PLAN FOR PARKS AND OPEN SPACES

Dane County Regional Planning Commission

PLAN FOR PARKS

AND OPEN SPACE

DANE COUNTY, WISCONSIN

A Part of the Master Plan for the Dane County Region

Prepared for

DANE COUNTY PARK COMMISSION

Ву

DANE COUNTY REGIONAL PLANNING COMMISSION

December, 1970

DANE COUNTY REGIONAL PLANNING COMMISSION

Bruce K. Kaufmann, Chairman
Merton J. Walter, Vice Chairman
Mary Louise Symon, Secretary
Emden Schey, Treasurer
Sanford Anderson
Robert J. Ballweg
Walter M. Fitch
Gary L. Peterson
Fred A. Raemisch
Carl Simonson
Ole Week

DANE COUNTY PARK COMMISSION

Carlos Martin, Jr., Chairman
David J. Ohnstad, Vice Chairman
Mary Newgent, Secretary
Millard T. Erickson
Samuel Ferguson, Jr.
Frank Gugel
Martin Ripp

DANE COUNTY REGIONAL PLANNING COMMISSION STAFF

Charles Montemayor, Executive Director
M.L. Mazaheri, Assistant Director
C.M. Tabaka, Principal Planner
Boyd Kinzley, Planner
Gary Northrop, Criminal Justice Planning Officer
Wilfred Keller, Criminal Justice Planning Assistant
Norbert Scribner, Planner
Lillian Dean, Planner
Michael Zalecki, Planner
Morman Erickson, Planner
James Steffenhagen, Draftsman
Louise Smoczynski, Administrative Assistant
Carla Hasse, Clerk Stenographer
Kathleen Weeden, Clerk Stenographer

Former staff members with major participation in this report

Alan Bessey Nancy Knight

The preparation of this report was financially aided through a federal grant from the Department of Housing and Urban Development through the Urban Planning Assistance Program authorized by Section 701 of the Housing Act of 1954, as amended.

TABLE OF CONTENTS

Purpose		Page 1
Physical Features and Other Resources		3
Inventory of Open Space		33
Population		38
Standards		
Space		41
Activity	•	43
Demands - Present and Future		55
Needs		76
Objectives and Policies		80
Activity Recommendations	•	84
Existing County Park Evaluation	•	101
Park and Open Space Plan		117
Implementation		136
Appendices		139
II. Federal and State Aid Programs		
III. Recreation Activity Demands For County		

LIST OF MAPS

Glacial Features															Page 4
Forest Resources															11
Water Resources								•		•		•			16
Marshes Lost Since	e 1	905	5		•										18
Landscape Resource	es	Inv	er.	tc	ry	7	٠					•	•		22
Urbanization									•						25
Indian Antiquities	s a	nd	Hi	st	or	ic	al	. 5	Sit	es	5				32
Existing Parks and	d c	per	n S	pa	CE	es									34
Scenic Roads and	Par	kwa	ays	;	•	•	•	•	•			•		•	85
Dane County Park	Sys	ten	n		•	•	•	•	•	•	•		•	•	102
Mendota Park Deve	lop	mer	nt	Pl	an	1		•		•	•		•	•	109
Park and Recreation Department of										-					110
Park and Open Space															

LIST OF PHOTOGRAPHS

Lake Wingra										Page
Lake wingra		•	•	•	•	•	•	•	•	Cover
Driftless Area Near Blue	Mou	nds								5
Yahara River Basin		٠		•	•	•	٠	•	•	7
Farmland	٠.	•	•	•	•	•	٠	٠	•	12
Stream Improvement										12
Wetlands Near Stoughton										20
Kehl Winery										27
Mazomanie Church										
Dane County Parks										
Dane County Park Problem	s .	•	•	0	•	•	•	•	•	115

Photography Credits

Mr. Art Johnson
Mrs. N. Knight
Wisconsin Department of Natural Resources
Capital Times
Wisconsin State Journal

LIST OF TABLES

Table No.	<u>Title</u> <u>Page</u>
1.	Dane County Fish Lakes 14
2.	Physical Characteristics of Streams in Dane County
3.	Inventory of Existing Parks and Open Spaces
4.	Dane County Population 39
5.	Standards 42
6.	Dane County Recreational Demands On An Average Summer Sunday 57-58
7.	Increase in Recreational Demands On An Average Summer Sunday 59
8.	Present and Future Park and Open Space Needs In Dane County 79
9.	Summary of Camping in Dane County Parks
10.	Summary of Open Space Proposals 134

SECTION I

PURPOSE

SECTION I - PURPOSE

This report is a plan of parks and open spaces for Dane County. It is intended to serve as a guide for the acquisition and development of parks and open spaces by the county through its County Park Commission, by the various cities, villages and towns in the county, and by the state through the Wisconsin Department of Natural Resources. Although the plan is interjurisdictional in scope, greater emphasis has been directed toward fulfilling county and areawide needs.

This report and plan completes certain work started by the Commission's predecessor agency, the Dane County Planning Department. The work was undertaken to meet planning requirements of the federal LAWCON (Land and Water Conservation Fund) program and other state and federal grant in aid programs for park and open space acquisition and development. More importantly, however, the plan is needed at this time because of considerable development pressures being exerted on the county's open land resources and the eminent danger of losing some of the exceptional sites still available. Along with this, a growing public awareness of the metropolitan character of the Dane County area, and a desire and insistance by the public for action by local government to secure a quality environment makes the preparation of this plan timely.

Considerable data have been collected in this report on physical features and natural resources,

on the existing park and open space system, present and future recreation demands derived from projections to the year 1990 and based on accepted standards. A special emphasis of this plan is on a short-range action plan designed to be implemented in the next five years. The recommendations for the full twenty-year planning period are more general in nature and should be reviewed and revised as current work on the county land use plan is completed.

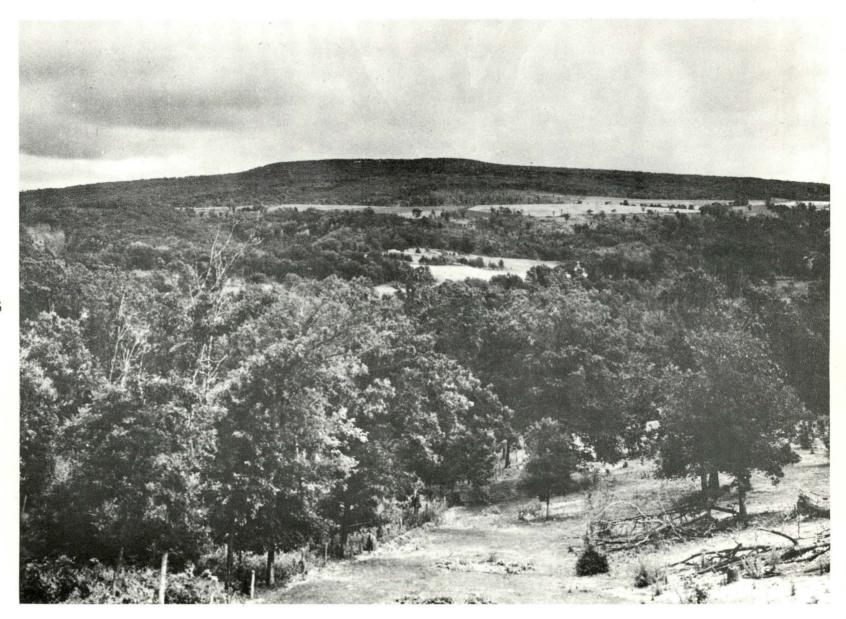
SECTION II

PHYSICAL FEATURES
AND
OTHER RESOURCES

SECTION II - PHYSICAL FEATURES AND OTHER RESOURCES

An examination of the physical features and resource base of Dane County provides a basic setting for park and open space planning as well as a way of identifying salient features that have park site potentials or problems that may have a bearing on park and open space recommendations. In addition, parks which provide an opportunity to explain or interpret the natural history of the county should be considered because of the greater interest and enjoyment that these can provide.

Dane County, with a land area of 1199 square miles, is located in the southern part of Wisconsin, half way between the Mississippi River and Lake Michigan. During the Glacial Period, 15,000 to 18,000 years ago, all of Wisconsin was covered by the ice sheet except a unique "driftless" area that remained untouched because of the influence of the Lake Superior Valley. The driftless section occupies about one-third of the land area of Dane County and the eastern edge is along a line from the Village of Cross Plains in the northwest, to Brooklyn Village in the south central part of the county. This line can be readily identified on the map "Glacial Features" shown on the following page, and on Photograph #1.



DRIFTLESS AREA
NEAR BLUE MOUNDS
WISCONSIN

As one would expect, the topography of the glaciated and nonglaciated regions are in great The driftless area in the western contrast. and southwestern part of the county is essentially an upland plain. Over the years, the streams have worn through the top limestone and sandstone and carved many deep valleys into the landscape resulting in a difference in elevation as high as 600 feet. From the constant weathering of the exposed stone, the ground is covered with a deep layer of residual soil with many picturesque rock crags and outcroppings. There are also some caves present due to the underground action of water dissolving the calcium oxide (lime) of the limestone layer. Military Ridge, just south of Blue Mounds and Mount Horeb, forms the surface water drainage divide, with the land on the north in the Wisconsin River watershed and that on the south in the Rock River watershed.

In the central and eastern part of the county, the continental ice sheets moved across the land, removing the top soil and rock from the hills and depositing it in the valleys as well as covering the whole area with transported soil that had been frozen in the ice.

The Yahara River watershed which drains the central third of the county has a relief that varies over 300 feet from the sandstone of the valley bottoms to the limestone capping the long moraines and ridges formed at the previous limits of the glacier. The Madison lakes dominate the valley. They and the Yahara River are the major recreational waters for the whole county. (Photo #2) Because of the relative youth of the post



YAHARA RIVER BASIN

glacial drainage pattern, there is an indefinite and intermittent pattern to the network of the smaller streams and lakes. The land adjacent to these water courses and lakes is usually marshy.

In eastern Dane County, there are moderate sized lowlands. It is less hilly than the Yahara River watershed because it was deeply covered by glacial deposits. The concentration of small drumlins in this area are common to eastern Wisconsin and are famous the world over. These unique oval hills of glacial till are generally confined to the limestone belt, and their long axes are always parallel to the direction of the movement of the last ice sheet. The pattern may be noted on the Map "Glacial Features." Associated with them are many poorly drained marshes and low meadows. The Yahara River and the other eastern streams of the glaciated part of the county are in the Rock River watershed.

Water bearing sandstone (aquifers) of the Cambrian Age underlay all of Dane County. The water, discharged through deep wells, is of good quality but is hard because of its calcium magnesium bicarbonate content. When the sandstone is close to the surface as it is in the extreme northwest corner of the county and directly under metropolitan Madison, an adequate supply of water is available.

The vegetation of Dane County has been influenced by topography, drainage and fires. When the early settlers first viewed the glaciated section of Dane County, the predominant prairie was confined to the broad areas of level and rolling land not crossed by major streams or marshes. This was probably because the fires which periodically swept across the midwest encountered few natural barriers and thus eliminated or prevented the invasion of woody plants. The oak openings were composed essentially of white and bur oak and grasses with a few red and black oak. The oak woods were predominantly white and black oak plus aspen, hickory, cherry, white ash, black walnut and basswood. Tamarack found growing next to some oak woods owed their presence and survival to an adjoining marsh where, because of the soil type and poor drainage, the ground remained wet throughout the year and thus stopped the advancement of fires.

The maple-basswood climax forest that is known today was present in the early 1800's on only three small tracts northeast and east of the Madison chain of lakes. They were protected on the southwest (the side of the prevailing winds) by bodies of water broad enough to extinguish the flying embers of the periodic fires. The maple and basswood, therefore, had a chance of asserting total dominance with their superior shade tolerance and heavy canopy that prevents further regeneration of other species.

The vegetation of the driftless area conforms very closely with its topography. The steep hillsides and narrow ridges, protected from fire, were oak savanah-land occupied by grasses, shrubs and a few tall trees of a single species, as in this case, the oak. The broad windswept uplands were prairie and the bottom lands were either prairie or marsh.

