands primary environmental corridors. The trail connects Mitchell Park to the Underwood Creek Trail and Wirth Park, and is intended to connect to the proposed Fox River Trail in the northwestern portion of the study area.
- 2. Civic Center Trail: The Civic Center Trail is proposed to be about four miles in length and is located generally along and between the Deer Creek, Dousman Ditch, and Wirth Park wetlands primary environmental corridors. The trail connects Endicott Park and Wirth Park, and is intended to connect to the existing New Berlin County Trail about one-half mile south of the study area in the City of New Berlin.
- 3. Clearwater Lakes Trail: The Clearwater Lakes Trail is proposed to be one mile in length and is to be located along the Dousman Ditch primary environmental corridor in the area north of Blue Mound

Map 14

RECOMMENDED TRAIL SYSTEM FOR THE CITY OF BROOKFIELD STUDY AREA: 2020

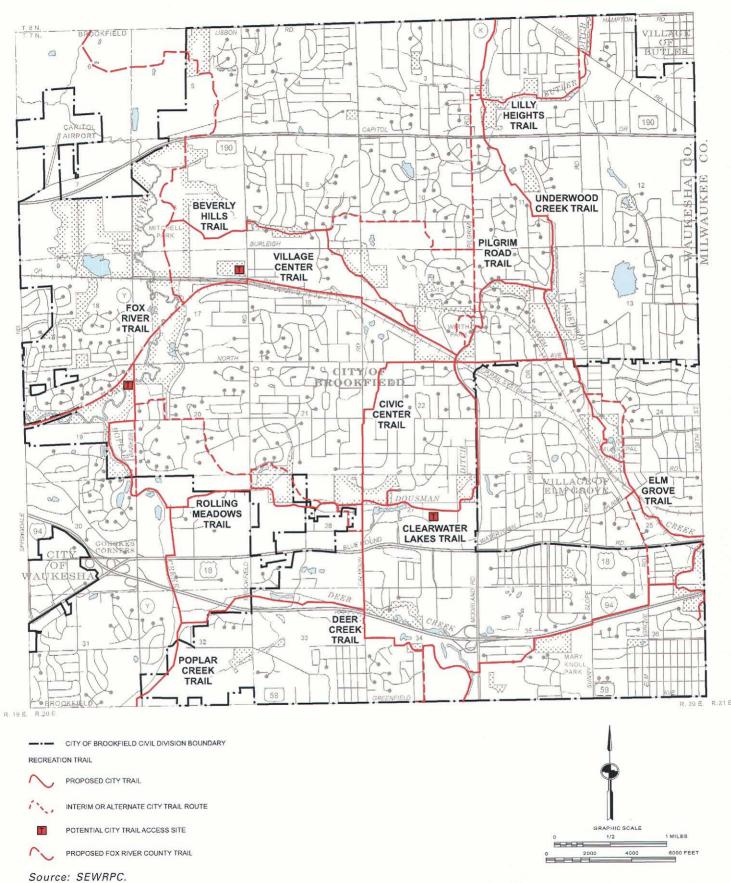


Table 13

DEVELOPMENT COSTS FOR RECREATIONAL TRAILS
IN THE CITY OF BROOKFIELD STUDY AREA

Trail Name	On- or Off-Street	Length (miles) ^a	Estimated Development Cost ^b	Recommended Jurisdiction
Beverly Hills	Off-Street	3.0	\$ 300,000	City of Brookfield
Civic Center	On-Street	4.0	75,000 ^c	City of Brookfield
Clearwater Lakes	Off-Street	1.0	\$ 100,000	City of Brookfield
Deer Creek	Off-Street Off-Street	4.5 0.5	450,000 50,000	City of Brookfield Town of Brookfield
	Subtotal	5.0	\$ 500,000	· · · · · · · · · · · · · · · · · · ·
Elm Grove	On-Street Off-Street	2.0 2.0	50,000 ^d 200,000	City of Brookfield Village of Elm Grove
	Subtotal	4.0	\$ 250,000	
Fox River	Off-Street	6.0	600,000	Waukesha County
Lilly Heights	Off-Street	1.0	100,000	City of Brookfield
Poplar Creek	Off-Street Off-Street	2.0 2.0	200,000 200,000	City of Brookfield Town of Brookfield
	Subtotal	4.0	\$ 400,000	
Rolling Meadows	Off-Street Off-Street	3.0 1.0	300,000 100,000	City of Brookfield Town of Brookfield
	Subtotal	4.0	\$ 400,000	
Underwood Creek/Pilgrim Road	Off-Street	3.0	300,000	City of Brookfield
Village Center	Off-Street	3.0	300,000 ^e	City of Brookfield
Total		38.0	\$3,325,000 ^f	

^aTrail lengths are given in route-miles. Where trails are proposed to be located on-street, the number of lane-miles will be approximately twice the number of route-miles, since bicycle lanes would be located along both sides of a street.

^bEstimated development costs are expressed in 2000 dollars. The unit improvement costs used for calculating estimated trail development costs were \$100,000 per mile for the construction of four-foot wide shoulders or four-foot wide bicycle lanes along both sides of arterial streets and highways, and \$100,000 per mile for the construction of a 10-foot-wide asphalt path in off-street corridors or within street rights-of-way separate from the roadway.

^fOf this total, \$2,175,000 would be for trails proposed to be developed by the City of Brookfield; \$600,000 would be for trails proposed to be developed by Waukesha County; \$200,000 would be for trails proposed to be developed by the Village of Elm Grove; and \$350,000 would be for trails proposed to be developed by the Town of Brookfield.

Source: SEWRPC.

^cOn-street bikeway improvements have been completed for that portion of Calhoun Road north of Wisconsin Avenue.

^dOn-street bikeway improvements have been completed on both sides of North Avenue and on the west side of Elm Grove Road.

^eA portion of the proposed trail is located off-street, but outside an environmental corridor. There may be an additional acquisition cost associated with this trail.

Road and east of Calhoun Road in the City of Brookfield. The trail connects the Dousman-Dunkel-Behling Historical Site to the Rolling Meadows Trail.

- 4. Deer Creek Trail: The Deer Creek Trail is proposed to be about five miles in length and is to be located along the Deer Creek primary environmental corridor in the area generally along IH 94 between Krueger Park and Poplar Creek. About one-half mile of the western end of the trail would be located in the Town of Brookfield. The trail would connect Krueger Park, and the Underwood Creek Trail, to the Poplar Creek Trail in the southwestern portion of the study area. The trail would serve Endicott Park. It is also recommended that an on-street connection be provided between the Deer Creek Trail and the New Berlin County Trail to the south.
- 5. Elm Grove Trail: The Elm Grove Trail is proposed to be about four miles in length and would connect Krueger Park and Wirth Park. About two miles of the trail is located along the Underwood Creek secondary environmental corridor in the Village of Elm Grove and the remaining two miles are located along North Avenue in the City of Brookfield.
- 6. Fox River Trail: The Fox River Trail is proposed to be developed by Waukesha County within the Fox River primary environmental corridor. A six-mile portion of the trail would be located in the northwestern portion of the study area, with about 4.5 miles within the City and 1.5 miles within the Town of Brookfield. The Poplar Creek, Village Center, and Beverly Hills trails would all connect to the Fox River Trail. As proposed, the trail would traverse the City's Mitchell Park.
- 7. Lilly Heights Trail: The Lilly Heights Trail is proposed to be about one mile in length and is located generally along the Butler Ditch primary environmental corridor. The trail would connect Lilly Heights Park to the proposed Menomonee River trail in the Village of Menomonee Falls.
- 8. Poplar Creek Trail: The Poplar Creek Trail is proposed to be about four miles in length and is located generally along the Poplar Creek primary environmental corridor in the southwestern portion of the study area. About half the trail would be located in the Town of Brookfield and half in the City. The trail would connect to the Deer Creek and Rolling Meadows trails. It is proposed that the trail extend to the New Berlin County Trail.
- 9. Rolling Meadows Trail: The Rolling Meadows Trail is proposed to be about four miles in length and is located generally along the Fox River, Poplar Creek, and Black Forest primary environmental corridors. The trail connects Wirth Park and Endicott Park and is intended to connect to the proposed Fox River trail in the northwestern portion of the study area. A one-mile segment of this trail is located in the Town of Brookfield.
- 10. Underwood Creek/Pilgrim Road Trail: The Underwood Creek/Pilgrim Road Trail is proposed to be about three miles in length and is located generally along the Underwood Creek and the North Branch Underwood Creek primary environmental corridors. The trail connects with the Elm Grove and Lilly Heights trails and serves Wirth Park and Lilly Heights Park. An alternative trail location is shown along Pilgrim Road. The trail is proposed to extend into the Village of Menomonee Falls.
- 11. Village Center Trail: A trail along the CP Railway right-of-way between Wirth Park and the Fox River Trail was recommended in the City's 2020 Master Plan. The trail would be about three miles in length.

