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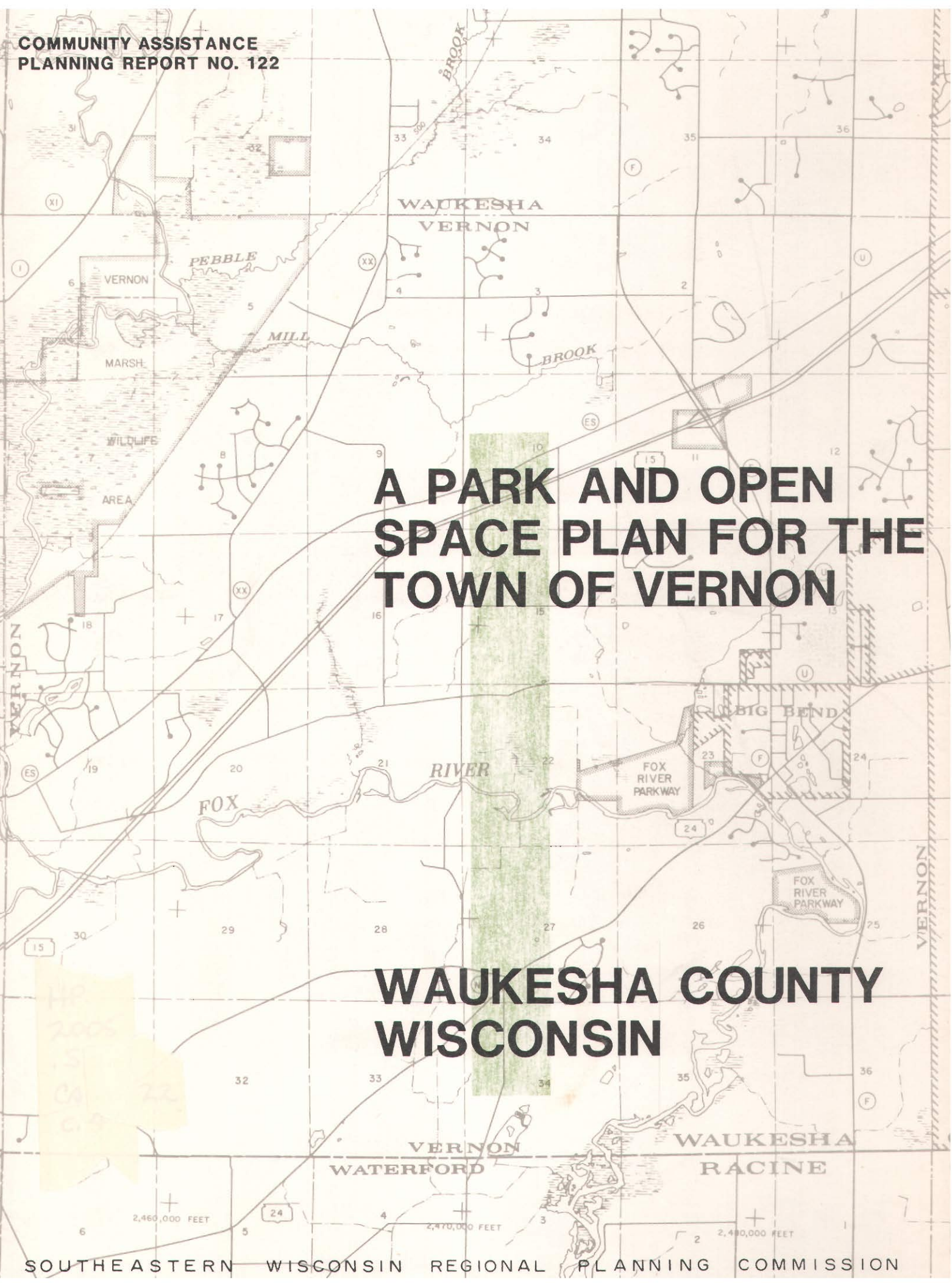
PLANNING REPORT NO. 122



A PARK AND OPEN SPACE PLAN FOR THE TOWN OF VERNON

WAUKESHA COUNTY WISCONSIN

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

COMMUNITY ASSISTANCE PLANNING REPORT
NUMBER 122

A PARK AND OPEN SPACE PLAN FOR THE TOWN OF VERNON WAUKESHA COUNTY, WISCONSIN

Prepared by the
Southeastern Wisconsin Regional Planning Commission
P. O. Box 769
Old Courthouse
916 N. East Avenue
Waukesha, Wisconsin 53187-1607

March 1985

Inside Region $3.00
Outside Region $6.00

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SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION

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March 21, 1985

Mr. John W. Bauer, Co-Chairman
Town of Vernon Park Commission
Town Hall
W249 S8910 Center Drive
Big Bend, Wisconsin 53103

Dear Mr. Bauer:

The Town of Vernon Park Commission on October 23, 1983, requested that the Southeastern Wisconsin Regional Planning Commission assist the Town in the preparation of a park and open space plan--a plan which would provide recommendations concerning the preservation, acquisition, and development of needed park and open space lands in the Town. Acting in response to that request, and working under the direction of the Town Park Commission, the Regional Planning Commission staff has completed the requested park and open space plan for the Town of Vernon.

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

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

The Regional Planning Commission is pleased to have been able to be of assistance to the Town in planning this important program. The Commission stands ready, upon request, to assist the Town in presenting the information and recommendations contained in this report to the public and to elected officials for review and evaluation prior to adoption and implementation.

Sincerely,

Kurt W. Bauer
Executive Director

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Chapter I

INTRODUCTION

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

In the past, public outdoor recreation facilities have been located primarily in urban areas and designed to be intensively utilized both for active outdoor recreation activities, such as baseball, swimming, tennis, and golf, and for passive outdoor recreation activities, such as walking, picnicking, and relaxing. Currently, such factors as increased leisure time and the diffusion of urban residential development into otherwise rural areas have resulted in increased demand and need for traditional intensive-use outdoor recreation areas. Additionally, these same factors have generated a need for a new type of outdoor recreation area, one which relies heavily on the extensive use and enjoyment of the underlying and sustaining natural resource base. This type of area provides a setting for such relatively new outdoor recreation activities as cross-country skiing, as well as for more passive outdoor recreation activities such as nature study and camping. These outdoor recreation activities, while relying on the use of certain elements of the natural resource base, do not require significant alteration of that base to provide a proper recreational setting. Because some of these activities are trail-oriented, they require the use of linear-type natural resource-oriented corridors. The demand for outdoor recreation areas which can be utilized on an extensive basis for both active and passive outdoor recreation activities is anticipated to increase, thereby increasing the need for protection and enhancement of the natural resource base. Accordingly, the primary purpose of this plan is to secure the outdoor recreation areas and facilities necessary to provide adequate opportunities for a variety of outdoor leisure-time activities for present and future residents of the Town of Vernon while at the same time assuring the wise use and protection of the natural resource base.

Park, recreation, and related open space planning requires careful consideration of a number of concerns in addition to outdoor recreation per se, including noise, air, and water pollution abatement; natural resource conservation; and the general enhancement of the overall quality of the environment. Within this full range of concerns, the provision of park, recreation, and related open space lands is of prime importance. In addition to providing land and facilities for outdoor recreation, parks and open space lands provide a means

of satisfying the human psychological need for natural surroundings. Park and open space lands can protect and enhance the natural resource base of an area, including groundwater, surface water and associated shorelands and floodlands, soils, woodlands, wetlands, and wildlife habitat areas. By protecting these elements of the natural resource base, flood damage can be reduced, soil erosion abated, water supplies protected, air cleansed, wildlife populations enhanced, and certain economic activities like food production directly assisted. The size, character, and shape of park, recreation, and related open space lands also have a profound effect on the land use development of an area. In addition to promoting tourism and enhancing land values, park and open space lands can lend form and structure to urban development by serving as a buffer between different land uses and providing a sharp and permanent definition to the boundaries of neighborhoods and communities. Park and open space lands can also be used to promote a sense of community and to bring people together.

Because of the importance of both outdoor recreation sites and areas for natural resource protection, park and open space acquisition, development, and use are issues of increasing concern to public officials and citizen leaders. On December 1, 1977, the Southeastern Wisconsin Regional Planning Commission adopted Planning Report No. 27, A Regional Park and Open Space Plan for Southeastern Wisconsin: 2000, which sets forth park and open space objectives together with a plan intended to guide the preservation, acquisition, and development of lands needed for outdoor recreation as well as for the protection of the natural resource base of the seven-county Southeastern Wisconsin Region to the year 2000. Similarly, in 1981 the Wisconsin Department of Natural Resources published the State Comprehensive Outdoor Recreation Plan, which sets forth statewide park and open space acquisition and development objectives.

As part of the regional park and open space plan, the Southeastern Wisconsin Regional Planning Commission recommended that each level of government in the Region refine the recommended regional plan as it affects its area of jurisdiction and integrate the regional plan into any existing local park and open space plans. In accordance with this recommendation and recognizing that the park and open space planning process should be carried out within the context of state and regional plans, the Town of Vernon Park Commission, on October 23, 1983, requested that the Regional Planning Commission prepare a park and open space plan for the Town of Vernon. A coordinating and advisory committee composed of members of the Town Park Commission was created to guide the necessary planning work.

The findings and recommendations of this planning effort are set forth in this report. Chapter II of this report presents a general description of the Town of Vernon, including an inventory of existing land uses, existing natural resource base elements, and existing park and open space sites. Chapter III presents the park and open space preservation, acquisition, and development objectives, principles, and supporting standards as a basis for the development of a town park and open space plan. The fourth and final chapter identifies park and open space needs and presents the recommended plan for the Town. It also includes a discussion of outdoor recreation laws and regulations related to the town level of government and identifies the actions required to implement the recommended plan.

Chapter II

A DESCRIPTION OF THE MAN-MADE AND NATURAL RESOURCE FEATURES OF THE TOWN OF VERNON

INTRODUCTION

The primary purpose of the Town of Vernon park and open space planning program is the preparation of a plan to guide the preservation, acquisition, and development of land for park, outdoor recreation, and related open space purposes as needed to satisfy the recreational demands of the resident population of the Town and to protect and enhance the underlying and sustaining natural resource base. Preparation of such a plan requires consideration of the existing pattern of land use and natural resource features in the Town. The Town is experiencing the diffusion of urban residential land uses which is occurring within southeastern Wisconsin, and increasing numbers of urbanites are becoming year-round residents of the Town, seeking the attractive setting and varied open space opportunities that are offered by outlying areas such as the Town of Vernon.

The principal urban land uses in the Town are residential and transportation, while the principal rural land uses are agricultural and other open space lands, including outdoor recreation lands, wetlands, and woodlands. The principal elements of the natural resource base important to park and open space planning in the Town are the surface water resources and associated shorelands and floodlands, woodlands, wetlands, wildlife habitat areas, prairies, and soils. Definitive knowledge of both the existing land use base and the natural resource base is necessary if the park and related open space facilities are to meet the outdoor recreation needs of the residents of the Town in an effective manner and contribute to the protection of the natural resource base and the enhancement of the overall quality of life within the Town. Accordingly, the data presented in this chapter were assembled for use in the development of the park and open space plan for the Town of Vernon. In addition, because of the physical proximity of the Village of Big Bend, certain demographic and land use data are presented for that village as well.

The first section of this chapter describes the Town of Vernon, including pertinent information on location and historic population growth. The second section describes the existing land use base and the current zoning districts and attendant regulations. The third section of the chapter presents an inventory of park and open space sites in the Town, and the final section describes the environmental corridors and important agricultural lands in the Town of Vernon.

GENERAL DESCRIPTION OF THE TOWN OF VERNON

The Town of Vernon is located in the south-central portion of Waukesha County and is bounded on the east by the City of Muskego; on the north by the Town of Waukesha; on the west by the Town of Mukwonago; and on the south by the Town

of Waterford in Racine County (see Map 1). The study area considered in this park and open space planning program encompasses the entire area within the corporate limits of the Town of Vernon. As noted earlier, because of the impact the recreational facilities located in the Village of Big Bend would have upon the Town of Vernon, the Village of Big Bend is included within the study area. The study area is approximately 35.1 square miles in size, with the Town of Vernon comprising about 34.3 square miles, or 98 percent of the study area, and the Village of Big Bend comprising the remaining 0.8 square mile, or 2 percent of the study area. Arterial streets and highways serving the study area include STH's 15 and 24 and CTH's ES, F, I, NN, U, and XX.

The resident population of the Town of Vernon was first enumerated in 1850 at 889 persons (see Table 1). The population of the Town increased slowly but steadily until 1900, when the resident population was 1,307 persons. Between 1900 and 1910, the resident population decreased slightly, and thereafter remained essentially stable until 1928, when the Village of Big Bend was incorporated from a portion of the Town. The resident population of the Town of Vernon increased steadily between 1930 and 1970--at an average rate of about 50 persons per year--so that by 1970 the resident population was 2,857 persons. Between 1970 and 1980, the resident population increased dramatically--at an average rate of over 350 persons per year--with the 1980 census data indicating 6,372 persons residing in the Town of Vernon.

LAND USE BASE

Land use is an important determinant of both the supply of and demand for recreation facilities, and an understanding of the amount, type, and spatial distribution of urban and rural land uses within both the Village and the Town is essential to the development of a park and open space plan. In addition, an understanding of the amount of land available for conversion to urban land uses, as reflected in the existing zoning ordinance and maps, is important to the development of a park and open space plan. This section describes the existing (1980) land use base and existing zoning.

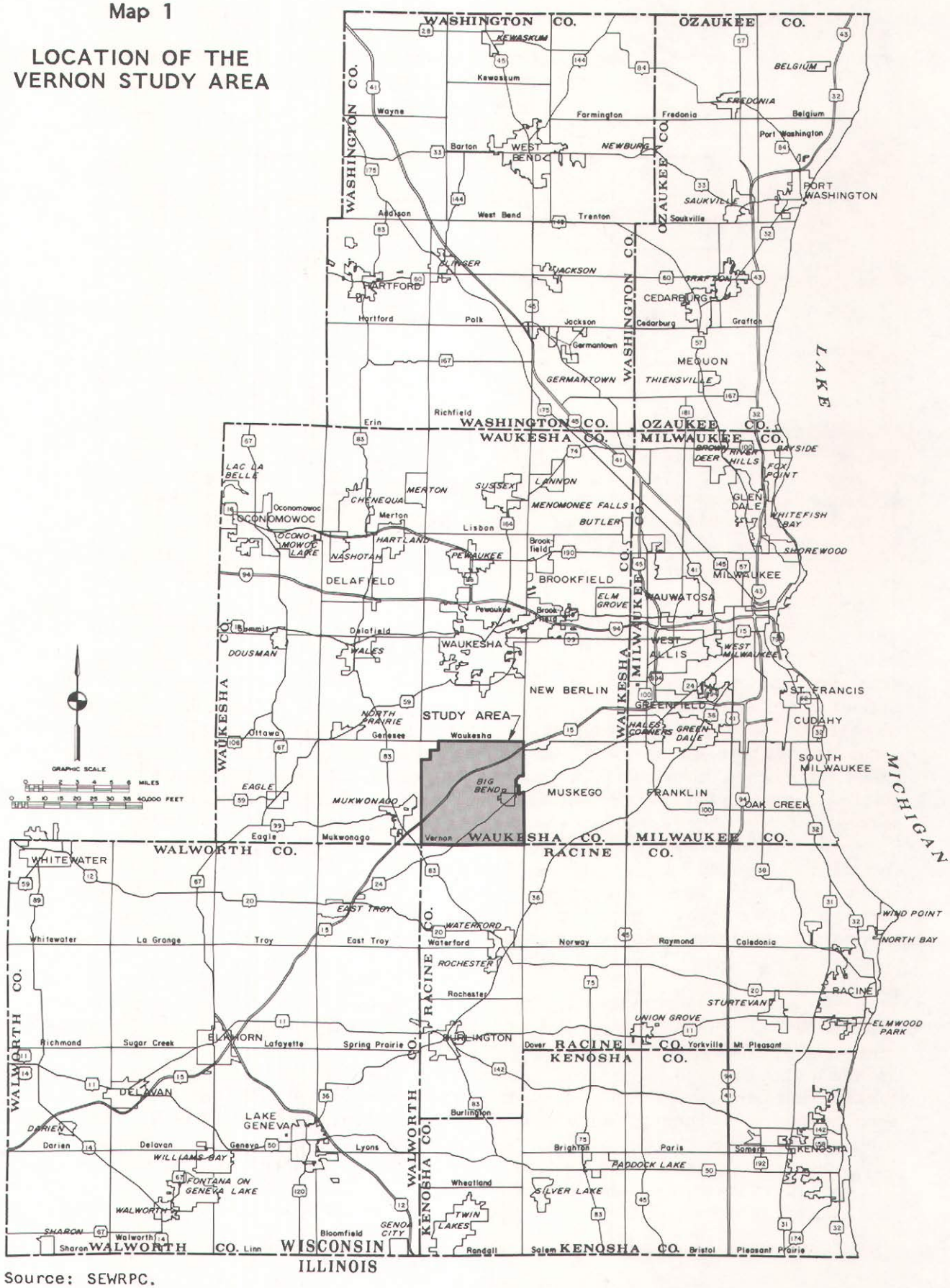
Existing Land Use Base

Settlement of southeastern Wisconsin by Europeans began in about 1836. In the Town of Vernon this settlement was reflected by the conversion of land from the existing native vegetation to agricultural and urban use. The location and extent of urban development in 1950 and selected succeeding years in the Town of Vernon and Village of Big Bend are shown on Map 2. In 1950 only a small amount of land within the study area--located within and adjacent to the Village of Big Bend--was devoted to urban uses. Subsequent to 1950, urban development continued at a relatively slow rate until 1970, when urban development rapidly increased in many scattered locations throughout the Town. Indeed, as shown on Map 2, the land occupied by urban development between 1970 and 1980 covered more than three times the amount of land developed for urban purposes before 1970.

The type and spatial distribution of land uses within the Town of Vernon, as well as within the Village of Big Bend, in 1980 are summarized on Map 3. This map illustrates existing development in the study area and shows that a significant portion of the land area of both the Town and the Village is still devoted to rural land uses.

Map 1

LOCATION OF THE VERNON STUDY AREA



Source: SEWRPC.

Table 1

POPULATION OF THE TOWN OF VERNON AND THE VILLAGE OF BIG BEND SELECTED YEARS 1850-1980

Year	Population		
	Town of Vernon	Village of Big Bend	Total
1850	889	--	889
1860	1,145	--	1,145
1870	1,180	--	1,180
1880	1,195	--	1,195
1890	1,277	--	1,277
1900	1,307	--	1,307
1910	1,231	--	1,231
1920	1,235	--	1,235
1930	1,113	309[a]	1,422
1940	1,201	298	1,499
1950	1,464	480	1,944
1960	2,037	797	2,834
1970	2,857	1,148	4,005
1980	6,372	1,345	7,717

[a]The Village of Big Bend was incorporated from a portion of the Town of Vernon in 1928.

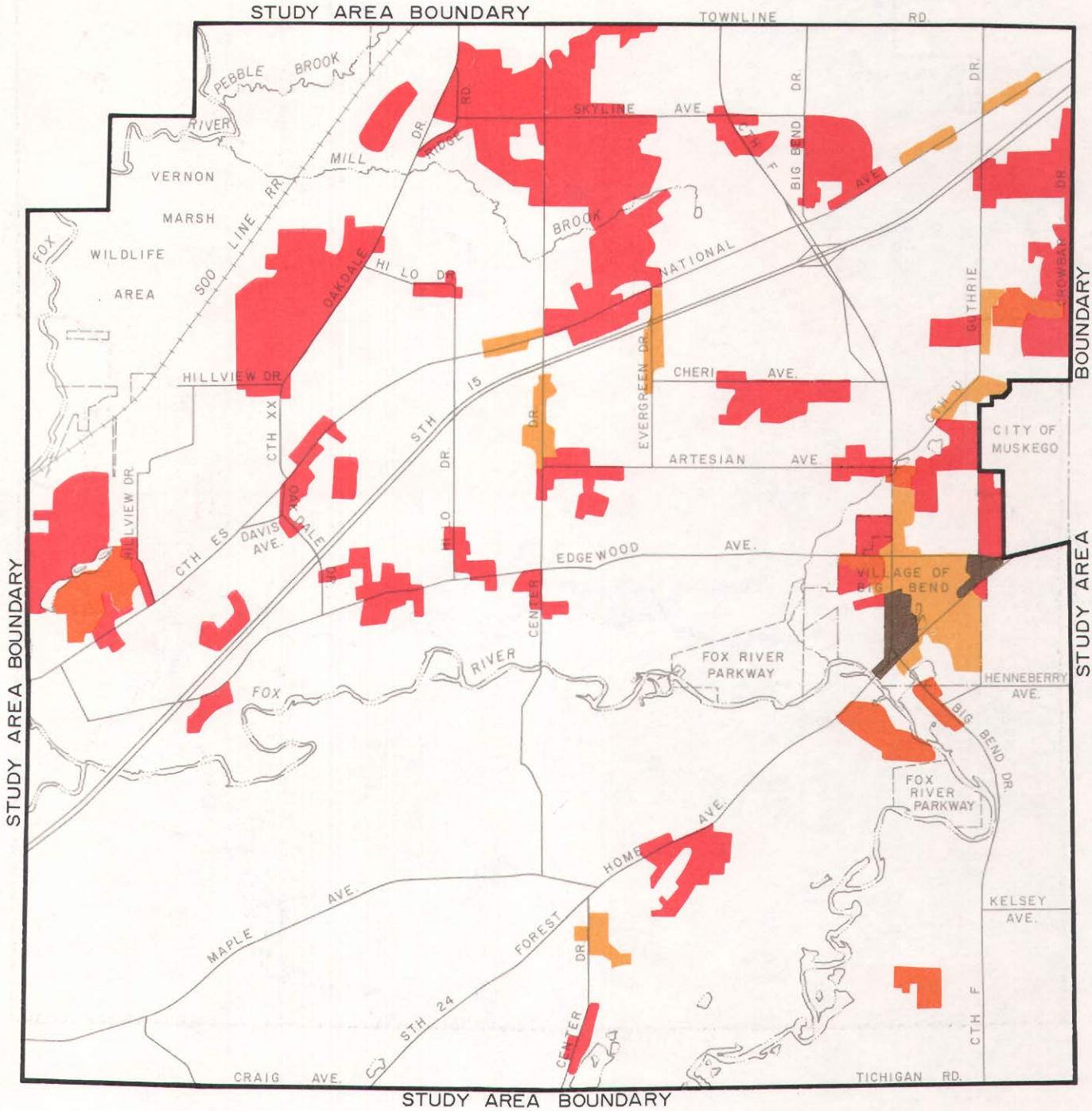
Source: U. S. Bureau of the Census and SEWRPC.

With respect to the Town of Vernon, agricultural land uses accounted for 11,240 acres, or about 51 percent of the total area of the Town. In addition to agricultural land uses, rural land uses in the Town of Vernon in 1980 included surface water, wetlands, woodlands, and other open lands. Combined, these land uses totaled 7,069 acres, or about 32 percent of the area of the Town. Urban land uses accounted for about 3,666 acres in the Town, or 17 percent of the town area, as shown in Table 2. Residential lands accounted for 2,281 acres, or about 11 percent of the town area, and transportation uses, including highway rights-of-way and railroad rights-of-way, totaled 1,093 acres, or about 5 percent of the town area. Other land uses, including commercial, industrial, governmental and institutional, and intensively used outdoor recreation lands, accounted for the remaining 292 acres, or about 1 percent of the total area of the Town of Vernon.

With respect to the Village of Big Bend, residential land uses accounted for 199 acres, or about 41 percent of the total area of the Village. Transportation and industrial land uses totaled 90 acres, or about 19 percent of the area of the Village. The other urban land uses, including commercial, governmental and institutional, and intensively used outdoor recreation lands, accounted for 34 acres, or about 7 percent of the area of the Village. Rural land uses in the Village of Big Bend, including agricultural land uses, surface water, wetlands, and other open lands, totaled 163 acres, or about 33 percent of the total area of the Village.

Map 2

HISTORIC URBAN GROWTH IN THE TOWN OF VERNON: 1950-1980



LEGEND

- 1950
- 1963
- 1970
- 1980

GRAPHIC SCALE

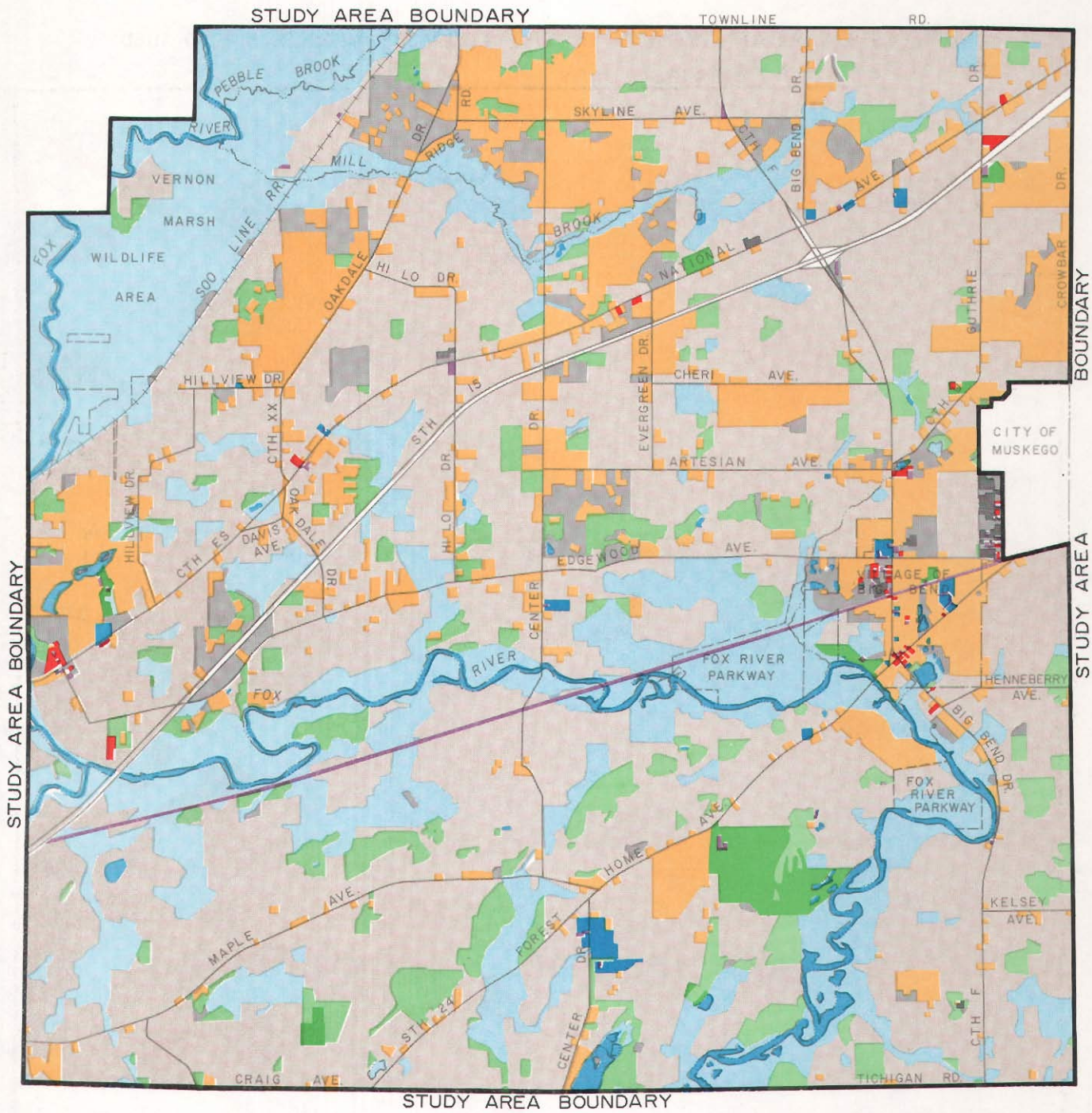
0 1/2 1 MILE

0 2000 4000 6000 FEET

Source: SEWRPC.