Essentially all of the remaining forest in Dane County is in scattered woodlots. (See map on next page.) According to the most recent Agricultural Summary (1964), there are approximately 77,000 acres of woodland (9.75% of the total county area) with oak, elm and aspen the predominant species.

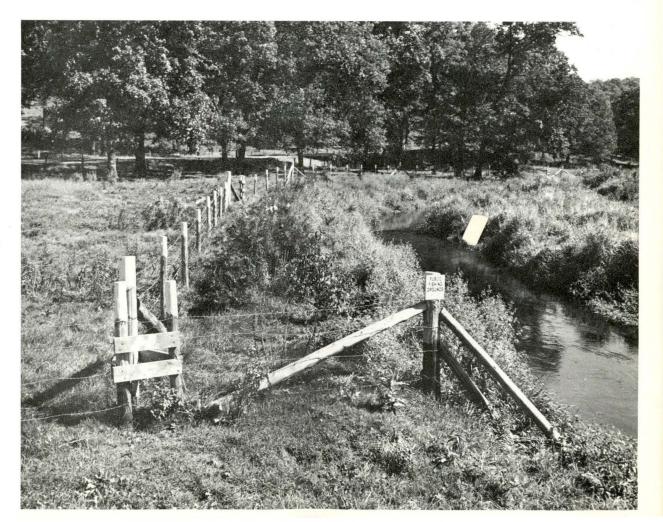
Dane County contains some of the best agricultural land in the state, especially in the glaciated northern and eastern sections, and since the relatively flat to gently rolling landscape is ideal for cropland and pastures, the farmland, except for isolated woodlots and wetlands, is productively cultivated. (See Photo 3)

Silt loam derived from the weathering of glacial till covers about one-third of the county in the east and south. The original oak woods on the lighter colored soil were cleared by the early settlers for valuable lumber and all but a few steep slopes are now cultivated. The darker colored silt loams of the weathered material covering the glacial till in the north and central parts supported prairie. The fertile soil is now being productively used for general farming. In the driftless region, the uplands and some slopes are covered with soil derived from the weathering of windblown limestone and sandstone. Trees remain on the steeper slopes and in some woodlots. The fertile residual limestone soils supported the prairies of the southwest. the excessive slope gradients found throughout the driftless area which cannot accommodate farm machinery, a high percentage of the land is in permanent pasture. As a result, dairy farming and the production of dairy products are important to the economy of the region. Although



DANE COUNTY FARMLAND

3



EFFECTIVE STREAM
IMPROVEMENT

there are few peat or muck type soils in the county, they are extensive in the glacial area. They can only be used for limited cultivation when economically drained, and not subject to frost too late in the spring or too early in the fall. Other soil conditions that have an influence on the type of development that can be sustained include: water table near the surface which prevents proper septic tank operation; shallow soils with bedrock near the surface have a tendency to erode severely.

Of Dane County's 789,100 acres, 22,712 acres or 2.87% of the area are under water. This includes 28 fish and 42 duck (small and marshy) lakes and 435.4 miles of streams. In addition, there are 14 miles of the Wisconsin River forming the northwest boundary of the county. These are shown by name and location on the Map 3 "Water Resources" on the following page. A summary description of the lakes and streams is given on Tables 1 and 2.

The glaciated eastern and northeastern region, with only 200 to 250 feet of relief, has youthful streams draining the till plain with its swales and drumlin swells which are interrupted by marshes and poorly developed drainage patterns. Fish Lake and Mud Lake (in the town of Deerfield) are small kettle lakes formed by the melting of buried ice blocks and lakes such as Barney, Harriet and Indian, have been formed in shallow drift basins. These types of lakes have limited fishing value because they are shallow, land locked, and often suffer winter fish kills in their present form.

TABLE 1

DANE COUNTY FISH LAKES*

NAME		CATION BY SECTION	LAUNCHES (1/160 ACRES)	BY	SUBJECT TO OCCASIONAL WINTERKILL			IN MILES	MILES OF PUBLIC SHORELINE
ke	Fitchburg	34	_	31		6	feet	.8	
e Millpond	Montrose	34	1	93		9	"	2.5	.60
rg (Katrine)	Springfield	6	_	43	X	6		1.8	-
Marsh	Westport	_	2	335	**	5		9.68	6.03
ake	Roxbury	1	3-4	571	х	9		6.0	-
	Roxbury	. 3	2	252	-	62	**	2.8	.01
đ	Verona	12	-	17	x	10	11	.7	_
ake	Oregon	8	_	33	X	12	11	1.0	_
ke	Berry	2	_	66	X	6	11	1.3	_
ake	Dunn-Pl. Springs	-	17	2,716		31	11	9.5	2.07
g Lake	Albion	25,36	_	10,460	X	7	n	1.6	. 24
	(In Dane County)						ity)		
Millpond	Medina	9	1	194		5	11	6.0	.53
	Roxbury	4	-	61	X	5	11	1.3	_
ake	Various	-	70	9,730		82	11	21.9	6.42
ke	Various	-	21	3,335		64	11	12.5	1.50
	Deerfield	2		39	X	15	11	. 9	-
(Lower)	Dunn	10	1	195		5	11	2.6	-
(Upper)	Blooming Grove	28	1	223		8	11	2.5	_
Pond	Berry	32	_	4		15	11	. 4	. 4
Millpond	Christiana	13	1	104	X	5	н	3.7	.01
i .	Berry .	32	-	. !	5	20	u	. 25	. 25
ake	Blue Mounds	2		7		13	n	.5	•5
Pond	Dunkirk	4	1	82		5	11	2.6	-
Millpond	Windsor	34	-	23		6	11	1.3	-
	Verona	22	-	10		25	11	.6	.6
ake	Various	-	13	2,113		34	11	9.5	. 4
ake	Windsor	31	-	9		6	11	7	-
re	Madison	27	2	345		21	"	3.7	3.0
			167	20 631 6				107 03	22.32
(Locality of the control of the cont	ower) pper) nd llpond e ond illpond el Pit (East)	Various Various Deerfield Dunn Dunn Deerfield Ower) Dunn Deerfield Ower) Dunn Duning Grove Dund Dunitiana Berry Dee Blue Mounds Dunkirk	Various - Various - Deerfield 2 Dunn 10 pper) Blooming Grove 28 nd Berry 32 llpond Christiana 13 Berry 32 Blue Mounds 2 Dunkirk 4 illpond Windsor 34 el Pit (East) Verona 22 e Warious - Windsor 31	Various - 70 Various - 21 Deerfield 2 - Ower) Dunn 10 1 Deper) Blooming Grove 28 1 Ind Berry 32 - Ilpond Christiana 13 1 Berry 32 - Blue Mounds 2 - Ond Dunkirk 4 1 Illpond Windsor 34 - Eel Pit (East) Verona 22 - Ee Warious - 13 Ee Windsor 31 - Madison 27 2	various - 70 9,730 various - 21 3,335 Deerfield 2 - 39 ower) Dunn 10 1 195 pper) Blooming Grove 28 1 223 nd Berry 32 - 4 llpond Christiana 13 1 104 Berry 32 - - 7 ond Bunkirk 4 1 82 ond Dunkirk 4 1 82 ond Windsor 34 - 23 el Pit (East) Verona 22 - 10 various - 13 2,113 e Windsor 31 - 9 Madison 27 2 345	Various - 70 9,730 Various - 21 3,335 Deerfield 2 - 39 X Dower) Dunn 10 1 195 Depen Blooming Grove 28 1 223 Deerfield 2 - 4 Dund Berry 32 - 4 Dund Christiana 13 1 104 X Berry 32 - 5 Dee Blue Mounds 2 - 7 Dund Dunkirk 4 1 82 Dunkirk 4 1 92 Dunkirk 4 1 93 Dunkirk 9 1 9,730	Various - 70 9,730 82 Various - 21 3,335 64 Deerfield 2 - 39 X 15 Dunn 10 1 195 5 Dunn 10 1 195 5 Dund Berry 32 - 4 15 Ilpond Christiana 13 1 104 X 5 Berry 32 - 5 20 Blue Mounds 2 - 7 13 Ond Dunkirk 4 1 82 5 Illpond Windsor 34 - 23 6 Del Pit (East) Verona 22 - 10 25 Del Warious - 13 2,113 34 Del Windsor 31 - 9 6 Madison 27 2 345 21	Per Various - 70 9,730 82 " Various - 21 3,335 64 " Deerfield 2 - 39 X 15 " Dower) Dunn 10 1 195 5 " Doper) Blooming Grove 28 1 223 8 " Ind Berry 32 - 4 15 " Berry 32 - 4 15 " Berry 32 - 5 20 " Blue Mounds 2 - 7 13 " Dunkirk 4 1 82 5 " Dunkirk 4 1 82 6 " Dunkirk 4 1 82 7 23 6 " Dunkirk 5 " Dunkirk 6 " Dunkirk 9 13 2,113 34 " Dunkirk 9 13 2 2 2 3 345 " Dunkir	e Various - 70 9,730 82 21.9 Various - 21 3,335 64 12.5 Deerfield 2 - 39 X 15 9 Ower) Dunn 10 1 195 5 2.6 Opper) Blooming Grove 28 1 223 8 2.5 Ind Berry 32 - 4 15 4 Ilpond Christiana 13 1 104 X 5 3.7 Berry 32 - - 7 13 - 25 e Blue Mounds 2 - 7 13 - 5 ond Dunkirk 4 1 82 5 2.6 - illpond Windsor 34 - 23 6 1.3 - el Pit (East) Verona 22 - 10 25 - 6 e Windsor 31 - 9 6 <t< td=""></t<>

TOTAL

28 "Fish" Lakes

42 "Duck" Lakes

TOTAL LAKES

70

^{*}Source: Surface Water Resources of Dane County, Wisconsin Conservation Dept. 1961