The plan recommends the construction of trail access facilities near the intersection of Barker Road and the Fox River, along Dousman Ditch just west of the Dousman-Dunkel-Behling Historic Site, and at the proposed Village Center at the intersection of Brookfield Road and the CP Rail System right-of-way. The first two access sites are recommended in both the 2020 Master Plan and in the 2010 park plan, and the Village Center site is specifically called for in the 2020 Master Plan. Facilities may include educational and informational kiosks, drinking

fountains, benches, and bike racks. Restroom and parking facilities to serve trail users would also be available at several parks along the trail system.

The proposed access site near the intersection of Barker Road and the Fox River is already owned by the City. Sites for the other two trail access sites would need to be acquired. An area of about one-half acre for each site should be adequate to accommodate needed facilities. A total of \$330,000 is anticipated to be needed for the acquisition and development of the three trail access sites shown on the recommended plan.

Open Space Preservation

The location and extent of the important open space lands in the City of Brookfield study area, including the surface water, wetlands, floodlands, woodlands, and natural areas and critical species habitat sites within the environmental corridors and isolated natural resource areas, are described in Chapter II of this report. The preservation of these open space lands in essentially natural, open uses would serve to maintain a high level of environmental quality in, and protect the natural beauty of, the City of Brookfield, as well as provide valuable recreational opportunities for residents of the City. Such preservation will also help to avoid the creation of serious and costly environmental and developmental problems within the City. The plan therefore recommends that environmentally sensitive lands, to the extent practicable, be acquired by the public for resource protection, stormwater management, and outdoor recreation purposes.

It is recommended that the City acquire about 940 acres of land for natural resource protection, stormwater retention and detention areas, and for recreational sites and facilities. These lands should be maintained in essentially natural, open space uses. Such preservation will provide many benefits to the community, including a reduction in flood damage, soil erosion, and storm water runoff, and protection of wildlife habitat. Such benefits enhance the quality of life for City residents. It is further recommended that Waukesha County continue to acquire lands within the Fox River environmental corridor and that the Village of Elm Grove and the Town of Brookfield acquire environmentally sensitive lands within their municipal boundaries, as shown on Map 13. Table 14 presents a summary of the number of acres to be acquired and the estimated acquisition cost, assuming all property is purchased outright rather than dedicated.

It is recognized, however, that in some cases privately-owned outdoor recreation sites or private land in open space uses can serve to protect environmentally sensitive lands. Examples of the latter include privately-owned parcels or development sites where a portion of the parcel or site is located in a woodland or wetland. If public acquisition is not possible or practical, the plan recommends that such areas be maintained in open space for resource preservation purposes and that such maintenance be ensured through conservancy zoning and, where appropriate, deed restrictions.

Primary Environmental Corridors

As described in Chapter II, the planned primary environmental corridors encompass approximately 2,816 acres, or about 16 percent of the City of Brookfield and 1,164 acres, or about 21 percent of the remainder of the study area. The primary environmental corridors are located along the Fox River and other major streams and wetland complexes within the City. Under the plan, all primary environmental corridors would be preserved in essentially natural open uses.

As of 1999, the City owned about 1,332 acres of primary environmental corridor lands. Under the plan, an additional 824 acres of primary environmental corridor lands would be acquired by the City, for a total of 2,156 acres. This represents approximately 77 percent of all primary environmental corridors within the City. In addition, Waukesha County would own about 295 acres within the Fox River primary environmental corridor within the City, resulting in about 87 percent of primary environmental corridor lands in the City owned by the City or County.

Secondary Environmental Corridors

Planned secondary environmental corridors encompass approximately 17 acres within the City of Brookfield and 75 acres in the remainder of the study area. All secondary environmental corridors in the City are located along

PROPOSED OWNERSHIP OF OPEN SPACE LANDS^a
UNDER THE CITY OF BROOKFIELD PARK AND OPEN SPACE PLAN

Ownership	Existing ^b (acres)	Plan (acres)	Planned Change (acres)	Estimated Acquisition Cost ^C
City of Brookfield Other Public ^d Compatible Private ^e	1,407 361 385	2,347 1,577 385	940 1,216	\$ 9,417,000 5,905,000
Total	2,153	4,309	2,156	\$15,322,000

NOTE: Cost estimates are expressed in 2000 dollars.

Source: SEWRPC.

Underwood Creek in Section 14 just east of Wirth Park. Land within this secondary corridor is proposed to remain in private ownership and protected through zoning. All remaining secondary environmental corridor lands in the study area are located along Underwood Creek in the Village of Elm Grove. Approximately 34 acres of the corridor are located within the Elm Grove Village Park. The remaining 41 acres are proposed to remain in private ownership and protected through zoning.

Isolated Natural Resource Areas

Isolated natural resource areas encompass approximately 276 acres in the City of Brookfield. Of these 276 acres, 76 acres are currently owned by the City. An additional 135 acres are proposed to be acquired by the City, for a total of 211 acres, or 76 percent of lands within isolated natural resource areas, under City ownership. The remaining 65 acres are proposed to remain in private ownership and protected through zoning. Of particular importance in this latter category are the Bishops Woods Natural Area and the Elm Grove Road Pond Critical Species Habitat Site, which are located within isolated natural resource areas within Section 25.

There is also one 10-acre isolated natural resource area in an existing subdivision in the Town of Brookfield. This area is proposed to remain in private ownership and protected through zoning.

^aIncludes planned primary environmental corridors, planned secondary environmental corridors, planned isolated natural resource areas, and floodlands outside corridors proposed to be acquired.

bIncludes existing ownership in 1999.

^CUnit costs used to estimate acquisition costs were \$1,000 per acre of wetlands, \$35,000 per acre of woodlands, and \$30,000 per acre of open lands.

dincludes Waukesha County, the Village of Elm Grove, the Town of Brookfield, and the Elmbrook School District.

^eIncludes open space lands held in private ownership for recreational use (for example, golf courses, driving ranges, and athletic fields owned by private schools and organizations) and private lands owned by homeowner's associations or other entities for resource protection purposes.

Table 15

RECOMMENDED PROTECTION OF NATURAL AREAS AND CRITICAL SPECIES HABITAT SITES IN THE CITY OF BROOKFIELD STUDY AREA

	Site Identification		Sit	e Area (acres		
Number on Map 7	Area Name	Classification Code ^a	Already under Protective Ownership	Proposed to be Acquired	Total	Proposed Acquisition Agency
1	Zion Woods	NA-2 (RSH)	44	11	55	City of Brookfield
2	Wirth Swamp	NA-3	23	62	85	City of Brookfield
3	Brookfield Swamp	NA-3	40	163	203	City of Brookfield
4	Bishops Woods	NA-3 (RSH)	52	0	52	Private, to be protected through zoning
5	Theater Swamp	NA-3	0	3	3p	City of Brookfield
6	Elm Grove Road Pond	CSH (RSH)	6	1	7	Private, to be protected through zoning
		* *	165	240	405	***

^aNA-2 identifies Natural Area sites of countywide or regional significance

NA-3 identifies Natural area sites of local significance

RSH, or Rare Species Habitat, identifies those sites which support rare, threatened, or endangered animal or plant species officially designated by the Wisconsin Department of Natural Resources

CSH identifies critical species habitat sites

Source: SEWRPC.

Natural Areas and Critical Species Habitat Sites

Recommendations developed through the regional natural areas and critical species habitat protection and management plan, as documented in SEWRPC Planning Report No. 42, A Natural Areas and Critical Species Habitat Protection and Management Plan for Southeastern Wisconsin, have been incorporated into this park and open space plan. That plan sets forth a number of recommendations related to the preservation of identified natural areas and critical species habitat sites within the City of Brookfield study area.

As noted in Chapter II, there are five natural area sites and one critical species habitat site within the study area. It is recommended that four of the natural area sites be protected through public ownership. It is further recommended that the fifth natural area, Bishops Woods, and the Elm Grove Road Pond critical species habitat site, remain in private ownership and be protected through a combination of protective zoning and deed restrictions.