Map 3

LAND USE IN THE TOWN OF VERNON AND THE VILLAGE OF BIG BEND: 1980



LEGEND

- RESIDENTIAL
- COMMERCIAL
- INDUSTRIAL
- TRANSPORTATION
- GOVERNMENTAL AND INSTITUTIONAL
- RECREATIONAL
- AGRICULTURE
- WETLANDS
- WOODLAND
- OTHER OPEN LANDS
- WATER

GRAPHIC SCALE
0 1 MILE
0 2000 4000 6000 FEET

Source: SEWRPC.

Table 2

EXISTING LAND USE IN THE TOWN OF VERNON AND THE VILLAGE OF BIG BEND: 1980

Land Use Category	Town of Vernon				Village of Big Bend				Total Study Area		
	Acres	Percent of Subtotal	Percent of Town	Percent of Study Area	Acres	Percent of Subtotal	Percent of Village	Percent of Study Area	Acres	Percent of Subtotal	Percent of Study Area
Urban											
Residential[a]	2,281	62.3	10.4	10.1	199	61.6	41.0	0.8	2,480	62.2	10.9
Commercial	26	0.7	0.1	0.1	9	2.8	1.8	0.1	35	0.9	0.2
Industrial[b]	9	0.2	0.1	0.1	25	7.7	5.1	0.1	34	0.9	0.2
Transportation[c]	1,093	29.8	4.9	4.8	65	20.1	13.4	0.2	1,158	29.0	5.0
Governmental and Institutional	59	1.6	0.3	0.3	10	3.1	2.1	0.1	69	1.7	0.4
Recreational[d]	198	5.4	0.9	0.9	15	4.7	3.1	0.1	213	5.3	1.0
Subtotal	3,666	100.0	16.7	16.3	323	100.0	66.5	1.4	3,989	100.0	17.7
Rural											
Agricultural	11,240	61.4	51.1	50.0	36	22.1	7.4	0.1	11,276	61.0	50.1
Surface Water	395	2.2	1.8	1.8	14	8.6	2.9	0.1	409	2.2	1.9
Wetlands	4,523	24.7	20.6	20.6	39	23.9	8.0	0.2	4,562	24.7	20.3
Woodlands	1,468	8.0	6.7	6.5	2	1.2	0.4	0.1	1,470	8.0	6.6
Other Open Lands[e]	683	3.7	3.1	3.1	72	44.2	14.8	0.3	755	4.1	3.4
Subtotal	18,309	100.0	83.3	81.5	163	100.0	33.5	0.8	18,472	100.0	82.3
Total	21,975	--	100.0	97.8	486	--	100.0	2.2	22,461	--	100.0

[a] Includes residential areas under development.

[b] Includes wholesaling and storage.

[c] Includes off-street parking, communication facilities, and utilities.

[d] Consists of intensively used outdoor recreation areas.

[e] Includes extractive uses and landfills.

Source: SEWRPC.

Existing Zoning

The community zoning ordinance represents one of the most important and significant tools available to local units of government for directing the proper use of lands within their areas of jurisdiction. The zoning ordinance currently in effect within the Town of Vernon is administered jointly by the Town and Waukesha County. The ordinance was initially approved and adopted by Waukesha County in 1946. A comprehensive revision of the ordinance was undertaken and adopted in 1959 and most recently amended in 1981, and this revised ordinance was in effect in 1984. Table 3 summarizes the general zoning districts included in this ordinance.

As indicated in Table 3, there are a total of 20 zoning districts provided in the Waukesha County zoning ordinance. Of these 20 districts, 12 districts were applied within the Town of Vernon in 1983: Conservancy (C-1), Exclusive Agricultural (A-E), Rural Home (A-2), Residential (R-1), Residential (R-1a), Residential (R-2), Residential (R-3), Public (P-1), Local Business (B-2), General Business (B-3), Limited Industrial (M-1), and Quarrying (Q-1). All of the districts applied in the Town of Vernon except the Conservancy (C-1) District and the Exclusive Agricultural (A-E) District permit, in effect, urban residential uses. The areas of land placed in each of these 12 districts are shown graphically on Map 4 and quantified in Table 4.

As indicated in Table 4, about 65 percent of the total land area of the Town may presently be used for urban residential purposes on lots three acres or less in area under the existing zoning ordinance and district map. The remaining 35 percent of the area of the Town has been placed in the Conservancy (C-1) and Exclusive Agricultural (A-E) Districts, which do not permit intensive urban development.

In addition to the general Waukesha County zoning ordinance, the Waukesha County Board of Supervisors adopted a Shoreland and Floodland Protection Zoning Ordinance in 1970. This ordinance, prepared pursuant to the requirements of the Wisconsin Water Resource Act of 1965, imposes special land use regulations on all lands located within 1,000 feet of the shoreline of any navigable lake, pond, or flowage and within 300 feet of the shoreline of any navigable river or stream, or to the landward side of the floodplain, whichever is greater. The shoreland and floodplain zoning map applicable to the Town of Vernon was prepared and adopted in 1970 and is shown on Map 5. It should be noted that certain conflicts exist between the general zoning map and the shoreland/floodland zoning map. These conflicts generally occur along the Fox River and involve differences in the Conservancy (C-1) zoning district boundaries. For instance, the Town and County have placed lands in the southeastern portion of the study area in the C-1 Conservancy and A-E Exclusive Agricultural Districts, thus prohibiting nonfarm residential development. However, the shoreland/floodland zoning district map shows some of these same areas to be located in the R-1 Residential District, which requires a minimum lot size of one acre for a single-family residence. An attempt should be made by the Town and County to resolve the conflicts between the two zoning maps in the Town of Vernon to assure consistency between maps.

It is also important to note that because 65 percent of the total area of the Town is available for essentially urban residential use under the existing zoning ordinance the diffusion of urban-type development throughout the Town

Table 3

SUMMARY OF EXISTING GENERAL ZONING DISTRICTS UNDER THE ADOPTED WAUKESHA COUNTY ZONING ORDINANCE

Zoning District	Permitted Uses		Conditional/ Special Uses	Area Regulations		
				Lot Size		
	Principal	Accessory		Minimum Area	Minimum Average Width	Minimum Open Space
C-1 Conservancy District	Open Space Uses	--	Outdoor Recreation Facilities, Quarrying, Refuse Disposal Sites, Fish Hatcheries	--	--	--
A-E Exclusive Agricultural District	Open Space Uses, Agricultural Uses	--	Outdoor Recreation Facilities, Quarrying Refuse Disposal Sites, Fish Hatcheries	--	--	--
A-P Agricultural Land Preservation District	Agricultural Uses, Open Space Uses, Farm Dwellings	--	Agricultural-Related Sales and Services	35 Acres	600 Feet	--
A-B Agricultural Business District	Agricultural-Related Sales, Services, Warehousing, and Transport; Cheese Factories; Feed Mills; Poultry Production; Veterinarian Services	--	Airports, Churches, Cemeteries, Fish Hatcheries, Laboratories, Motels and Hotels, Outdoor Recreation Facilities, Quarrying, and Refuse Disposal Sites	5 Acres	300 Feet	--
A-O Existing Agricultural Overlay District	Uses Permitted in the Underlying Basic District	--	--	--	--	--
A-1 Agricultural District	Single-Family Residence, Agricultural Uses	Garages, Barns, Home Occupations	Airports, Gift Shops, Kennels, Churches, Cemeteries, Fish Hatcheries, Special Agricultural Uses, Laboratories, Mobile Home Parks, Motels and Hotels, Outdoor Theaters, Planned Unit Development, Outdoor Recreation Facilities, Public Buildings, Quarrying, Refuse Disposal Sites, Restaurants and Taverns	3 Acres	200 Feet	2 Acres
A-1a Agricultural District	Single-Family Residence, Agricultural Uses	Garages, Barns, Home Occupations	Airports, Churches, Cemeteries, Fish Hatcheries, Special Agricultural Uses, Laboratories, Mobile Home Parks, Motels and Hotels, Outdoor Theaters, Planned Unit Development, Outdoor Recreation Facilities, Public Buildings, Quarrying, Refuse Disposal Sites	1 Acre	150 Feet	30,000 Feet^2

Table 3 (continued)

Zoning District	Permitted Uses		Conditional/ Special Uses	Area Regulations		
				Lot Size		
	Principal	Accessory		Minimum Area	Minimum Average Width	Minimum Open Space
A-2 Rural Home District	Single-Family Residence, Agricultural Uses	Garages, Barns, Home Occupations	Gift Shops Churches, Cemeteries, Fish Hatcheries, Laboratories, Planned Unit Development, Outdoor Recreation Facilities, Public Buildings, Refuse Disposal Sites, Restaurants and Taverns	3 Acres	200 Feet	2 Acres
A-3 Suburban Estate District	Single-Family Residence, Agricultural Uses	Garages, Barns, Home Occupations	Gift Shops, Churches, Cemeteries, Fish Hatcheries, Planned Unit Development, Outdoor Recreation Facilities, Public Buildings, Refuse Disposal Sites, Restaurants and Taverns	2 Acres	175 Feet	75,000 Feet^2
R-1 Residential District	Single-Family Residence (1,300 Square Foot Minimum Floor Area)	--	Gift Shops, Churches, Cemeteries, Fish Hatcheries, Motels and Hotels, Planned Unit Development, Outdoor Recreational Facilities, Public Buildings, Restaurants and Taverns	1 Acre	150 Feet	30,000 Feet^2
R-1a Residential District	Single-Family Residence (1,500 Square Foot Minimum Floor Area)	--	Gift Shops, Churches Cemeteries, Fish Hatcheries, Motels and Hotels, Planned Unit Development, Outdoor Recreational Facilities, Public Buildings, Restaurants and Taverns	1 Acre	150 Feet	30,000 Feet^2
R-2 Residential District	Single-Family Residence	--	Gift Shops, Churches Cemeteries, Fish Hatcheries, Motels and Hotels, Planned Unit Development, Outdoor Recreational Facilities, Public Buildings, Restaurants and Taverns	30,000 Feet^2	120 Feet	25,000 Feet^2
R-3 Residential District	Single-Family Residence	--	Gift Shops, Churches, Cemeteries, Fish Hatcheries, Motels and Hotels, Multiple-Family Dwellings, Planned Unit Development, Outdoor Recreational Facilities, Public Buildings, Restaurants and Taverns	20,000 Feet^2	120 Feet	15,000 Feet^2

Table 3 (continued)

Zoning District	Permitted Uses		Conditional/ Special Uses	Area Regulations		
				Lot Size		
	Principal	Accessory		Minimum Area	Minimum Average Width	Minimum Open Space
P-1 Public District	Recreational, Governmental, and Institutional Uses	--	Churches, Cemeteries, Fish Hatcheries, Laboratories, Motels and Hotels, Planned Unit Development, Outdoor Recreational Facilities, Public Buildings, Quarrying, Refuse Disposal Sites	--	--	--
B-1 Restricted Business District	Single Family, Multiple Family, Limited Retail and Service	--	Churches, Cemeteries, Fish Hatcheries, Mobile Home Parks, Planned Unit Development, Outdoor Recreational Facilities, Public Buildings, Refuse Disposal Sites, Restaurants and Taverns	20,000 Feet^2	120 Feet	15,000 Feet^2
B-2 Local Business District	Retail and Service, Single Family, Multiple Family	--	Service Stations, Kennels, Churches, Cemeteries, Fish Hatcheries, Drive-in Foods, Mobile Home Parks, Motels and Hotels, Multiple-Family Dwellings, Outdoor Theaters, Planned Unit Recreational Facilities, Public Buildings, Quarrying, Refuse Disposal Sites	20,000 Feet^2	120 Feet	15,000 Feet^2
B-3 General Business District	Commercial Uses	Single-Family Residence	Service Stations, Kennels, Churches, Cemeteries, Fish Hatcheries, Drive-in Foods, Mobile Home Parks, Motels and Hotels, Multiple-Family Dwellings, Outdoor Theaters, Planned Unit Development, Outdoor Recreational Facilities, Public Buildings, Quarrying, Refuse Disposal Sites	20,000 Feet^2	120 Feet	15,000 Feet^2
Q-1 Quarrying District	Quarrying, Open Space, Agricultural, Single-Family Residence	--	Churches, Cemeteries, Fish Hatcheries, Mobile Home Parks, Motels and Hotels, Planned Unit Development, Outdoor Recreational Facilities, Public Buildings Quarrying, Refuse Disposal Sites	3 Acres	200 Feet	2 Acres

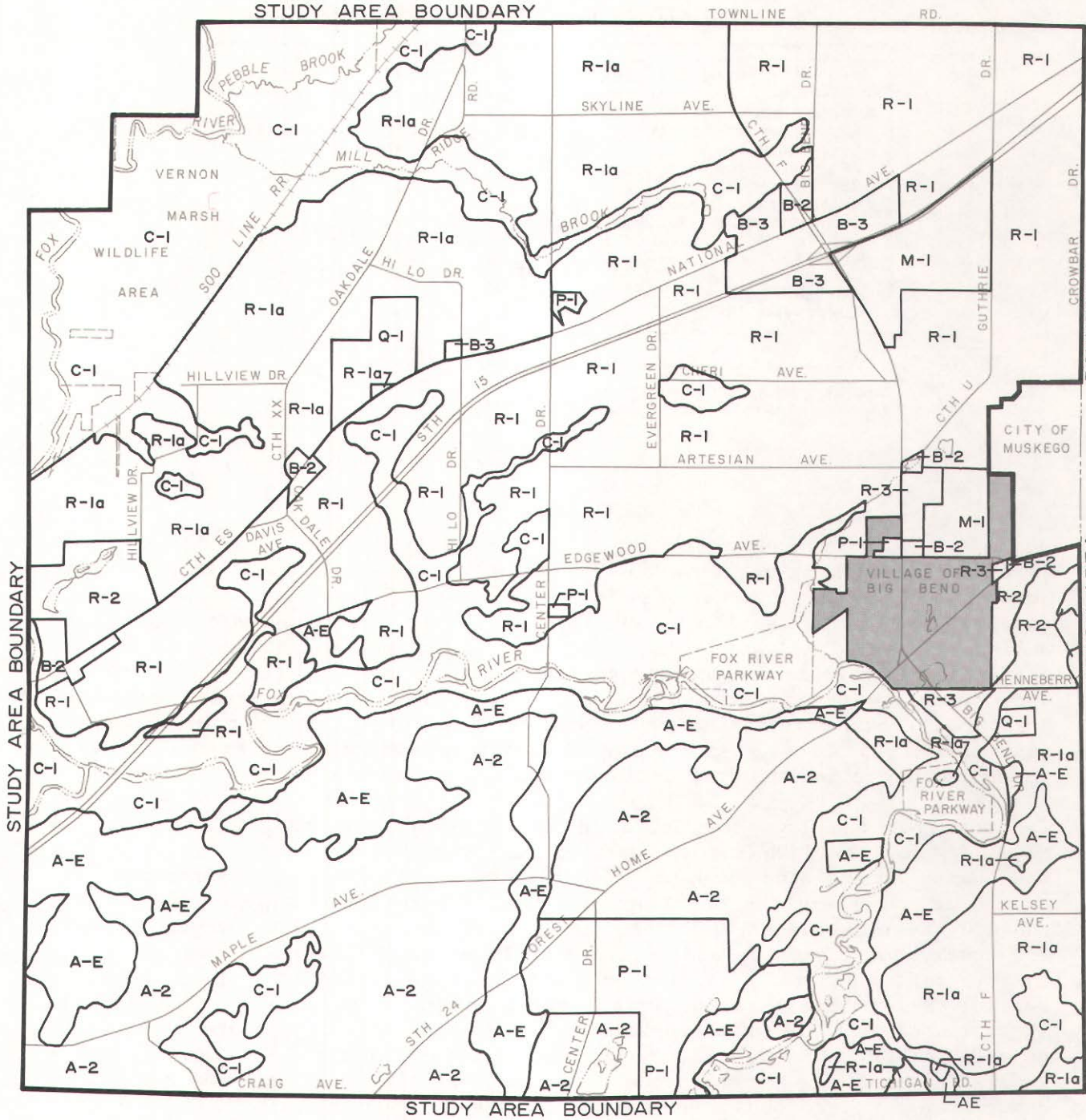
Table 3 (continued)

Zoning District	Permitted Uses		Conditional/ Special Uses	Area Regulations		
				Lot Size		
	Principal	Accessory		Minimum Area	Minimum Average Width	Minimum Open Space
M-1 Limited Industrial District	Commercial, Limited Industrial (low impact on surrounding residential uses)	Single-Family Residence	Service Stations, Kennels, Cemeteries, Fish Hatcheries, Drive-in Foods, Special Agricultural Uses, Laboratories, Mobile Home Parks, Motels and Hotels, Outdoor Theaters, Planned Unit Development, Outdoor Recreational Facilities, Public Buildings, Quarrying, Refuse Disposal Sites	1 Acre	150 Feet	--
M-2 General Industrial District	Quarrying, Industrial, Commercial	Single-Family Residence	Service Stations, Kennels, Cemeteries, Fish Hatcheries, Drive-in Foods, Special Agricultural Uses, Laboratories, Mobile Home Parks, Motels and Hotels, Outdoor Theaters, Planned Unit Development, Outdoor Recreational Facilities, Public Buildings, Quarrying, Refuse Disposal Sites	1 Acre	150 Feet	--

Source: Waukesha County Park and Planning Commission and SEWRPC.

Map 4

ZONING DISTRICTS IN THE TOWN OF VERNON: 1983



LEGEND

C-1	CONSERVANCY	R-3	RESIDENTIAL
A-E	EXCLUSIVE AGRICULTURE	P-1	PUBLIC
A-2	RURAL HOME	B-2	LOCAL BUSINESS
R-1	RESIDENTIAL	B-3	GENERAL BUSINESS
R-1a	RESIDENTIAL	M-1	LIGHT MANUFACTURING
R-2	RESIDENTIAL	Q-1	QUARRYING

GRAPHIC SCALE
0 1 MILE
0 2000 4000 6000 FEET

Source: Waukesha County Park and Planning Commission and SEWRPC.

Table 4

EXISTING ZONING DISTRICTS IN THE TOWN OF VERNON: 1983

Zoning District	Acres	Percent
Conservancy (C-1)	5,569	25.4
Exclusive Agricultural (A-E)	2,044	9.3
Rural Home (A-2)	3,348	15.2
Residential (R-1)	5,550	25.3
Residential (R-1A)	3,635	16.5
Residential (R-2)	311	1.4
Residential (R-3)	141	0.6
Public (P-1)	452	2.1
Local Business (B-2)	126	0.6
General Business (B-3)	247	1.1
Limited Industrial (M-1)	395	1.8
Quarrying (Q-1)	157	0.7
Total	21,975	100.0

Source: Waukesha County Park and Planning Commission and SEWRPC.

is encouraged, which may have costly economic and environmental consequences. Scattered urban development increases the costs of providing various public facilities and services; increases the likelihood of developing incomplete as well as scattered neighborhoods; and tends to create remnant areas which are difficult to utilize in appropriate rural uses and difficult to develop for more intensive urban uses if and when public services are made available. Scattered urban development may also create costly stormwater drainage and water quality problems, destroy the viability of agricultural areas, and lead to the deterioration and destruction of the natural resource base.

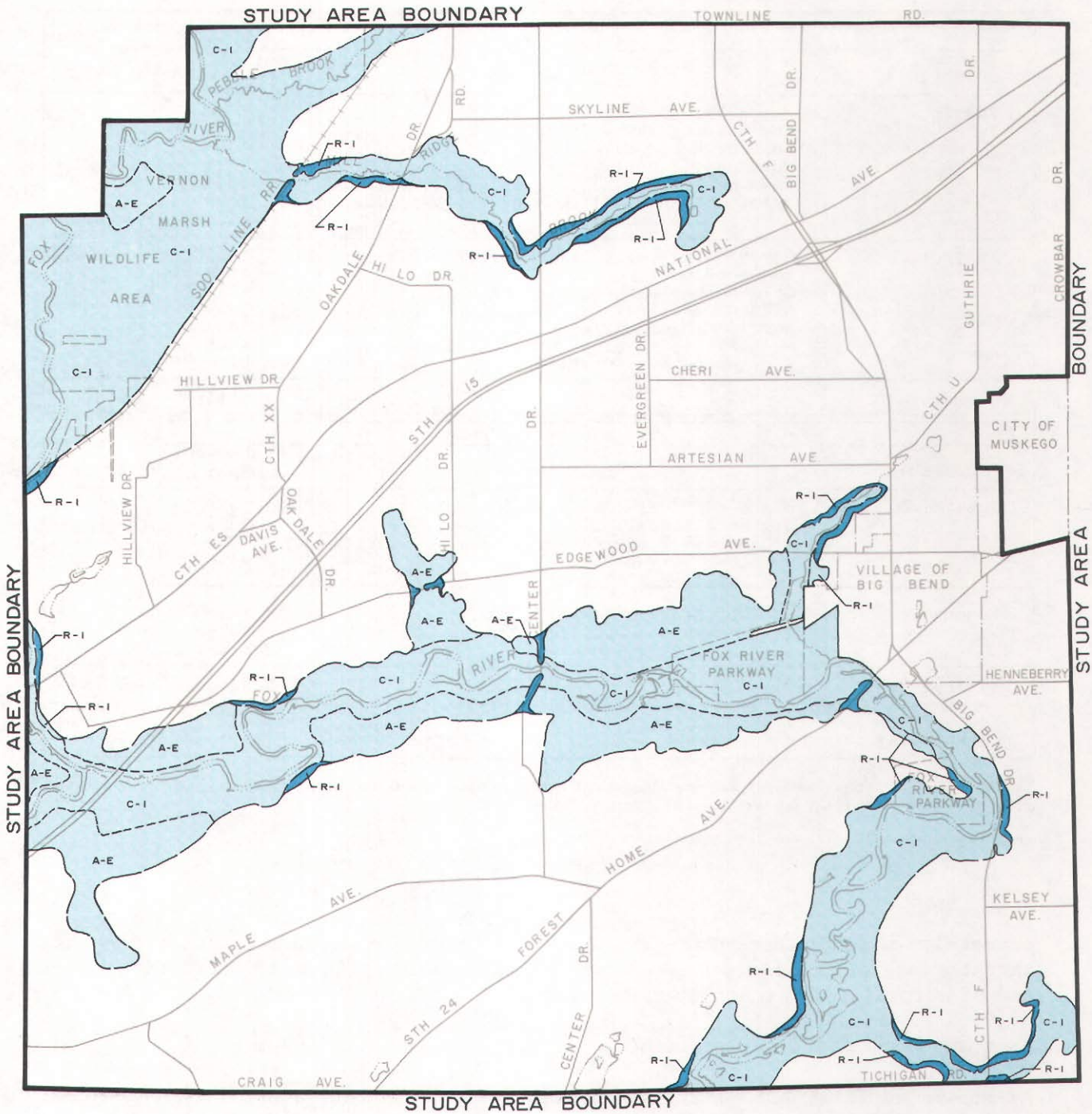
In order for the Town to control undesirable urban development, it will be necessary for the Town Board, together with the County, to critically review the county zoning ordinance and accompanying zoning district map for the Town and to act to amend the ordinance and map as necessary both to preserve and enhance the existing natural resource base of the Town and to prevent serious and costly developmental and environmental problems. The most pressing needs in this regard are for the creation and sound application of a true, exclusive agricultural zoning district which prohibits any urban uses, and a general agricultural district which permits residential and country estate development as well as agricultural and agriculture-related activities. In addition, consideration should be given to the creation of an exclusive park and recreation district and upland conservancy district. As already noted, the Town should further take steps to eliminate the conflicts between the general zoning map and the shoreland/floodland zoning map.

PARK AND OPEN SPACE SITES

In order to assess the need for park and open space sites, the existing park and open space sites must be inventoried. This section summarizes the findings of such an inventory in the Vernon study area, including both publicly and

Map 5

EXISTING FLOODLAND AND SHORELAND ZONING DISTRICTS IN THE TOWN OF VERNON: 1984



LEGEND

	SHORELAND DISTRICT	C-1	CONSERVANCY
		A-E	EXCLUSIVE AGRICULTURAL
	CONGRUENT FLOODLAND AND SHORELAND DISTRICT	R-1	AGRICULTURAL
------	ZONING BOUNDARY		

GRAPHIC SCALE
0 1/2 1 MILE
0 2000 4000 6000 FEET

Source: SEWRPC.