TABLE 2

PHYSICAL CHARACTERISTICS OF STREAMS IN DANE COUNTY

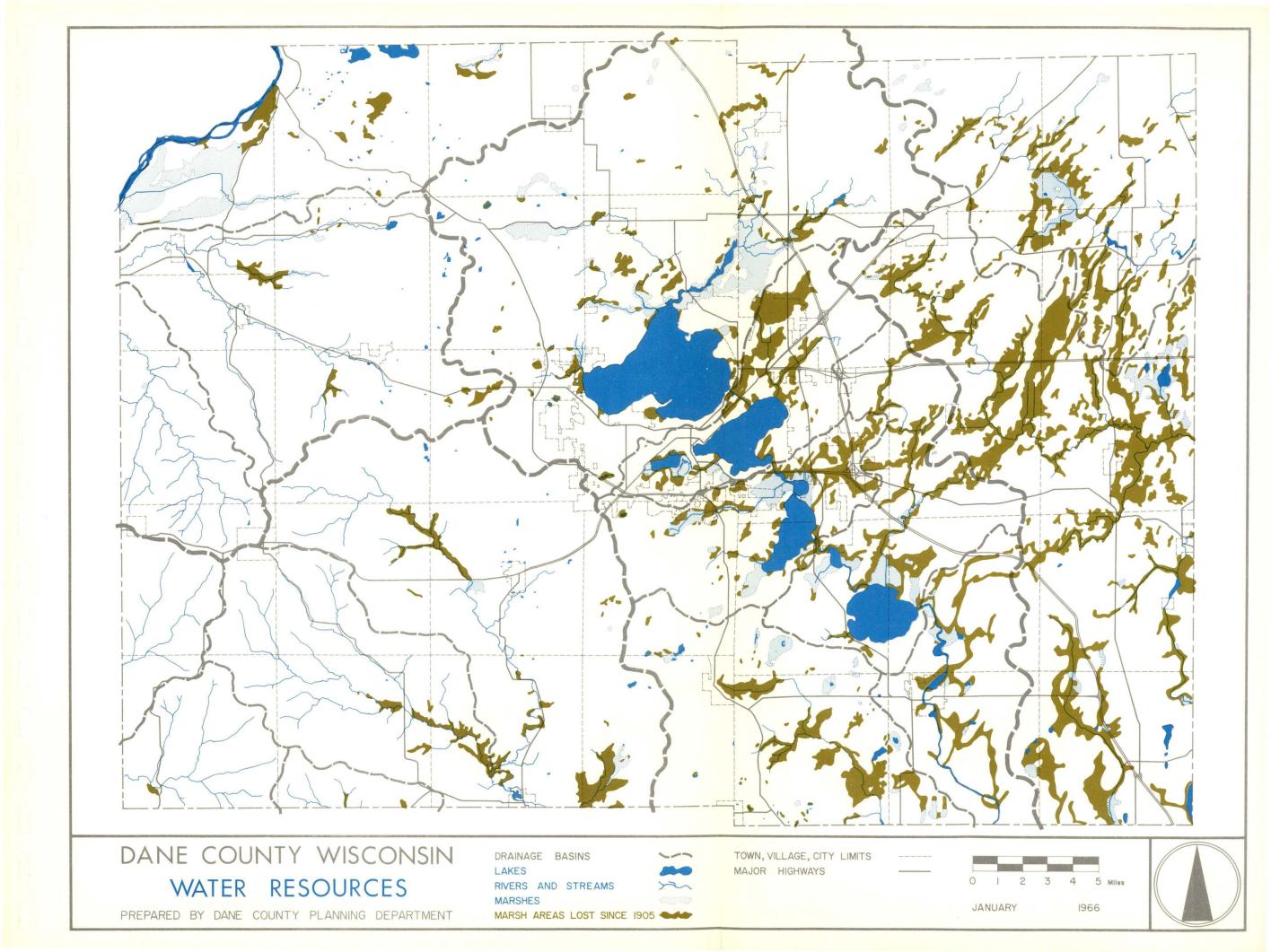
			Drainage	Surface		Width	
			Area			ALC: ALC: ALC: ALC: ALC: ALC: ALC: ALC:	Gradient
Name	Town	Sec.	(Sq. Miles)				
Anthony Branch*	Rutland	16	5	1.6	2.2	6	18.2
Anthony Branch* Badfish Creek	Rutland	36	78	34.8	14.5	20	4.1
The second secon	Verona	28	31	4.8	4.0	11	10.0
Badger Mill Creek		6	18	4.1		5	26.5
Big Spring Creek*	Perry Black Earth	18	107	50.9	6.8	20	6.9
Black Earth Creek*	Black Earth	31	43	20.1	16.6	10	
Bohn Creek (Blue Mounds)	Dunn Dunn	13	32	12.3	12.7	8	24.7
Door Creek	Mazomanie	31	15	6.8		6	2.0
Dunlap Creek*	Vermont	17	6			6	19.7
Elvers Creek*	Montrose	19	5	5.2	7.2		70.1
Flynn Creek*		36	4	The second secon	3.5	5	11.4
Frogpond Creek*	Rutland Cross Plains			1.4			11.0
Garfoot Creek*		5	6	2.8	3.8	6	14.5
German Valley Creek*	Perry	16		3.6	5,0	6	36.0
Halfway Prairie Creek	Black Earth		28	6.6	9.0	8	15.6
Henry Creek	Montrose	14	<u>2</u> 5	0.7	0.9	6	27.8
Keenans Creek	Dunn			2.1	4.4	4	25.0
Koshkonong Creek	Albion	12	124	45.8	31.8	12	3.8
Leuten Creek	Pleasant	28	10	2.2	3.1	7	9.7
Little Door Creek	Cottage Grove	32	8	2.8	3.8	6	11.8
Marsh Creek	Black Earth	6	4	1.9	4.0	4	5.0
Maunesha (Waterloo Creek)	Medina	12	93	93, 1	24.0	32	3.3
Milum Creek	Montrose	19	2	0.7	2.0	3	15.0
Mt. Vernon Creek (Deer)*	Primrose	13	28	13.1	9.0	12	23.3
Mud Creek	Deerfield	23	21	5.5	7.6	6	4.0
Mud Creek	York	12	4	3.0	5.0	5	22.0
Nine Springs Creek	Blooming Grove	29	10	5.9	6.1	8	3.3
Pheasant Branch	Middleton	1	22	4.5	7.5	5	24.0
(Picture Rock Branch)			_				
Fryes Feeder*	Springdale	33	.5	2.5	3.4	6	38.3
Pleasant Valley Branch*	Perry	30	49	7.7	9.1	7	25.3
Primrose Branch	Primrose	14	10	1.0	2.1	4	78.6
Roxbury Creek	Mazomanie	13	14	6.0	5.0	10	26.0
Saunders Creek	Albion	33	38	11.1	10.2	9	9.3
Schalpback Creek*	Cross Plains	34	5	2.0	4.1	4	24.4
Schumacher Creek	Medina	9	11	2.9	4.0	6	5.0
Six Mile Creek	Westport	28	49	12.9	8.9	12	13,5
Spring (Dorn Creek)*	Westport	28	13	3.6	6.0	5	4.2
Spring (Lodi Creek)*	Dane	4	13	4.4	4.0	9	40.0
Spring Creek	Medina	15	6	2.3	3.1	6	5.0
Starkweather Creek	Blooming Grove	8	22	7.8	4.0	16	5.0
Story Creek*	Oregon	31	14	1.6	2.6	5	9.6
Stransky Creek	Medina	4	3	3.1	2.8	9	16.1
Sugar River*	Montrose	35	373	65.3	24.5	22	7.8
Swan Creek	Dunn	7	7	2.4	2.8	7	16.1
Syftestad*(Daleyvill Branch)	Perry	29	6	1.9	4.0	4	30.0
Token Creek*	Burke	7	22	16.9	8.7	16	9.8
Tyvan School Branch	Perry	28	7	3.1	4.2	6	45.2
Vermont Creek*	Black Earth	26	20	11.6	12.0	8	4,6
Wendt Creek	Black Earth	16	10	3.6	6.0	5	4.2
West Branch - Sugar River	Montrose	33	72	38.8	20.0	16	11.3
Wingra (Murphy Creek)	Madison	24	2	12.1	2.5	40	2.0
"Wisconsin River"	Mazomanie			1,358	14.0	800	1.4
Yahara River	Dunkirk	35	473	126.1	40.0	26	3.6

* trout present

Totals (Excluding Wisconsin River) Totals (Including Wisconsin River) 688.7 Acres 2,046.7 Acres 421.4 Miles 435.4 Miles Artificial stream impoundments, such as Rockdale and Marshall Mill Ponds, created in the 1800's have limited value for fishing because of high fertility and sedimentation; but they can be esthetically attractive. Lakes Mendota, Monona, Waubesa and Kegonsa, created by the moraine damming of the preglacial Yahara River Valley, and the present Yahara River that drains them, by virtue of their size and depth, provide most of the aquatic recreation for the county. addition, this water system with the adjacent wetlands supports waterfowl, fish and furbearing wildlife. Excessive fertility of the water is causing excessive aquatic plant and algae growth and erosion of the disturbed land around the lakes increases the sedimentation. Thus the aging of the lakes has been greatly accelerated.

The driftless area in the west and southwest, with as much as 400 to 450 feet in relief, has many streams draining the valleys that have deeply eroded the ancient bedrock and so today few lakes or marshes remain. Springs are many and large and thus permit stream management for cold water fishes—especially trout. See Photo #4 on page 12. Unless the valley walls and silt plains are protected, the high quality fishing water will be eliminated.

In 1938 the Wisconsin Land Economic Inventory showed 67,277 acres of wetland and by the 1955-60 period, one-third of this, most of it in the eastern half of the county, had been drained. The map showing marsh areas lost since 1905 (next page) illustrates the substantial amount of wetlands drained or otherwise lost in Dane County since the turn of the century. Although the precise



and ultimate effect of such a large and drastic change in the County's physiography is not known, it is clear and imperative that the remaining wetland resources be preserved.

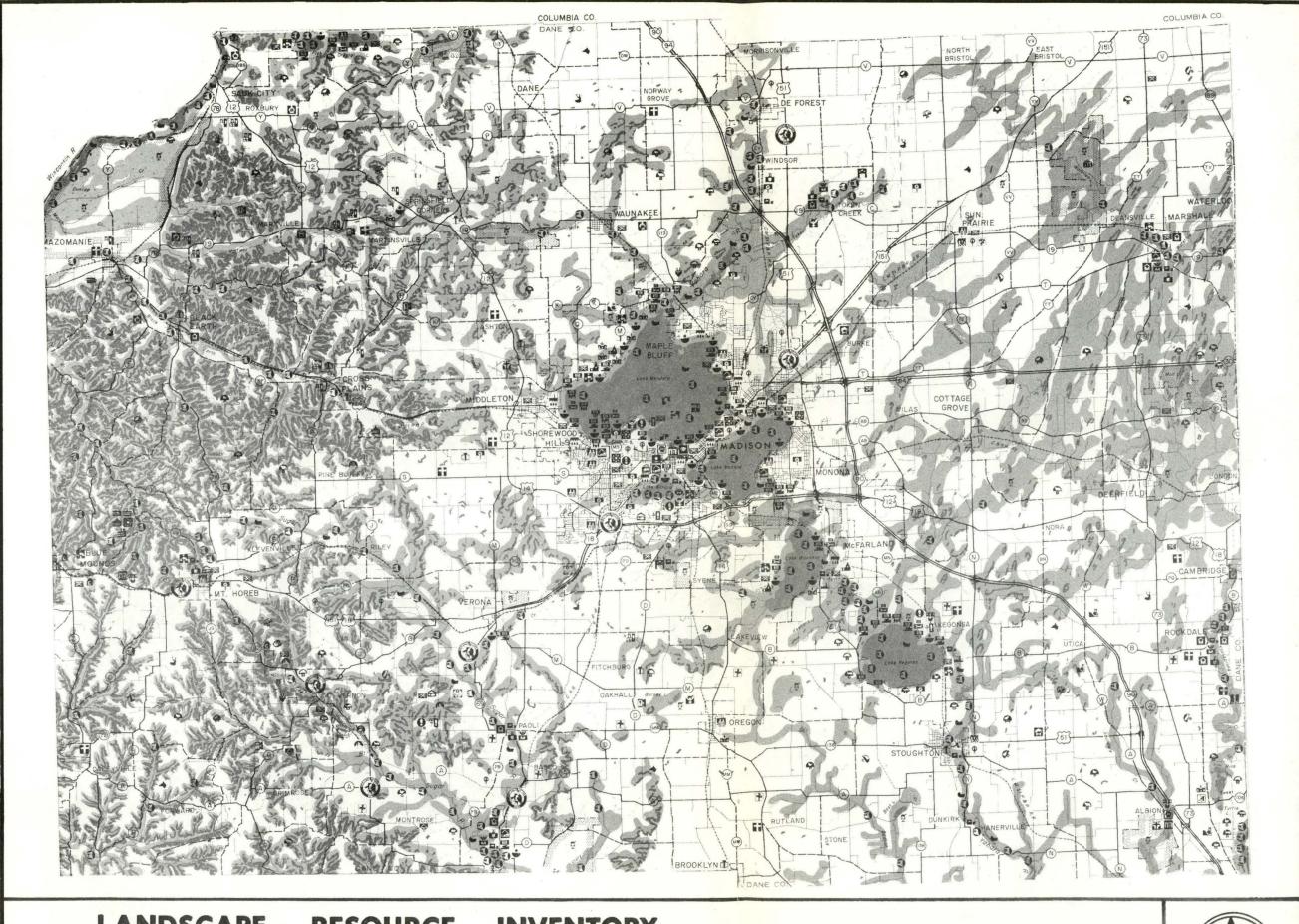
Wetlands are important for the survival of fish as well as game resources. (See Photo #5 Page 20) Pike seek out the flooded lands for spring spawning. Wildlife use the marshes including small ones, not only for feeding and reproduction, but also for nesting and winter cover protection. Also, marshes help maintain water quality of downstream lakes by reducing the velocity of water flowing through and thus causing the settling of silt that would otherwise flow into the lakes. In addition, wetlands have the ability to act like sponges during times of heavy rain, allowing the water to percolate down and recharge and stabilize the ground water reservoir. addition, the many living organisms present in the wetlands have the ability to retain a great deal of the excess nitrogen and prevent it from further enriching the lakes.