Table 15 lists each natural area and critical species habitat site to be acquired and the proposed acquisition agency. These recommendations are also reflected on Map 13. In all, the natural area and critical species habitat sites recommended for preservation encompass 405 acres. All of these areas are encompassed within a primary environmental corridor or an isolated natural resource area. The acquisition costs for the natural areas are included in Table 14.

^bThree acres are located in the City of Brookfield. An additional 88 acres are located in the Village of Menomonee Falls.

Preservation of Wetlands

A wetland preservation plan was adopted as an element of the first edition of this park and open space plan. The wetland preservation plan was prepared under the guidance of the Wetlands Management Task Force, formed in 1989 by the City of Brookfield Plan Commission. The recommendations of that plan have been incorporated into this plan update.

The plan recommends that all wetlands within primary environmental corridors and all additional wetlands of five acres or larger outside primary environmental corridors be protected, generally through public acquisition. Of the 3,202 acres of wetlands within the study area, 1,099 acres are protected through existing City ownership and an additional 191 acres are protected through existing County, Village, or Town ownership.

The plan recommends that the City acquire about 673 additional acres of wetlands. Waukesha County should acquire remaining wetlands within the Fox River corridor, the Village of Elm Grove should acquire the wetland area north of and adjacent to the Village park, and the Town of Brookfield should acquire wetlands within the primary environmental corridor along Deer and Poplar Creeks within the Town, for a total of 1,055 acres. Under the plan, a total of 3,019 acres, or 94 percent of the wetlands within the study area, would be protected through public ownership.

Preservation of Woodlands

The woodland preservation plan, set forth in Appendix B of the first edition of this report, recommends that woodlands within primary environmental corridors be preserved. There are 15 such woodlands encompassing 140 acres in the study area, with 12 woodlands encompassing 119 acres within the City. Five woodlands, encompassing 33 acres, are protected within Mitchell, McCoy, Wirth, Camelot, and Westchester City parks. The first edition of this plan recommended that the City acquire one woodland encompassing 10 acres as an addition to Mitchell Park and acquire a second woodland encompassing 31 acres as part of the proposed City nature center (Mound Zion Park). As of 1999, the City had acquired the 31-acre woodland as part Mound Zion Park. As noted in Chapter II, the Mound Zion woodland was identified as a Natural Area of countywide or regional significance in the 1994 inventory of natural areas in Southeastern Wisconsin.

Preservation of Floodlands

Floodlands are not well suited to urban development due to flood hazards, high water tables, and soils generally not suited to urban uses. It is recommended that floodlands be preserved and protected in essentially natural, open space uses including parks and parkways. It should be noted that certain outdoor recreation facilities may be suitable for development in floodland areas not covered by wetlands or areas of unsuitable soil. Such lands may accommodate playfields, playgrounds, or trails. Development of any facilities within floodlands should be carefully evaluated on a site specific basis, with consideration given to natural resource concerns as well as the effects of periodic flooding on the use of the facilities being considered.

The wetland preservation plan presented in the first edition of this report includes recommendations for the protection of areas within the 100-year recurrence interval floodplain, termed floodlands, within the primary environmental corridor. Wetlands located in floodlands are protected under the wetland preservation plan. Recommendations for the protection of floodlands that are not covered by wetland vegetation, such as floodlands in agricultural production, are set forth in Appendix C of the first edition of this report. The plan calls for the acquisition of such floodlands, recognizing that floodlands in an urbanizing area formerly used for agricultural purposes, if left undeveloped, will revert to wetlands and provide flood storage and other benefits. The plan further calls for acquired floodlands to be restored to wetlands. The Wetlands Management Task Force did, however, determine that an easement held by the City providing for public access and permitting construction of flood control structures and conduct of other flood control measures could be considered an acceptable substitute for fee-simple acquisition of the lands concerned.

In 1989, there were about 600 acres of primary environmental corridor lands consisting of non-wetland floodlands in the study area, of which 391 acres were located in the City. Such floodlands were located adjacent to the Fox River corridor in the western portion of the study area, along Poplar Creek in the southwestern portion of the

study area, along Deer Creek and Dousman Ditch in the south-central portion of the study area, and along Butler Ditch in the northeast portion of the study area.

Of the 391 acres of non-wetland floodlands within primary environmental corridors in the City, about 146 acres are in City parks or open space sites, about five acres are in Fox Brook County Park, and an additional 40 acres are in compatible private recreation use (Brookfield Hills Golf Course), as of 1999. As shown on Map V-1, this plan recommends that the balance of about 200 acres be acquired by the City. The plan also reflects a recommendation from the stormwater management plan for the Dousman Ditch and Underwood Creek subwatersheds¹ that an area adjacent to the primary environmental corridor near the intersection of North Avenue and Lilly Road be acquired by the City for floodwater storage.

Of the approximately 200 acres of non-wetland floodlands in the remainder of the study area, about 23 acres are owned by the Town of Brookfield within Brook Park and Marx Park. It is recommended that the Town acquire all remaining primary environmental corridor lands, including floodlands, along those portions of Deer Creek and Poplar Creek within the Town. It is further recommended that Waukesha County acquire primary environmental corridor lands along the Fox River in the northwestern portion of the study area, which include approximately 142 acres of non-wetland floodlands.

PLAN COSTS

Implementation of the park and open space plan for the City of Brookfield, as presented herein and summarized in Table 16, would entail a total cost to the City of about \$19 million over a 20-year plan implementation period. This does not include the costs associated with maintaining existing park facilities. As indicated in Table V-5, about \$10.8 million, or 57 percent, would be required for the acquisition by the City of land for new park sites and for the acquisition of environmentally sensitive lands in the City. The remaining \$8.2 million, or about 43 percent, would be required for the development of new outdoor recreation facilities and trails.

The estimated acquisition and development costs of \$19 million would be distributed over a 20-year implementation period. This would approximate an expenditure of about \$951,250 per year. This annual figure is in keeping with the average annual expenditure of about \$1,045,000 included in the City Park and Recreation Department's Recommended Capital Improvement Program (CIP) for acquisition and development during the years 2000 through 2003. It should be noted that the cost of implementing the plan may be reduced through the use of alternative methods of land acquisition, including dedication, and through the use of available State and Federal grant funds, including those available through the Federal Land and Water Conservation Program (LAWCON) and the Wisconsin Stewardship Program. Historically, the City has acquired a substantial amount of land, particularly wetlands, through dedication as subdivision and development has occurred. Park development costs can also be partially offset through the collection and use of impact fees consistent with current City practice.

PLAN IMPLEMENTATION

The recommended park and open space plan is not complete until the steps required to implement the plan have been specified. This section includes a description of the actions required by the Wisconsin Department of Natural Resources, Waukesha County, Milwaukee County, the City of Brookfield, the Village of Elm Grove, and the Town of Brookfield to implement the recommended park and open space plan for the Brookfield study area.

¹Documented in SEWRPC Community Assistance Planning Report No. 236, A Stormwater and Floodland Management Plan for the Dousman Ditch and Underwood Creek Subwatersheds in the City of Brookfield and the Village of Elm Grove, Waukesha County, Wisconsin, February 2000. The plan is described in Chapter IV of this report.

Table 16

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

	Ac	quisition		
Sites and Facilities	Acres	Cost	Development	Total Cost
New and Existing Parks	56	\$ 1,335,000	\$5,768,000	\$ 7,103,000
Open Space Lands	940	9,417,000		9,417,000
Trails	a		2,175,000	2,175,000
Trail Access Points ^b	1	30,000	300,000	330,000
Total	997	\$10,782,000	\$8,243,000	\$19,025,000

NOTE: All costs are expressed in 2000 dollars. Acquisition and development costs can be reduced dramatically through the use of the land division dedication process and the use of Federal and State grant funds.

Source: SEWRPC.

Wisconsin Department of Natural Resources

The Wisconsin Department of Natural Resources (DNR) has authority and responsibility for park development, natural resource protection, water quality management, and water use regulation. Certain DNR functions have particular importance in the implementation of county and local park and open space plans. The Department has the obligation to prepare a comprehensive Statewide outdoor recreation plan and to develop long-range water resource management 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 natural resources; and the authority to administer, within the State, the Federal LAWCON Program and the Wisconsin Stewardship Program. The LAWCON and Wisconsin Stewardship programs are intended to assist in the acquisition and development of local parks and urban green spaces. The DNR also has the responsibility to establish standards for floodland and shoreland zoning; and the authority to adopt, in the absence of satisfactory local action, shoreland and floodland zoning ordinances.