Table 5

EXISTING PARK AND OPEN SPACE SITES IN THE VERNON STUDY AREA: 1984

Town of Vernon			
Ownership	Site Name	Number on Map 6	Acres
Public	Fox River Parkway (site No. 1).....	1042	158
	Fox River Parkway (site No. 2).....	1043	88
	Heather Ridge Park.....	1045	13
	Mukwonago School District.....	1028	10
	Town Hall Site.....	1044	35
	Vernon Marsh Wildlife Area.....	1026	1,422[a]
	Public Subtotal	6 sites	1,726
Nonpublic	Campground	1036	32
	Edgewood Golf Course.....	1040	217
	German Shepherd Dog Club of Wisconsin....	1038	5
	Hidden Lakes Park.....	1039	17
	Norris Athletic Field.....	1037	5
	West Allis Training Kennel Club.....	1041	102
	Nonpublic Subtotal	6 sites	378
Town Total	--	12 sites	2,104

Village of Big Bend			
Ownership	Site Name	Number on Map 6	Acres
Public	Big Bend Riverside Park.....	1031	44
	Big Bend School.....	1029	7
	Big Bend Village Park.....	1032	4
	Public Subtotal	3 sites	55
Nonpublic	Christ Lutheran School.....	1034	1
	St. Joseph's School.....	1033	4
	Nonpublic Subtotal	2 sites	5
Village Total	--	5 sites	60
Study Area Total	--	17 sites	2,164

[a]This site is located within the Towns of Mukwonago, Vernon, and Waukesha. Only the area within the Town of Vernon has been tabulated here.

Source: SEWRPC.

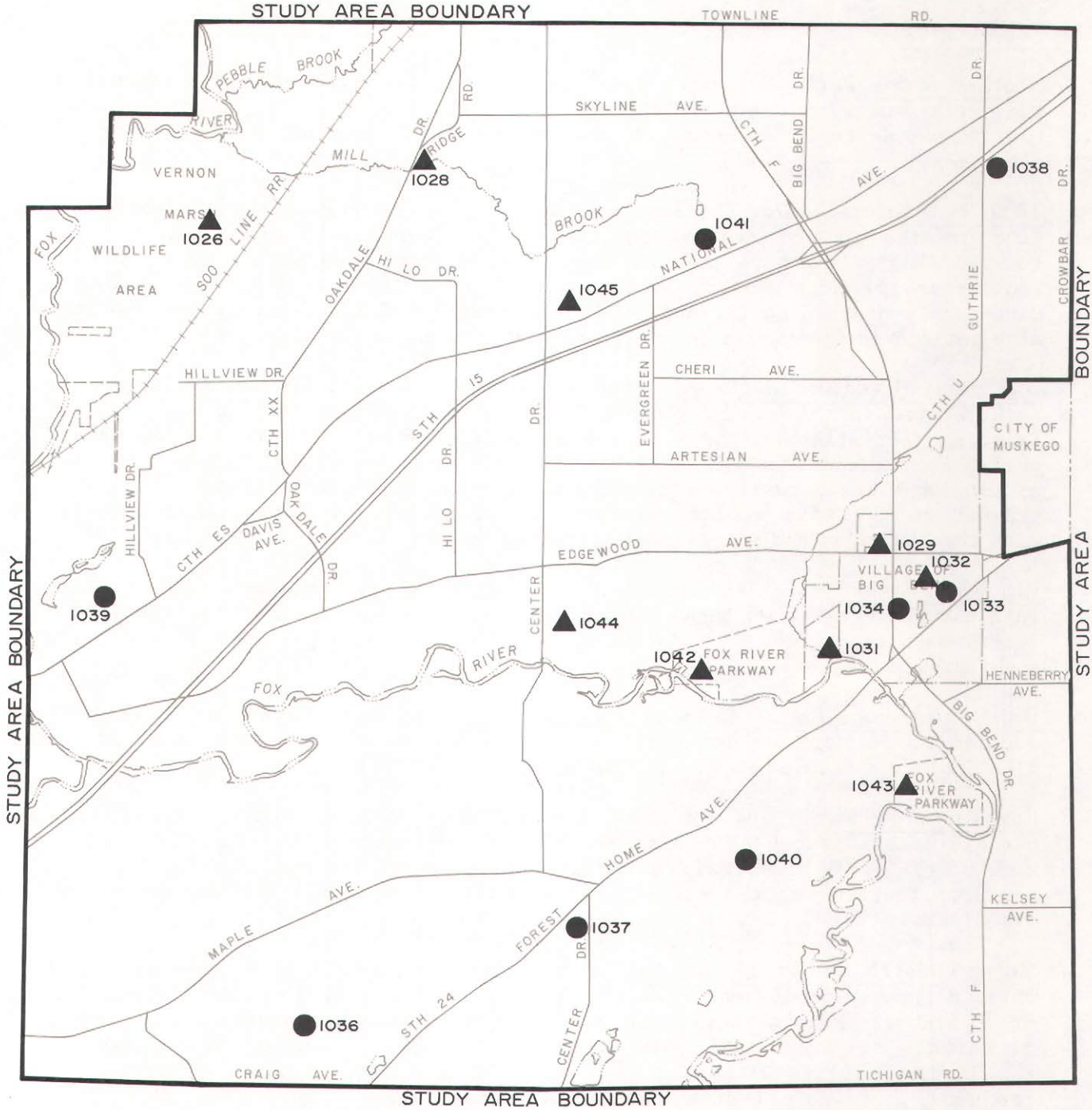
privately owned outdoor recreation sites. In addition, this section presents inventories of the sites listed on the National Register of Historic Places and of natural and scientific area sites.

Existing Park and Open Space Sites

As shown on Map 6 and indicated in Table 5, there were a total of 17 outdoor recreation sites in the Town of Vernon in 1984, encompassing 2,164 acres, or 10 percent of the total study area. Of this total, 12 sites encompassing 2,104 acres, or 98 percent of the total site acreage, were located within the Town of Vernon, with the remaining five sites encompassing 60 acres located within the Village of Big Bend. Of the total 17 outdoor recreation sites in the Vernon study area, nine sites encompassing 1,781 acres, or 53 percent of the sites and 82 percent of the total area, were publicly owned, with the remain-

Map 6

PARK AND OPEN SPACE SITES IN THE VERNON STUDY AREA: 1984



LEGEND

- ▲ PUBLIC OWNERSHIP
- ● NONPUBLIC OWNERSHIP
- 1045 SITE NUMBER (SEE TABLE 5)

GRAPHIC SCALE

0 1/2 1 MILE

0 2000 4000 6000 FEET

Source: SEWRPC.

ing eight sites encompassing 383 acres being nonpublicly owned. A detailed description of the public and nonpublic outdoor recreation sites within the Town of Vernon and the Village of Big Bend is presented below.

Public Sites:

Heather Ridge Park--Heather Ridge Park is a 13-acre town-owned park located in the north-central portion of the Town. Existing facilities at the site include two league softball diamonds, a sandlot softball diamond, and a children's play area.

Town Hall Site--The Town Hall site is a 35-acre, town-owned, undeveloped park site located in the central portion of the Town. The Vernon Town Hall is located in the northern portion of the site, and a farmhouse and barn are located in the northwestern portion of the site. The site is generally level, with poorly drained soils, and consists primarily of agricultural land. A six-acre wetland is located in the southeastern portion of the site.

Big Bend Riverside Park--Big Bend Riverside Park is a 44-acre village-owned park located in the southwestern portion of the Village along the Fox River. Existing facilities at the site include a children's play area and basketball goals. In addition, a partially wooded area provides opportunities for picnicking and other passive recreational activities. Natural resource features present on the site include wetlands and wildlife habitat areas associated with the Fox River and a perennial stream tributary to the Fox River.

Big Bend School--Big Bend School is located in the northern portion of the Village and includes seven acres utilized for intensive outdoor recreation facilities. Such facilities include two sandlot softball diamonds, a playfield, and a children's play area.

Big Bend Village Park--Big Bend Village Park is a four-acre village-owned park located in the northeastern portion of the Village. Existing facilities at the site include a sandlot softball diamond and a playfield.

Fox River Parkway--The Fox River Parkway lands consist of two county-owned parcels located along the main stem of the Fox River in the southeastern portion of the study area, which combined encompass an area of 246 acres. Natural resource features at the sites include wetlands, wildlife habitat areas, and floodlands.

Vernon Marsh Wildlife Area--The Vernon Marsh Wildlife Area is a state-owned wetland located in the northwestern portion of the study area. Within the Town of Vernon, the site covers 1,422 acres. The Vernon Marsh encompasses a variety of natural resources, including wetlands and floodlands associated with the Fox River, wildlife habitat areas, and woodlands, and provides opportunities for hiking, canoeing, hunting, and nature study.

Mukwonago School District Land--The Mukwonago School District land is a 10-acre parcel located in the northwestern portion of the Town of Vernon. There are no developed recreational facilities at the site; the natural resource features at the site include wetlands and wildlife habitat areas.

Nonpublic Sites:

Campground--A 32-acre campground is located in the southwestern portion of the Town. Important natural resource features present on the site include woodlands and wildlife habitat areas.

Edgewood Golf Course--The Edgewood Golf Course, located in the southeastern portion of the Town, provides a regulation 18-hole golf course and encompasses 217 acres.

German Shepherd Dog Club of Wisconsin--The German Shepherd Dog Club of Wisconsin is located in the northeastern portion of the Town and encompasses five acres.

Hidden Lakes Park--Hidden Lakes Park is a 17-acre subdivision park located in the west-central portion of the Town. Existing facilities at the site include one sandlot softball diamond, a playfield, a children's play area, and a swimming beach.

Norris Athletic Field--The Norris Athletic Field is a five-acre site within the Norris School for Boys' property located in the south-central portion of the Town. Existing facilities at the site include a little league ball diamond and a sandlot softball diamond. Both facilities are used by the Town for little league baseball.

West Allis Training Kennel Club--The West Allis Training Kennel Club is located in the north-central portion of the Town and encompasses 102 acres.

Christ Lutheran School--Christ Lutheran School is a one-acre school site located in the central portion of the Village of Big Bend. Existing facilities at the site include a playfield and a children's play area.

St. Joseph's School--St. Joseph's School is a one-acre school site located in the northeastern portion of the Village of Big Bend. Existing facilities at the site include a sandlot softball diamond, a playfield, and a children's play area.

Historic Sites

Historic Sites may be classified into one of three general categories: historic structures, archaeological features, and other cultural features. In general, historic structures include architecturally or historically significant buildings, including homes, churches, inns, government buildings, mills, and schools. Archaeological sites include areas occupied or utilized by man in such a way and for a sufficient length of time as to be marked by certain features--such as burial or effigy mounds--or to contain artifacts. Such sites are generally associated with early American Indian settlements. Other cultural features are sites of early European settlements or are closely related to such settlements, and include, for example, the location of old plank roads and cemeteries. A comprehensive inventory of historic sites has not been conducted within the Vernon study area; however, certain historic sites have been identified and evaluated and have been entered on the National Register of Historic Places.

The National Historic Preservation Act of 1966 authorized the Secretary of the U. S. Department of the Interior "to expand and maintain a national register of historic sites, buildings, structures, and objects significant in American history, architecture, archeology, and culture," thereby establishing the National Register of Historic Places. In the Vernon study area in 1983, there were five sites listed on the National Register of Historic Places: one historic structure, the Haseltine cobblestone house in U. S. Public Land Survey Section 14; and four archaeological sites, the Big Bend Mound Group No. 2 in Section 24, the Dewey Mound Group in Section 28, the Goodwin-McBean site in Section 15, and the Peterson site in Section 25.

Natural and Scientific Areas

Natural areas, as defined by the Wisconsin Scientific Areas Preservation Council, are tracts of land or water so little modified by man's 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 pre-European settlement landscape. Natural area sites are classified into one of the following four categories: state scientific area, natural area of statewide or greater significance, natural area of countywide or regional significance, and natural area of local significance.

Classification of an area into one of these four categories is based upon 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 from man's 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. More specifically, the four types of natural areas are defined as follows:

1. State scientific areas are those natural areas identified as being of at least statewide significance and which have been recognized and so designated by the the Wisconsin Department of Natural Resources, Scientific Areas Preservation Council.

2. Natural areas of statewide or greater significance are those natural areas which have not been significantly modified by man's activity or have sufficiently recovered from the effects of such activity so as to contain nearly intact native plant and animal communities which are believed to be representative of the pre-European settlement landscape, but which have not yet been classified as state scientific areas.

3. Natural areas of countywide or regional significance are those natural areas which have been slightly modified by man's activities or which have sufficiently recovered from the effects of such activities so as to contain good examples of native plant and animal communities representative of the pre-European settlement landscape. These natural areas are of lesser significance because their quality is less than ecologically ideal and there is evidence of past or present disturbance, such as logging, grazing, water level changes as a result of ditching or filling, or pollution; the area may contain very common plant or animal community types in the region, in which case only the best examples would qualify for state scientific area recognition; or the area may be

of insufficient size to qualify as a state scientific area. These natural areas may serve local communities as educational sites or as passive recreational areas and ecological zones which lend naturalness to their surroundings. In addition, these natural areas, if protected in an undisturbed condition, may be expected to increase in value over time. Therefore, some of these areas may in the future become natural or scientific areas of statewide significance.

4. Natural areas of local significance are those natural areas which have been significantly modified by man's activities, but nevertheless retain a modest amount of natural cover. Such natural areas are suitable for local educational use. Natural areas of local significance may reflect the patterns of former vegetation, or serve as examples of the influence of human settlements on vegetation. These natural areas may also be expected to increase in value if protected in an undisturbed condition.

Within the Vernon study area, a total of four natural areas encompassing 360 acres were identified. Of this total, two sites--the sites known as Stone property wetlands located in U. S. Public Land Survey Sections 22 and 23, encompassing 110 acres, and Martin's Upland Woods in Section 14, encompassing 35 acres--were identified as natural areas of countywide or regional significance, and two sites--the Norris Foundation Woods in Section 35, encompassing 45 acres and Martin's Lowland Woods in Sections 22 and 23, encompassing 170 acres--were identified as natural areas of local significance.

ENVIRONMENTAL CORRIDORS AND PRIME AGRICULTURAL LAND

Ecological balance and natural beauty within an area are important determinants of the ability of that area to provide a pleasant and habitable environment for all forms of life and to maintain its social and economic well-being. Preservation of the most significant aspects of the natural resource base, including environmental corridors and prime agricultural lands, is therefore essential to the well-being of an area. This section describes the environmental corridors and important agricultural lands of the Vernon study area.

Environmental Corridors

One of the most important tasks completed under the regional planning effort was the identification and delineation of those areas in southeastern Wisconsin in which concentrations of recreational, aesthetic, ecological, and cultural resources occur and which, therefore, should be preserved and protected in essentially natural, open uses. Such areas normally include one or more of the following seven elements of natural resource base which are essential to the maintenance of both the ecological balance and natural beauty of southeastern Wisconsin: 1) lakes, rivers, and streams and their associated shorelands and floodlands; 2) wetlands; 3) woodlands; 4) prairies; 5) wildlife habitat areas; 6) wet, poorly drained, and organic soils; and 7) rugged terrain and high-relief topography.

While the foregoing elements make up integral parts of the natural resource base, there are five additional elements which, although not part of the natural resource base per se, are closely related to, or centered upon, that base and are a determining factor in identifying and delineating areas with recreational, aesthetic, ecological, and cultural value. These five additional ele-

ments are: 1) existing park and open space sites; 2) potential park and open space sites; 3) historic sites; 4) significant scenic areas and vistas; and 5) natural and scientific areas.

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

In any discussion of environmental corridors and important natural features, it is important to point out that, because of the many interacting relationships existing between living organisms and their environment, the destruction or deterioration of an important element of the total environment may lead to a chain reaction of deterioration and destruction. The drainage of wetlands, for example, may have far-reaching effects, since such drainage may destroy fish spawning grounds, wildlife habitat, groundwater recharge areas, and natural filtration and floodwater storage areas of interconnecting stream systems. The resulting deterioration of surface water quality may, in turn, lead to a deterioration of the quality of the groundwater which serves as source of domestic, municipal, and industrial water supply, and upon which low flows of rivers and streams may depend. Similarly, the destruction of ground cover may result in soil erosion, stream siltation, more rapid runoff, and increased flooding, as well as the destruction of wildlife habitat. Although the effects of any one of the environmental changes may not in and of itself be overwhelming, the combined effects must eventually lead to a serious deterioration of the underlying and supporting natural resource base and of the overall quality of the environment for life. The need to maintain the integrity of the remaining environmental corridors and important natural resource features in the Vernon study area should, thus, be apparent.

Methodology for the Identification of Environmental Corridors: As already noted, the environmental corridors in southeastern Wisconsin encompass a wide range of diverse yet interconnected natural resource features. In order to precisely identify the location and extent of environmental corridors in the Region, a three-step process was followed: 1) a comprehensive inventory of important natural resource features was conducted; 2) the relative importance of such resource features was evaluated; and 3) the natural resource features were classified as primary environmental corridors, secondary environmental corridors, and isolated natural areas.

Inventory of Natural Resource Base and Related Elements: Inventories of the seven natural resource base elements and five natural resource base-related elements in the Vernon study area were conducted by the Commission, and inventory information was mapped on ratioed and rectified aerial photographs at a common scale of 1 inch equals 400 feet using a color code. The aerial photographs showing the detailed delineations of natural resource and natural resource base-related features in the Vernon study area are on file at the Commission offices. The definition of the seven natural resource base elements

and the five natural resource base-related elements, along with a brief discussion of the source of information for each natural resource inventory, is presented below.

Natural Resource Base Elements

1. Lakes, Rivers, and Streams and Their Associated Shorelands and Floodlands--Lakes have been classified by the Commission as either major or minor. Major lakes have 50 acres or more surface water area, while minor lakes have less than 50 acres of surface water area. All major lakes in southeastern Wisconsin are listed in Appendix C of SEWRPC Planning Guide No. 5, Floodland and Shoreland Development Guide. The surface area of each of these lakes is documented in a staff memorandum of April 15, 1977. There are no major lakes in the Vernon study area.

   Minor lakes were identified using aerial photographs. Only those minor lakes with a surface water area in excess of five acres were identified. Minor lakes less than five acres in size were generally located within another natural resource base element, primarily wetlands, and were included with the delineation of that natural resource base element. It is important to note that certain small surface water bodies such as sewage treatment lagoons and water-filled quarries were not identified as minor lakes. There are five minor lakes in the Vernon study area.

   Rivers and streams have been classified by the Commission as perennial and intermittent. The perennial and intermittent rivers and streams were identified on the basis of classifications shown on the 7.5-minute quadrangle topographic maps published by the U. S. Geological Survey. Only rivers and streams having a width of 50 feet or more were delineated as separate natural resource base elements on the 1 inch equals 400 feet scale aerial photographs. Rivers and streams less than 50 feet in width were included within the delineation of shorelands. In the Vernon study area, a total of about 52 linear miles of perennial and intermittent rivers and streams were identified.

   Shorelands may be associated with the identified minor lakes or with the identified perennial and intermittent rivers and streams. Because it is often difficult to identify the precise lateral extent of a shoreland area, a band of 50 feet in depth lying along both sides of and including all intermittent streams was delineated as the shoreland area; while a band 75 feet in depth lying along both sides of all perennial streams and a band 75 feet in depth for all minor lake shorelines was delineated as the shoreland area.

   The floodlands of a river or stream are the wide, gently sloping areas contiguous with, and usually lying on both sides of, a river or stream channel that is subject to inundation during a flood. For purposes of environmental corridor identification, the areas inundated by the 100-year recurrence interval flood event are considered to compose the floodlands. It is important to note that the limits of the 100-year recurrence interval flood can be delineated only on large-scale topographic maps based upon hydrologic and hydraulic studies that together

identify the stage--or elevation--of the design flood and the attendant extent of the floodland. Since no large-scale topographic maps have been completed for the Vernon study area, the Federal Emergency Management Agency, during its preparation of the flood insurance rate maps, has delineated--on the basis of hydrologic and hydraulic engineering studies--the 100-year recurrence interval flood stages for the portions of the Fox River, Mukwonago River, Krueger Brook, Mill Brook, and Pebble Brook within the Vernon study area.

2. Wetlands--Wetlands are defined by the Commission as those areas which are inundated or saturated by surface or groundwater at a frequency and with a duration sufficient to support--and that, under normal circumstances, do support--vegetation typically adapted to life in saturated soil conditions. Wetlands include deep and shallow marshes, sedge meadows, fresh meadows, shrub carrs, alder thickets, low pairies, fens, bogs, lowland hardwoods, and conifer swamps. A special inventory of wetlands conducted by the Commission in 1979, and updated under the Wisconsin Wetland Mapping Program in 1981, served as the basis for the identification of wetlands in the Vernon study area. In the Vernon study area in 1980, 4,562 acres, or 20 percent of the total study area, were identified as wetlands.

3. Woodlands--Woodlands are defined by the Commission as those upland areas one or more acres in size having 17 or more deciduous trees per acre, each measuring at least four inches in diameter at breast height and having at least 50 percent canopy cover. In addition, coniferous tree plantations and reforestation projects were identified as woodlands by the Commission. It is important to note that all lowland wooded areas, such as tamarack swamps, are classified as wetlands because the water table in such areas is located at, near, or above the land surface and because such areas are generally characterized by hydric soils which support vegetation adapted to saturated soil conditions. In the Vernon study area in 1980, about 1,470 acres, or 7 percent of the total study area, were identified as woodlands.

4. Prairies--Prairies are defined by the Commission as generally treeless areas which are dominated by native grasses. There are three general types of prairie within the Region--wet prairies, mesic prairies, and dry prairies. The types correspond to soil moisture conditions. In addition, it is important to note that oak openings, which are savannas--that is, parklike areas dominated by dry prairie grasses and forbs but having between one and 17 oak trees, usually bur oaks--are included in prairie inventories. No significant prairie vegetation was identified in the Vernon study area.

5. Wildlife Habitat--Wildlife habitat is defined by the Commission as an area devoted to natural, open uses of a size and with a vegetative cover capable of supporting a high and balanced diversity of wildlife. Such areas generally have vegetation which provides nesting opportunities, travel routes, concealment, and weather impact modification for a diversity of wildlife species. Wildlife habitat areas within the Region, including within the Vernon study area, were inventoried for the Commission in 1963 and again in 1970 by the Wisconsin Department of Natural

Resources, and were delineated on the 1 inch equals 400 feet scale aerial photographs. In the Vernon study area, some adjustments were made to these wildlife habitat areas based upon review of the Commission's 1980 aerial photographs, particularly in areas where urban development and agricultural uses had encroached upon the habitat as identified on the 1963 and 1970 photographs. The wildlife habitat areas were rated as being of high, medium, or low value. In the Vernon study area, about 6,050 acres, or 27 percent of the total study area, were identified as wildlife habitat.

6. Wet, Poorly Drained, and Organic Soils--In general, soil properties exert a strong influence on the manner in which land is used. Soils are an irreplaceable resource, and development pressure upon land continues to make this resource more and more valued. A need exists in any planning program to examine how land and soils are presently used, and how they can best be used and managed. This requires a detailed soil survey which maps the geographic location of various types of soil; identifies physical, chemical, and biological properties; and interprets these properties for use in public facilities planning. A soil survey of the entire Southeastern Wisconsin Region, including the Vernon study area, was completed in 1965 by the U. S. Department of Agriculture, Soil Conservation Service, under contract to the Regional Planning Commission. In particular, those soils which are generally wet, poorly drained, or organic, and devoted to natural, open space uses, can contribute significantly to the enhancement of the quality of natural resources of an area. In addition, such soils are generally not well suited to intensive urban and rural uses. In the Vernon study area, about 8,917 acres, or 40 percent of the total study area, are covered by such wet, poorly drained, or organic soils.

7. Steep Slopes--Under Commission standards, a slope of 12 percent or greater is considered unsuitable for all types of urban development, as well as for most types of agricultural uses. Steep slopes are divided by the Commission into two categories--slopes ranging from 12 to 19 percent and slopes 20 percent or greater. Information on percentage of slope was derived from the detailed operational soil survey information documented in SEWRPC Planning Report No. 8, Soils of Southeastern Wisconsin, and was transferred to the large-scale aerial photographs.

Natural Resource Base-Related Elements

1. Existing Park and Open Space--A discussion of the park and open space sites in the study area has already been presented in this chapter. For the purpose of identifying environmental corridors, park and open space sites were classified in one of two groups, the first group consisting of general-use outdoor recreation sites, special-use outdoor recreation sites, and urban open space sites, and the second group consisting of rural open space sites. The first group of sites generally provides developed outdoor recreation facilities for relatively intensive use, while the second group consists primarily of natural areas that are used only for extensive outdoor recreation and natural resource preservation purposes. All park and open space sites in the Vernon study area were delineated on the large-scale aerial photographs.

2. Potential Parks--A potential park site is a site which has been identified by the Commission as having the potential to provide opportunities for a variety of resource-oriented outdoor recreation activities. The sites evaluated for their recreation potential were assigned a high-, medium-, or low-value rating, with sites rated as high-value being those which possess the most favorable development potential for resource-oriented outdoor recreation facilities and which appear to have no serious development limitations. A potential park site inventory was conducted by the Commission in 1963 and updated in 1968 and 1975. In the Vernon study area in 1975, a total of 18 potential park sites encompassing 3,908 acres were identified and mapped on the large-scale aerial photographs.

3. Historic Sites--Historic sites in the Vernon study area, as described earlier in this chapter, have been divided into three categories--structures, archaeological features, and other cultural features. The locations of those sites were delineated on the large-scale aerial photographs.

4. Scenic Viewpoints--A scenic viewpoint is defined by the Commission as a vantage point from which a diversity of natural features can be observed. A special inventory of scenic viewpoints was conducted by the Commission in 1980 for use in the identification and delineation of natural resource base-related elements. Three basic criteria were applied in identifying such viewpoints: 1) the variety of features viewed should exist harmoniously in a natural or rural landscape; 2) there should be one dominant or interesting feature such as river or lake which serves as the focal point of the scenic area; and 3) the viewpoint should consist of an observation area from which a variety of natural features can be seen. With the aid of the 1 inch equals 2000 feet scale U. S. Geological Survey 7.5-minute quadrangle maps, areas with a relief greater than 30 feet and a slope of 12 percent or more were identified. Those areas of steep slopes so identified having a ridge of at least 200 feet in length and a view of at least three natural resource features--including surface water, wetlands, woodlands, agricultural lands, or other significant geological features--within approximately one-half mile of the ridge were identified. Areas so identified were then transferred to the 1 inch equals 400 feet scale aerial photographs. In the Vernon study area, 38 viewpoints were identified, with many of these being adjacent to the Fox River and its tributaries in the study area.

5. Natural and Scientific Areas--Natural and scientific areas, as described earlier in this chapter, are tracts of land or water so little modified by man's 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 pre-European settlement landscape. As already noted, in the Vernon study area in 1984 a total of four sites encompassing 360 acres were identified as scientific and natural area sites.