Because of the County's geological, ecological and historical background, there are many parcels of land with unique scientific value. Most of these are known and should be protected from urban development. Those of interest already in public ownership (Department of Natural Resources) include a sand prairie with black oak barrens in the Town of Mazomanie along the Wisconsin River; a marsh, and tamarack swamp in the Town of Burke along the Yahara River and Token Creek; and an area around Mud Lake and Goose Lake in the Town of Deerfield, which has red oak and



WETLANDS NEAR STOUGHTON, WISCONSIN mixed hardwoods on a drumlin and with a fine selection of acuatic and emergent vegatation in the lakes.

A special note should be made of the thorough research by the former Wisconsin Department of Resource Development in delineating and promoting the Environmental Corridor Concept. Briefly, the Concept is this: linear patterns of outstanding landscape resources, manmade features and natural or geologic resources all appear to follow the river valleys, streams, bluffs and ridge lines. These linear patterns or corridors may be identified and mapped for the purpose of guiding development and open space preservation. A monochrome reproduction of the Dane County portion of this inventory is shown on the next page. The light gray areas indicate the environmental corridors, the darker areas indicate areas of steep slope. The small symbols which appear on this map indicate a variety of cultural and natural features which were identified for this resource inventory. The key to the various symbols appears on the page after the map.



LANDSCAPE RESOURCE INVENTORY DANE COUNTY

SIGNIFICANT TOPOGRAPHY

ENVIRONMENTAL CORRIDORS



LEGEND

	CASTLE ROCK
9	BALANCED ROCK
0	CAVE
1	WATERFALL
8	EXCEPTIONAL ISLAND
3	DEER
4	DEER RED AND GREY FOX
9	BADGER
•	BEAVER
	MUSKRAT
-	MINK
	OTTER
C.	HERON
\$	CRANE
0	SWAN
9	EAGLE
	FALCON
0	RED-TAILED HAWK
0	GOSHAWK
10	GREAT HORNED OWL
P	PRAIRIE CHICKEN
8	RUFFED GROUSE
9	PHEASANT
9	HUNGARIAN PARTRIDGE
0	SHARP-TAILED GROUSE
	WOODCOCK
8	GEESE
	DUCK
	QUAIL
-	STURGEON
	WALLEYE
	(NORTHERN) PIKE
0	CATFISH
0	BASS
T	TROUT

PANFISH FISH HATCHERY

EXCEPTIONAL WETLAND
BATHING BEACH
SWIMMING FACILITIES

ō	RESERVOIR
	LOCK
	DAM, FISHWAY, DRAINAGE WAY
1	BOATING AREA
0	OUTFITTING POST
	FUEL, REPAIR, SUPPLIES
	HARBOR OF REFUGE
	MARINA
를	
M	SAIL BOATING
*	ICE BOATING
	SKINDIVING
A ²	STATE PARK
493	COUNTY PARK
1	OUTSTANDING REFORESTATION PROJECT
444	MUNICIPAL PARK
1	STATE RECREATION AREA
	WETLAND PROJECT, LEVEE,
	DITCHING AND DYKING
0	OBSERVATION PLATFORM
-	GAME FARM
8	WILDLIFE HUNTING
¥	WILDLIFE PRESERVE
H	HUNTING PRESERVE
	FIRE TOWER
	HISTORICAL MARKER
O	BATTLEFIELD
	BARRACKS
M	MILL POND
ŵ	OLD MILL
ন	BLACKSMITH SHOP
	PIONEER CHURCH
	ONE-ROOM SCHOOL
<u></u>	OPERA HOUSE
Ó	GENERAL STORE
•	TAVERN, SALOON
	ICE SKATING SHELTER
#	COUNTY FAIR
îôi	OUTSTANDING BUILDING
*	SCHOOL OF HIGHER EDUCATION
	COUNTY SEAT

	4	NATIVE HANDICRAFT
	7	OLD CEMETERY
	H	HISTORICAL FOLK LORE
	7	BRIDGE (COVERED, ETC.)
	0	MINERAL ORE OUTCROPPING
		OLD MINE
	4	UNUSUAL CROP
	•	UNUSUAL FARM STRUCTURE
		LOG HOME BARN-OCCUPIED
	n	FRAME STRUCTURE PRIOR TO 1860
		ASSOCIATED WITH FAMOUS PERSON
		OR EVENT
	TO	STONE STRUCTURE PRIOR TO 1860 ETC
СТ		OUTSTANDING FARMERS MARKET
	-	OUTSTANDING SOIL CONSERVATION
		PROJECT, FARM CONSERVATION
		ORCHARD
		FARM STRUCTURE FOR SUMMER
		OCCUPANCY
	G	GOLF COURSE
	200	CANOE ROUTE
	#	
	0	
	Ó	BRIDLE TRAIL
	+8	NATURE TRAIL
		TRAIL SHELTER
	X	PICNIC AREA
		CAMPSITE
		DAY CAMP
	AAA	NATURE CAMP
		YOUTH CAMP
		SKI LIFT
		SKI ROPE TOW
		SKI SLOPE STRUCTURE
	1.0	SNOW PLAY AREA: SLEDDING, ETC.
	m	MUSEUM
	100	LOCAL FESTIVAL, CELEBRATION
	φ	AN INTERESTING INDUSTRY
		OPEN FOR VISITS
	e.	MODERN MILL
		MODERN MINE
	1	POWER PLANT
	*	RACE TRACK

HISTORICAL HOME

URBAN DEVELOPMENT

The present pattern of urban development in Dane County exhibits a variety of characteristics, some but not all of which, are generally regarded as positive or desirable. Urban development is concentrated largely within the central city (Madison), and all or nearly all associated development contained within the boundaries of the County. In addition, the settlement pattern provides a reasonable variety of community types and sizes in the region. A limited number of contiguous suburban municipalities and a large number of smaller but independent satellite cities and villages separated by farm areas provide a range of opportunities and choices for residents of the region.

Not all of the non-farm developments, however, are contained in central or nucleated places. Scattered, isolated or discontinuous development with occasional examples of string development characterizes a segment of the region settlement pattern. A special situation occurs along lake shorelines of the larger lakes and portions of the Wisconsin River shoreline when a continuous line of development is generally prevalent.

As can be seen on the map of Urbanization on the following page, the pattern of development is not so much one of using up all the land area in Dane County. In fact, including all public and private land except agricultural or vacant, only 10 percent of Dane County was developed in 1966. The problem is more one of the form this development is taking. Viewed from the ground, however, the pattern of scattered development gives rise to a concern that the rural landscape is rapidly being altered and that the sense of open space is being lost.

HISTORICAL SITES

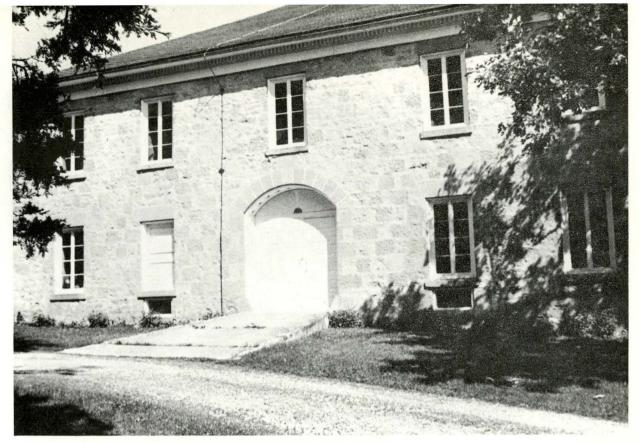
The outstanding historical sites in Dane County are listed on pages 28-31 , and their locations are noted by number on the map following this list. A few are indicated by official markers, but most buildings and locations are still unprotected in private ownership. Some may risk deterioration or being destroyed because of new development. Arrangements are necessary to preserve the prime sites by public or private means according to a priority list. Photos 6 and 7 illustrate two of these identified sites.

INDIAN ANTIQUITIES

Dane County has had a long history of occupation. Nomadic hunters in small bands of approximately 20 people inhabited the area 13,000 years ago. Then (c. 8,000-500 B.C.) larger groups of people congregated to use local food resources. This area with its many lakes and streams was a productive region. Fish and game were plentiful.

Some evidence of Copper Culture appears in the era, 2000 to 1000 B.C., followed by the introduction of the use of pottery, plant cultivation, and the conical and effigy burial mounds. The effigy mounds are found in abundance in Dane County and are unique to Wisconsin and adjoining states even though they cannot be definitely connected with any of the Indian groups occupying the state during the historic period. The general location of these is shown on the map following this section along with the location of old Indian cemeteries, campsites and villages.

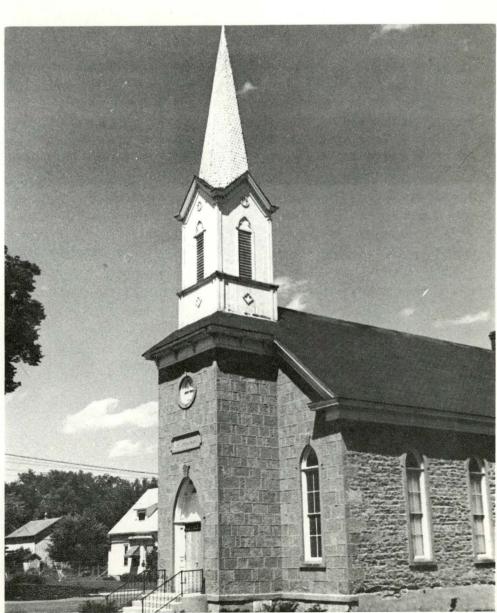
After 1,000 A.D. the living pattern of the Aboriginal Indians evolved into an economy of agriculture, hunting, fishing and supplemented by the gathering of nuts and wild rice. The map shows the prevalence of Indian sites during prehistoric times. Unfortunately, as urban development spread, many of these antiquities were destroyed or built over. The source of this data and map was the Wisconsin Historical Society.



KEHL WINERY BUILT IN 1867

4





HISTORICAL SITES AND POINTS OF INTEREST

(Dane County Excluding Madison)

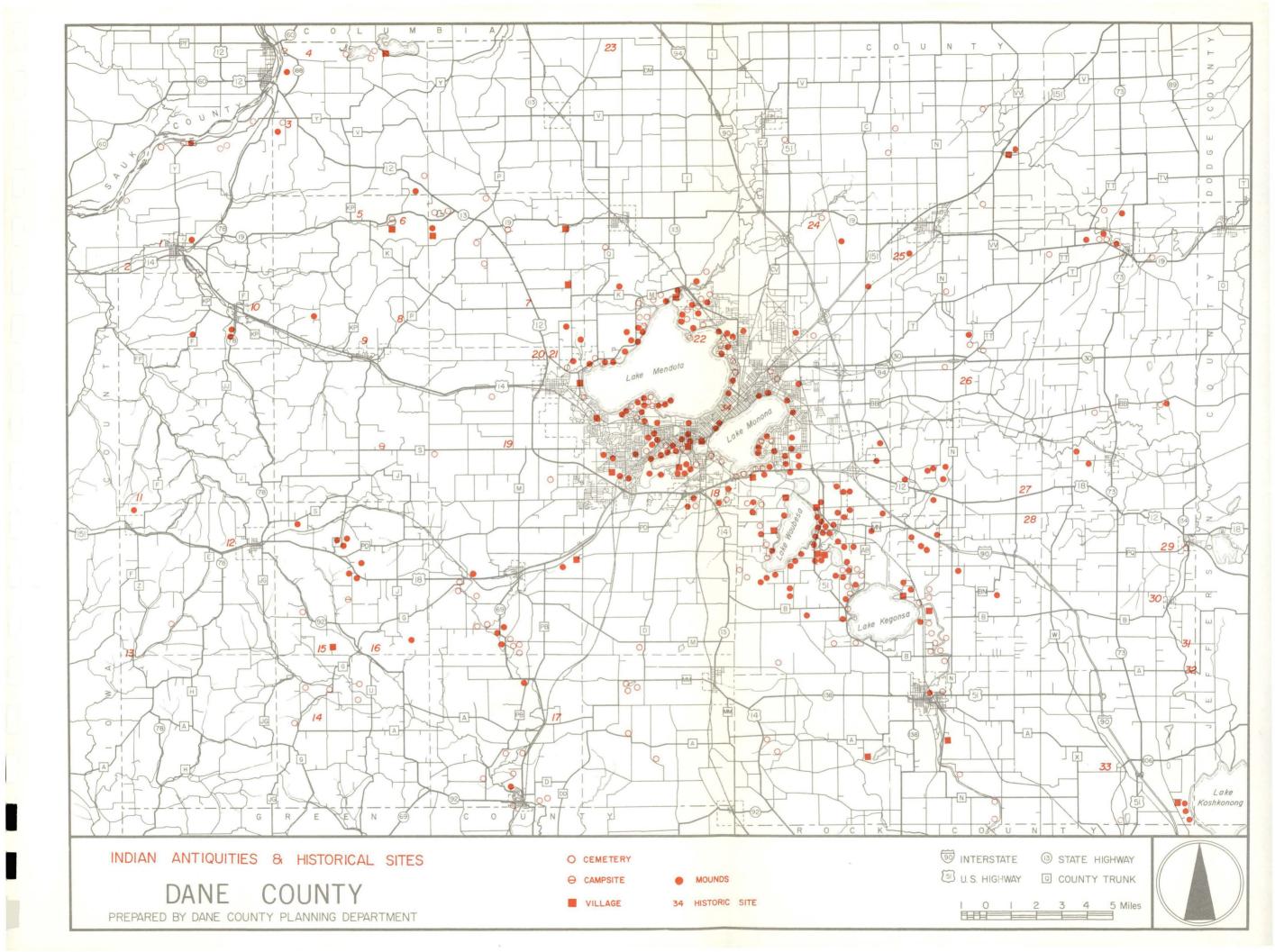
(Numbers refer to locations on Map 5)