More specifically, in relation to the implementation of the City park and open space plan, it is important that the Department of Natural Resources endorse the plan, thus qualifying the City for available State and Federal outdoor recreation grants in support of plan implementation.

Waukesha County

Under the plan, Waukesha County should continue to improve and maintain Fox Brook Park and should continue to maintain the Eble Ice Arena, which is located in the study area in the Town of Brookfield. The County should also acquire lands within the Fox River primary environmental corridor, and develop a trail within that corridor.

Milwaukee County

Under the plan, Milwaukee County should continue to maintain the Underwood Creek Trail and parkway, portions of which are adjacent to the study area.

^aThe cost of acquisition for off-street trails is included in the cost of acquiring open space lands. On-street trails would be constructed within existing street rights-of-way.

blincludes the cost of acquiring two half-acre sites and the development of restrooms, parking areas, and other trail-related facilities at three trail access sites.

City of Brookfield

Under the plan, the City of Brookfield would have responsibility for the provision of a variety of outdoor recreation sites and facilities, including the acquisition and development of several new park sites and facilities, the acquisition of environmentally sensitive lands within the City, and the maintenance of existing City park sites and facilities. Implementation of these recommendations would result in the attainment of the park acquisition and development and open space preservation objectives presented in Chapter IV of this report.

Village of Elm Grove

Under the plan, the Village of Elm Grove would continue to maintain existing facilities at the Village Park and to acquire lands as necessary for the development of the proposed Elm Grove trail. The trail would connect Wirth Park and Krueger Park by way of Elm Grove Village Park.

Town of Brookfield

Under the plan, the Town of Brookfield would be responsible for acquiring lands within those portions of the Deer Creek and Poplar Creek primary environmental corridors within the Town. It is recommended that the City and Town work together to develop trails within the two corridors. These two trails are recommended in the City's 2020 Master Plan and have been incorporated into this park plan update. In addition, a one-mile portion of the proposed Rolling Meadows Trail recommended in the previous version of this plan is located in the Town. It is recommend that the City work with the Town to develop the trail segment.

SUMMARY

The recommended park and open space plan consists of both areawide park and open space recommendations and City park and open space recommendations. The areawide park and open space recommendations are based on the regional park and open space plan as amended by the park and open space plan for Waukesha County.

The key components of the plan are as follows:

- 1. The Wisconsin Department of Natural Resources should endorse the plan, thereby making the City eligible to apply for and receive State and Federal grants for the acquisition of park and open space lands and the development of outdoor recreation facilities.
- 2. Waukesha County should continue to maintain Fox Brook Park and the Eble Park Ice Arena, and acquire lands and develop a trail within the Fox River primary environmental corridor.
- 3. The City of Brookfield should acquire land for and develop facilities at three new neighborhood parks and one new district park, and develop outdoor recreational facilities at the Civic Center.
- 4. The City should acquire additional lands at Endicott Park and Mary Knoll Park and provide a variety of outdoor recreation facilities at Brookfield Manor Park, Endicott Park, Krueger Park, Mary Knoll Park, Meadows of Brookfield Park, Mitchell Park, and Mound Zion Park.
- 5. It is recommended that the City develop a community-wide system of bicycle and pedestrian trails and routes linking existing and proposed parks and the regional trail system, and develop three trail access sites. A detailed plan should be prepared to establish the trail locations and identify trail surfacing, widths, and proposed uses.
- 6. The City should acquire approximately 940 acres of environmentally sensitive lands to be preserved in essentially natural, open space uses. An additional 1,216 acres of environmentally sensitive lands within the study area are recommended to be acquired by Waukesha County, the Village of Elm Grove, and the Town of Brookfield.

7. The cost to the City to implement the plan would be about \$19 million over a 20-year plan implementation period. This represents an expenditure of about \$951,250 per year, which is consistent with current City spending levels. Through the use of alternative methods of land acquisition as well as available State and Federal funds for acquisition and development, the cost to the City could be significantly reduced.

Chapter VI

SUMMARY

In 1990, the City of Brookfield Common Council adopted a park and open space plan. That plan is documented in SEWRPC Community Assistance Planning Report No. 108, A Park and Open Space Plan for the City of Brookfield, August 1991. The report sets forth a set of park and open space acquisition and development objectives and supporting standards relative to the needs and values of the citizens of the Brookfield area, and a recommended plan designed to meet the adopted objectives and standards. The plan, which has a design year of 2010, also includes specific recommendations directed at the protection of wetlands, woodlands, and floodlands within the City.

During 1999 and 2000, the City conducted an evaluation and update of the plan, extending the design year of the plan to 2020. The evaluation and update are documented in this report. Important preliminary steps in the development of this plan included a review of park acquisition and development activities conducted to date to implement the previous park plan and amendments to that plan, and the collection of updated inventory information regarding land use, population, natural resources, and park and open sites and facilities within the City and study area. New or changed conditions affecting park and open space sites and recreational facilities, including pertinent recommendations from the City of Brookfield 2020 Master Plan, were also identified and incorporated into this new plan. This plan also reflects recommendations from applicable regional and County plans, including the Waukesha County Development Plan, the park and open space element of that plan, and the regional natural areas plan.¹

This updated plan was adopted by the City Park and Recreation Commission on August 14, 2000, and by the City Plan Commission on November 13, 2000. The plan was adopted by the City of Brookfield Common Council on March 6, 2001.

INVENTORY FINDINGS

The study area, shown on Map 1 in Chapter I, includes all of the City of Brookfield and the Village of Elm Grove, and that portion of the Town of Brookfield located in U.S. Public Land Survey Township 7 North, Range 20 East. The study area encompasses 23,044 acres, or about 36 square miles. The City of Brookfield in 1995 comprised

¹ The referenced County and regional plans are documented in SEWRPC Community Assistance Planning Report No. 209, A Development Plan for Waukesha County, August 1996, and SEWRPC Planning Report No. 42, A Regional Natural Areas and Critical Species Habitat Management and Protection Plan for Southeastern Wisconsin, September 1997.

17,453 acres, or about 76 percent of the study area. The size of the City increased by about 568 acres since the first edition of this plan was prepared in 1989.

The City of Brookfield is approaching "build-out" conditions, that is, most of the developable land in the City has been converted to urban use. In 1995, land developed with urban uses encompassed 13,359 acres, or about 77 percent of the City. Nonurban uses, including wetlands, woodlands, surface water, and other open lands, encompassed 4,100 acres, or about 23 percent of the City. In the study area as a whole in 1995, urban uses occupied 17,448 acres, or about 76 percent of the study area. Nonurban uses, including wetlands, woodlands, surface water, and other open lands, encompassed 5,535 acres, or about 24 percent of the study area.

In 1999, the City of Brookfield park system consisted of 33 park and open space sites encompassing 1,679 acres, or about 10 percent of the City. Of this total, 1,064 acres were located in park sites and the remaining 615 acres were located in environmental corridors and other resource preservation areas. There were a total of 83 park and open space sites in the Brookfield study area, which together encompassed a total of 2,854 acres, or about 12 percent of the study area. Fifty-seven of the 83 sites, encompassing 2,209 acres, were publicly owned. The remaining 26 sites, encompassing 645 acres, were privately owned.

The most important features of the natural resource base in the City of Brookfield and the study area, including the best remaining woodlands, wetlands, wildlife habitat areas, undeveloped floodlands, and sites having historic, scenic, scientific, cultural, and recreational value, occur in linear areas termed environmental corridors. In the City of Brookfield, there are 2,816 acres within primary environmental corridors, 17 acres within secondary environmental corridors, and 276 acres within isolated natural resource areas, for a total of 3,109 acres, or about 18 percent of the City. There were five natural areas and one critical species habitat site located entirely or partially within the City in 1994. These sites are located within the environmental corridors and isolated natural resource areas, and encompass 405 acres.

Within the study area as a whole, there are 3,980 acres within primary environmental corridors, 92 acres within secondary environmental corridors, and 285 acres within isolated natural resource areas, for a total of 4,357 acres, or about 19 percent of the study area.

STATUS OF 2010 PLAN RECOMMENDATIONS

The adopted 2010 City of Brookfield Park and Open Space Plan contains a number of recommendations regarding the acquisition of park and open space sites and the development of recreational facilities. Chapter III provides a summary of the recommendations made in the earlier plan and indicates those recommendations that had been implemented by 1999 and those remaining to be implemented, and also summarizes changes to the plan approved by the City through amendments to the plan.