Evaluation of Natural Resource Base and Related Elements--The mapping of the 12 natural resource base and related elements served to facilitate the second step of the environmental corridor identification process--the evaluation of those areas having the most significant concentrations of natural resource base and related values. Each element was assigned a numeric value rating. The value rating was based upon a consensus among Commission staff members having experience in a variety of disciplines, including biology, landscape architecture, water resource management, and land use planning. The interdisciplinary consensus approach provided a broad base for the value rating process and minimized the potential for rating one resource component excessively high or low. The point value assigned to each element is presented in Table 6.

Classification of Natural Resource Base and Related Elements--The natural resource areas were classified as primary environmental corridors, secondary environmental corridors, isolated natural areas, or other natural resource or resource-related areas following the delineation of the detailed natural resource base and related inventory data on the large-scale aerial photographs and the evaluation of those elements through the assignment of point values. These areas were so classified through the application of criteria related to the point values assigned to the individual resource component and of criteria established for acreage, width, and length of the resource component. These criteria are listed in Table 7.

As indicated in Table 7, a point value of 10 or more established an area as having "significant" natural resource value. Areas with significant natural resource values include primary environmental corridors, secondary environmental corridors, and isolated natural areas. Primary environmental corridors occupy an area of at least 400 acres and have a minimum length of two miles and a minimum width of 200 feet. Such corridors generally include a wide variety of natural resource base and related elements. Secondary environmental corridors occupy an area of at least 100 acres and have a minimum length of one mile. Such corridors also include a variety of natural resource base and related elements, but are generally less diverse and are smaller in size, length, and width than primary environmental corridors. Isolated natural areas are at least five acres in size. Such areas generally consist of those natural resource base elements that are separated physically from the environmental corridors by intensive urban and agricultural land uses. The location and extent of the environmental corridors and isolated natural areas are described below. In addition, as already noted, there is a wide variety of resource features within the environmental corridors. A number of individual resource features often occupy the same location within the environmental corridors. For example, a single area may be classified as wetlands, floodlands, shorelands, wildlife habitat, and poor soils. As another example, a single area may be classified as woodlands, an area of steep slope, a scenic viewpoint, and wildlife habitat. However, certain resource features within the environmental corridors are mutually exclusive. Moreover, these features characterize the types of resources generally found in individual environmental corridor segments. In order to characterize the types of natural resource base and related elements within the primary and secondary environmental corridors and isolated natural areas, the following four resource categories have been identified: 1) surface water; 2) wetlands; 3) woodlands; and 4) other resource features--which generally include wildlife habitat areas and either areas of steep slope or areas of wet, poorly drained, or organic soils. An additional category

Table 6

CODE LETTERS AND POINT VALUES FOR NATURAL RESOURCE BASE AND NATURAL RESOURCE BASE-RELATED ELEMENTS

Element	Code	Point Value
Natural Resource Base		
Lake		
Major (50 acres or more)	LA	20
Minor (5-49 acres)	LM	20
Rivers or Streams (perennial)	PS	10
Shoreland		
Lake or Perennial River or Stream	SP	10
Intermittent Stream	SO	5
100-Year Floodland	FP	3
Wetland	WT	10
Wet, Poorly Drained, or Organic Soil	--[a]	--[a]
Woodland	WO	10
Wildlife Habitat		
High Value	WH	10
Medium Value	WM	7
Low Value	WL	5
Steep Slope		
20 Percent or Greater	SS	7
12 Percent to 19 Percent	SL	5
Prairie	PR	10
Natural Resource Base-Related		
Existing Park or Open Space Site		
Rural Open Space Site	OS	5
Other Park and Open Space Sites	PK	2
Potential Park Site		
High Value	PH	3
Medium Value	PM	2
Low Value	PL	1
Historic Site		
Structure	HS	1
Other Cultural	HC	1
Archaeological	HA	2
Scenic Viewpoint (combined with area of steep slope)	SV	5
Natural and Scientific Area		
State Scientific Area	SA	15
Natural Area of Statewide or Greater Significance	NS	15
Natural Area of Countywide or Regional Significance	NC	10
Natural Area of Local Significance	NL	5

[a]Code letters and point values were not assigned for wet, poorly drained, or organic soils.

Source: SEWRPC.

consists of those lands devoted to urban uses. The general natural resource composition of the environmental corridors is described below.

Primary Environmental Corridors: As shown on Map 7, the primary environmental corridors in the Vernon study area are located primarily along the main stem of the Fox River and its larger tributaries, including Mill Brook, and within and adjacent to large concentrations of wetlands and woodlands located primarily in the southern portions of the study area. The primary environmental corridors contain almost all of the resource features described in the previous section of this chapter, including the best remaining woodlands, wetlands, and wildlife habitat areas; are, in effect, a composite of the best remaining residual elements of the natural resource base; and have truly immeasurable environmental and recreational value. The protection of the primary environmental corridors from intrusion by incompatible rural and

Table 7

CRITERIA UTILIZED IN THE CLASSIFICATION OF NATURAL RESOURCE FEATURES

Natural Resource Features	Minimum Point Value	Minimum Area (acres)	Minimum Length (miles)	Minimum Width (feet)
Primary Environmental Corridor.....	10	400	2	200
Secondary Environmental Corridor.....	10	100	1	--
Isolated High-Value Natural Area.....	10	5	--	200
Other Natural Resource or Related Feature.....	1	--	--	--

Source: SEWRPC.

urban uses, and thereby from degradation and destruction, should be one of the principal objectives of the Vernon park and open space planning program. The primary environmental corridors should be considered inviolate. Their preservation in an essentially open, natural state--including park and open space uses, limited agricultural uses, and country estate-type residential uses--will serve to maintain a high level of environmental quality in the planning area, protect its natural beauty, and provide valuable recreation opportunities.

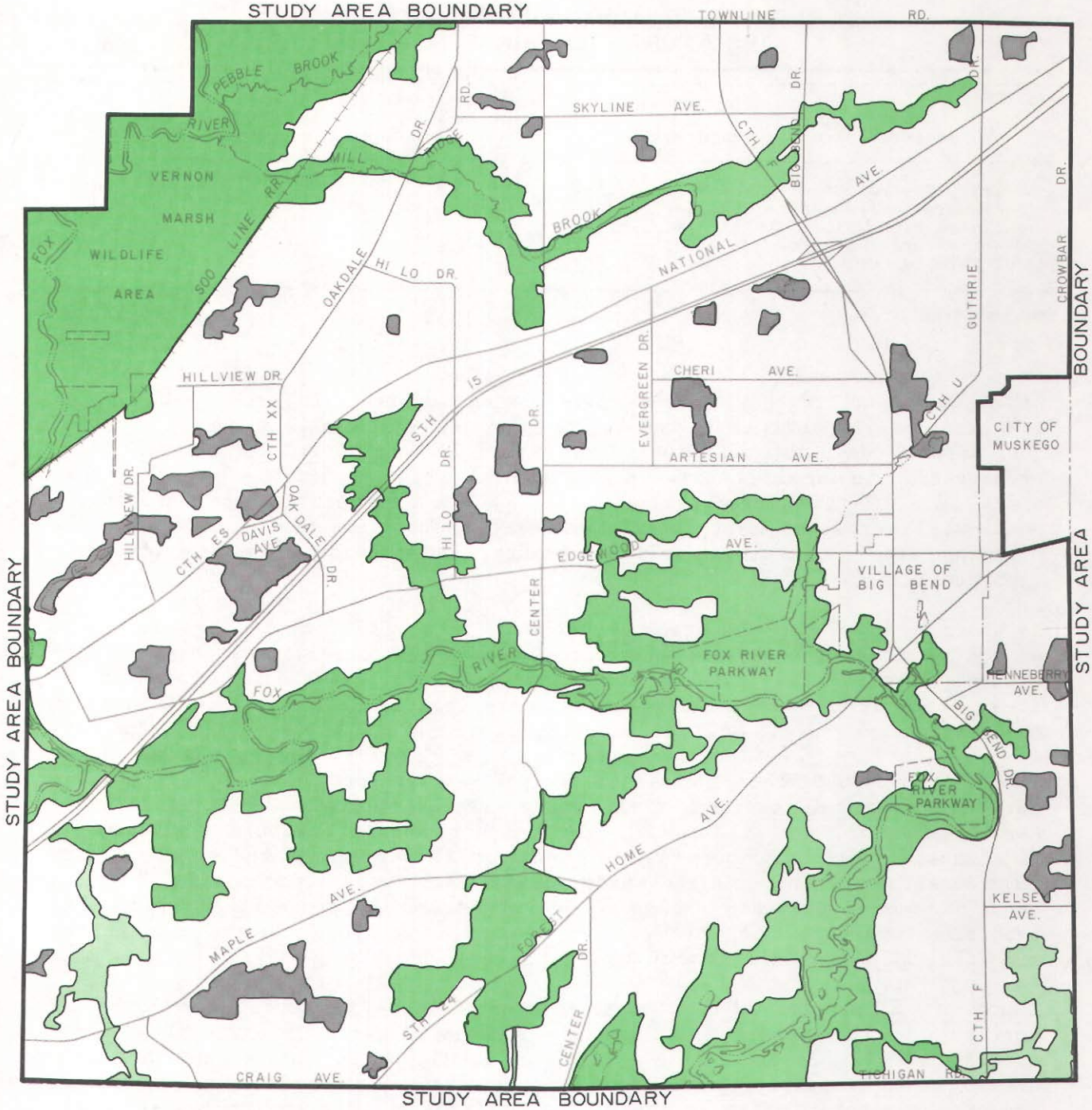
As shown on Map 7 and indicated in Table 8, about 5,777 acres, or 26 percent of the total study area, are encompassed within the primary environmental corridors. Of the total area of primary environmental corridors in the study area, about 5,716 acres, or 99 percent, are located in the Town of Vernon and the remaining 61 acres, or 1 percent, are located in the Village of Big Bend.

The distribution of the generalized natural resource catgories within the primary environmental corridor in the study area is shown on Map 8. As shown on Map 8 and indicated in Table 8, the largest natural resource category is "wetlands," which encompass 4,205 acres, or 73 percent of the total primary environmental corridors in the study area. Surface waters encompass 311 acres, or 5 percent; woodlands encompass 904 acres, or 16 percent; other natural resources encompass 346 acres, or 6 percent; and urban uses encompass the remaining 11 acres, or less than 1 percent.

Secondary Environmental Corridors: As shown on Map 7, secondary environmental corridors in the Vernon study area are located primarily along small, intermittent streams in the southwestern and southeastern corners of the study area. These secondary environmental corridors also contain a variety of resource elements, often remnant resources from primary environmental corridors which have been developed for intensive agricultural and urban purposes. Secondary environmental corridors facilitate surface water drainage, maintain pockets of natural resource features, and provide corridors for the movement of wildlife, as well as for the movement and dispersal of seeds for a variety of plant species. Such corridors, while not as important as the primary environmental corridors, should also be preserved in essentially open, natural uses as development proceeds within the planning area, particularly when the opportunity is presented to incorporate the corridors into stormwater detention areas, associated drainageways, and parks.

Map 7

ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL AREAS IN THE VERNON STUDY AREA: 1980



LEGEND

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

GRAPHIC SCALE

0 1/2 1 MILE

0 2000 4000 6000 FEET

Source: SEWRPC.

Table 8

ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL AREAS IN THE VERNON STUDY AREA: 1980

Civil Division	Primary Environmental Corridors											
	Surface Waters (acres)	Percent of Civil Division	Wetlands (acres)	Percent of Civil Division	Woodlands (acres)	Percent of Civil Division	Other Resources (acres)	Percent of Civil Division	Urban (acres)	Percent of Civil Division	Total (acres)	Percent of Study Area
Town of Vernon.....	300	5.2	4,174	73.0	903	15.8	328	5.7	11	0.2	5,716	98.9
Village of Big Bend....	11	18.0	31	50.8	1	1.6	18	29.5	--	--	61	1.1
Total	311	5.4	4,205	72.8	904	15.6	346	6.0	11	0.2	5,777	100.0

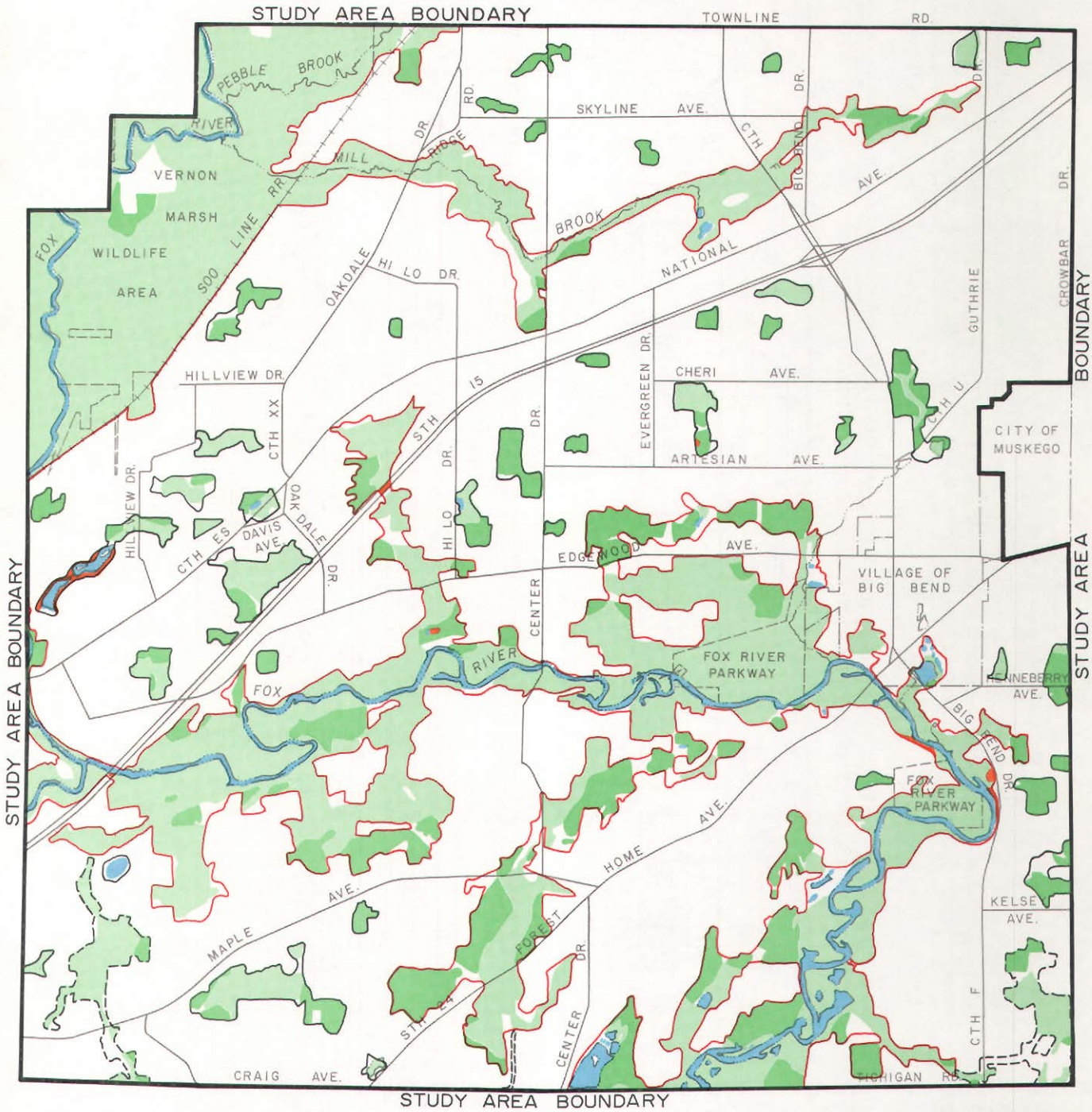
Civil Division	Secondary Environmental Corridors											
	Surface Waters (acres)	Percent of Civil Division	Wetlands (acres)	Percent of Civil Division	Woodlands (acres)	Percent of Civil Division	Other Resources (acres)	Percent of Civil Division	Urban (acres)	Percent of Civil Division	Total (acres)	Percent of Study Area
Town of Vernon.....	--	--	154	65.5	26	11.1	55	23.4	--	--	235	100.0
Village of Big Bend....	--	--	--	--	--	--	--	--	--	--	--	--
Total	--	--	154	65.5	26	11.1	55	23.4	--	--	235	100.0

Civil Division	Isolated Natural Areas											
	Surface Waters (acres)	Percent of Civil Division	Wetlands (acres)	Percent of Civil Division	Woodlands (acres)	Percent of Civil Division	Other Resources (acres)	Percent of Civil Division	Urban (acres)	Percent of Civil Division	Total (acres)	Percent of Study Area
Town of Vernon.....	24	3.0	304	37.7	405	50.3	61	7.6	11	1.4	805	100.0
Village of Big Bend....	--	--	--	--	--	--	--	--	--	--	--	--
Total	24	3.0	304	37.7	405	50.3	61	7.6	11	1.4	805	100.0

Source: SEWRPC.

Map 8

GENERALIZED NATURAL RESOURCE COMPOSITION OF THE ENVIRONMENTAL CORRIDORS AND ISOLATED NATURAL AREAS IN THE VERNON STUDY AREA: 1980



LEGEND

	PRIMARY ENVIRONMENTAL CORRIDOR	SECONDARY ENVIRONMENTAL CORRIDOR	ISOLATED NATURAL AREA
SURFACE WATER			
WETLANDS			
WOODLANDS			
OTHER RESOURCES			
URBAN DEVELOPMENT			

GRAPHIC SCALE
0 1/2 1 MILE
0 2000 4000 6000 FEET

Source: SEWRPC.

As shown on Map 7 and indicated in Table 8, about 235 acres, or 1 percent of the study area, are encompassed within the secondary environmental corridors. All of the secondary environmental corridors in the study area are located within the Town of Vernon.

The distribution of the generalized natural resource categories within the secondary environmental corridors in the study area is shown on Map 8. As shown on Map 8 and indicated in Table 8, the largest natural resource category is wetlands, which encompass 154 acres, or 66 percent of the secondary environmental corridors in the study area. Woodlands encompass 26 acres, or 11 percent; and other natural resources encompass 55 acres, or 23 percent of the secondary environmental corridors in the study area.

Isolated Natural Areas: In addition to the primary and secondary environmental corridors, other, small pockets of concentrations of natural resource base elements exist within the Vernon study area. These pockets are isolated from the environmental corridors by urban development or agricultural use, and, although separated from the environmental corridor network, have important natural values. Isolated natural areas may provide the only available wildlife habitat in an area, provide good locations for local parks and natural areas, and lend unique and aesthetic character and natural diversity to an area. Important isolated natural areas in the Vernon study area are shown on Map 7, and include a variety of isolated wetlands, woodlands, and wildlife habitat areas located throughout the study area. These isolated natural areas should also be protected and preserved in a natural state whenever possible.

As shown on Map 7 and indicated in Table 8, about 805 acres, or 4 percent of the study area, are encompassed within isolated natural areas. All of the isolated natural areas in the study area are located within the Town of Vernon.

The distribution of the generalized natural resource categories within the isolated natural areas in the study area is shown on Map 8. As shown on Map 8 and indicated in Table 8, wetlands encompass 304 acres, or 38 percent of the isolated natural areas in the study area; woodlands encompass 405 acres, or 50 percent; surface waters encompass 24 acres, or 3 percent; other natural resources encompass 61 acres, or 8 percent; and urban uses encompass the remaining 11 acres, or 1 percent.

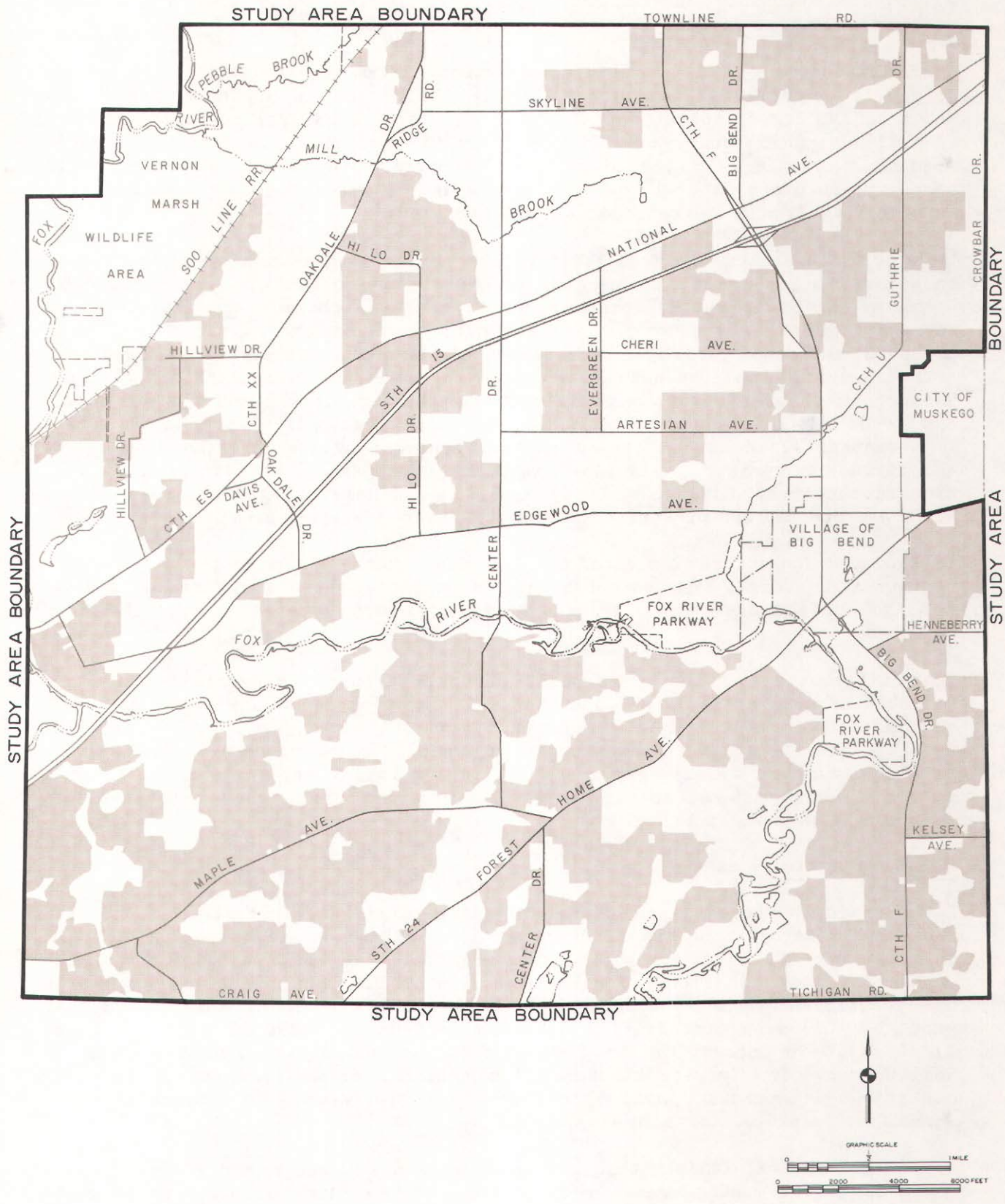
Prime Agricultural Land

For planning purposes it is useful to distinguish between prime agricultural lands and other farming areas. Prime agricultural lands are those lands which, in terms of farm size and soil characteristics, are best suited for the production of food and fiber. The Waukesha County Park and Planning Commission has identified prime agricultural land as areas containing farm units that meet the following criteria: 1) the farm unit is at least 35 acres in area; 2) at least 50 percent of the farm unit is covered by soils whch meet U. S. Soil Conservation Service standards for national prime farmland or farmland of statewide importance; and 3) the farm unit is located in a block of farmland of at least 100 acres in size.

Prime agricultural lands within the study area are shown on Map 9. These areas encompass about 7,628 acres, or 34 percent of the study area. No prime agricultural lands were located in the Village of Big Bend.

Map 9

PRIME AGRICULTURAL LANDS IN THE TOWN OF VERNON: 1980



Source: Waukesha County Park and Planning Commission and SEWRPC.

A number of important public purposes would be served through the preservation of these agricultural lands. Such public purposes include the maintenance of agricultural reserves, energy conservation, the maintenance of open space, the protection of environmentally significant areas, the control of public costs, the preservation of the local economic base, and the preservation of the rural lifestyle. Recommendations regarding the preservation of prime agricultural lands in the study area are presented in Chapter IV of this report.

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Chapter III

PARK AND OPEN SPACE OBJECTIVES, PRINCIPLES, AND STANDARDS

INTRODUCTION

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

BASIC CONCEPTS AND DEFINITIONS

The term "objectives" is subject to various interpretations and applications and is closely linked to other terms often used in planning work which also are subject to a range of interpretations and applications. The following terms will be employed herein:

1. Objective: a goal or end toward the attainment of which plans and policies are directed.

2. Principle: a fundamental, primary, or generally accepted tenet used to assert the validity of objectives and to prepare standards and plans.

3. Standard: a criterion used as a basis of comparison to determine the adequacy of alternative and recommended plan proposals to attain objectives.

4. Plan: a design which seeks to achieve the agreed-upon objectives.

5. Policy: a rule or course of action used to ensure plan implementation.

6. Program: a coordinated series of policies and actions to carry out a plan.

Although this chapter deals with only the first three of these terms, an understanding of the interrelationship of the foregoing definitions and of the basic concepts which they represent is essential to a full understanding of the park and open space preservation, acquisition, and development objectives, principles, and standards presented herein.

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

1. The provision of an integrated system of public outdoor recreation sites and related open space areas which will afford the resident population of the Town of Vernon adequate opportunities to participate in a wide range of outdoor recreation activities.

2. The provision of sufficient outdoor recreation facilities to afford the resident population of the Town of Vernon adequate opportunities to participate in intensive nonresource-oriented outdoor recreation activities.

3. The provision of sufficient recreation facilities to afford the resident population of the Town of Vernon adequate opportunities to participate in intensive resource-oriented outdoor recreation activities.

4. The provision of sufficient outdoor recreation facilities to afford the resident population of the Town of Vernon adequate opportunities to participate in extensive land-based outdoor recreation activities.

5. The provision of sufficient access areas to afford the resident population of the Town of Vernon adequate opportunities to participate in extensive water-based outdoor recreation activities and enjoyable inland lake and river use, and the maintenance of adequate water quality.

6. The preservation of sufficient lands in essentially natural, open uses to assure the protection of the underlying and sustaining natural resource base and enhancement of the social and economic well-being and environmental quality of the Town of Vernon.