- Mazomanie, Salem Kirche, with hand-wrought stone blocks; many interesting stone buildings.
- 2. Wayside marker for early settlement of Dover.
- 3. Wayside marker describes Blackhawk War, Battle of Wisconsin Heights, July 21, 1832.
- 4. Kehl House and winery off Highway 188; house built in 1858, winery in 1867; center of wine industry until severe winter of 1899 destroyed vineyards.
- 5. Highway 19 through Marxville Valley; several interesting old stone houses.
- 6. Shrine to Virgin atop high hill, south of Highway 19. Built by Endres family in 1857 as thanksgiving for protection against epidemic.
- 7. Ashton; St. Peter's Church, attractive Gothic architecture; stone quarried and church built by farmers of congregation.
- 8. County Highway PD to Springfield Corners; several pioneer log cabins in good repair and still inhabited.

- 9. Cross Plains; Wisconsin's mile long village street; 19th Century Catholic Church has French Gothic architecture; Christina House; old stagecoach tavern; two-story roller mill.
- 10. Black Earth; Patrons Mercantile Exchange, one of the largest retail co-ops in U.S.; former grist mill has burr stones from France.
- 11. Brigham County Park; site of early fort, also home of Dane County's first white settler.
- 12. Little Norway, reconstructed Norwegian farm settlement in spectacular surroundings.
- 13. Hauge Log Church, built 1852, on County Highway Z, 1 mile north of Dalyville; first Norwegian Lutheran Church west of Madison.
- 14. Birthplace of Wisconsin's famous son, Senator Robert M. LaFollette, Sr.
- 15. Donald Rock; wayside surrounded by interesting rock formation.
- 16. Forest of Fame, Mt. Vernon; marked trees, started from cuttings or seeds of famous trees, such as Washington Elm, Sherwood Forest, etc.
- 17. Frenchtown Road and old French cemetery; center of a pioneer French settlement; French names like Genin, Pillar, Henri, and Lomboley still exist in neighborhood.
- 18. Nob Hill, Madison area high spot; tradition says a pioneer Norwegian built a stone altar atop hill "in honor of light and sun."

- 19. Middleton Junction Stagecoach house.
- 20. New St. Bernard's Church, widely admired; mosaic above high altar built by parochial pupils; statue to St. Raphael, patron of travelers, under bell tower.
- 21. Old Stamn House, Pheasant Branch; 19th Century stone tavern on Pheasant Branch Creek, still in use.
- 22. Mendota Hospital Park; museum in hospital; Indian ceremonial mounds in park.
- 23. Mount Joy; magnificent country house with classical porticos and front; close by on Viaduct Road is lovely Eden Glen, a wildlife refuge; stone marker reads: "In testimony of the beautiful character of Angela Mountjoy de Bower 1874-1898."
- 24. Token Creek; picturesque wildlife area; fishing; site of old Congregational Church and early grist mill.
- 25. Sun Prairie Road, an old Indian trail; Sun Prairie, birthplace of artist Georgia O'Keeffe.
- 26. Cottage Grove; country village; Bryn Mawr Presbyterian Church is attractive and functional.
- 27. Nora, site of old Nora and Nora store; historic jumping off place for early Norwegian immigrants heading west.

- 28. West Koshkonong churches; two historic Norwegian Lutheran Churches, symbolizing a doctrinal split; cemetery at older church has interesting gravestones; one family marker carries numerous variations of popular Scandinavian name of Olaf, such as Olous, Olafsen, Olausen, etc.
- 29. Cambridge; Scandinavian Methodist Episcopal Church near creek, built in 1851.
- 30. Rockdale mill; favorite haunt of painters; old grist mill, dam and mill race still stand.
- 31. East Koshkonong; second set of twin Lutheran churches marking doctrinal split among Norwegian Lutherans; one church is attractive example of country church architecture.
- 32. Hillside, on County Highway A, monument commemorates first organized Norwegian Lutheran Church services in America, September 1, 1844, conducted by Rev. J. W. W. Dietrichson.
- 33. Albion; seat of famous 19th Century school, Albion Academy and Normal Institute, founded by Seventh Day Baptists in 1853 and operated until 1914.
- 34. There are many buildings of historical and architectural interest in the City of Madison. A listing of some of the more outstanding ones are described and mapped in a publication: Sandstone and Buffalo Robes, published by the Madison City Planning Department.



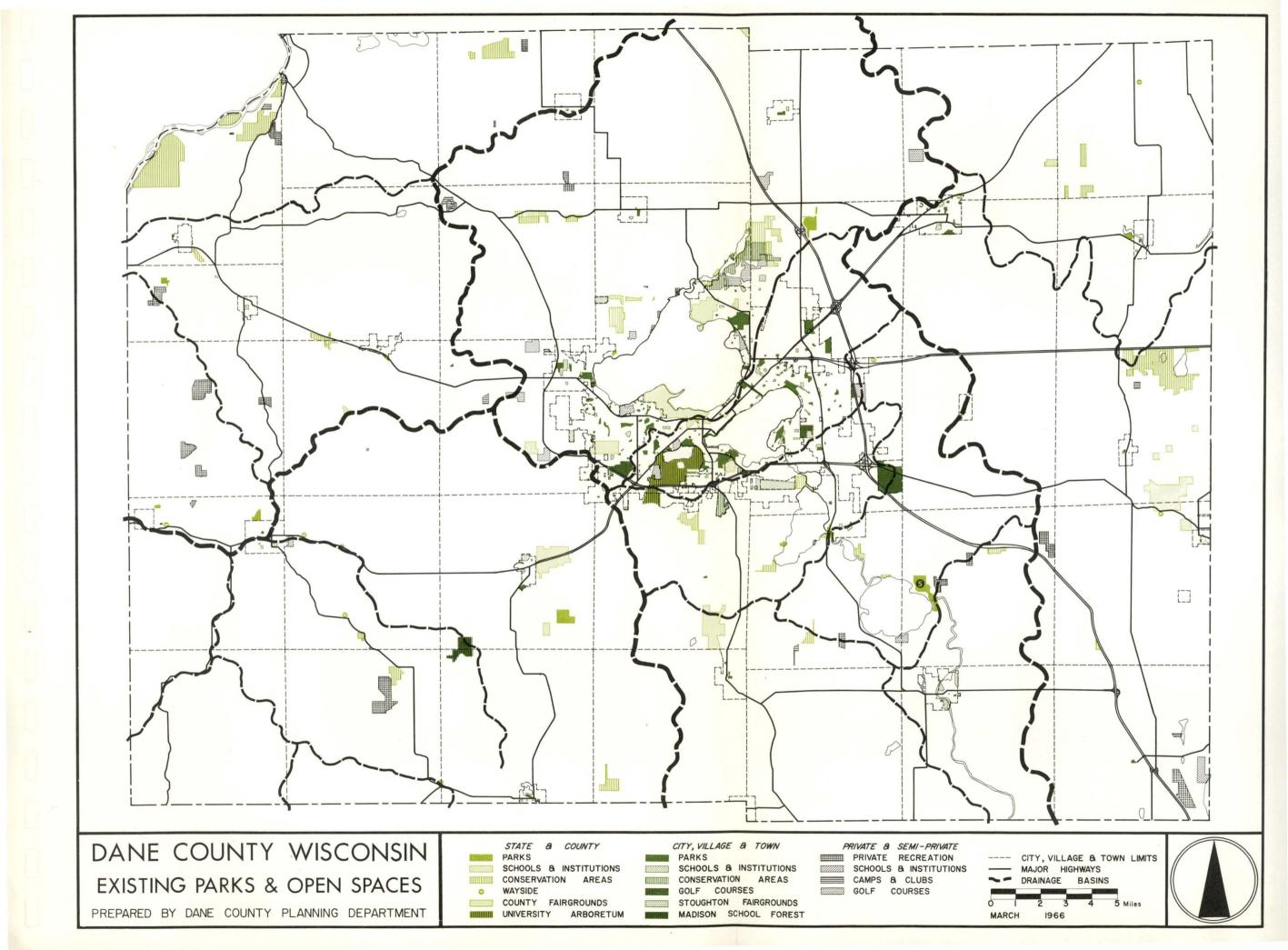
SECTION III

INVENTORY OF PARKS
AND
OTHER OPEN SPACES

SECTION III - INVENTORY

In order to develop plans and programs for the provision of open space in Dane County, it is essential to know at the outset what facilities are in existence. A thorough compilation and study of the types of recreation and open spaces in existence in 1969 was made. The following map, "Existing Parks and Open Spaces," depicts the geographic distribution of these areas by type; and Table 3, at the end of this section, indicates the governmental jurisdiction, type and acreage of the areas. For the purposes of this part of the study, all the open space and recreational lands have been classified into two broad categories: parks and recreation areas and resource management areas. The lands are further subdivided by the level of governmental jurisdic-The park and recreation areas include all sizes of parks from small neighborhood to large State and any other areas maintained for active or passive recreation. The resource management areas include conservation areas (wetlands, hunting grounds, etc.), open undeveloped areas, green waterways and the U. W. Arboretum.

Although not considered in the tabular inventory, the many facilities provided by the private sector (golf courses, campgrounds, swimming pools, etc.) are significant assets to the total recreation picture. While these types of areas measurably add to the County's open space inventory, and are shown on the following map of Existing Parks and Open Spaces, they nevertheless have enormous appeal for development



and subdivision. Their permanency is considerably more tenuous than publicly held lands. The extent may be noted on the previous map on page 34.

The many facilities provided by the state parks in adjacent counties (Aztalan, New Glarus Woods, Blue Mounds and Tower Hill State Parks) within a relatively short driving time have not been considered as part of the local inventory. The assumption was made that attendance at these areas by local residents was offset by out-of-county residents utilizing recreational facilities in the county.

It is not within the scope of this study and subsequent plan to comment on the quality of the outdoor recreational resources of the various municipalities. However, the quantity, in terms of acreage, is measured against recognized standards for the various communities and shortages are noted. This analysis appears in Section VII on Open Space Needs.

The Dane County Park System, to which this study is specifically directed, has made some substantial recent additions. It does not, however, meet the many criteria of a balanced open space and recreation system for a metropolitan area. The present system is not only inadequate in acreage, but it lacks the diversity in landscape type and the development of a variety of facilities in accordance with the capabilities of each particular site. A thorough discussion of existing county-wide park system is presented in Section X.