Between 1990 and 1999, the City had accomplished the following activities related to park acquisition and development:

- Acquisition from the Elmbrook School District of the Brookfield Soccer Park, which was subsequently
 enlarged to 51 acres and developed with three additional soccer fields;
- Acquisition and development of all recommended facilities at Camelot Park, Three Meadows Park, and Weston Hills Park;
- Acquisition of the Mound Zion Woods for future development of a city nature center;
- Development of certain recommended facilities at the Brookfield Manor Nature Preserve, Krueger Park, and Mary Knoll Park;
- Completion of ADA-related improvements at Wirth Park; and

 Partial ADA improvements at the Dousman-Dunkel-Behling Historic Site and Park, Beverly Hills Park, Canterbury Park, Endicott Park, Fairview Park, Kinsey Park, Lamplighter Park, McCoy Park, Rolling Meadows Park, and Ruby Park.

Between 1990 and 1999, the City also transferred portions of Mitchell Park to Waukesha County for development of Fox Brook County Park and developed several new facilities on the City-owned portion of Mitchell Park. Development of neighborhood-level recreational facilities was completed at Lilly Heights Park.

RECOMMENDED PLAN

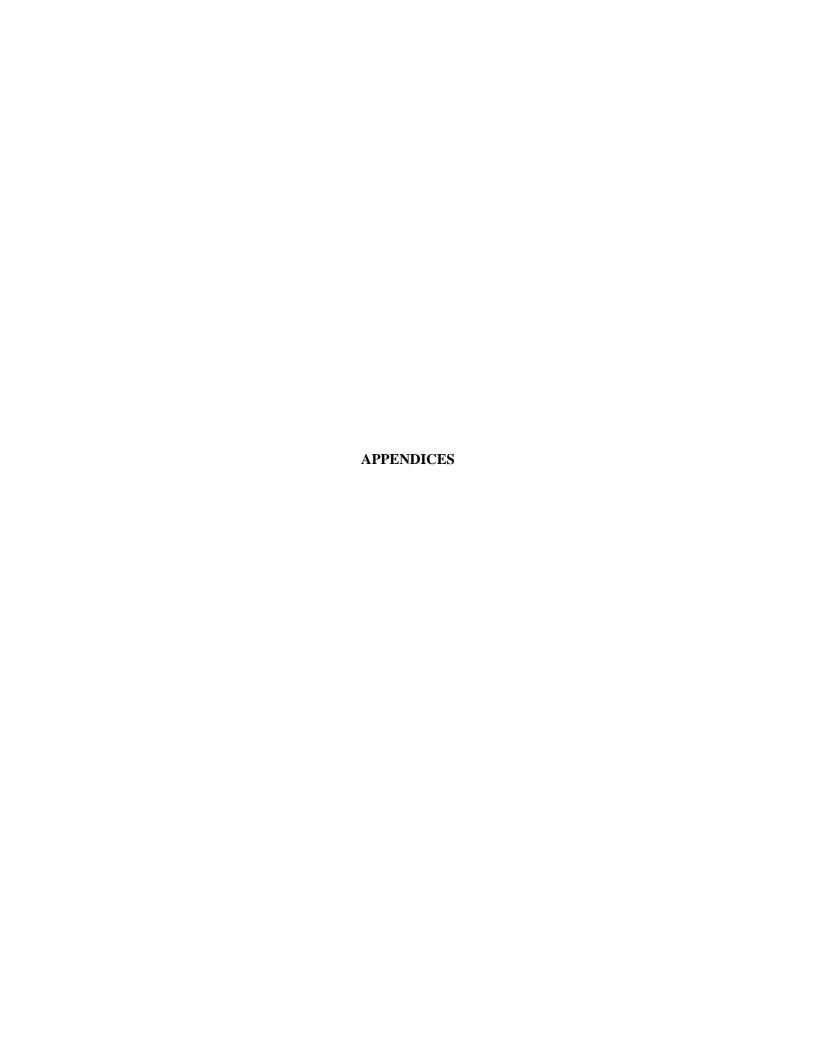
Upon full implementation of this updated park and open space plan for the City of Brookfield, the City would provide a variety of parks and related outdoor recreation facilities; a variety of open space sites; and a system of recreation trails associated with primary environmental corridors connecting the City's parks and linking these parks to the regional trail system. Specific recommendations regarding the City park system include:

- Additional development of Mitchell Park as a multi-community park, with an Arts Center, group picnic areas, and trail facilities;
- The acquisition and development of three new neighborhood parks in the northwestern, southeastern, and eastern portions of the City;
- Development of a new district park in the northeastern portion of the City;
- Development of recreational facilities at the Civic Center;
- Acquisition of additional land at Endicott Park and Mary Knoll Parks, and development of additional recreational facilities at Endicott, Krueger, and Mary Knoll parks;
- Development of neighborhood park facilities at Meadows of Brookfield Park;
- Development of a nature center at Mound Zion Park;
- Future development of "pocket parks" as recommended in detailed neighborhood plans for the Target Intervention Areas identified in the City's 2020 Master Plan;
- Maintenance and ADA-related improvements at other existing City parks;
- The development of a community-wide system of bicycle and pedestrian trails and routes linking existing and proposed parks and the regional trail system;
- Development of three trail interpretive centers; and
- Acquisition of approximately 940 acres of environmentally sensitive lands to be preserved in essentially natural, open space uses.

The cost to the City to implement the plan would be about \$19 million over a 20-year plan implementation period. This represents an expenditure of about \$951,250 per year, which is consistent with current City spending levels. Through the use of alternative methods of land acquisition as well as available State and Federal funds for acquisition and development, the cost to the City could be significantly reduced.

The plan further recommends that the Wisconsin Department of Natural Resources endorse the plan, thereby making the City eligible to apply for and receive State and Federal grants for the acquisition of park and open space lands and the development of outdoor recreation facilities. It also recommends that Waukesha County continue to maintain Fox Brook Park and the Eble Park Ice Arena, and acquire lands and develop a trail within the Fox River primary environmental corridor. In addition to lands proposed to be acquired by the City, 1,216 acres of environmentally sensitive lands within the study area are recommended to be acquired by Waukesha County, the Village of Elm Grove, and the Town of Brookfield for resource protection purposes.

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Appendix A

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

OBJECTIVE NO. 1

To provide an integrated system of public general-use outdoor recreation sites and related open space areas which allow the resident population of the Region adequate opportunities to participate in a wide range of outdoor recreation and outdoor education 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 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 such 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:

			<u> </u>	Publicly O	wned Park a	nd School Sites		<u> </u>	
			Parks		Schools	<u> </u>			
		Minimum per Capita Public		Maximum Service Radius (miles) ^b		Minimum per	tan an in this	Maximum Service Radium (miles) ^C	
Site Type	Size (gross acres)	Requirements (acres per 1,000 persons) ^d	Typical Facilities	Urban ^e	Rural	Capita Public Requirements (acres per 1,000 persons) ^f	Typical Facilities	Urban ^e	Rural
_I 9 Regional	250 or more	5.3	Campsites, swimming beach, picnic areas, golf course, ski hill, ski-touring trail, boat launch, nature study area, playfield, softball diamond, passive-activity area	10.0	10.0	2-14 (1)	••)// <u>-</u> - 1
II ^I Multi-Community	100-249	2.6	Campsites, swimming pool or beach, picnic areas, golf course, ski hill, ski-touring trail, boat launch, nature study area, playfield, softball and/or baseball diamond, passiveactivity area	4.0 ^j	10.0 ^j				

				Publicly O	wned Park a	nd School Sites		1	
			Parks		Schools				
		Minimum per Capita Public		Maximum Service Radius (miles) ^b		Minimum per		Maximum Service Radium (miles) ^C	
Site Type	Size (gross acres)	Requirements (acres per 1,000 persons) ^d	Typical Facilities	Urban ^e	Rural	Capita Public Requirements (acres per 1,000 persons) ^f	Typical Facilities	Urban ^e	Rural
III ^k Community	25-99	2.2	Swimming pool or beach, picnic areas, boat launch, nature study area, softball and/or baseball diamonds, soccer fields and other playfields, tennis courts, passive- activity area	2.0		0.9	Playfield, baseball diamond, softball diamond, tennis court	0.5-1.0 ^m	- - , ,
ly ⁿ Neighborhood	Less than 25	1.7	Wading pool, picnic areas, softball and/or baseball diamonds, soccer fields and other playfields, tennis court, playground, basketball goal, ice-skating rink, passive-activity area	0.5-1.0 ⁰		1.6	Playfield, playground, baseball diamond, softball diamond, tennis court, basketball goal	0.5-1.0 ^m	

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

B. RECREATION RELATED OPEN SPACE

PRINCIPLE

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

STANDARDS

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

- 1. A minimum of 0.16 linear miles 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-orientated recreation corridors should maximize the use of:
 - a. Primary environmental corridors as locations for trail-oriented recreation activities.
 - b. Outdoor recreation facilities provided at existing public park sites.
 - c. Existing trail-type facilities within the Region.