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

Complementing each of the foregoing park and open space preservation, acquisition, and development objectives is a planning principle and a set of planning standards. These are set forth in Appendix A and serve to facilitate the quantitative application of the objectives in plan design, test, and evaluation. It should be noted that while the attainment of all objectives is considered desirable to provide the residents of the Town of Vernon with the fullest possible opportunity for high-quality recreational experiences, the responsibility for providing the necessary parks, open space land, and associated recreation facilities is shared by the private sector and the public sector. The public sector is composed of the various units and agencies of government operating in the Vernon area. In this regard, under the adopted regional park and open space plan, the state and county units of government are responsible for the provision of open space, large resource-oriented parks, recreation corridors, and resource-oriented recreation facilities, while the local units of government are responsible for the provision of smaller community parks and associated intensive nonresource-oriented recreation facilities, and for the protection of certain natural resource features

within their areas of jurisdiction. Importantly, the responsibility for the provision of certain recreation facilities is left with the private sector, which, in the Southeastern Wisconsin Region, currently provides about one-fourth of all park and open space lands.

APPLICATION OF PARK AND OPEN SPACE STANDARDS

Since rural towns do not generally have the population densities to warrant the provision of urban-type parks and intensive outdoor recreation facilities, the town level of government does not generally provide such facilities. However, it is important that the town level of government protect the natural resource base within its area of jurisdiction. Specifically, standards under Objective No. 6 emphasize the importance of preserving primary environmental corridors and prime agricultural lands.

It should also be recognized that, although the park and recreation facility acquisition and development standards presented in Appendix A of this report do not specifically prescribe the provision of a town-owned park or of recreation facilities in rural town areas, the provision of a town-owned park and limited recreation facilities may be warranted in such areas in order to promote a desirable sense of community; to serve as a focal point for special local civic events; and to meet certain outdoor recreation needs, such as the need for softball diamonds and picnic areas. Historically, preceding the development of urban subdivisions in rural areas over the past several decades, residents of rural town areas lacking park and recreation facilities generally were permitted the use of park sites and recreation facilities in nearby urban villages or cities where they came to sell their products and purchase goods and services. More recently, however, many rural town areas have taken on a mixed urban-rural character, and some incorporated communities that previously provided rural residents with park and recreation facilities have taken the position that use of their park sites and recreation facilities should be limited to residents of those communities. Thus, rural town residents may be left with no ready access to park or recreation facilities to meet their recreation needs. In order to accommodate the basic park and recreation facility needs of residents of town units of government, rural town units of government which lack town-owned park and recreation facilities should have the opportunity to acquire and develop, with available federal and state grant-in-aid support, a town park and associated recreation facilities to meet the basic local recreation needs of town residents and to promote a desirable sense of community. As a community facility, the town park should be readily accessible to town residents and, thus, such a park should be located in conjunction with other community facilities which serve as a focal point for town residents, such as a town hall, school, or fire department.

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Chapter IV

RECOMMENDED PLAN

INTRODUCTION

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

Chapter III of this report indicated that there are different types of park and open space objectives to be attained by different levels of government: namely, resource-oriented outdoor recreation objectives requiring the provisions of large parks, trail facilities, and water access facilities for activities such as hunting, fishing, hiking, and sailing, and logically the responsibility of the state and county levels of government; nonresource-oriented outdoor recreation objectives requiring the provision of smaller parks for activities such as softball, tennis, soccer, and children's playground activities, and logically the responsibility of the local level of government; and natural resource base preservation objectives to protect important natural resource features, such as environmental corridors, isolated natural areas, and prime agricultural lands, logically the responsibility of all levels of government. The Regional Planning Commission's regional park and open space plan, adopted by Waukesha County as the park and open space plan for Waukesha County, includes recommendations for the attainment of regional or areawide resource-oriented outdoor recreation objectives and of natural resource base preservation objectives. The first part of this chapter, therefore, summarizes the areawide plan recommendations for resource-oriented outdoor recreation sites and facilities, the protection of the environmental corridors and isolated natural areas, and the protection of prime agricultural lands. The second section of the chapter describes alternative population levels and distribution for the Town of Vernon, identifies the need for local park facilities under each alternative, and sets forth alternative park plans for the Town. The third section presents the recommended park plan for the Town selected from the alternatives considered by the Town of Vernon Park Commission. The fourth and final section of the chapter outlines the steps required to implement the recommended plan.

AREAWIDE CONSIDERATIONS

The regional park and open space plan contains recommendations which, if implemented, would provide residents of Waukesha County, including residents

of the Town of Vernon, opportunities to participate in a wide range of resource-oriented outdoor recreation activities. The recommendations are concerned with the provision of major parks, which provide opportunities for intensive resource-oriented outdoor recreation activities such as camping, swimming, and picnicking; the provision of recreation corridors, which provide opportunities for various trail-oriented outdoor recreation activities, including hiking, biking, and ski touring; and the provision of water access facilities. In addition, the plan contains recommendations for the preservation of environmentally and economically important lands, including primary environmental corridors and prime agricultural lands. The Waukesha County Board, upon the recommendation of the County Park and Planning Commission, adopted the regional park and open space plan as the county park and open space plan on June 6, 1978.[1]

Major Parks

The first park and open space objective presented in Chapter III calls for the provision of a system of public parks and related open space areas which will offer the resident population of the Region, including the residents of the Town of Vernon, adequate opportunities to participate in a wide variety of outdoor recreation activities. Standards under Objective No. 1 specify both per capita requirements and accessibility requirements for major parks,[2] while standards under Objective No. 2 specify per capita requirements and accessibility requirements for facilities for resource-oriented recreation activites, such as camping, golf, picnicking, and swimming. Since major parks attract users from relatively long distances from within and even outside Waukesha County, and serve persons of all age groups residing in both urban and rural areas, the standards for major parks and resource-oriented outdoor recreation facilities are appropriately applied on an areawide basis. For this and other reasons, it is considered appropriate that the state and county levels of government be responsible for the provision of major parks. Map 10 shows the adopted regional park and open space plan as it relates to Waukesha County. Under the regional plan, it is recommended that the Wisconsin Department of Natural Resources continue to maintain three major outdoor recreation areas in the County--Lapham Peak, Ottawa Lake Recreation Area, and Pine Woods Campground, all located within the Kettle Moraine State Forest-Southern Unit. It is also recommended that Waukesha County continue to maintain the county parks which have been classified as major parks under the regional park and

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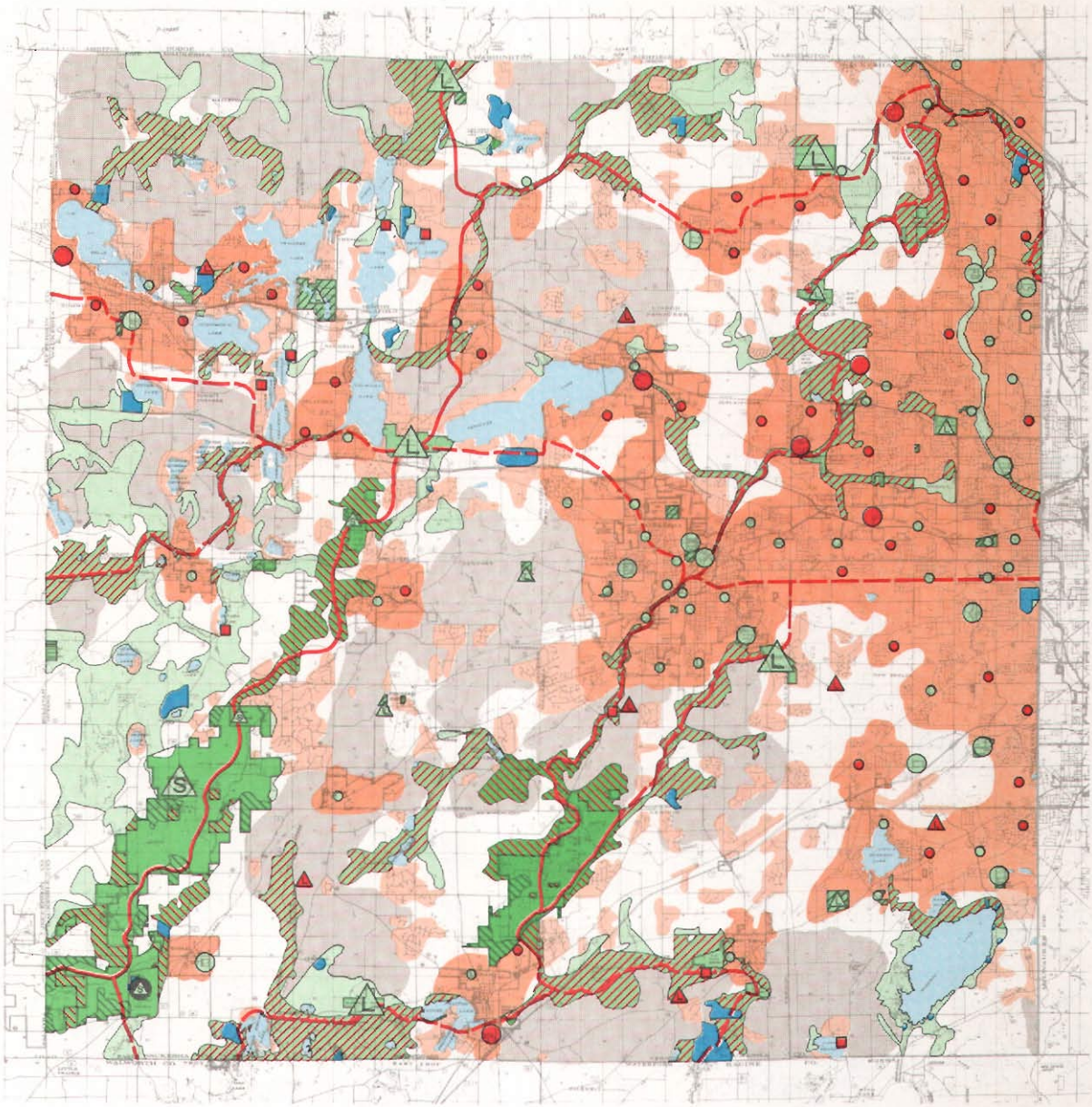
[1]The Regional Planning Commission staff, in cooperation with the staff of the Waukesha County Park and Planning Commission, began an update of the Commission regional park and open space plan in 1984. It is envisioned that this plan update will be completed in 1985, and, upon adoption by the Regional Planning Commission, the Waukesha County Park and Planning Commission, and the Waukesha County Board, would serve as an amendment to the initial plan. This plan is anticipated to include the refined delineation of environmental corridors in Waukesha County as well as the refined delineation of prime agricultural lands presented in this report.

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

Map 10

ADOPTED REGIONAL PARK AND OPEN SPACE PLAN AS IT RELATES TO WAUKESHA COUNTY: 2000



LEGEND

OPEN SPACE PRESERVATION ELEMENT

PRIMARY ENVIRONMENTAL CORRIDOR COMPONENT

- EXISTING STATE OWNERSHIP
- PROPOSED STATE OWNERSHIP
- EXISTING LOCAL OWNERSHIP
- PROPOSED LOCAL OWNERSHIP
- EXISTING COMPATIBLE PRIVATE OUTDOOR RECREATION USE (PROPOSED TO BE PROTECTED THROUGH PUBLIC LAND USE REGULATION)
- PROPOSED TO BE PROTECTED THROUGH PUBLIC LAND USE REGULATION

PRIME AGRICULTURAL LAND COMPONENT

- PROPOSED TO BE PROTECTED THROUGH PUBLIC LAND USE REGULATION

OUTDOOR RECREATION ELEMENT

RESOURCE ORIENTED COMPONENT

MAJOR PUBLIC PARK SITE—TYPE I (250 OR MORE ACRES)

- EXISTING STATE OWNERSHIP
- EXISTING LOCAL OWNERSHIP

OTHER PUBLIC PARK SITE—TYPE II (100-249 ACRES)

- EXISTING STATE OWNERSHIP
- PROPOSED LOCAL OWNERSHIP
- EXISTING LOCAL OWNERSHIP

RECREATION CORRIDOR (TRAIL)

- PROPOSED STATE RESPONSIBILITY
- PROPOSED LOCAL RESPONSIBILITY

PROPOSED RECREATIONAL BOATING WATER ACCESS POINT

- MAJOR INLAND LAKE OR RIVER

URBAN ORIENTED COMPONENT

- EXISTING OR PLANNED URBAN DEVELOPMENT REQUIRING TYPE III AND TYPE IV PUBLIC PARK SITES

MAJOR PUBLIC PARK SITE—TYPE III (25-99 ACRES)

- EXISTING
- PROPOSED

OTHER PUBLIC PARK SITE—TYPE IV (5-24 ACRES)

- EXISTING
- PROPOSED

OTHER OUTDOOR RECREATION SITE OR LAND USE

- EXISTING MAJOR SPECIAL PURPOSE STATE OUTDOOR RECREATION SITE
- EXISTING OTHER STATE OUTDOOR RECREATION OR OPEN SPACE SITE
- EXISTING OTHER LOCAL OUTDOOR RECREATION OR OPEN SPACE SITE
- OTHER EXISTING URBAN DEVELOPMENT
- OTHER RURAL LAND
- WATER

GRAPHIC SCALE

0 1 2 3 MILES

0 4,000 8,000 16,000 FEET

Source: SEWRPC.

open space plan, including Menomonee, Minooka, Mukwonago, Muskego, Nagawaukee, Nashotah, Retzer, and Wanaki Parks; and complete the acquisition and development of Monches Park. Finally, it is recommended that the County acquire and develop seven new major parks by the plan design year 2000. The general locations of these proposed new major parks are shown on Map 10. It is important to note that one of the seven sites is proposed to be located along the main stem of the Fox River, west of the Village of Big Bend, in the Town of Vernon. It is anticipated that these state-owned, county-owned, and proposed county-owned major parks--including the proposed county-owned park in the Town of Vernon--would provide adequate opportunities for intensive resource-oriented outdoor recreation activities for the residents of Waukesha County, including the residents of the Town of Vernon.

Recreation Corridors

Standards under Objective No. 1 also specified per capita requirements and accessibility requirements for recreation corridors,[3] while standards under Objective No. 4 set forth per capita and accessibility requirements for trail-oriented activities. Like major parks, recreation corridors attract users from relatively long distances both within and outside Waukesha County and serve persons of all ages residing in both urban and rural areas. Therefore, it is appropriate to apply these standards on an areawide basis. Map 10 shows the locations of the proposed recreation corridors in Waukesha County. As shown, there are three recreation corridor segments proposed to be located within the Town of Vernon. The first segment would be located along the main stem of the Fox River; the second would be located along Pebble Brook in the northwestern portion of the Town; and the third would be located along the main stem of the Mukwonago River in the southwestern portion of the Town. Under the regional plan, approximately 145 linear miles of recreation corridor would be provided within Waukesha County. Of this total, about 15 miles, or 10 percent, would be provided within the Town of Vernon.

Open Space Preservation

The location and extent of the important open space lands in the Town of Vernon--including primary and secondary environmental corridors, isolated natural areas, and prime agricultural lands--are set forth in Chapter II of this report. As previously noted, refined delineations of the environmental corridors and isolated natural areas were prepared by the Regional Planning Commission, while refined delineations of the prime agricultural lands were prepared by the Waukesha County Park and Planning Commission. The preservation of these open space lands would serve to maintain a high level of environmental quality in, and protect the natural beauty of, the Town of Vernon, as well as provide valuable recreation activities for residents of the Town. Such preservation would also help to avoid the creation of serious and costly environmental and developmental problems.

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[3]A recreation corridor is defined as a publicly owned continuous linear tract of land, generally located in scenic areas or areas of natural, cultural, or historical interest, which provides opportunities for participation in trail-oriented outdoor recreation activities such as biking, hiking, horseback riding, nature study, and ski touring.

Primary Environmental Corridors: As already noted, primary environmental corridors encompass about 5,800 acres in the Vernon study area, or about 26 percent of the study area. These corridors are located along the main stem of the Fox River and along Pebble Brook and Mill Brook, including the Vernon Marsh Wildlife Area; along the main stem of the Mukwonago River; and along several unnamed tributaries to the Fox River in the southern half of the Town of Vernon. Under the park and open space plan for the Town of Vernon, all primary environmental corridors would be preserved in essentially natural, open uses. It is recognized that certain private uses--including private recreational uses and low-density residential uses--as well as public outdoor recreation and related open space sites can serve to protect such environmental corridors. Therefore, the plan recommends that, to the extent practicable, the corridors be maintained in private uses for resource preservation and limited recreational use purposes, and that such maintenance be promoted through proper zoning. To the extent that the primary environmental corridor lands within the Town of Vernon are required for public recreational use, the plan recommends that such corridors be publicly acquired through dedication or purchase. Under the plan, primary environmental corridor lands in the Vernon Marsh Wildlife Area would continued to be maintained in public ownership by the Wisconsin Department of Natural Resources, and environmental corridor lands along the remainder of the main stem of the Fox River would be acquired by the County as part of the Fox River Parkway. Environmental corridor lands along the main stem of the Mukwonago River would also be acquired for parkway purposes by the County. It is envisioned that the remaining primary environmental corridor lands along Mill Brook and along the unnamed tributaries to the Fox River in the southern half of the Town will be preserved in private use through appropriate zoning (see Map 11).

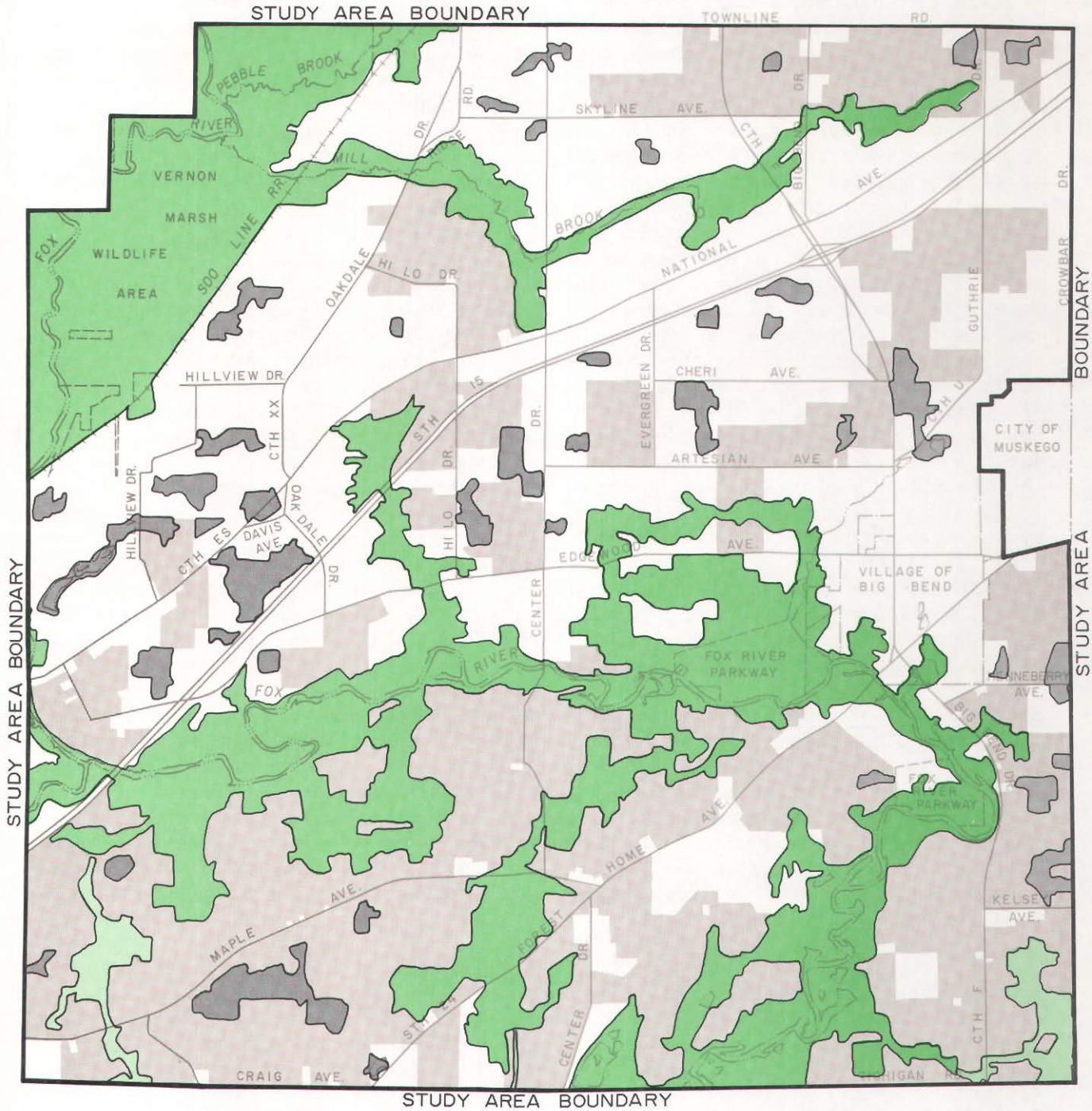
Secondary Environmental Corridors: Secondary environmental corridors encompass about 235 acres in the Vernon study area, or about 1 percent of the study area. There are two secondary environmental corridor segments in the Town, one located along an unnamed tributary of the Fox River in the extreme southeastern corner of the Town and the other located along an unnamed tributary to the Fox River in the extreme southwestern corner of the Town. Under the park and open space plan for the Town of Vernon, it is recommended that these secondary environmental corridor lands be preserved through appropriate public land use regulation (see Map 11).

Isolated Natural Areas: In addition to the primary and secondary environmental corridors, other, smaller concentrations of natural resource base elements exist in the Vernon study area. These concentrations are isolated from the environmental corridors by urban development or agricultural uses, and, although separated from the environmental corridor network, have important natural value. Isolated natural areas encompass about 805 acres of land in the Vernon study area, or about 4 percent of the study area. It is recommended that such areas be preserved in essentially natural open uses and protected through appropriate land use regulation (see Map 11).

Prime Agricultural Lands: Prime agricultural lands in the Vernon study area encompass about 7,600 acres, or about 34 percent of the study area. Under the park and open space plan for the Town of Vernon, it is recommended that these lands be maintained in agricultural use and protected for such use through public land use regulation.

Map 11

PRESERVATION OF IMPORTANT NATURAL RESOURCE FEATURES AND PRIME AGRICULTURAL LANDS UNDER THE PARK AND OPEN SPACE PLAN FOR THE TOWN OF VERNON: 2000



LEGEND

- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL AREA
- PRIME AGRICULTURAL LAND AS IDENTIFIED IN THE WAUKESHA COUNTY AGRICULTURAL LAND PRESERVATION PLAN
- OTHER AGRICULTURAL, URBAN, AND OPEN LANDS

GRAPHIC SCALE
0 1/2 1 MILE
0 2000 4000 6000 FEET

Source: SEWRPC.

TOWN CONSIDERATIONS

As already noted, the adopted regional park and open space plan recommends that state and county levels of government assume responsibility for the provision of major parks and recreation corridors, and, along with local units of government, protect important natural resource lands. In addition, under the plan local units of government, including the Town of Vernon, would be responsible for providing intensive nonresource-oriented sites and facilities, such as a town park providing ball diamonds and picnic areas. The need to provide a town park and outdoor recreation facilities is dependent upon both the existing and probable future size and distribution of the resident population of the Town. As noted in Chapter II of this report, the population of the Town of Vernon increased dramatically between 1970 and 1980--from 2,857 persons to 6,372 persons--more than doubling, and the Town provided park and outdoor recreation facilities at Heather Ridge Park to meet the outdoor recreation needs of the resident population of the Town. Facilities at Heather Ridge Park are currently used to capacity and, to meet increasing demands for outdoor recreation facilities, at least one additional park is required in the Town. In addition, should the population of the Town continue to increase rapidly, additional park sites and facilities may be required. In order to analyze the need for additional park sites and intensive nonresource-oriented facilities in the Town, alternative future population sizes and distributions were considered.

Alternative Future Population Levels and Distribution

The preparation of forecasts of future population levels for relatively small geographic areas, such as the Vernon study area, is a difficult task accompanied by uncertainty and subject to periodic revisions as new information becomes available. The practice typically followed in forecasting population levels for physical development planning, including park and open space planning, has been to prepare a single population forecast believed to be the most representative of future conditions. This traditional approach works well in periods of social and economic stability, when historic trends can be anticipated to continue relatively unchanged over the plan design period. During periods of major change in social and economic conditions, however, when there is great uncertainty as to whether historic trends will continue, alternatives to this traditional approach may be required. One such alternative approach proposed in recent years, and utilized to a limited extent at the national level for public planning purposes, is termed "alternative futures." Under this approach, the development, test, and evaluation of alternative plans is based not upon a single most probable forecast of socioeconomic conditions, but upon a number of alternative futures chosen to represent a range of conditions which may be expected to occur over the plan design period.

Recognizing the increasing uncertainties inherent in estimating future population levels under rapidly changing conditions in the United States, the Regional Planning Commission began to incorporate the alternative futures approach into its planning program late in the 1970's, the first known attempt to apply this approach to areawide and local planning in the United States. In the exploration of alternative futures for the Southeastern Wisconsin Region, an attempt was made to first identify all those external factors which may be expected to directly or indirectly affect future development conditions in the

Region, together with the likely range of prospects for these factors. Two alternative scenarios for regional growth and change, involving different assumptions regarding three major external factors--the cost and availability of energy, population lifestyles, and economic conditions--were thus defined. These scenarios represent opposite extremes of the prospects identified for each external factor and, consequently, indicate relatively large differences in future population growth and economic activity. One scenario developed postulates moderate population and economic growth; the other scenario postulates stable or declining population and employment levels in the Region. Two alternative regional land use plans, a centralized plan and a decentralized plan, were then developed for each of the two alternative future scenarios, thus providing four alternative futures as a framework for physical development and planning in southeastern Wisconsin.

Under the alternative futures approach, the population within southeastern Wisconsin would range from a low of 1.6 million persons under the two stable or declining growth scenarios to a high of 2.2 million persons under the two moderate growth scenarios. With respect to the Vernon study area, the population in the year 2000 could range from a low of 5,100 persons, including about 1,300 persons in the Village of Big Bend and 3,800 persons in the Town of Vernon, under the stable or declining growth centralized land use scenario, to a high of almost 11,100 persons, including about 2,500 persons in the Village of Big Bend and 8,600 persons in the Town of Vernon, under the moderate growth decentralized land use scenario. In the Commission-adopted regional land use, water quality management, and park and open space plans, the anticipated year 2000 population levels are based upon the moderate growth centralized land use scenario. Under this scenario, the population in the Vernon study area in the plan design year 2000 would be about 7,000 persons--including about 1,600 persons in the Village of Big Bend and 5,500 persons in the Town of Vernon.