INVENTORY OF PARKS AND OPEN SPACES - DANE COUNTY

I. Parks and Recreation Areas	Acreage
State	
Lake Kegonsa Park	345
Picnic Point	129
Capitol Park	11
Future Golf Course (Westport)	368
radare dorr course (westport)	853
County	
Park Areas (14)	633
Fairgrounds (excluding bldgs.)	211
Cam-Rock	197
	1041
Towns	
Various Parks (10)	131
Villages	
Various Parks (39)	133
Cities (excluding Madison)	
Middleton (4)	120
Monona (19)	87
Stoughton (10)	49
Sun Prairie (13)	86
	342
Madison	
Sub-Neighborhood Parks (53)	160
Neighborhood (13)	136
Sub-Community (11)	802
Playfields (7)	89
Beaches (14)	6
Golf Courses (4)	926
Greenways (Street) (89)	105
(33)	2224
· Total Park and Recreation	4724
II. Resource Management Areas	
State	
Department of Natural Resources	8106
UW Mendota Marsh Area	192
UW Arboretum	1793
Eagle Heights Woods	30
Lagro House	53

Resource Manag	Acreage	
County		
	Yahara River Area	30
Cities a		
	Middleton Conservation Area	130
Madison		
	Open Areas (40)	169
	Conservation Areas (5)	1232
	Greenways (Waterways) (56)	289
		1690
	Total Resource	12,024
	Grand Total	16,740

SECTION IV

POPULATION

SECTION IV- POPULATION

A brief analysis of the population of Dane County and related socio-economic factors is essential in determining the recreational needs and demands. The following data are drawn from a population and economic study currently underway. Those aspects considered to be important in quantifying the demand for parks and open space are; total numbers of people, age distribution, educational level, income, mobility and leisure time.

Dane County is the second fastest growing metropolitan area in northeastern United States. In the few years between 1960 and 1964, the population of the county grew by nearly 25%. By 1970 the population is estimated to be 294,000 and by 1990 about one-half million people are anticipated.

Madison and the nine-town area surrounding it (including the cities and villages) contain 82% of the county's total population. Few of the cities. villages and towns in Dane County decreased in population between 1960 and 1968. Most of them grew, and some grew considerably. The City of Sun Prairie has the highest rate of growth of any governmental unit in the county. Other areas experiencing accelerated growth rates between 1960 and 1968 are (in order of rate of growth): Town of Dunkirk, Village of Oregon, Village of DeForest, Town of Cottage Grove, Town of Cross Plains, Town of Montrose, Village of Deerfield, Village of Black Earth, Village of Marshall, Town of Vienna, and the Town of Windsor. Table 4 on the following page represents a summary of population growth for Dane County for the next two decades.

TABLE 4

DANE COUNTY POPULATION*

1960 .	•	•	•	•	•			•	•	•		•	222,095
1968 .						•		•	•		•	•	277,047
1970 .							•					•	287,501
Estima	te	d:											
1975 .			•				•					•	346,000
1980 .		•				•						•	398,000
1990 .		•	•		•								550,000

When compared with the nation or with other metropolitan areas, the population of Dane County is young. For example, the median age of the total population was 23 years of age and at the time of the 1968 special census, 29% of the county population was under 15 and another 23% was between 15 and 24 years old.

The average educational attainment of the population is 12.5 years which is higher than the national average of 10.6 years. Obviously, these data are a reflection of the location of the University of Wisconsin in Madison with its enrollment of 34,000 students.

The median family income in Dane County was \$6,799

^{*}A detailed population and economic report currently underway will be published in the near future as a part of the Comprehensive Plan for Dane County.

in 1960. Figures for 1970 indicate that the median income is about \$9,000. Both of these figures are higher than comparable figures for the state or nation. Studies have documented the fact that higher incomes and a younger population will generate a greater demand for more active and varied recreation facilities.* These facts coupled with increased leisure time and greater mobility compound the demands for outdoor recreation.

In conclusion, it should be noted that the previously cited facts indicate that Dane County--particularly the urbanizing nine-town area--will require a broad range of active type recreation facilities.

^{*}ORRRC Study Report #19

SECTION V

STANDARDS:

SPACE STANDARDS

RECREATIONAL ACTIVITY STANDARDS

SECTION V - STANDARDS

This section of the study deals with two types of standards, gross space standards expressed in acres of land per 1000 population, and activity oriented standards expressed in some meaningful measure of the particular activity such as linear feet of beach, holes of golf, etc. The gross space standards serve as a general guide to the amount of park land and gross open space proposed to be provided. Although somewhat arbitrary and not related to specific recreation activities, and lacking as a qualitative guide to space needs, the gross space standards are easy to apply, and provide a measure of comparison between jurisdictions. The gross space standards proposed in this plan are used to determine present space deficiencies and future needs.

The activity standards which follow are too incomplete to be utilized directly to determine the region's needs. They do provide some information for a subjective determination of the space and facility needs, however. In addition, the activity standards can serve future decisions regarding specified facilities in areas to be developed.

Space Standards

The total amount of open space that should be provided in Dane County is not easily defined. Numerous guides or "rules of thumb" have been developed in order to measure this need; however, the guides vary widely. The conditions under which they were developed were a reflection of specific resources, land use or cultural considerations of that area; hence, caution should be exercised in making comparisons. The following standards are recommended for

Dane County based on the conditions, resources and existing facilities within and adjacent to the County.

Table 5 STANDARDS

Number of Acres Type per 1000 Persons State Principally resource areas but some recreation areas 50 Acres including parks, historic and scientific areas. County² Parks and recreation areas 15 Acres including resource areas. Urban Madison³ - not including 14 Acres resource areas

- 2. This standard is recognized by the National Association of Counties and the National Recreation and Park Association.
- 3. Standard used by City of Madison as its guide prior to 1970; currently being reevaluated.

^{1.} The State utilizes <u>use standards</u> (guides), i.e. relating supply to demand for recreational <u>facilities</u> rather than any area per unit of population standard. It is felt that use standards are more realistic for larger planning units. The standard indicated in this plan is a modified figure based on a review of standards nationwide.

Table 5 (Cont.)

Type

Number of Acres
per 1000 Persons

Urban (con't.)

Nine Town Urbanizing Area
not including resource areas

Villages and Cities outside
the Nine Town Area

These standards were devised after a thorough review of standards for many different types of areas.

STANDARDS - OUTDOOR RECREATION ACTIVITIES

Although standards for all of the twenty-two outdoor recreation activities listed below have not been developed, each activity is described and comments made for the purpose of providing guidance regarding the provision of the activity. These activities and standards have been made or analyzed by the Wisconsin Department of Natural Resources and published in the "Outdoor Recreation Plan" of 1968.

The subject of standards is very complex and there are various types of standards, design, use, etc.; therefore it is important to emphasize that they should be used as general guides to provide some perspective as to needs. Finally, the standards should have value for use by the various agencies, commissions and units of government making decisions regarding specific acquisitions and developments.

Comments have also been included on outdoor recreation activities that investigation has indicated will achieve importance in the not too distant future.

OUTDOOR RECREATION ACTIVITY

Road Oriented

- 1. Pleasure driving
- 2. Sight seeing

Trail Oriented

- 1. Bicycling
- 2. Hiking
- Horseback riding
- 4. Snow mobiling

Field Oriented

- 1. Nature walks
- 2. Hunting
- Picnicking
- 4. Camping
- 5. Skiing (snow)

Water Oriented

- 1. Swimming
- 2. Fishing
- 3. Boating
- 4. Water skiing
- 5. Canoeing
- 6. Scuba diving
- 7. Sailing

Facility Oriented

- 1. Golfing
- Playing outdoor games and sports
- 3. Tennis
- 4. Ice skating

STANDARDS - ROAD ORIENTED

Pleasure Driving and Sightseeing

Pleasure driving is defined as driving without a specific destination. It is currently the number one outdoor recreation activity in Wisconsin in terms of the number of participants. Based on demand projections, it will still be the number one activity in 1980. Pleasure driving is closely related to the sightseeing activity.

<u>Sightseeing</u> is defined as visits to specific points of interest. It is closely related to pleasure driving. A sightseeing visit can occur during a day of pleasure driving.

It would be difficult to arrive at any type of standard to equate supply and demand for pleasure driving and sightseeing. Nevertheless, an inventory of the miles of scenic roads and the locations of sightseeing attractions can be made. In addition, a concept of opportunities for providing this type of recreation may be more useful than attempting to establish actual standards. Useful tools will include: (1) zoning; (2) standards for new road construction and redevelopment of existing roads; (3) fitting the highways to the landscape and making maximum use of existing visual assets; (4) necessary restrictions at prime sightseeing areas to protect the primary values of the site; and (5) identifying scenic routes.

STANDARDS - TRAIL ORIENTED

Bicycling

- 1. <u>Use Guides</u> None
- 2. General Comments

There are no standards developed for bicycling (number of bicyclists/mile of trail, etc.).
Bicycling demand can be accommodated on existing public lands, roadways, and trails. Future experience should lead to the development of

realistic use standards. However, most authorities agree that bicycle trails should be developed on their own right of way where possible. In new developments, opportunity exists for providing a secondary system of access utilizing both trails and walks along greenways.

Hiking - Rural Areas

Hiking in rural areas is somewhat akin to canoeing—one of the values of the experience is the sense of being isolated from other people. To achieve this requires space. Since comparatively few hikers hike alone, it is estimated that the provision of sufficient trails to accommodate not more than 40 hikers per mile in rural areas is adequate. It is expected that hiking will be an all day activity for many participants, and, consequently, no turnover rate has been used.

Hiking - Urban Areas

Although it would be ideal to use the same standards for urban as for rural areas, this is not likely to be possible. It is recommended that sufficient miles of hiking trails be provided in urban areas to achieve a ratio of average summer-Sunday demand to miles of trail. Since undoubtedly there will be more turnover in urban areas than in rural areas, adoption of this standard should provide reasonably good hiking conditions.

Rural hiking trail

40 hikers per mile of hiking trail per day.

Urban hiking trail

90 hikers per mile of hiking trail per day.

Horseback Riding

1. Use Standard - None

2. General Comments

Consideration should be given to terrain, soils, maintenance and esthetics when setting standards for horseback riding trails. Trails should be at least 20 miles in length.

STANDARDS - FIELD ORIENTED

Nature Walking

1. Use Standard

Fifty people per mile of trail per day. Trails are one to two miles long. With a turnover rate of eight, there are 400 people per mile of trail per day.

2. General Comments

The short afternoon "hikes" which many families take are more akin to the activity labeled "nature walks," rather than hiking.

Participants want to enjoy green woods or pleasing vistas, but they are not insistent on being completely isolated from their fellow men. Such walks are usually of relatively short duration, and there is a high turnover rate. Well-marked trails, with identified natural features, are especially sought for this type of activity.

Hunting

- 1. Use Standard None
- 2. General Comments

Authorities are not in agreement on guides for this activity due to the many types of game, the distribution of the game (upland, marsh, etc.), and the numerous "seasons," or laws regulating the activity. In addition, it is estimated that most hunting is done on private lands.

Picnicking

1. Use Standard

Rural:

- a. One developed acre provides room for 8 tables or 40 picnickers.
- b. For each developed acre of picnicking, there should be 19 additional undeveloped supporting acres.
- c. With a turnover rate of 1.6 picnics per table per day, one developed acre

provides for 64 persons; including the additional supporting acres, 20 acres are needed, or 31 acres per 100 picnickers.

Urban:

- a. One developed acre provides room for 16 tables or 80 picnickers.
- b. For each developed acre of picnicking, there should be 9 additional undeveloped supporting areas.
- c. With a turnover rate of 1.6 picnics per table per day, one developed acre provides for 128 persons; including the additional supporting acres, 10 acres are needed, or 8 acres per 100 picnickers.

Group Area:

Average party of 150 accommodated by 25 individual units on 2 acres. Rate of turnover is one. One hundred picnickers in group picnic require 1.33 acres.

2. General Comments

Wayside picnic areas would not need more than 2 or 3 acres of undeveloped land per developed acre.