OBJECTIVE NO. 2

To provide sufficient outdoor recreation facilities to allow the resident population of the Region adequate opportunities to participate in intensive nonresource-oriented outdoor recreation activities.

PRINCIPLE

Participation in intensive nonresource-oriented outdoor recreation activities including basketball, baseball, ice-skating, soccer, 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 or her 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:

Minimun	n per Capita Fa	cility Require	mentsq		Design Standards							
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)	Radius of Facility (miles) ^r			
Baseball	Diamond	Public Nonpublic Total	0.01 0.01 0.10s	Types II, III and IV general use site	2.8 acres per diamond	Parking (30 spaces per diamond) Night lighting ^T Concessions and bleachers ^t 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			
Soccer	Field	Public Nonpublic Total	0.69 0.17 0.86	Multi-community, community, and neighborhood parks	1.0 acre minimum	Buffer	0.65 acre	1.65	1.0			
Softball	Diamond	Public Nonpublic Total	0.53 0.07 0.60	Type II, III, and IV general use site	1.70 acre per diamond	Parking (20 spaces per diamond) Nighttime lighting ^t 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	Type 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	Type II, III, and IV general use site	0.15 acre per court	Parking (2.0 spaces per court) Nighttime lighting ^t Buffer	0.02 acre per court 0.15 acre per court	0.32	1.0			

OBJECTIVE NO. 3

To provide sufficient outdoor recreation facilities to allow the resident population of the Region adequate opportunities 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-orientated 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:

Mini	mum per Cap	ita Facility Re	<u>auirement</u>		Design Standards						
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	Service Radius of Facility (miles) ^X	
Camping	Campsite	Public Nonpublic Total	0.35 1.47 1.82	Type I and II general use sites	0.33 acre per campsite	Rest rooms- showers Utility hookups Natural area backup lands	1.5 acres per campsite	1.83	Ungrazed wooded area Presence of surface water suitable topography and soils	25.0	
Gotf	Regulation 18-hole course	Public Nonpublic Total	0.013 0.027 0.040	Type I and II general use sites	135 acres per course	Clubhouse, parking, maintenance Practice area Woodland or water areas Buffer	8.0 acres per course 5.0 acres per course 35.0 acres per course 2.0 acres per course	185.0	Suitable topography and soils Presence of surface water Form-giving vegetation desirable	.10.0	
Picnicking	Tables	Public Nonpublic Total	6.35 ^v 2.39 8.74	Type 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 space per table) 0.02 acre per table	0.11	Topography with scenic views Shade trees Presence of surface water desirable Suitable soils	10.0	
Skiing	Developed slope (acres)	Public Nonpublic Total	0.010 0.090 0.100	Type I, II, III general use sites	1.0 acre per acre of developed slope	Chalet Parking Ski tows (and lights) Buffer and maintenance Landscape	0.13 acre minimum 0.25 acre per acre of slope 0.40 acre per acre of slope 0.40 acre per acre of slope 0.35 acre per acre of slope	2.1	Suitable topography and soils (20 percent slope minimum) North or northeast exposure	25.0	
Swimming	Beach (linear feet)	Public	Major Inland Lake Lakes Michigan	Type I, II, III general	40 square feet per linear foot (average)	Parking Bathhouse- concessions	0.2 acre per acre of beach 0.10 acre	Z	Natural beach Good water quality	. 10.0	
		Nonpublic Total	6 16 12 18 16	use sites	Buffer areas		Buffer areas minimum 10 square feet per linear foot				

OBJECTIVE NO. 4

To provide sufficient outdoor recreation facilities to allow the resident population of the Region adequate opportunities to participate in trail-related and other extensive land-based outdoor recreation activities.

PRINCIPLE

Participation in extensive land-based outdoor recreation activities including biking, 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-orientated 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 biking, 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 land-based outdoor recreation activities should be provided throughout the Region. Public facilities provided for these activities should be located within the linear resource-orientated recreation corridors identified in Objective No. 1. To meet this standard, the following per capita standards and design criteria should be met as indicated below:

Minimum per Capita Public Facility Requirements ^{aa}			Design Standards							
Activity	Facility	Per Capita Requirements (linear mile per 1,000 residents)	Typical Location of Facility	Minimum Facility Requirements (acres per linear mile)	Suggested support facilities and backup lands	Minimum Support Facility Requirements (acres per linear mile)	Resource Requirements			
Biking	Route Trail	bb 0.16	Scenic roadways Recreation corridor	1.45	Route markers 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 Region	Type I, II, III general use sites Recreation corridor Type I, II, III general use sites	0.73	Interpretive center building Parking Backup lands with resource amenities	24.2	Diversity of natural features, including a variety of plant and animal species Suitable topography and soils 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

To provide sufficient surface water access areas to allow the resident population of the Region adequate opportunities to participate in water-based outdoor recreation activities on major inland lakes and rivers and on Lake Michigan, consistent with safe and enjoyable surface water use and the 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. Access sites available for use by the general public on streams and major lakes, that is, lakes of 50 acres or larger, should be provided in accordance with the requirements established by the Wisconsin Department of Natural Resources in Sections NR 1.90 and NR 1.91 of the Wisconsin Administrative Code.
- 2. Access sites providing parking should be provided on major streams throughout the Region. The maximum interval between access points on major canoeable streams^{dd} should be 10 miles.

OBJECTIVE NO. 6

To preserve 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, environmental quality, and biodiversity^{ee} 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, natural areas and critical species habitat sites, 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, 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, biological diversity preserved, 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 essentially natural open uses.

B. NATURAL AREAS AND CRITICAL SPECIES HABITATS

PRINCIPLE

Natural areas and critical species habitats are important in a number of ways—including economically, insofar as they support advances in agriculture and medicine; functionally, insofar as they enhance surface water and groundwater quality, minimize erosion, and enhance air quality; educationally; recreationally; aesthetically; in basic scientific research; and in maintaining biological and genetic diversity. In a less tangible but equally important way, natural areas and critical species habitats contribute to mental well-being and to the overall quality of human life.

STANDARDS

The remaining natural areas and critical species habitat areas should be preserved.

C. PRIME AGRICULTURAL LANDS

PRINCIPLE

Prime agricultural lands, in addition to providing food and fiber, can supply significant wildlife habitat; contribute to maintaining an ecological balance between plants and animals; offer 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 opportunities for agricultural and agriculture-related employment; provide open spaces which give form and structure to urban development; and serve to maintain the natural beauty and unique cultural heritage of the Region.

STANDARDS

- 1. Prime agricultural lands should be preserved for agricultural use.
- 2. Agricultural lands surrounding adjacent high-value scientific, educational, or recreational resources should be considered for preservation to provide a buffer between such resources and urban development.

OBJECTIVE NO. 7

To satisfy outdoor recreation and related open space needs in an efficient and economical way.

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.

Footnotes

^aIn urban areas facilities for intensive nonresource-oriented recreational 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 non-resource-orientated activities. It is important to note, however, that school outdoor recreation sites do not generally contain natural areas which provide space for passive recreational use.

Footnotes (continued)

^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-orientated 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.

fror public school sites, which generally provide facilities for intensive nonresource-orientated outdoor recreation activities, the minimum per capita acreage requirements apply to the resident population of the Region residing in urban areas.

9Type I sites are defined as large outdoor recreation sites with 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.

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 are generally located in parks or in urban open space sites, and usually consist of a landscaped area with mowed lawn, shade trees, and benches.

Type 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 recreational facilities and have smaller areas devoted to any given activity.

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

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.

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

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 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 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 storm water retention basins, areas of poor soils, and floodland areas.

Footnotes (continued)

OThe maximum service radius of Type IV parks is governed primarily by the population density 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 recreational activities especially through the provision of trails designated for such activities as biking, hiking, horseback riding, nature study, and ski-touring.

qualities 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 or her 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.

[†]Support facilities such as night lighting, concessions, and bleachers generally should not be provided in Type IV sites. These sites typically do not contain sufficient acreage to allow an adequate buffer between such support facilities and surrounding neighborhood residences.