As already noted, the population of the Vernon study area in 1980 was about 7,700 persons--including about 1,300 persons in the Village of Big Bend and 6,400 persons in the Town of Vernon--and thus the planned population for the study area developed under the recommended regional land use plan has already been exceeded. It is also important to note that, after reviewing platting activity within the Town of Vernon and comparing final platted subdivision maps to existing residential development shown on the Commission 1980 aerial photographs, a total of 548 undeveloped residential lots in platted subdivisions were identified. Of this total, 30 lots, or about 5 percent, were located in the Village of Big Bend and the remaining 518 lots, or 95 percent, were located in the Town of Vernon. Upon full development of these subdivisions, an additional 1,900 persons could be accommodated within the Vernon study area. Since residential development and population growth have occurred at a faster rate than called for under the regional land use plan, it was necessary to develop alternative future population levels and distribution for the Vernon study area which would represent reasonable extremes for population levels in the plan design year 2000. Two alternative future population levels and distributions were therefore prepared for the Vernon study area.

In addition to information on the overall size of the future population level in the Vernon study area, information on population distribution is also important to any meaningful determination of outdoor recreation needs. As indicated in Chapter III of this report, certain outdoor recreation facilities--namely, intensive nonresource-oriented facilities such as softball

diamonds, playgrounds, and tennis courts, and the parks in which such facilities are provided--normally serve relatively small areas having a large concentration of urban-type residential development, and are not normally provided in rural town areas; while other recreation facilities--such as resource-oriented facilities, including camping areas, golf courses, and picnic areas--must serve relatively large areas, including both large urban concentrations and rural areas. Accordingly, it is necessary to estimate the future distribution of population within concentrations of residential development in the Town of Vernon in order to determine the need for intensive nonresource-oriented sites and facilities. In the first alternative future population level and distribution, it is envisioned that only those undeveloped residential lots within platted subdivisions will be developed within the Town to the plan design year. In the second alternative future population level and distribution, it is envisioned that residential development will continue to be encouraged in the northern half of the Town, and that additional residential lands will be platted for residential development. Under the second alternative, additional residential development would occur in a manner consistent with the preservation of important natural resource lands within the Town, and no additional development would occur in environmental corridors, isolated natural areas, areas having soils with severe or very severe limitations for development without public sanitary sewer service, and prime agricultural lands. A more detailed description of these two alternative future population levels and distributions is provided below.

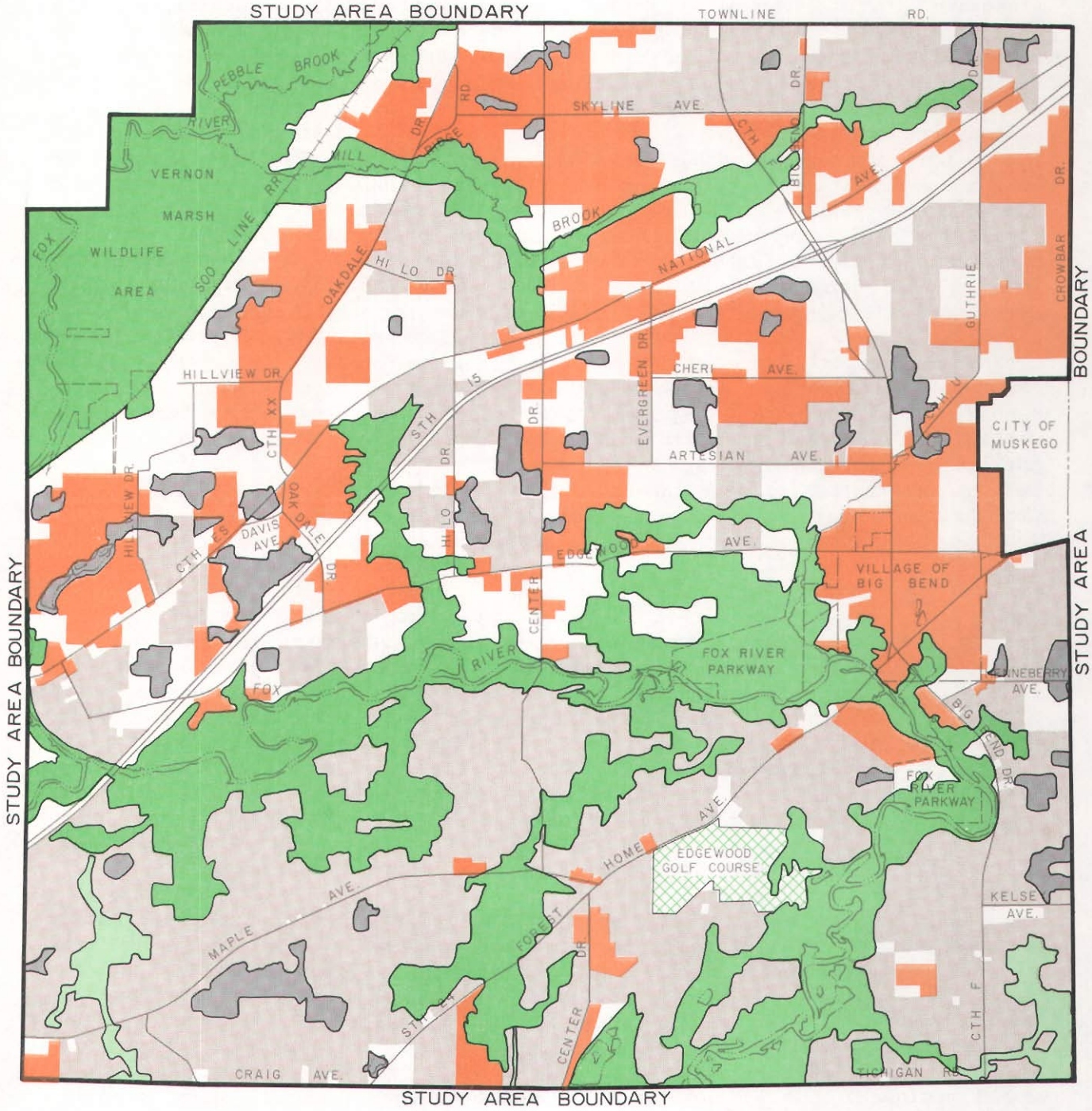
Future Population Levels and Distribution--Alternative Future No. 1: Map 12 shows the location and extent of urban development within the Vernon study area, including existing concentrations of residential uses, areas platted and therefore committed to such residential uses, and existing commercial and industrial uses. As shown on Map 12, intensive urban development has occurred within and adjacent to the Village of Big Bend in the east-central portion of the Vernon study area; in a collection of residential subdivisions in the north-central and west-central portions of the study area; and in scattered residential subdivisions located primarily in the northern half of the study area north of the Fox River. As already noted, the population of the Vernon study area in 1980 was about 7,700 persons. In addition, a total of 548 undeveloped platted residential lots were identified in the study area in 1984.

The first alternative future resident population level and distribution assumes that the population of the existing housing units in the study area will be maintained at approximately the present level, and that the 548 identified undeveloped residential lots will be developed for family residential use with about 3.5 persons per household. Under this future, then, the resident population in the study area would reach about 9,600 persons by the design year 2000. Of this total, about 1,400 persons, or about 15 percent, would reside in the Village of Big Bend and 8,200 persons, or 85 percent, would reside in the Town of Vernon. Under this alternative, the resident population of the study area outside the Village of Big Bend would remain dispersed, and only limited additional outdoor recreation facilities would need to be provided.

Future Population Levels and Distribution--Alternative Future No. 2: The second alternative future resident population level and distribution assumes that additional residential development in the Vernon study area will continue to be encouraged to occur in the northern half of the study area, lying

Map 12

EXISTING URBAN DEVELOPMENT IN THE VERNON STUDY AREA UNDER ALTERNATIVE FUTURE NO. 1



LEGEND

- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL AREA
- PRIME AGRICULTURAL LAND AS IDENTIFIED IN THE WAUKESHA COUNTY AGRICULTURAL LAND PRESERVATION PLAN
- OTHER AGRICULTURAL, URBAN NONRESIDENTIAL, AND OPEN LANDS
- EXISTING URBAN DEVELOPMENT, INCLUDING RESIDENTIAL CONCENTRATIONS, AREAS PLATTED FOR RESIDENTIAL DEVELOPMENT, AND COMMERCIAL AND INDUSTRIAL USES
- EXISTING LARGE OUTDOOR RECREATION AREA

GRAPHIC SCALE
0 1/2 1 MILE
0 2000 4000 6000 FEET

Source: SEWRPC.

generally north of the Fox River in areas suitable for residential development with onsite sewage disposal systems. Under this alternative, prime agricultural lands, environmental corridor lands, and isolated natural areas would be maintained. Residential development in the Town would, over time, become more concentrated, and therefore more efficiently served by public facilities and services, including park and open space sites and facilities. More outdoor recreation facilities would need to be provided under this alternative future than under the first alternative future.

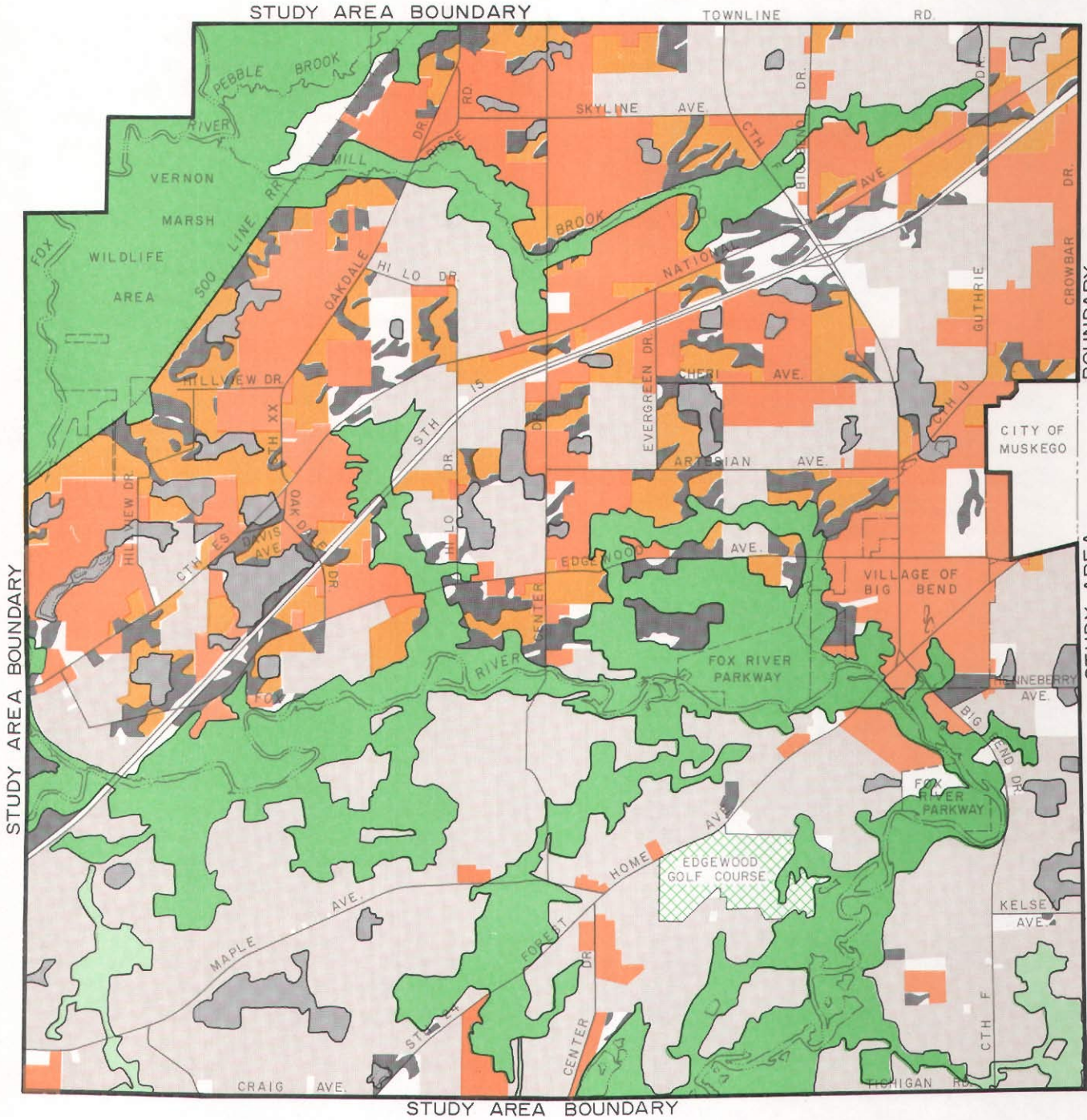
Map 13 shows the agricultural and open space lands in the northern half of the study area which would be converted to residential use by the plan design year 2000 under the second alternative future resident population level and distribution. As shown on Map 13, there are about 3,920 acres of undeveloped land in the northern half of the study area not located within the environmental corridors, isolated natural areas, or prime agricultural areas. Of these 3,920 acres, about 1,260 acres, or 32 percent, are covered by soils poorly suited for residential development with on-site sewage disposal systems. About 820 acres, or 21 percent, are proposed to be developed for nonresidential purposes. The remaining 1,840 acres, or 47 percent, could be developed for residential use. If this level were developed at densities consistent with the town zoning ordinance, approximately 1,500 additional single-family residential lots could be developed. Assuming a household size of about 3.5 persons, the total resident population of the study area, including the resident population that could be accommodated on the 548 lots that were platted but still undeveloped within the study area in 1980, could approximate 15,000 persons by the design year 2000. Of this total, about 1,400 persons, or about 9 percent, would reside in the Village of Big Bend and 13,600 persons, or about 91 percent, would reside in the Town of Vernon.

Town-Owned Park Sites and Facilities--Alternative Future No. 1: Under the first alternative future resident population level and distribution, additional residential development in the Town of Vernon would occur on undeveloped platted residential lots, and the population of the Town would increase from about 6,400 persons in 1980 to about 8,200 persons in the year 2000, a 30 percent increase over the 1980 level. Under this alternative future, residential development in the Town would take on a mixed rural-urban character, and the provision of parks and intensive nonresource-oriented outdoor recreation facilities--such as children's play areas, basketball goals, and ice skaing rinks--to serve the urban-type subdivisions in the Town would not be practicable because of the scattered location of those subdivisions. As noted in Chapter III, however, a town park would be required to meet the needs for such facilities as ball diamonds. In order to meet this need, the Town has acquired and developed a 13-acre park--Heather Ridge Park--in the north-central portion of the Town. Existing facilities at the site include baseball and softball diamonds, and the Town of Vernon Recreation Board operates baseball and softball leagues at this site. In addition, the Town leases a ball diamond at the Norris Athletic Field for little league baseball.

The existing baseball and softball diamonds at Heather Ridge Park are overused, and additional diamonds are required to meet the existing demand for such facilities in the Town. The Town of Vernon Park Commission and the Town of Vernon Recreation Board have also indicated that, based upon requests made by citizens of the Town, there is a need for picnic, tennis, and soccer facilities in the Town. In addition, town residents do not have convenient

Map 13

POTENTIAL EXTENT OF URBAN DEVELOPMENT IN THE VERNON STUDY AREA UNDER ALTERNATIVE FUTURE NO. 2



LEGEND

- PRIMARY ENVIRONMENTAL CORRIDOR
- SECONDARY ENVIRONMENTAL CORRIDOR
- ISOLATED NATURAL AREA
- PRIME AGRICULTURAL LAND AS IDENTIFIED IN THE WAUKESHA COUNTY AGRICULTURAL LAND PRESERVATION PLAN
- OTHER AGRICULTURAL, URBAN NONRESIDENTIAL, AND OPEN LANDS
- EXISTING URBAN DEVELOPMENT, INCLUDING RESIDENTIAL CONCENTRATIONS, AREAS PLATTED FOR RESIDENTIAL DEVELOPMENT, AND COMMERCIAL AND INDUSTRIAL USES
- AREAS SUITABLE FOR ADDITIONAL RESIDENTIAL DEVELOPMENT
- AREAS COVERED BY SOILS POORLY SUITED FOR RESIDENTIAL DEVELOPMENT WITH ONSITE SEWAGE DISPOSAL SYSTEMS
- EXISTING LARGE OUTDOOR RECREATION AREA

GRAPHIC SCALE
0 1 MILE
0 2000 4000 6000 FEET

Source: SEWRPC.

access to a swimming facility for swimming lessons and recreational swimming opportunities, nor do such opportunities exist in the Village of Big Bend or Village of Mukwonago. Accordingly, swimming facilities in the City of Waukesha are presently rented by the Town for children's swimming lessons. Since the size of Heather Ridge Park precludes the provision of additional recreation facilities, an additional park site is required to accommodate needed outdoor recreation facilities. The Town has acquired an additional site; this site, as mentioned in Chapter II, is 35 acres in size and is located adjacent to the Town Hall in the central portion of the Town.

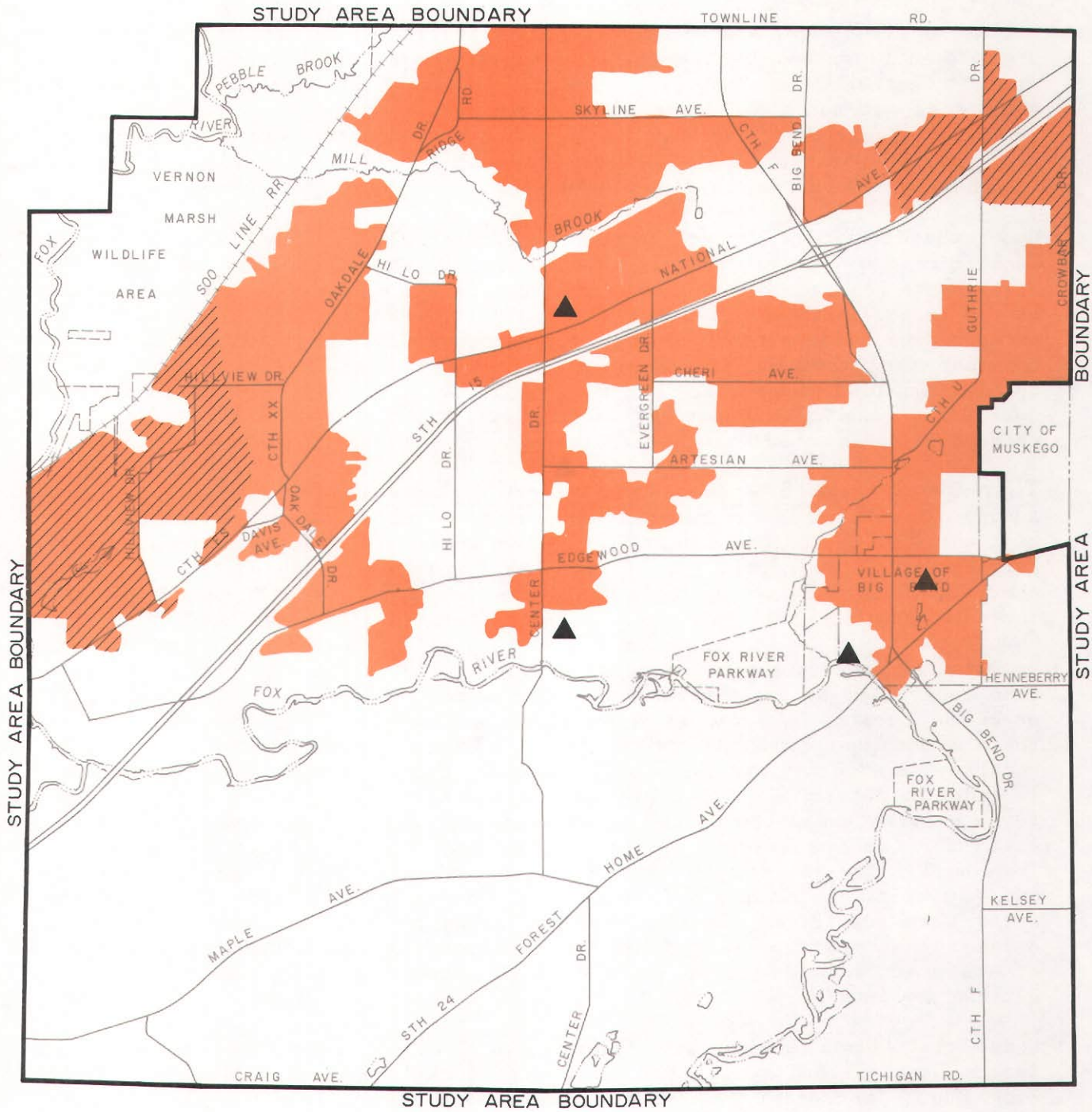
Under the first alternative future, the additional needed outdoor recreation facilities would be provided at the Town Hall site. A site plan for a portion of the site has been prepared, and the Town is proceeding with the development of two league softball diamonds. The Town Hall site would also accommodate the perceived need for picnic, tennis, and soccer facilities, and the Town could consider the provision swimming facilities at the site. In addition, under this alternative future, Heather Ridge Park would continue to be maintained for league baseball and softball activities. No additional town-owned outdoor recreation sites would be needed under the first alternative future.

Town-Owned Park Sites and Facilities--Alternative Future No. 2: Under the second alternative future resident population level and distribution, significant areas of the northern half of the Town would be developed for residential purposes, and the population of the Town would increase significantly--from about 6,400 in 1980 to about 13,600 persons in the year 2000, a 113 percent increase over the 1980 level. Under this alternative future, this residential population would be concentrated in relatively large, urban-type enclaves of residential development, and could be effectively served with outdoor recreation facilities by urban-type parks. The standards for urban-type community parks set forth in Appendix A would be applicable to these areas. Under these standards, community parks have a service radius of about two miles and provide such facilities as ball diamonds, tennis courts, and picnic areas. In order to determine which urban concentrations would lack convenient access to such parks under the second alternative future, service areas were delineated for the two existing parks in the Town--Heather Ridge Park and the Town Hall site--and for the two existing parks in the Village of Big Bend, and the existing and planned residential areas lying outside these service areas were identified (see Map 14). As shown on Map 14, those residential areas not served are located in the northeastern and west-central portion of the Town, and should be provided with a community park under the second alternative future.

Under the second alternative future, the Town would continue to maintain league baseball and softball diamonds and a children's play area at Heather Ridge Park. In order to accommodate the need for additional league ball diamonds, and to meet the identified need for a park to serve the west-central portion of the Town, an additional park site would be acquired and developed in that area of the Town. As shown on Map 15, the site would be located in the vicinity of the intersection of CTH XX and CTH ES, and league baseball and softball diamonds, a soccer field and playfield area, tennis courts, and a picnic area would be provided at the site. In addition, the Town would consider the provision of a swimming facility at this site, and reserve a suitable area within the site for such a facility. Under the second alternative future, it is also recommended that the Town Hall park site be developed

Map 14

EXISTING AND POTENTIAL FUTURE RESIDENTIAL AREAS UNDER ALTERNATIVE FUTURE NO. 2 NOT SERVED BY THE EXISTING DISTRIBUTION OF PARKS IN THE VERNON STUDY AREA



LEGEND

- EXISTING PARK
- EXISTING AND POTENTIAL FUTURE RESIDENTIAL AREA
- EXISTING AND POTENTIAL FUTURE RESIDENTIAL AREA NOT SERVED

GRAPHIC SCALE

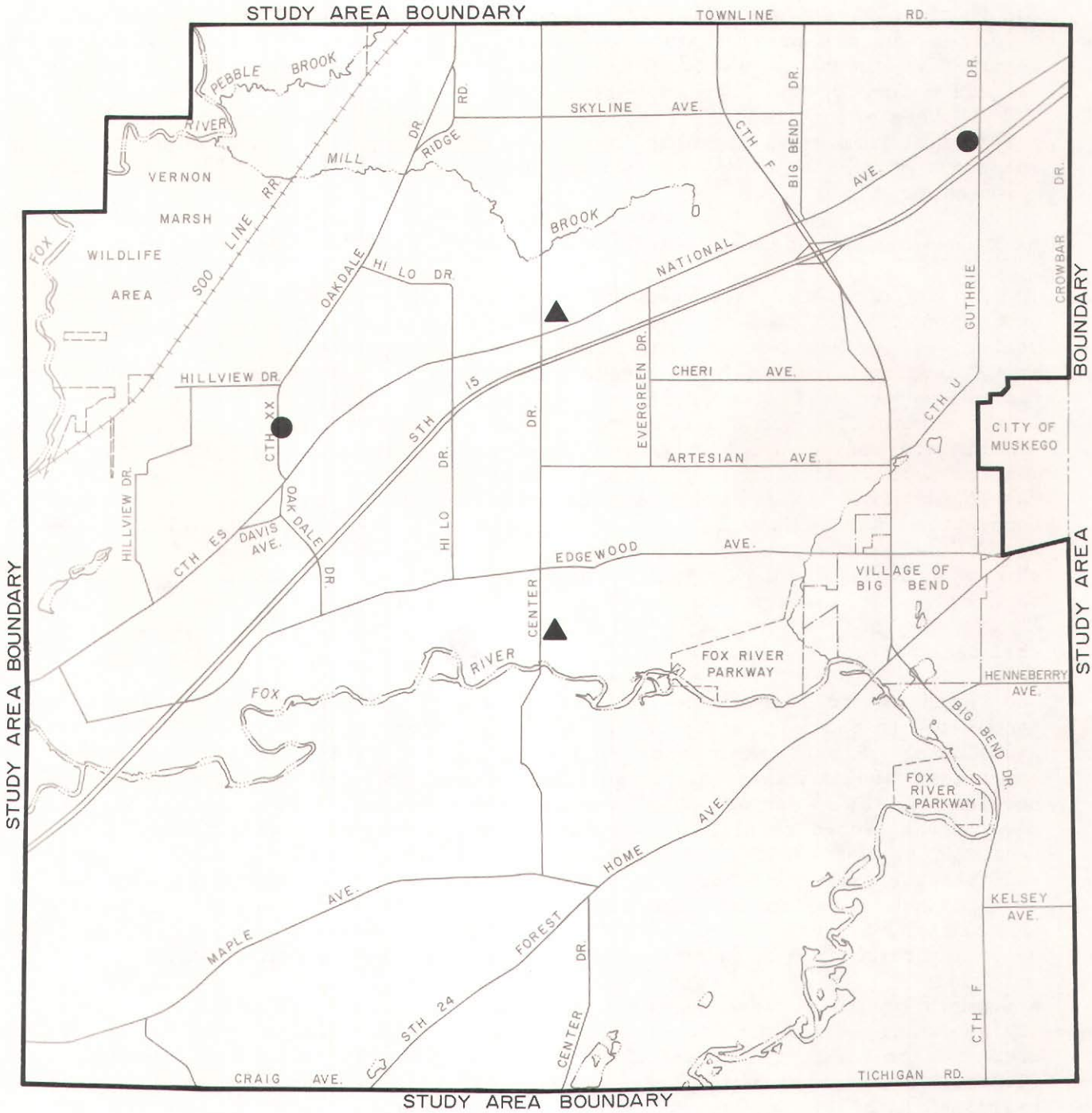
0 1/2 1 MILE

0 2000 4000 6000 FEET

Source: SEWRPC.