Camping

- 1. Five units/acre with 19 backup acres per developed acre.
- 2. Assessing 3 persons per unit, 15 persons

would require total of 20 acres, or 140 acres for 100 campers.

3. Criteria should be established for different types of campgrounds, i.e. primitive, overnight transient or highly developed.

Skiing (Snow)

Ski area:

Minimum size of 100 acres with north facing slopes protected by trees in order to cut winds and allow snow to accumulate. Sixty inch annual snow or artificial snow-making equipment.

One acre developed slope for 30 skiers or 5 acres per 100 users.

Novice slopes do not exceed 20% grade, intermediate slopes from 20% to 35%, and expert class slopes from 35% on up.

Width of a slope should be no less than 100 feet.

Industrial Commission Standards:
 J-Bar - 1200 skiers per hour
 T-Bar - 1800 skiers per hour
 Chairlift - 600 skiers per hour

Ice Skating

Use Standard

Natural outdoor rinks 1/5,000 population

Snow Mobiling

Standards have not been developed for this fast growing activity. However, strict regulations and designated trails will have to be developed due to the phenomenal popularity and growth of this activity.

A study, funded by the Upper Great Lakes Regional Commission, completed in 1970, estimated that over \$57 million will be spent on this activity (including cost of machine, operating, food and lodging, etc.) in 1970-71 in Wisconsin; that it is a family activity and is challanging all other winter sports in participant hours and money spent.

STANDARDS - WATER ORIENTED

Swimming

Use Guides

Rural:

Five hundred fifty-five swimmers per beach acre/day; 185 swimmers per acre at any time with a daily turnover rate of 3. Assume 3 backup acres per acre of beach and 200 square feet of beach per swimmer should be provided. Including backup area, 0.72 acres are needed for 100 swimmers.

Urban:

One thousand, one hundred, ten swimmers per beach acre/day; 370 swimmers per acre at any time with a daily turnover rate of 3. Assume 4 backup acres per acre of beach and 100 square feet of beach per swimmer.

Fishing

Stream fishing:

Ten miles of stream for every 100 persons. One fisherman per mile of stream and 4 fishermen per mile of river. A daily turn-over rate of 1.6 fishermen per mile = .625 mile of stream and .156 per mile of river per day.

Fishing area:

One person per 3.6 acres of surface water. Estimating 2.2 persons per boat and 8 acres per boat, 100 persons would require 360 acres. A daily turnover rate of 1.6 fishermen per acre gives the equivalent of 2.25 acres per person of surface water.

Boating

1. Use Standards

- a. 1 person per 6 acres of surface water.
- b. At an average of 2.5 persons/boat = 15 acres per boat.
- c. A daily turnover rate of 3 boats gives the equivalent of 2 acres surface water per person per day, or 200 acres of water per 100 boaters per day.

2. General Comments

a. Small lakes with restricted motor sizes could support more than 1 boat/15 acres.

Water Skiing

1. Use Standard

- a. 1 person per 5.7 acres of surface water.
- b. At an average of 3.5 persons/boat = 20
 acres/boat.
- c. A daily turnover rate of 1.3 boats gives the equivalent of 4.4 acres of surface water per person per day, or 440 acres per 100 persons per day.

Although 20 acres per boat is probably adequate, 30 to 40 acres per boat would be more desirable.

2. General Comments

The addition of a skier on the end of a long rope behind a power boat requires even more space than the 20 acres recommended for power boating. Water skiing should be limited to lakes 100 acres in area or more.

Canoeing

1. Use Standard

- a. 1 person per 4 mile of stream.
- b. Estimating 2 persons/canoe = ½ mile of stream/canoe, or with 18 canoes per mile per day = 36 people per mile per day or 2.78 miles per 100 users.

2. General Comments

Larger streams could probably handle one

canoe per ½ mile of stream or more. Much canoeing is done by juvenile groups with 3-4 or more canoes/party. This would increase the capacity of the stream if the same spacing of parties were maintained.

Sailing and Scuba Diving

Use Standard - None

FACILITY ORIENTED

Golf

1. Use Standard

9 hole golf course can accommodate 350 persons per day.

18 hole golf course can accommodate 500 persons per day. 100 persons require 3.6 holes.

2. General Comments

Minimum acreage required:
9 hole - 50 acres
18 hole - 120 acres

SECTION VI

PRESENT AND FUTURE RECREATION DEMANDS

SECTION VI - PRESENT AND FUTURE RECREATION DEMANDS

An estimate of the future needs for various kinds of activities is essential in planning for outdoor recreation and open space. Obviously, many factors such as shorter work weeks and greater mobility will affect future demands, but the growth of population will always be the major factor. The present and future demands that are presented in this section were based on a method developed by the ORRRC, then adapted by the Wisconsin Department of Resource Development and subsequently used by the Department of Natural Resources in the State Recreation Plan. Basically, the projections of demands were developed by using a series of steps which consisted of:

- Projection of county populations and nonresident visitors by age group.
- Application of the appropriate participation rates, most of which were derived from the federal Outdoor Recreation Resources Review Commission analyses.
- Conversion of these data to average summer or (for hunting and skiing) seasonal-Sunday figures.
- 4. Determination of the quality and quantity of land and water resources in each county.
- 5. Distribution of the participants to the various counties, taking into consideration the disadvantages of distance and the relative attractiveness of the resources in each of the counties.

All the figures used in the demands indicate the average summer (or seasonal) Sunday users. Although expressed here as people, swimmers, golfers, hikers, etc., the figures actually represent visits. Therefore, a sightseer, for example, who also went on a picnic, then swimming, would be counted as one visit for sightseeing; one visit for picnicking and one visit for swimming. These figures represent guidelines for those who have the responsibility of providing outdoor recreation for all of Dane County.

TABLE 6

DANE COUNTY RECREATIONAL DEMANDS
ON AN AVERAGE SUMMER SUNDAY

Activity		196	0	% from		197	0	% from
Orientation	Total	Out of State	In State	Co.	Total	Out of State	In State	Co.
Road							-	,
Pleasure Driving	36,262	9,803	26,459	68	55,860	14,763	41,097	68
Sightseeing	12,197	6,850	5,347	32	19,068	11,120	7,948	34
Trail								
Bicycling			2,920	98			3,824	98
Hiking	637	245	392	62	1,229	542	687	64
Horseback Riding			488	93			636	93
Field								
Nature Walks	1,739	669	1,070	99	3,456	1,525	1,931	98
Hunting	2,840	68	2,772	48	3,537	147	3,390	49
Picnicking	9,875	1,420	8,455	61	12,561	2,081	10,480	62
Camping	1,747	569	1,178	22	3,640	2,497	1,143	23
Skiing	977	212	765	41	1,764	866	898	57
Water								
Swimming	31,229	10,863	20,366	69	49,499	16,417	33,082	70
Fishing	14,522	6,212	8,310	65	17,237	6,899	10,338	66
Boating	11,761	5,989	5,772	62	18,416	11,298	7,118	64
Water Skiing	1,231	466	765	64	2,426	786	1,640	64
Canoeing	462	256	206	67	866	464	402	51
Facility								
Golf	7,550	756	6,794	96	9,800	1,092	8,708	96

TABLE 6 (Continued)

DANE COUNTY RECREATIONAL DEMANDS

ON AN AVERAGE SUMMER SUNDAY

Activity		198	0	% from	m	19	90	% from
Orientation	Total	Out of State	In State	Co.	Total	Out of State	In State	Co.
Road								
Pleasure Driving	75,456	19,723	55,733	69	98,330	30,244	68,086	69
Sightseeing	25,936	15,388	10,548	36	55,214	36,442	18,772	25
3	,	,	,		,	00, 112	,	
Trail								
Bicycling			4,726	98			5,987	98
Hiking	1,815	836	979	66	3,432	1,797	1,635	66
Horseback Riding			783	93	5, 452	-, / 5 /	984	93
norbeaden maring			703	75			204	23
Field								
Nature Walks	5,172	2,381	2,791	98	9,436	4,927	4,509	98
Hunting	4,423	217	4,206	50	5,300	335	4,965	50
Picnicking	15,243	2,741	12,502	63	19,013	4,223	14,790	63
Camping	5,530	4,421	1,109	24	7,369	5,849	•	24
Skiing	2,550	•	•	68	•	,	1,520	
SKIIIIG	2,550	1,522	1,028	00	2,707	1,488	1,219	68
Water								
Swimming	67,769	22,005	45,764	71	142 240	E2 0EE	00 005	7.0
Fishing	19,951	-	,	67	142,240	53,955	88,285	72
		7,587	12,364		27,428	12,834	14,594	67
Boating Water Chiing	25,068	16,604	8,464	65	40,822	30,715	10,107	65
Water Skiing	3,620	1,106	2,514	59	6,017	2,715	3,302	43
Canoeing	1,268	670	598	35	2,566	1,646	920	53
n 1111								
Facility						S 200 00		
Golf	12,050	1,430	10,620	97	14,508	1,983	12,525	97

TABLE 7

PROJECTED

INCREASE IN RECREATIONAL DEMANDS IN DANE COUNTY

ON AN AVERAGE SUMMER SUNDAY

Activity	196	50-1970	197	0-1975	196	0-1980	196	0-1990
Orientation	Number -	 Percentage 	Number -	Percentage	Number -	Percentage	Number -	Percentage
Road	2							
Pleasure Drive	19,598	54.04	9,798	17.54	39,194	108.08	62,064	171.10
Sightseeing	6,871	56.33	3,434	18.0	13,739	112.64	43,001	352.68
Trail								
Bicycling	904	30.95	451	11.79	1,806	61.84	3,067	105.03
Hiking	590	92.62	294	23.96	1,178	184.92	2,795	438.00
Horseback Ridir	ng 148	30.32	98	14.26	295	60.45	496	101.00
Field								
Nature Walks	1,717	98.73	888	25.69	3,433	197.41	7,697	442.00
Hunting	697	24.54	493	13.93	1,583	55.73	2,460	86.61
Picnicking	2,686	27.20	1,342	10.68	5,368	54.35	9,137	92.53
Camping	1,893	108.35	945	25.96	3,783	216.54	5,622	321.80
Skiing	787	80.55	393	22.27	1,573	61.0	730	177.07
Water								
Swimming	18,270	58.50	9,135	18.45	36,540	117.00	111,011	355.00
Fishing	2,715	18.69	1,357	7.87	5,429	37.38	12,906	88.87
Boating	6,655	56.58	3,326	18.06	13,307	113.14	29,061	247.00
Water Skiing	1,195	97.07	597	24.60	2,389	194.06	4,786	389.00
Canoeing	404	87.44	201	23.21	806	174.45	. 2,104	455.00
Facility Golf	2 250	29.80	1 125	11.47	4 500	50.60	6 050	03.0
GOIL	2,250	29.00	1,125	11.4/	4,500	59.60	6,958	92.0

ROAD ORIENTED

Pleasure Driving and Sightseeing

Projections of demands show that although it has dropped from a popularity rank of 1 in 1960 to 3 in 1965, there will be continued increase in pleasure driving. Sightseeing also shows a steady increase.

The records of the Department of Transportation for Dane County indicate an increase in motor vehicle registration from 74,720 cars in 1960 to 108,404 in 1968 (45% increase in 8 years).

Distance is not important to the pleasure driver as long as the route he chooses is scenic and relatively free of heavy traffic. The sightseer requires a particular site as his destination. Historical, scientific and scenic spots, public or private, should be preserved, properly marked and publicized.

PLEASURE DRIVING ESTIMATED DEMANDS FOR AN AVERAGE SUMMER SUNDAY (PERSONS)

1970	1975	1980	1990	
55,860	65,658	75,456	98,330	(Total)
27,946	33,201	38,456	46,979	(Residents)*

^{*}Refers to number of Dane County residents as a percent of In State users from Table 6.