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

 $^{m{V}}$ Each urban area having a population of 7,500 or greater should have one public swimming pool or beach.

WFacilities for intensive resource-orientated 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 recreational activities 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 or her 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.

bbBike routes are located on existing public roadways; therefore, no requirement is indicated.

^{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.

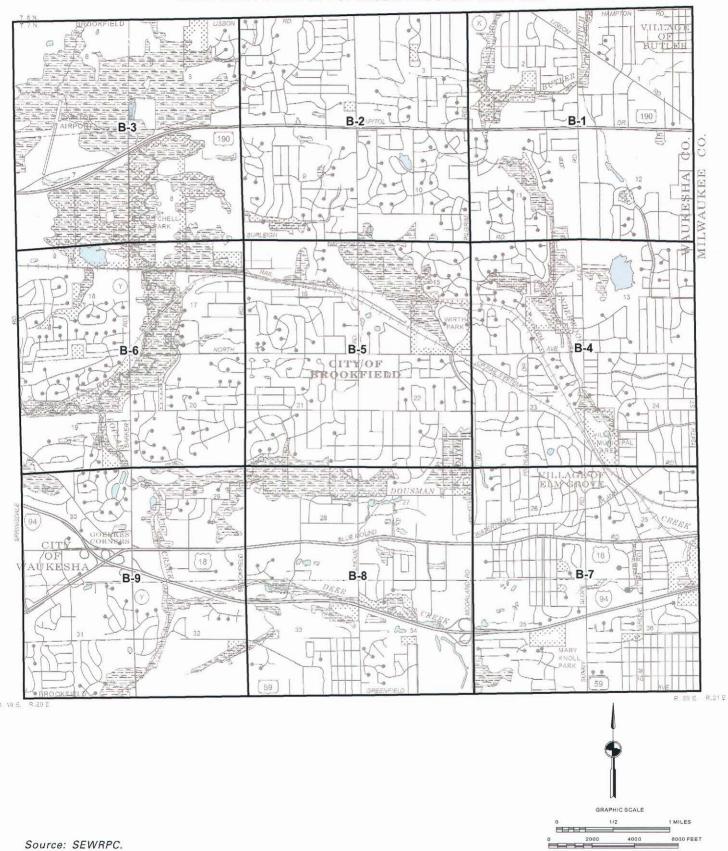
ddMajor canoeable streams are defined as those streams which have a minimum width of 50 feet over a distance of at least 10 miles.

⁶⁶Biodiversity refers to the number and abundance of animal and plant species, their genetic composition and variability, and the ecological connection between and among species.

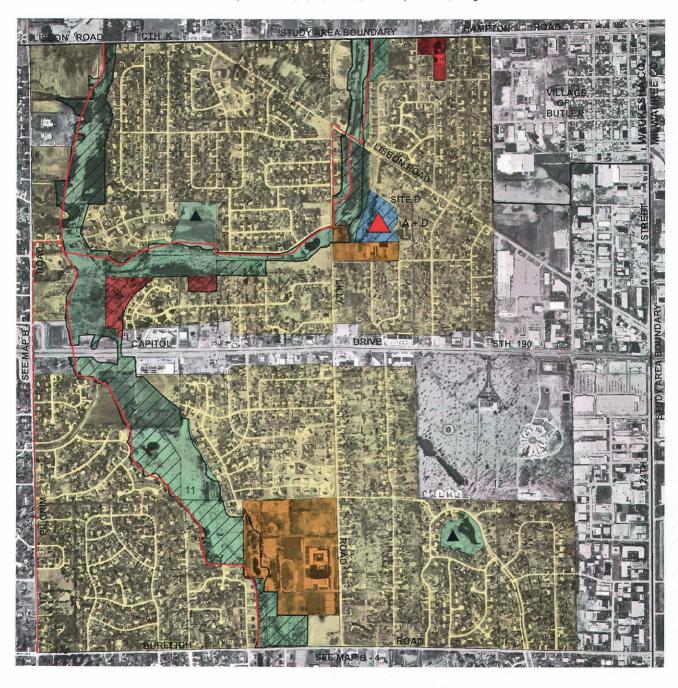
Appendix B

RECOMMENDED PARK AND OPEN SPACE PLAN FOR THE CITY OF BROOKFIELD STUDY AREA: 2020

INDEX OF MAPS SHOWING THE RECOMMENDED PARK AND OPEN SPACE PLAN FOR THE CITY OF BROOKFIELD STUDY AREA: 2020



U.S. Public Land Survey Sections 1, 2, 11, and 12, Township 7 North, Range 20 East





U.S. Public Land Survey Sections 3, 4, 9 and 10, Township 7 North, Range 20 East





NATURAL RESOURCE FEATURES

PRIMARY ENVIRONMENTAL CORRIDOR

ISOLATED NATURAL RESOURCE AREA
OWNERSHIP

EXISTING CITY OWNERSHIP: OPEN SPACE PRESERVATION OR OUTDOOR RECREATION USE

PROPOSED CITY OWNERSHIP OPEN SPACE PRESERVATION

Source: SEWRPC.



OUTDOOR RECREATION ELEMENT
PARK OR OUTDOOR RECREATION SITE

▲ EXISTING CITY OWNERSHIP: NEIGHBORHOOD PARK

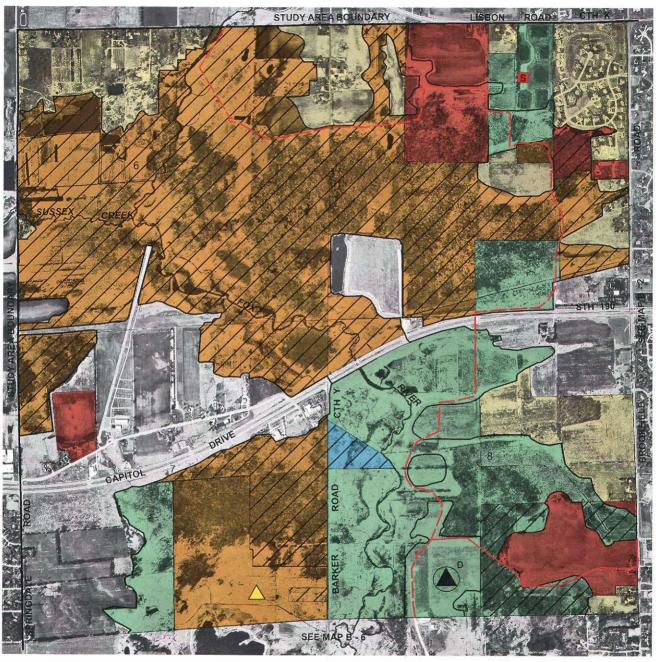
▲ PROPOSED CITY OWNERSHIP: NEIGHBORHOOD PARK