Map 15

EXISTING AND PROPOSED TOWN-OWNED PARKS IN THE TOWN OF VERNON UNDER ALTERNATIVE FUTURE NO. 2



LEGEND

▲ EXISTING TOWN PARK

● PROPOSED TOWN PARK (GENERAL SITE LOCATION)

GRAPHIC SCALE

0 1/2 1 MILE

0 2000 4000 6000 FEET

Source: SEWRPC.

for tennis, soccer and other playfield activities, and picnicking. It is envisioned that this site--centrally located within the Town--will serve as the focal point for special local events such as community picnics, and provide the recreation facilities required for such events. Under the second alternative future, the Town would also acquire a park site in the northeastern corner of the Town in the vicinity of the intersection of STH 15 and CTH U. League softball, soccer, tennis, and picnicking facilities would be provided at this site. The location of the existing park sites and the general locations of the proposed park sites under the second alternative future are shown on Map 15.

Recommended Plan for Town-Owned Outdoor Recreation Sites and Facilities

The selection of one of the alternative plans as the recommended park and open space plan for the Town of Vernon is directly related to the selection of the pattern of residential development which should be encouraged to occur in the Town. One consideration in this selection is the relative cost of the recreation sites and facilities under each alternative. Under the first alternative future, population growth would be limited to the development of vacant lots in existing residential subdivisions and to the development of lots in residential subdivisions already approved for development by the Town Board. Full development of these vacant and platted lots would result in a resident population in the Town of about 8,200 persons in the year 2000. Urban-type residential subdivision development beyond this level would be discouraged through the use of public land use regulations. Under this alternative future, the Town would maintain the existing outdoor recreation facilities at Heather Ridge Park and develop additional outdoor recreation facilities at the Town Hall park site.

Under the second alternative future, additional residential growth would be encouraged to occur on suitable lands in the northern half of the Town. Full development of such lands, not including lands located within environmental corridors, isolated natural areas, and prime agricultural areas and lands covered by soils having severe or very severe limitations for residential development, would result in a resident town population of about 13,600 persons in the year 2000. Under the second alternative future, the Town would maintain the existing outdoor recreation facilities at Heather Ridge Park, and develop additional outdoor recreation facilities at the Town Hall park site. In addition, two park sites would be acquired and developed, one in the west-central portion of Town and one in the northeastern corner of the Town.

A summary of the recommended town park sites and facilities under each alternative future, along with the estimated cost of such sites and facilities, is presented in Table 9. As indicated in Table 9, under the first alternative future, the cost developing recreation facilities at the Town Hall site is estimated at $130,000. Over a 16-year plan implementation period, this approximates $1.11 per capita per year. The annual cost of maintaining the two town-owned park sites is estimated at $42,000, or about $5.75 per capita per year. Under the second alternative future, as indicated in Table 9, the cost of acquiring and developing the recommended park sites and is estimated at $400,000. Over a 16-year plan implementation period this approximates $2.51 per capita per year. The annual cost of maintaining the town-owned outdoor recreation sites and facilities is estimated at $53,500, or about $5.35 per capita per year.

Table 9

A COMPARISON OF ALTERNATIVE PLANS FOR TOWN-OWNED OUTDOOR RECREATION SITES AND FACILITIES

Alternative Number	Planned Study Area Population	Major Recommendations	Costs[a]						
			Acquisition and Development			Maintenance		Total	
			Total	Average Annual	Annual Per Capita	Average Annual	Annual Per Capita	Average Annual	Annual Per Capita
1	8,300	1. Maintain Heather Ridge Park 2. Develop Town Hall Site	$130,000[b]	$ 8,125[d]	$1.11	$42,000[f]	$5.75[e]	$50,125	$6.86[e]
2	13,600	1. Maintain Heather Ridge Park 2. Develop Town Hall Site 3. Acquire and Develop Proposed Western Park 4. Acquire and Develop Proposed Northeastern Park	$400,000[c]	$25,000[d]	$2.51	$53,500	$5.35[g,h]	$78,500	$7.85[g]

NOTE: Under both alternatives, the Town would consider the provision of swimming facilities. Under the first alternative future, such facilities would be considered for provision at the Town Hall site, while under the second alternative future, such facilities would be considered for provision at the proposed western park. The additional costs associated with the provision of swimming pool and bathhouse facilities are estimated at $650,000.

[a] All costs are estimated in 1984 dollars.

[b] This total includes the cost of the development of league ball diamonds, tennis courts, a picnic area, a soccer field, and support facilities, including parking at the Town Hall site.

[c] This total includes the cost of the development of tennis courts, a soccer field, a picnic area, and support facilities, including parking at the Town Hall site; the acquisition of the proposed western park and the development of league ball diamonds, tennis courts, a soccer field, picnic areas, and support facilities, including parking and rest rooms; and the acquisition of the proposed northeastern park and the development of league ball diamonds, a soccer and playfield area, a picnic area, and support facilities, including parking.

[d] The total acquisition and development cost is distributed over a 16-year plan implementation period.

[e] The average annual per capita costs were derived by dividing the average annual cost by the average population over the 16-year plan implementation period. The average annual population under Alternative No. 1--determined by calculating the average of the initial 1980 base year population of about 6,400 persons and the plan year 2000 population of about 8,200 persons--is 7,300 persons.

[f] Maintenance costs for Heather Ridge Park and the Town Hall site are based on the Town of Vernon Park Commissions's proposed 1985 budget, and include the costs for maintenance workers of $12,000; general town labor, $5,000; town equipment rental, $5,000; engineering and professional services, $5,000; supplies, $5,000; security, $8,000; and park commission equipment, $2,000.

[g] The average annual per capita costs were derived by dividing the average annual cost by the average population over the 16-year plan implementation period. The average annual population under Alternative No. 2--determined by calculating the average of the initial 1980 base year population of about 6,400 persons and the plan year 2000 population of about 13,600 persons--is 10,000 persons.

[h] Maintenance costs for Heather Ridge Park, the Town Hall site, and the proposed western and northeastern parks are based on the Town of Vernon Park Commission's proposed 1985 budget, and include the costs for maintenance workers of $20,000; general town labor, $10,000; town equipment rental, $10,000; engineering and professional services, $5,000; supplies, $9,000; security, $8,000; and equipment, $3,000. In the calculation of average annual maintenance costs, it was assumed that the proposed western and northeastern parks will require maintenance only in the second half of the plan implementation period. Thus, maintenance costs are estimated at $42,000 per year for the first eight-year period and $65,000 for the second eight-year period, or an average of $53,500 over the 16-year period.

Source: SEWRPC.

The Town of Vernon Park Commission, in its review of the alternative futures considered, noted that the existing town zoning ordinance and district map permits the development of residential lots, as well as other urban uses, in large areas throughout the Town. The Park Commission was therefore of the opinion that additional residential subdivisions would occur in the Town over time. The Park Commission also recognized that it was highly desirable to direct new residential development to the northern portion of the Town, where residents could be served efficiently and effectively by the existing and proposed town parks. In addition, the Park Commission recognized the need to encourage the protection of the environmental corridors and prime agricultural lands in the Town. The Town of Vernon Park Commission therefore selected the second alternative future as a basis for the recommended town park plan. In addition, the Town Park Commission stipulated that league softball diamonds should be developed at the Town Hall site to meet an immediate need for such facilities. The Town Park Commission noted that the Town Hall site was currently held in town ownership and could, therefore, be readily developed for such facilities.

PLAN IMPLEMENTATION

The park and open space plan for the Town of Vernon includes recommendations directed at county and state agencies of government to maintain important open space land in the Vernon Marsh, acquire and develop a major park along the main stem of the Fox River, and acquire and develop a recreation corridor providing opportunity for trail-oriented outdoor recreation activities. The plan also recommends the acquisition of additional primary environmental corridor lands along the main stem of the Fox River. In addition, the park and open space plan for the Town of Vernon recommends that the Town protect important natural resources, including environmental corridors and isolated natural areas, as well as prime agricultural lands, in the Town. Finally the plan recommends that the Town provide local parks--as described under the plan for the second alternative future--including the maintenance of Heather Ridge Park, the development of the Town Hall park site, and the acquisition and development of two new park sites--one site in the west-central portion of the Town and the other site in the northeastern portion of the Town.

The recommended park and open space plan is not complete, however, until the steps required to implement the plan have been specified. This section of the chapter, accordingly, is intended to serve as a guide for use in carrying out the recommended park and open space plan for the Town of Vernon. The first section consists of a summary of those laws and regulations which pertain to park acquisition and open space preservation, focusing on the legal framework of such acquisition and preservation at the town level of government. The second section describes the specific actions required to implement the park and open space plan--including a description of required actions by the Wisconsin Department of Natural Resources, the Waukesha County Park and Planning Commission, and the Town of Vernon. The third section summarizes the plan implementation costs.

Existing Laws and Regulations

Towns have statutory authority and responsibilities relating to the provision of park and open space lands and facilities. This section discusses the various authorities and responsibilities of the town level of government related

to the reservation, acquisition, development, and maintenance of parks and open space facilities. Also included is a discussion of park and open space planning and park and open space aids.

Parks: Under Section 27.13 of the Wisconsin Statutes, towns may provide and maintain parks, parkways, boulevards, or pleasure drives pursuant to the provisions which grant park authority to cities. Section 60.181 states that a town may provide for a park commission comprised of seven members appointed by the town board. The powers of the commission include the authority to lay out, maintain, and approve parks and open spaces and to accept or acquire property for park purposes. In addition, towns are permitted to acquire land and engage in forestry practices for the purpose of initiating or acquiring a community forest. Such forests must be located within the town limits.

Recreation Authority: Under Sections 66.527 and 60.18 (18n) of the Wisconsin Statutes, towns are given the power to establish a recreation authority consisting of three members appointed by the town chairman. In addition, two or more towns and/or school districts may jointly form a recreation authority. This recreation authority is authorized to "conduct the activities of such public recreation departments, to expend funds therefore, to employ assistance, to purchase equipment and supplies, and generally to supervise the administration, maintenance and operation of such departments and recreational activities authorized by the board."[4] In addition, the recreation board is authorized to accept gifts and bequests of land.

Park Planning: The town park commission is given the authority to make a thorough study of reserving lands for public uses and providing open spaces, parks, highways, roads, and boulevards; to make plans for a town highway and park system; and to gather such information in relation thereto as it may deem necessary, reporting the same to the Town.[5]

Zoning Power: An important land use implementation device available to town units of government is the local police power to control land use development through the adoption of a zoning ordinance. A town may enact a zoning ordinance which relates, restricts, and determines the areas within which various land uses, including recreation, agriculture, and forestry, may be conducted. In addition, town boards may be granted village powers pursuant to Section 60.18 (12) of the Wisconsin Statutes and, by a resolution adopted pursuant to this section of the Statutes, may exercise planning functions and adopt zoning and official map ordinances in the same manner as do cities and villages. However, where a county zoning ordinance has been adopted, the exercise of the above power shall be subject to approval by referendum of the town electors, and any zoning ordinance adopted by the town board shall be subject to county board approval.[6] The existing zoning ordinance in the Town of Vernon is described in Chapter II of this report.

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[4]Wisconsin Statutes Section 66.527(2)(d) (1981).

[5]Wisconsin Statutes Section 60.183 (1981).

[6]Wisconsin Statutes Section 60.74 (7) (1981).

Park and Outdoor Recreation Aids: Local units of government, including towns, are eligible to apply for and receive state and federal aid for the acquisition and development of park and open space lands and facilities. The most important aids program for outdoor recreation site acquisition and development is the Land and Water Conservation (LAWCON) fund, created by the federal Land and Water Conservation Act in 1965.[7] Requirements for aids under this program, which cover up to 50 percent of the total acquisition and development costs, include the following: the project must be in accord with a comprehensive park plan adopted by the local governing body and approved by the Wisconsin Department of Natural Resources; the local unit or agency must have adopted a resolution which constitutes a formal request for the outdoor recreaton aids grant; and the local unit must allocate local funds for the project and maintain the area or facility upon acquisition.

Plan Implementation Activities

In addition to the Town of Vernon, other governmental agencies have the legal authority and financial capability to implement various elements of the recommended park and open space plan for the Town of Vernon. Those agencies whose action will have a significant effect upon the successful implementation of the recommended park and open space plans and whose full cooperation in plan implementation will be essential, along with the actions required of those agencies, are identified below.

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

More specifically, it is important that the Department approve and adopt the town park and open space plan in order to enable the receipt by the Town of federal outdoor recreation grants in support of plan implementation. In addition, the Department should use regulatory authority to guide development in the Town to ensure the maintenance and enhancement of environmental quality within the Town.

Under the recommended park and open space plan for the Town of Vernon, the Wisconsin Department of Natural Resources would be responsible for the maintenance of that portion of the Vernon Marsh Wildlife Area located within the Town. Under this proposal, the Department would maintain about 1,400 acres

[7]Public Law (PL) 88-578 as amended by PL 91-485.

of land in the Vernon Marsh Wildlife Area for limited outdoor recreation and open space preservation purposes. The Department would also acquire approximately 20 acres of land within the Vernon Marsh Wildlife Area project boundary for such purposes. In addition, the Department would develop trail facilities in the recreation corridor proposed to the located along the main stem of the Fox River and along Pebble Brook on lands located in the Vernon Marsh Wildlife Area in the Town. Under this proposal, the Department would provide about five linear miles of hiking trails, or one-third of the proposed 15 miles of trails in the Town (see Map 16).

Waukesha County Park and Planning Commission: The authority and responsibility for the remaining resource-oriented park acquisition and development, and for the acquisition of natural resource lands for open space preservation purposes, rests with the Waukesha County Park and Planning Commission. In addition, Waukesha County is responsible jointly with the Town of Vernon for the protection of important natural resources in the Town.

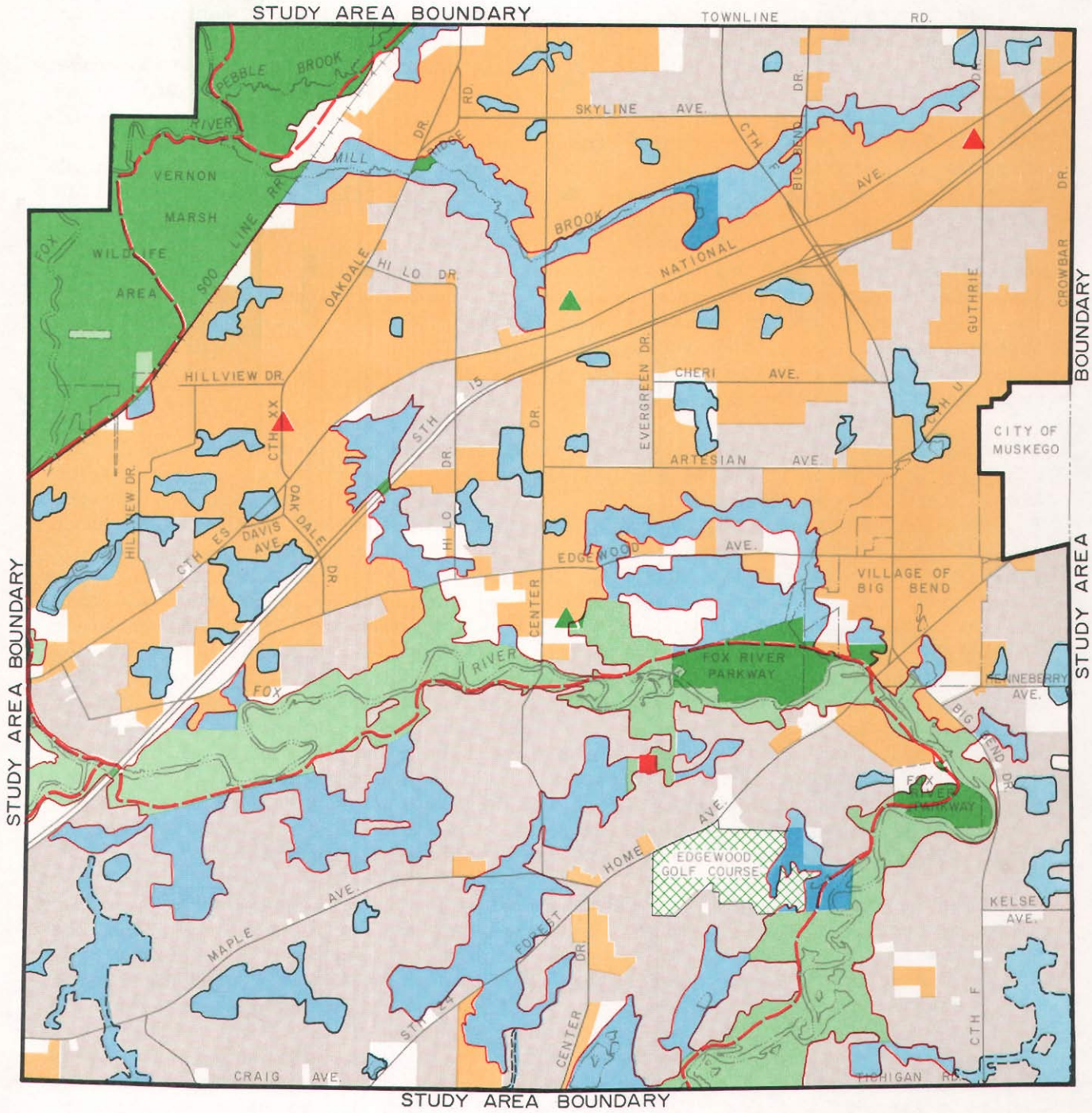
As shown on Map 16, under the recommended plan, the Waukesha County Park and Planning Commission would acquire a new county park proposed to be located along the main stem of the Fox river west of the Village of Big Bend in the Town of Vernon. Under this proposal, the county would acquire about 200 acres of parkland for development for a variety of outdoor recreation activities, including picnicking, play field activities, and trail activities. In addition, under the recommended plan a recreation corridor would be provided along the main stem of the Fox River and along the main stem of the Mukwonago River in the Town of Vernon. Under the plan, the Waukesha County Park and Planning Commission would be responsible for providing a hiking trail in those portions of the recreation corridor located outside the Vernon Marsh Wildlife Area in the Town. Under this proposal, the County would develop about 10 miles of hiking trails, or two-thirds of the proposed 15 miles of trails in the Town. It is also important to note that this recreation corridor is part of the 60-mile Fox River recreation corridor, which is proposed to be located between the Tamarack Swamp at the headwaters of the Fox River in the Village of Menomonee Falls in Waukesha County and the Wisconsin-Illinois border.

As shown on Map 16, under the recommended plan the Waukesha County Park and Planning Commission would acquire important natural resource lands along the main stem of the Fox River for natural resource preservation and parkway purposes as part of the proposed county-owned Fox River Parkway. A description of the location and extent of the primary environmental corridor lands along the main stem of the Fox River is presented in Chapter II of this report, along with a discussion of the importance of the preservation of these lands. It is therefore recommended that these primary environmental corridor lands along the main stem of the Fox River be acquired as part of the Fox River Parkway. Under this proposal, it is envisioned that the Waukesha County Park and Planning Commission will acquire about 1,700 acres of land within the primary environmental corridor along the main stem of the Fox River. The location of land proposed for acquisition by Waukesha County is shown on Map 16.

The plan also recommends the preservation of important natural resource features in the Town. Also, the plan recommends that any additional residential development in the Town occur north of the Fox River in the northern half of the Town. The implementation of these recommendations can be achieved chiefly through the application of local zoning and land subdivision control.

Map 16

PARK AND OPEN SPACE PLAN FOR THE TOWN OF VERNON: 2000



LEGEND

GENERALIZED URBAN DEVELOPMENT

OTHER RURAL LANDS

OUTDOOR RECREATION FACILITIES

EXISTING TOWN PARK

PROPOSED TOWN PARK

PROPOSED COUNTY PARK

PROPOSED RECREATION CORRIDOR

EXISTING LARGE OUTDOOR RECREATION AREA

NATURAL RESOURCE PRESERVATION

PRIMARY ENVIRONMENTAL CORRIDOR

EXISTING PUBLIC OWNERSHIP

PROPOSED PUBLIC OWNERSHIP

EXISTING COMPATIBLE NONPUBLIC OUTDOOR RECREATION USE

PUBLIC LAND USE REGULATION

SECONDARY ENVIRONMENTAL CORRIDOR

PUBLIC LAND USE REGULATION

ISOLATED NATURAL AREA

PUBLIC LAND USE REGULATION

PRIME AGRICULTURAL LAND AS IDENTIFIED IN THE WAUKESHA COUNTY AGRICULTURAL LAND PRESERVATION PLAN

PUBLIC LAND USE REGULATION

GRAPHIC SCALE

0 1/2 1 MILE

0 2000 4000 6000 FEET

Source: SEWRPC.

As previously noted, the zoning ordinance currently in effect within the Town of Vernon was enacted jointly by the Town and Waukesha County and is currently administered by the County. Thus, the Town and the County are jointly responsible for protecting the environmental corridors, isolated natural areas, and prime agricultural lands in the Town and for guiding residential deveopment in the Town. In particular, the Plan Commission and Board of Supervisors have the authority and responsibility to guide land use development in the Town. In order to ensure that residential develoment proceeds in an environmentally sound fashion and that important resources are preserved, two changes in the existing zoning ordinance should be considered: 1) modification to the text of the zoning ordinance to add one zoning district that is not currently available for application in the Town; and 2) revision to the zoning district map to reflect the open space preservation recommendations in the park and open space plan.

The zoning districts and district regulations of the existing Waukesha County zoning ordinance, properly applied, would permit the implementation of nearly all the open space recommendations contained in the plan. It is recommended, however, that the County and the Town consider adding a new zoning district to the county zoning ordinance. This district would be provided to accommodate the demand for rural residential development by that segment of the population which, while urban in character, desires to live away from the urban environment. District regulations should be prepared in order to accommodate this desire, while assuring that the committed development is rural in character and does not create costly developmental problems, such as increased flooding, or demand for urban services, including parks. This district should require each dwelling unit to have a lot with an area of five or more acres and should place restrictions on the amount of natural vegetation which can be removed.

Proper application of this district--an upland conservancy district--and the use of the existing districts which provide protection for important natural resource features--the conservancy district, the agricultural land preservation district, and the public district--in those portions of the Town having important natural resource features and important agricultural lands would generally result in the attainment of the open space preservation objectives presented in Chapter III of this report.

The Town and Waukesha County should apply these existing and proposed zoning districts to natural resource features within the primary and secondary environmental corridors and isolated natural areas as follows. The County and Town would cooperate to place all wetlands within the existing conservancy district. It is important here to note that all lands within the regulatory shoreland area are subject to the county floodland and shoreland zoning ordinance as noted in Chapter II of this report. All lands currently held in public outdoor recreation and open space use and not already placed in the conservancy district should be placed in the public district, which would serve to protect and preserve the character of the existing natural resources, permit the provision of compatible outdoor recreation facilities, and prohibit urban and other incompatible uses. Woodlands, wildlife habitat areas, and areas possessing steep slopes which have not been placed in the conservancy district or the public district should be placed in the proposed new upland conservancy district. The proper application of the conservancy, public, and proposed upland conservancy districts would generally ensure the preservation of the natual resource features within the primary and secondary environmental

corridors and isolated natural areas in the Town of Vernon. In order to preserve prime agricultural lands, the Town and Waukesha County should consider the placement of all identified prime agricultural lands in the agricultural preservation district, thereby assuring the protection and continued use of such lands for agricultural purposes. It is important to note that those lands not located within the environmental corridors, isolated natural areas, and prime agricultural lands in the northern one-half of the Town north of the Fox River would, under the plan, be utilized for urban-type residential development. In general, such lands would remain in the existing residential (R-1 or R-1a) districts.

Town of Vernon: Under the second alternative for the provision of town-owned park and open space sites presented in this chapter, the alternative selected by the Town of Vernon Park Commission as the recommended plan, the Town would maintain Heather Ridge Park; develop the Town Hall site; acquire and develop a proposed site in the western portion of the Town; and acquire and develop a proposed site in the northeastern corner of the Town. It is also envisioned that the Town would encourage additional residential development to occur in the northern half of the Town, adjacent to the existing concentrations of urban-type development. In addition, the Town, in cooperation with the Waukesha County Park and Planning Commission, would preserve through public land use regulation the important natural resources and prime agricultural lands in the Town. Full implementation of these plan recommendations, along with the recommendations already presented for the Wisconsin Department of Natural Resources and the Waukesha County Park and Planning Commission, would result in the attainment of the park acquisition and development and open space preservation objectives presented in Chapter III of this report.

The recommended implementation measures and actions for the Town are based upon and related to existing government programs and are predicated upon enabling legislation. The implementation of the land use recommendations would be primarily the responsibility of the Town of Vernon. This responsibility would be shared among the Town of Vernon Plan Commission and the Town Board, which have ultimate responsibility for the protection of important natural resource lands and prime agricultural lands in the Town and for the direction of the development of residential lands and other urban development in the Town, and the Town of Vernon Park Commission, which is responsible for the acquisition, development, and maintenance of parks in the Town. Specific implementation activities by the Town for the provision of park and outdoor recreation facilities, for the preservation of important natural resource lands, and for the protection of prime agricultural lands are presented below.

Town Parks and Outdoor Recreation Facilities--Under the recommended plan, the Town of Vernon would provide outdoor recreation facilities at four town parks:

1. Heather Ridge Park--Under the recommended plan, Heather Ridge Park--an existing 13-acre town-owned park located in the north-central portion of the Town--would be maintained. The facilities at the site--two big softball diamonds, a sandlot softball diamond, and a children's play area--would also be maintained. In addition, it is recommended that soccer fields be provided at the site, along with additional support facilities such as additional parking and small maintenance building and concession stands.

2. Town Hall site--Under the recommended plan, the Town Hall park site--a 35-acre undeveloped site located in the central portion of the Town adjacent to the Town Hall owned by the Town--would be developed for a variety of outdoor recreation activities. Under this proposal, the Town would develop two softball diamonds, tennis courts, a soccer field, a picnic area, and a nature trail, as well as park support facilities including parking. It is envisioned that the Town Hall site will serve as the focal point for special local events such as community picnics, and would provide the recreation facilities required for such events. Figure 1 presents a sketch plan showing the location of facilities proposed for development at this site.