RECREATION TRAIL

PROPOSED CITY TRAIL



U.S. Public Land Survey Sections 5, 6, 7 and 8, Township 7 North, Range 20 East



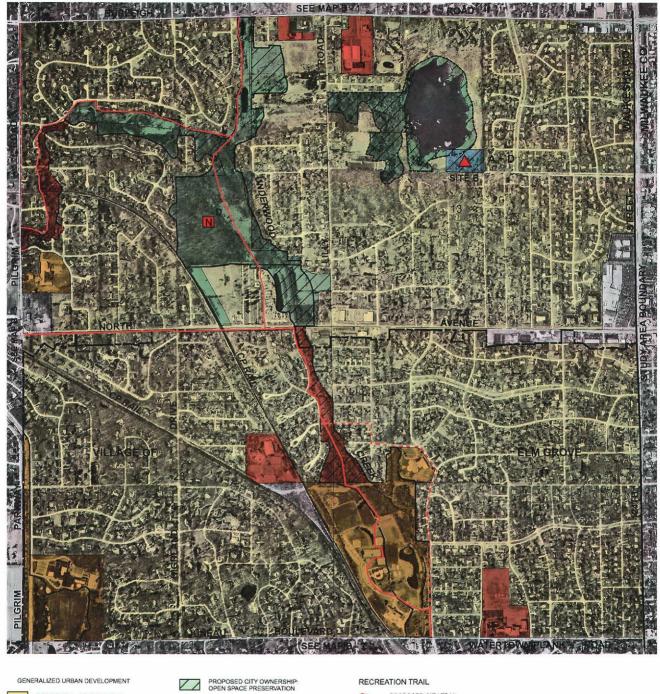


D ADDITIONAL DEVELOPMENT RECOMMENDED

2000 FEET

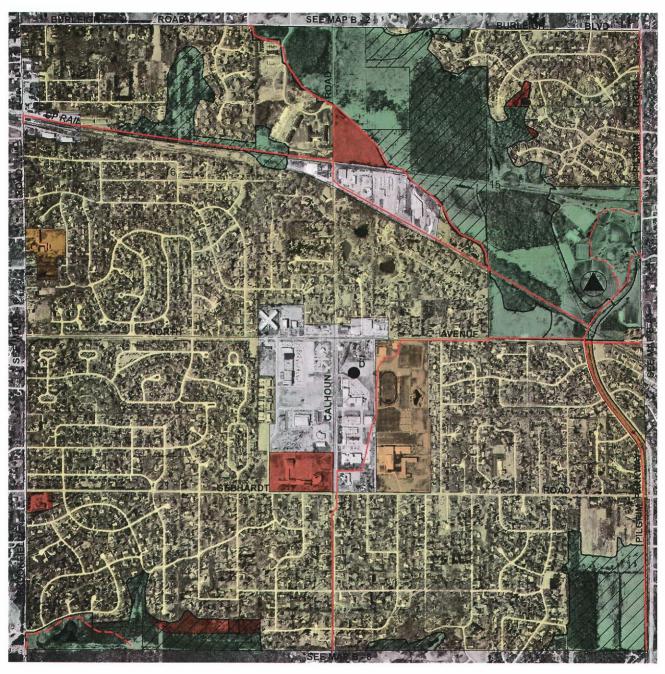
PROPOSED CITY OWNERSHIP: OUTDOOR RECREATION USE

U.S. Public Land Survey Sections 13, 14, 23 and 24, Township 7 North, Range 20 East



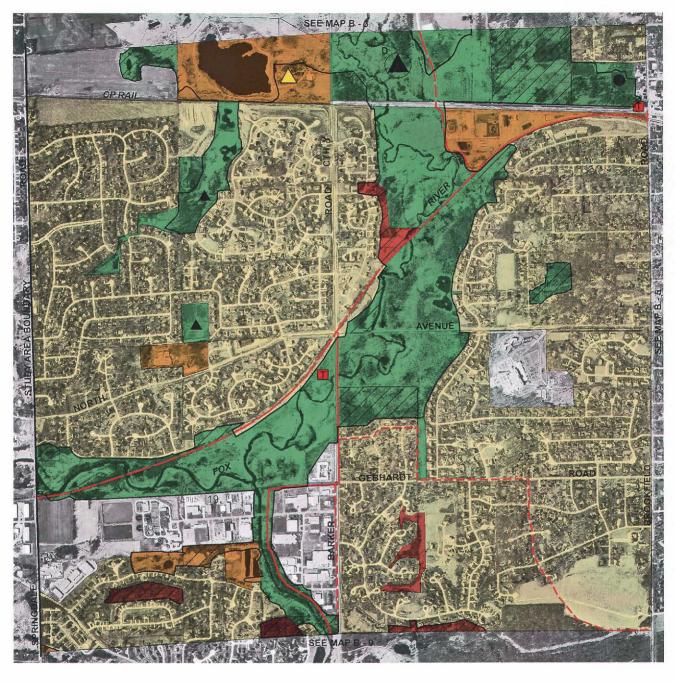


U.S. Public Land Survey Sections 15, 16, 21 and 22, Township 7 North, Range 20 East





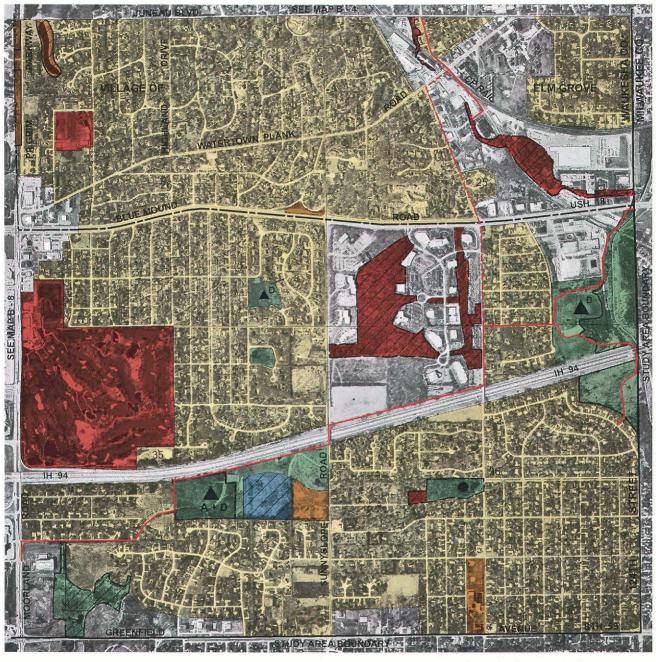
U.S. Public Land Survey Sections 17, 18, 19 and 20, Township 7 North, Range 20 East

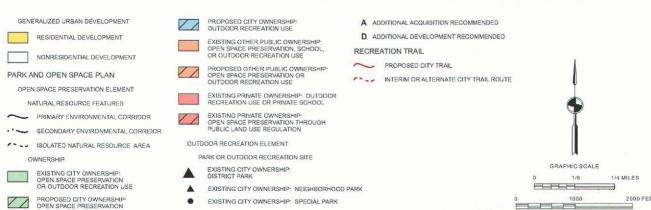




D ADDITIONAL DEVELOPMENT RECOMMENDED

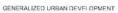
U.S. Public Land Survey Sections 25, 26, 35 and 36, Township 7 North, Range 20 East





U.S. Public Land Survey Sections 27, 28, 33 and 34, Township 7 North, Range 20 East







NONRESIDENTIAL DEVELOPMENT

PARK AND OPEN SPACE PLAN OPEN SPACE PRESERVATION ELEMENT

NATURAL RESOURCE FEATURES PRIMARY ENVIRONMENTAL CORRIDOR

SECONDARY ENVIRONMENTAL CORRIDOR

* . . ISOLATED NATURAL RESOURCE AREA OWNERSHIP

EXISTING CITY OWNERSHIP: OPEN SPACE PRESERVATION OR OUTDOOR RECREATION USE

PROPOSED CITY OWNERSHIP OPEN SPACE PRESERVATION

Source: SEWRPC.





EXISTING PRIVATE OWNERSHIP: OUTDOOR RECREATION USE OR PRIVATE SCHOOL

EXISTING PRIVATE OWNERSHIP: OPEN SPACE PRESERVATION THROUGH PUBLIC LAND USE REGULATION

OUTDOOR RECREATION ELEMENT PARK OR OUTDOOR RECREATION SITE

EXISTING CITY OWNERSHIP: DISTRICT PARK

EXISTING CITY OWNERSHIP: NEIGHBORHOOD PARK

PROPOSED CITY OWNERSHIP: NEIGHBORHOOD PARK

EXISTING CITY OWNERSHIP: SPECIAL PARK

A ADDITIONAL ACQUISITION RECOMMENDED

D ADDITIONAL DEVELOPMENT RECOMMENDED

RECREATION TRAIL

PROPOSED CITY TRAIL

INTERIM OR ALTERNATE CITY TRAIL ROUTE

POTENTIAL CITY TRAIL ACCESS SITE



U.S. Public Land Survey Sections 29, 30, 31, and 32, Township 7 North, Range 20 East





GENERALIZED URBAN DEVELOPMENT
RESIDENTIAL DEVELOPMENT

NONRESIDENTIAL DEVELOPMENT

EXISTING OTHER PUBLIC OWNERSHIP:
OPEN SPACE PRESERVATION, SCHOOL,
OR OUTDOOR RECREATION USE

PROPOSED OTHER PUBLIC OWNERSHIP:
OPEN SPACE PRESERVATION OR
OUTDOOR RECREATION USE

EXISTING PRIVATE OWNERSHIP: OUTDOOR
RECREATION USE OR PRIVATE SCHOOL

EXISTING PRIVATE OWNERSHIP:
OPEN SPACE PRESERVATION THROUGH
PUBLIC LAND USE REGULATION

OUTDOOR RECREATION ELEMENT
PARK OR OUTDOOR RECREATION SITE

EXISTING CITY OWNERSHIP: NEIGHBORHOOD PARK
RECREATION TRAIL
 PROPOSED CITY TRAIL
 INTERIM OR ALTERNATE CITY TRAIL ROUTE