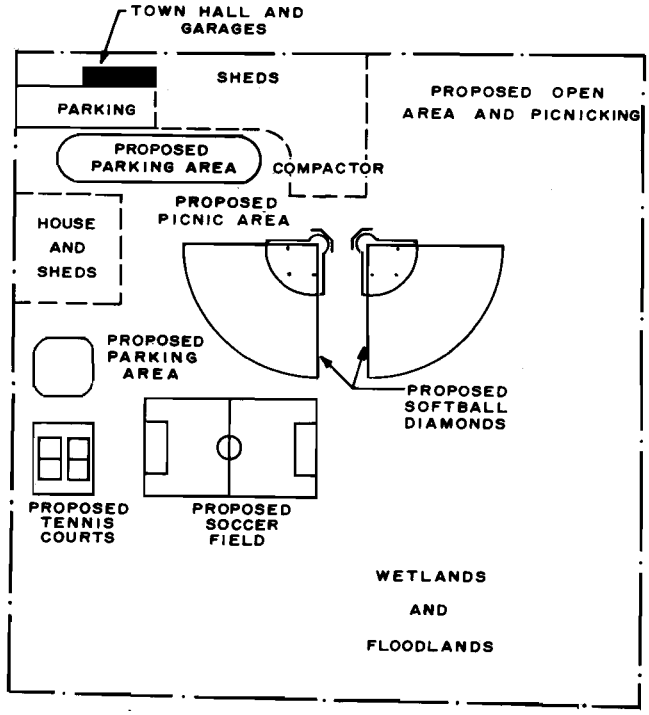
3. Proposed western park--Under the recommended plan, the Town would acquire and develop an additional new park proposed to be located in the west-central portion of the Town in the vicinity of the intersection of CTH XX and CTH ES. The facilities proposed to be provided at this site include league baseball and softball diamonds, a soccer and playfield area, tennis courts, and a picnic area. A swimming facility would also be considered at this site. In addition, park support facilities including parking, restroom facilities, and a maintenance building would also be provided. A minimum site area of about 25 acres of land suitable for the development of such facilities would be required and, while a specific site for this park has not been identified, Figure 2 presents a sketch plan of the facilities proposed for this site that could be adapted once a site has been chosen.

4. Proposed northeastern park--Under the recommended plan, the Town would acquire and develop an additional new park proposed to be located in the northeastern portion of the Town in the vicinity of the intersection of STH 15 and CTH U. Facilities proposed to be provided at this site include a league softball diamond, a soccer and playfield area, a picnic area, and support facilities including parking. A minimum site area of about 15 acres of land suitable for the development of such facilities would be required and, while a specific site for this proposed park has not been identified, Figure 3 presents a sketch plan of the facilities proposed for this site that could be adapted once a site has been chosen.

The maintenance of Heather Ridge Park, the development of the Town Hall site, and the acquisition and development of the proposed western and northeastern parks would result in the provision of the intensive nonresource-oriented outdoor recreation facilities needed in the Town. It is important to note that, as additional residential development occurs within the Town, sites suitable for recommended parks and outdoor recreation facilities will become increasingly difficult and costly to acquire. Thus, the Town of Vernon Park Commission should identify sites for each of the two parks herein proposed for acquisition by the Town, and acquire these sites as soon as possible. Development of the sites could be postponed until the need becomes evident. It is especially important that the Town Park Commission, through its representative on the Town Plan Commission, review proposals for residential development so that suitable parklands can be reserved as the subdivision platting process occurs.

Figure 1

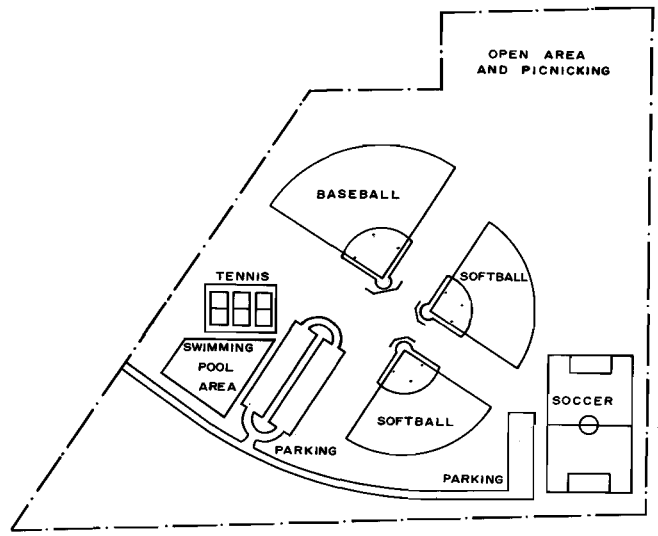
SITE PLAN FOR OUTDOOR RECREATION FACILITIES AT THE TOWN HALL SITE



Source: Ruekert & Mielke, Inc., and SEWRPC.

Figure 2

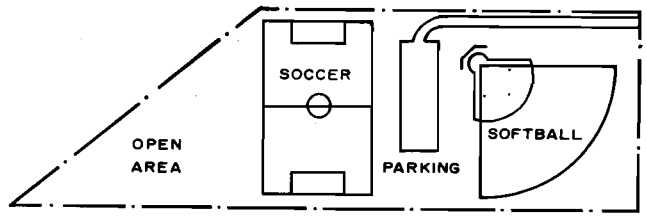
SAMPLE SITE PLAN FOR OUTDOOR RECREATION FACILITIES AT THE PROPOSED WESTERN PARK



Source: SEWRPC.

Figure 3

SAMPLE SITE PLAN FOR OUTDOOR RECREATION FACILITIES AT THE PROPOSED NORTHEAST PARK



Source: SEWRPC.

With respect to the proposed western park site, lands suitable for park and outdoor recreation facilities development include a parcel of land located on the east side of Oakdale Road in the southeastern one-quarter of U. S. Public Land Survey Section 8; a parcel of land located west of Oakdale Road and north of National Avenue in the northwest one-quarter of U. S. Public Land Survey Section 17; and a parcel of land located north of National Avenue in the northeast one-quarter of U. S. Public Land Survey Section 19. With respect to the proposed northeastern park site, lands suitable for park and outdoor recreation facility development include a parcel of land located southeast of STH 15 and west of Guthrie Drive in the southwest one-quarter of U. S. Public Land Survey Section 1; a parcel of land located north of STH 15 and south of National Avenue in the southwest one-quarter of U. S. Public Land Survey Section 1; and a parcel of land located east of Guthrie Road in the southeastern one-quarter of U. S. Public Land Survey Section 12.

Natural Resources and Prime Agricultural Lands--As already noted, the zoning ordinance currently in effect in the Town of Vernon was enacted jointly by the Town and Waukesha County. Thus, as already mentioned, both the Town and the County would be responsible for the protection of the important natural resource features and prime agricultural lands in the Town. In addition, the Town and County would be responsible for encouraging additional urban development in the Town to occur in the northern one-half of the Town on lands suitable for such development. Under the recommended plan, then, the Town, along with Waukesha County, would consider action to add the proposed new zoning district--the upland conservancy district--to the existing county zoning ordinance, and would apply this new district and the three existing districts as appropriate to preserve the important natural resource features--primary and secondary environmental corridors and isolated natural areas--and to protect the prime agricultural lands in the Town. The proper application of these zoning districts to the important natural resource features and prime agricultural land in the Town of Vernon would result in the attainment of the open space preservation objectives presented in Chapter III of this report.

Plan Costs

Implementation of the recommendations directed at the Town of Vernon under the park and open space plan presented herein would require a total capital expenditure of about $460,000. This open space acquisition and development cost would be distributed over the 16-year plan implementation period. Under the assumptions that urban-type residential development would occur in the northern one-half of the Town of Vernon and that the population of the Town would be about 13,600 persons by the year 2000, the average annual acquisition and development cost would be about $28,750, or about $2.88 per capita per year or $10.08 per household per year. It should be noted that, to the extent that acquisition and development proposals become eligible for state or federal aid, these costs could be reduced. In addition, as additional residential development occurs in the Town, the Town would receive additional subdivision dedication fees--currently $300 per lot--for the acquisition and development of parks and facilities. It is also possible that reductions in the acquisition and development costs to the Town will be realized through the donation of lands and development funds to the Town, such as the potential donation of a maintenance building and concession stand at Heather Ridge Park. Thus, it is possible that full implementation of the acquisition and development proposals could cost as little as $265,000 and over the 16-year plan implementation

period, which would mean an average annual cost to the Town of about $16,600, or about $1.66 per capita per year or $5.81 per household per year. This compares to the recent--1976, when Heather Ridge Park was acquired, through 1983 when the Town Hall site was acquired--eight-year average annual capital expenditure by the Town for park acquisition and development of about $24,500 per year, or about $3.83 per capita per year or $13.40 per household per year.

In addition to the capital expenditures, expenses will be incurred to operate and maintain the park and open space system. Upon full implementation of the plan, the town-owned park and open space facilities would consist of four parks fully developed for intensive outdoor recreation use. The annual maintenance costs are estimated at $53,500, or about $5.35 per capita per year or $18.73 per household per year. This compares to the 1984 maintenance expenditure of $14,000, or about $2.03 per capita and $7.10 per household.

CONCLUDING REMARKS

The primary purpose of the park and open space planning program for the Town of Vernon was the preparation of a sound and workable plan to guide the acquisition and development of lands and facilities needed to satisfy the outdoor recreation and open space needs of the existing and probable future population of the Town and to protect and enhance the underlying and sustaining natural resource base. Implementation of the recommended plan would ensure the protection and preservation of the environmental corridors and isolated natural areas of the Town; the maintenance of important agricultural lands in agricultural uses; and the provision of an adequate number and variety of park and open space sites and facilities geographically well distributed throughout the Town, thus meeting the existing and probable future recreation needs of the residents.

APPENDICES

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Appendix A

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

OBJECTIVE NO. 1

The provision of an integrated system of public outdoor recreation sites and related open space areas which will afford the resident population of the Region, including the Town of Vernon, adequate opportunities to participate in a wide range of outdoor recreation activities.

PRINCIPLE

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

A. PUBLIC GENERAL USE OUTDOOR RECREATION SITES

PRINCIPLE

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

STANDARDS

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

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

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

B. RECREATION-RELATED OPEN SPACE

PRINCIPLE

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

STANDARDS

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

1. A minimum of 0.16 linear mile of recreation-related open space consisting of linear recreation corridors[p] should be provided for each 1,000 persons in the Region.

2. Recreation corridors should have a minimum length of 15 miles and a minimum width of 200 feet.

3. The maximum travel distance to recreation corridors should be five miles in urban areas and 10 miles in rural areas.

4. Resource-oriented recreation corridors should maximize use of:

   a. Primary environmental corridors as locations for extensive trail-oriented recreation activities.

   b. Outdoor recreation facilities provided at existing public park sites.

   c. Existing recreation trail-type facilities within the Region.

OBJECTIVE NO. 2

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

STANDARD

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

Minimum Per Capita Facility Requirements[q]				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)	Service Radius of Facility (miles)[r]
Baseball	Diamond	Public Nonpublic Total	0.09 0.01 0.10[s]	Types II, III, and IV general use site	2.8 acres per diamond	Parking (30 spaces per diamond) Night lighting[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
Softball	Diamond	Public Nonpublic Total	0.53 0.07 0.60	Types II, III, and IV general use site	1.70 acre per diamond	Parking (20 spaces per diamond) Night lighting[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	Types II and III general use site	0.13 acre per pool minimum	Bathhouse and concessions Parking (400 square feet per space) Buffer and landscaping	0.13 acre minimum 0.26 acre minimum 0.70 acre minimum	1.22 minimum	3.0
Tennis	Court	Public Nonpublic Total	0.50 0.10 0.60	Types II, III, and IV general use site	0.15 acre per court	Parking (2.0 spaces per court) Night lighting[t] Buffer	0.02 acre per court -- 0.15 acre per court	0.32	1.0

OBJECTIVE NO. 3

The provision of sufficient outdoor recreation facilities to afford 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-oriented activities such as camping, picnicking, and beach swimming.

STANDARD

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

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

OBJECTIVE NO. 4

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

PRINCIPLE

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

STANDARD

A sufficient number of facilities for participation in extensive land-based outdoor recreation activities should be provided throughout the Region. Public facilities provided for these activities should be located within the linear resource-oriented recreation corridors identified in Objective 1. To meet this standard, the following per capita requirements and design criteria for various facilities should be met as indicated below:

Minimum Per Capita Public Facility Requirements[aa]			Design Standards				
Activity	Facility	Per Capita Requirements (linear mile per 1,000 residents)	Typical Location of Facility	Minimum Facility Requirements (acres per linear mile)	Suggested Support Facilities and Backup Lands	Minimum Support Facility Requirements (acres per linear mile)	Resource Requirements
Biking	Route	--[bb]	Scenic roadways	--	Route markers	--	--
	Trail	0.16	Recreation corridor	1.45	Backup lands with resource amenities	24.2	Diversity of scenic, historic, natural, and cultural features Suitable topography (5 percent slope average maximum) and soils
Hiking	Trail	0.16	Recreation corridor	0.73	Backup lands with resource amenities	24.2	Diversity of scenic, historic, natural, and cultural features Suitable topography and soils
Horseback Riding	Trail	0.05	Recreation corridor Type I general use site	1.21	Backup lands with resource amenities	24.2	Diversity of scenic, historic, natural, and cultural features Suitable topography and soils
Nature Study	Center	1 per county	Types I, II, and III general use sites		Interpretive center building Parking	--	Diversity of natural features including a variety of plant and animal species Suitable topography and soils
	Trail	0.02	Recreation corridor Types I, II, and III general use sites	0.73	Backup lands with resource amenities	24.2	Diversity of natural features, including a variety of plant and animal species Suitable topography and soils
Pleasure Driving	Route	--[cc]	Scenic roadways recreation corridor	--	Route markers	--	--
Ski Touring	Trail	0.02	Recreation corridor Types I and II general use sites	0.97	Backup lands with resource amenities	24.2	Suitable natural and open areas Rolling topography
Snowmobiling	Trail	0.11	Private lands (leased for public use)	1.45	Backup lands, including resource amenities and open lands	24.2	Suitable natural and open areas Suitable topography (8 percent slope average maximum) and soils

OBJECTIVE NO. 5

The provision of sufficient access areas to afford the resident population of the Region adequate opportunities to participate in extensive water-based outdoor recreation activities consistent with safe and enjoyable inland lake and river use and the maintenance of adequate water quality.

PRINCIPLE

The major inland lakes and rivers of the study area accommodate participation in extensive water-based recreation activities, including canoeing, fishing, ice fishing, motor boating, 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 such access should be available to the general public.

STANDARDS

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

Size of Major Lake (acres)	Minimum Number of Access Points—Public and Private	Optimum Number of Parking Spaces
50 - 199	1	$\frac{A}{16.6} - \frac{D^{dd}}{10}$ Minimum:[ee] 6
200 or more	Minimum of 1 or 1 per 1,000 acres of usuable surface[ff]	$\frac{A}{15.9} - \frac{D^{99}}{10}$ Minimum:[ee] 12

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

OBJECTIVE NO. 6

The preservation of sufficient lands in essentially natural open uses to assure the protection of the underlying and sustaining natural resource base and enhancement of the social and economic well being and environmental quality of the City.

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 study area. Preservation of the most significant aspects of the natural resource base, that is, primary environmental corridors and prime agricultural lands, contributes to the maintenance of the ecological balance, natural beauty, and economic well being of the Region.

A. PRIMARY ENVIRONMENTAL CORRIDORS

PRINCIPLE

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

STANDARD

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

B. PRIME AGRICULTURAL LANDS

PRINCIPLE

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

STANDARDS

1. All prime agricultural lands should be preserved.

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

OBJECTIVE NO. 7

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

PRINCIPLE

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

STANDARD

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

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

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

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

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

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

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

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

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

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

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

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

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

[m] The service radius of school outdoor recreation sites, for park and open space planning purposes, is governed primarily by individual outdoor recreation facilities within the school site. For example, school outdoor recreation sites which provide such facilities as playfields, playgrounds, and basketball goals typically have a service radius of 0.5 mile—which is the maximum service radius assigned to such facilities (see standards presented under Objective No. 2). As another example, school outdoor recreation sites which provide tennis courts and softball diamonds typically have a service radius of 1.0 mile—which is the maximum service radius assigned to such facilities (see standards presented under Objective No. 2). It is important to note that areas which offer space for passive recreational use are generally not provided at school outdoor recreation sites, and therefore Type III and Type IV school sites generally do not meet Type III and Type IV park accessibility requirements.

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

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

[p] A recreation corridor is defined as a publicly owned continuous linear expanse of land which is generally located within scenic areas or areas of natural, cultural, or historical interest and which provides opportunities for participation in trail-oriented outdoor recreation activities especially through the provision of trails designated for such activities as biking, hiking, horseback riding, nature study, and ski touring. In the Region in 1973 only Milwaukee County, with an extensive parkway system, and the Wisconsin Department of Natural Resources, with the Kettle Moraine State Forest—Southern Unit, possessed the continuous linear lands required to develop such a recreation corridor.

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

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

[s] Each urban area having a population of 2,500 or greater should have at least one baseball diamond.

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

[u] Each urban area should have at least one ice-skating rink.

[v] Each urban area having a population of 7,500 or greater should have one public swimming pool or beach.

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

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

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

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

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

[bb] *Bike routes are located on existing public roadways; therefore, no requirement is provided.*

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

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

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

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

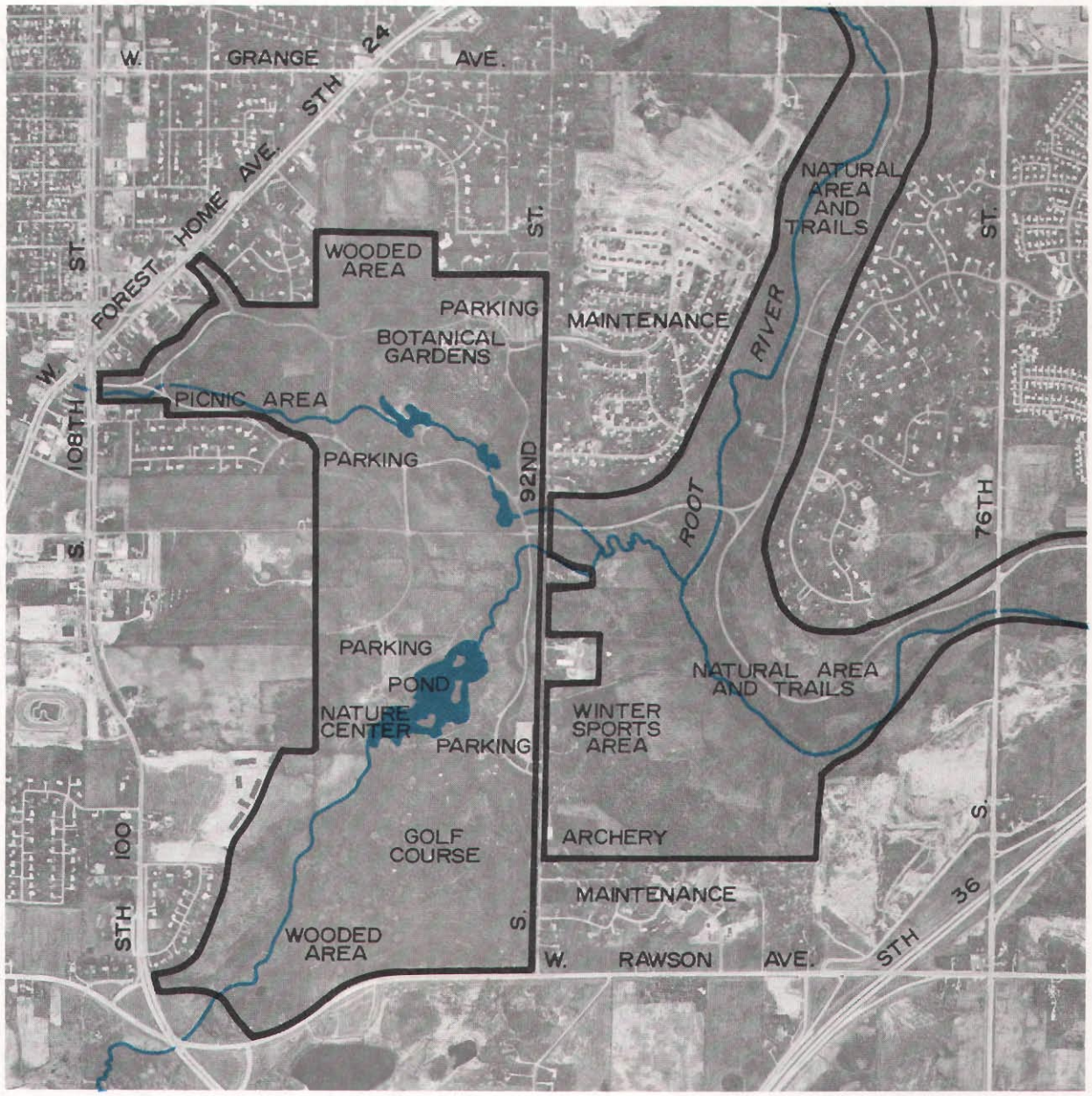
[gg] *The survey of boat owners conducted under the regional park study indicated that, for lakes of 200 acres or more, the typical mix of fast boating activities is as follows: water skiing—43 percent; motor boating—33 percent; and sailing—24 percent. The minimum area required per boat for safe participation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

[hh] *Canoeable rivers are defined as those rivers which have a minimum width of 50 feet over a distance of at least 10 miles.*

Source: SEWRPC.

Figure A-1

SAMPLE TYPE I PARK, WHITNALL PARK, MILWAUKEE COUNTY



Source: SEWRPC.

Figure A-2

SAMPLE TYPE II PARK, MUSKEGO PARK, WAUKESHA COUNTY

Source: SEWRPC.

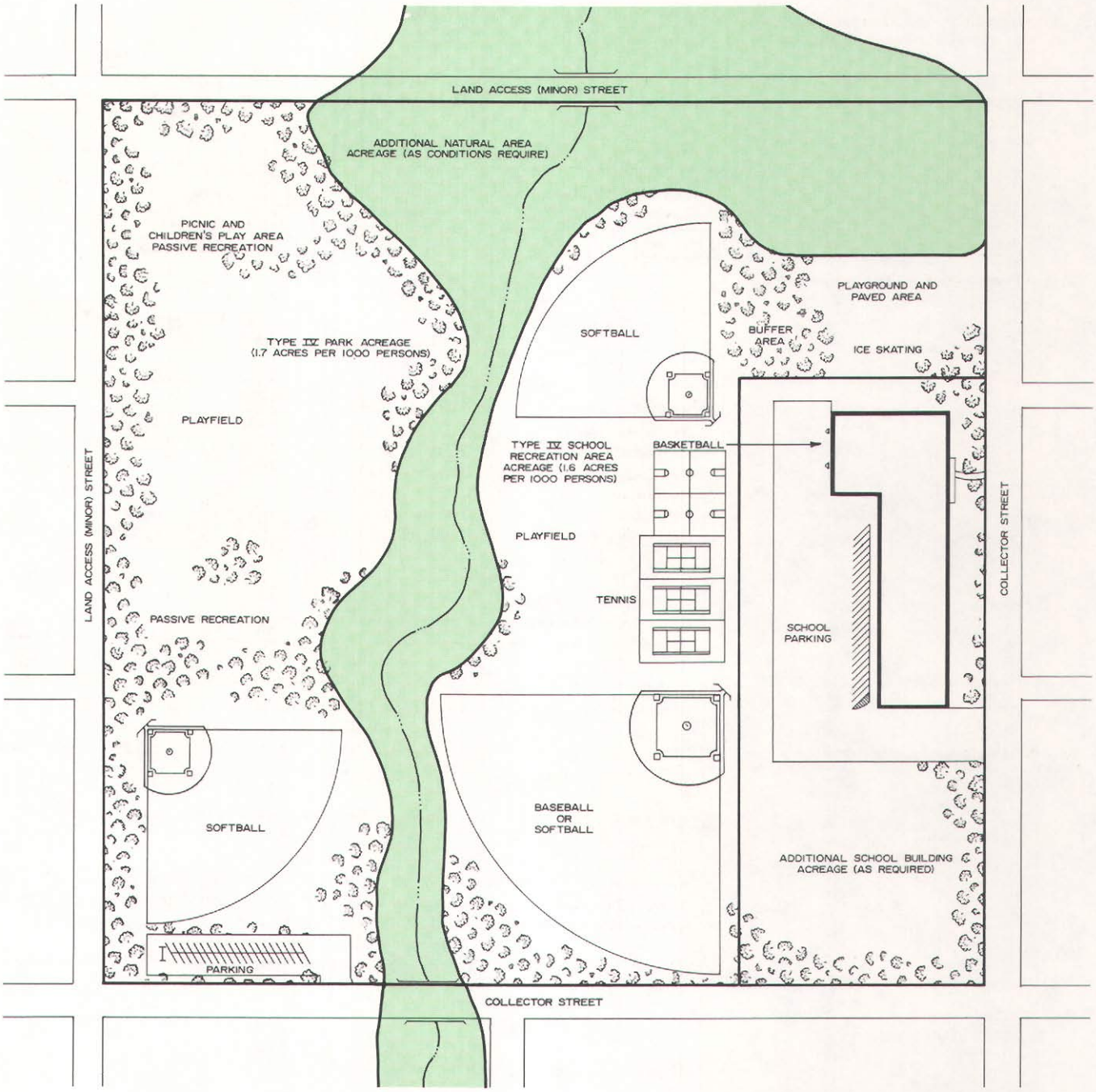
Figure A-3

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

Source: SEWRPC.

Figure A-4

TYPICAL TYPE IV NEIGHBORHOOD PARK AND SCHOOL RECREATION AREA



Source: SEWRPC.

NOTE: See page 86 for the application of selected facility standards to a typical Type IV neighborhood park and school recreation area.

A. Assumptions:

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

B. Outdoor Recreation Site Requirements:

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

C. Outdoor Recreation Facility Requirements.

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

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

D. Additional Acreage Requirements:

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

2) —In the typical Type IV site shown on page 85, the area for this use is approximately acres.

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

—In the typical Type IV site shown on page 85, the area for this use is approximately seven acres.

[b] *Though the provision of a baseball diamond is not strictly required through application of the standards, one baseball diamond replaced a softball diamond in the typical Type IV site shown on page 85.*