SIGHTSEEING ESTIMATED DEMANDS FOR AN AVERAGE SUMMER SUNDAY (PERSONS)

1970	1975	1980	1990
19,068	22,502	25,936	55,214 (Total)
2,702	3,249	3,797	4,693 (Residents)

TRAIL ORIENTED

Bicycling

According to a study conducted by the American Institute of Park Executives, 30% of the 1960 U.S. population were bicycle riders. Using this figure on Dane County's population, we will have 88,200 bicycle riders in 1970 and 103,800 in 1975 or an increase of 55.8% in the number of bicyclists since 1960. But the Bureau of Outdoor Recreation indicates a national increase in demand between 1960 and 1980 of 170% (Table 7).

Care should be made in comparing demands for biking paths and trails because many cyclists use public and private roads not especially marked as bicycle routes.

Hiking

DEMAND ON AN AVERAGE SUMMER SUNDAY

1970	1975	1980	1990	
1,227	1,521	1,815	3,432	(Total)
439	543	646	1,079	(Residents)

Standards

Rural - 40 hikers per mile of hiking trail per day

Urban - 90 hikers per mile of hiking trail
 per day

How many of the future hikers will be urban and how many rural is uncertain, however. If they are divided one-third urban and two-thirds rural, the following miles of trail will be required;

			Hi	kers	5	Tra	ail
1970	-	urban rural					miles miles
1975		urban rural					miles miles
1980	-	urban rural					miles miles
1990	-	urban rural					miles miles

Wisconsin's publications on recreation do not take walking for pleasure into consideration but discuss only hiking. The Bureau of Outdoor Recreation listed walking for pleasure as the most popular outdoor activity in 1965, and hiking as the 15th. There is definitely a difference between a serious long-distance hiker with a pack on his back and someone strolling along a country lane or around a few city blocks. But the same facilities can accommodate both groups.

The opportunity for walking under safe and attractive conditions should be planned for and encouraged for it is an activity that can be participated in by all the population regardless of their economic level or age. More emphasis on metropolitan greenway trails with many access points would certainly expand the demand and include the pleasure walker.

Horseback Riding

DEMANDS ON AN AVERAGE SUMMER SUNDAY

1970	1975	1980	1990
636 riders	707 riders	783 riders	984 riders (Total)
591 "	660 "	728 "	915 " (Residents)

Standard - None developed

Demands for horseback riding are not easily quantified. There are no public bridle paths in the county now, even though the horse population has increased following the national trend.

The majority of people owning horses have access to private land. In addition, as recorded in the inventory in Section III, there are a fair number of private stables that offer their clients either restricted rings or extensive acreage for riding.

Snowmobiling

With the sudden and growing increase in popularity of snowmobiling, both public and private lands will feel the pressure of this demand. Although impossible to measure at this early date, the demand will require trails, open areas, and other facilities. In addition to restrictions and regulations that protect the wildlife and plant materials, laws protecting the drivers will be essential. This is already being considered by state park officials. Further experience will provide direction in the provision of trails.

Ice Skating

Standard - Natural outdoor rinks - one per 5,000

The number of rinks open for use depend upon the weather during any one winter and the budget allowed for preparation and upkeep by each municipality. Location is in any neighborhood park or playground.

The Madison Park Department has plans to use their golf club houses for winter shelters.

FIELD ORIENTED

Nature Walking

DEMANDS ON AN AVERAGE SUMMER SUNDAY (No. of People)

1970	1975	1980	1990	
3456	4344	5172	9436	(Total)
1892	2363	2735	4418	(Residents)

Using Standard

50 nature walkers per mile of trail with a turnover rate of $8 = \frac{1}{4}$ mile per 100 people per day and 1.5A per mile.

Required:

1970	1975	1980	1990
4.7 miles of nature paths or 7.1 Acres	5.9 miles of nature paths or 8.9 Acres	6.8 miles of nature paths or 10.2 Acres	11.0 miles of nature paths or 16.5 Acres

Short paths with interpretive material in appropriate areas are required for nature walking. Care should be taken in site selection so that the results are attractive and meaningful.

Hunting

DEMANDS ON AN AVERAGE FALL SUNDAY (No. of hunters)

1970	1975	1980	1990	
3537	4030	4423	5300	(Total)
1710	1907	2103	2482	(Residents)

Use Standards - None

There are no reliable acreage or area figures with which to project area needs. A great percentage of hunting is done on private lands or leased lands.

Picnicking

DEMANDS ON AN AVERAGE SUMMER SUNDAY (No. of People)

1970	1975	1980	1990	
12,561	13,901	15,243	19,013	(Total)
6,498	7,187	7,876	9,317	(Residents)

Use Standards

Assuming 20% of participants are group picnickers, 40% urban and 40% rural.

Group = 1.3 Acres per 100 picnickers Urban = 8 Acres per 100 picnickers Rural = 31 Acres per 100 picnickers

Required:

1970					Picnic	kers	Acres 1	Needed
					Total	Residents		
Group	•				2512	1300	33	17
Urban					5024	2600	400	208
Rural	•	•	•	•	5024	2600	1550	800
1975								
Group					2780	1437	37	19
Urban					5560	2874	450	232
Rural		•	•	•	5560	2873	1720	868
1980								
Group					3049	1575	41	21
Urban					6097	3151	490	256
Rural	•				6097	3150	1890	992
1990								
Group					3803	1863	51	25
Urban					7605	3726	600	298
Rural		•	0	•	7605	3726	2357	1147

Camping

DEMAND ON AN AVERAGE SUMMER SUNDAY (People)

1970	1975	1980	1990	
3,640	4,585	5,530	7,339	(Total)
263	264	266	365	(Residents)

Use Standard

140 acres per 100 campers

Required for Dane County:

1970

263 campers will require 368 acres.

1975

264 campers will require 369 acres.

1980

266 campers will require 372 acres.

1990

365 campers will require 511 acres.

Camping is a family affair so the actual demand figures will be higher, for the above does not include any children under 12 and camping families are known to be young families.

Skiing (Snow)

DEMAND ON AN AVERAGE WINTER SUNDAY (No. of Skiers)

1970	1975	1980	1990	
1,764	2,157	2,550	2,707	(Total)
512	605	699	828	(Residents)

Using Standard

One acre required for every 30 skiers with a minimum size of 100 acres. Snow making equipment needed if area does not get an average of 60 inches of snow per year. 100 skiers would require 3-5 acres.

Required:

1970	1975	1980	1990
26 acres	30 acres	35 acres	41 acres

WATER ORIENTED

Swimming

DEMAND ON AN AVERAGE SUMMER SUNDAY (No. of Swimmers)

1970	1975	1980	1990	
49,499	58,634	67,769	142,240	(Total)
23,157	27,824	32,492	63,565	(Residents)

Using Standard

Rural: .72 acres (beach and backup) per 100 20% persons per day.

Urban: .46 acres (beach and backup) per 100 80% persons per day.

Required for Dane County

	1970	1975	1980	1990
Rural	33 acres	40 acres	46 acres	92 acres
Urban	85 acres	102 acres	168 acres	233 acres

A great deal of swimming in Dane County is done in front of private homes and cottages on the lakes, in private home and apartment pools and in membership club-type pools. Consequently much of the demand is met by the private sector.

The City of Madison maintains approximately 2,010 feet of waterfront beaches which, applying the above standard, could be expected to accommodate some 12,060 swimmers on an average summer Sunday. But in 1970, the demand figure is 49,499 and this does not include children under 12, so the figure is actually greater. Assuming 20% of these people were swimming at private pools including clubs and other private facilities, and Madison beaches accommodated another 12,060, this would leave 27,540 swimmers seeking swimming opportunities elsewhere in the county.

According to the inventory, the municipalities with pools are Mt. Horeb, Mazomanie, Monona, Oregon, and Sun Prairie. Verona uses a quarry and Stoughton a modified small lake.

Boating

DEMAND ON AN AVERAGE SUMMER SUNDAY (No. of People)

1970	1975	1980	1990	
18,416	21,742	25,068	40,822	(Total)
4,555	5,028	5,501	6,569	(Residents)

Using Standard

200 acres of water per 100 boaters per day

Required:

1970	1975	1980	1990
9,110 acres	10,056 acres	11,002 acres	13,138 acres
of lakes	of lakes	of lakes	of lakes

Fishing

DEMAND ON AN AVERAGE SUMMER SUNDAY (No. of People)

1970	1975	1980	1990
17,237	18,594	19,951	27,428
6,823	7,553	8,284	9,770

Using Standard

Stream: 10 miles per 100 people

Lake: 360 acres per 100 people

Required:

1970	1975	1980	1990
	755 miles of stream		
24,562 A of lakes	27,190 A of lakes	29,822 A of lakes	35,172 A of lakes

Water Skiing

DEMAND ON AN AVERAGE SUMMER SUNDAY (No. of People)

1970	1975	1980	1990
2,426	3,023	3,620	6,016 (Total)
1,049	1,266	1,483	1,427 (Residents)

Using Standard

440 acres of water per 100 persons per day

Required:

1970	1975	1980	1990
10,674 A	13,301 A	15,928 A	26,470 A
of lakes	of lakes	of lakes	of lakes

Canoeing

DEMAND ON AN AVERAGE SUMMER SUNDAY

(No. of People)

1970	1975	1980	1990	
886	1,067	1,268	2,566	(Total)
205	207	209	487	(Residents)

Using Standard

2.78 miles of stream per 100 users. No lake standards

Required:

If half of the people were canoeing on the lakes, extra pressure for acreage would compete with the other water activities. The rest of the canoes would require the following stream distance:

1970	1975	1980	1990
13 mi. of	15 mi. of	18 mi. of	36 mi. of
stream	stream	stream	stream

Sailboating

There are not standards or demand figures for sailing, but an observation of the lakes on a summer day proves that sailboats are also competing for acreage on Dane County lakes.

Scuba Diving

Another sport competing for water that has become popular, especially with the young. It has no standards or demands as yet but the pressure is on only the deeper and larger lakes -- Lakes Monona, Mendota and Fish and Crystal.

FACILITY ORIENTED

Golf

DEMAND	ON	AN	AVE	RAGE	SUMMER	SUNDAY
		(No.	of	Gol	fers)	

1970	1975	1980	1990	
9,800	10,925	12,050	14,508	(Total)
8,359	9,330	10,301	12,149	(Residents)

Using Standard

A 9-hole course can handle 350 golfers per day. An 18-hole course can handle 500 to 550 golfers per day.

Required:

1970

Dane County has eleven 18-hole golf courses and three 9-hole. Using the above standards, the county will need at least 5 more 18-hole courses.

1975

The county will need two more than in 1970.

1980

The county will need two more than in 1975.

1990

The county will need a total of 11 new 18-hole courses. (Assuming 120A per course = 1300 Total and that one-half the demand is provided by other than County, e.g. private)

Tennis

There are no standards or demand figures for this sport but with the increased popularity in this area there will be an increased demand for courts.

In order to determine the space required for the various activities mentioned and to compare these totals against the overall standard see the brief analysis in Appendix III.

SECTION VII

PRESENT AND FUTURE SPACE NEEDS

SECTION VII - PRESENT AND FUTURE PARK AND OPEN SPACE NEEDS

The park and open space resources for Dane County consist of a number of elements. Basically, these elements comprise a system of open spaces and outdoor recreation areas that are provided by various levels of government. Each has a particular function or series of functions that it can best provide. For the purposes of this study, they are divided into three broad categories:

State Parks and Resource Areas County Parks and Open Spaces Local Parks and Open Spaces

Experience has indicated that the divisions or categories are never clear cut; rather the functions of one jurisdiction may be provided by another. In addition, a single area may easily fall into several categories. Nevertheless, for the purpose of determining the open space needs by jurisdiction, the following definitions are useful:

- A. State Parks and Resource Areas serve families and large groups from a wide radius. The population served may be statewide or wider in scope. Facilities provided in these areas may run the entire range of recreation facilities, however, the State should be the major resource protection agent.
- B. County Parks The National Association of Counties adopted the policy that states "that the special role of the county is to acquire, develop and maintain parks and to administer public recreation programs that will serve the needs of communities broader than the local neighborhood or municipality, but less than statewide or national in scope." The county parks may act as a bridge between local parks and regional or state parks with greater emphasis on resource protection and some overnight use.

C. Local Parks - located within or in close proximity to cities, villages and towns are provided for and supported by those units of government. These may consist of tot lots, neighborhood parks, playfields and community parks; they are day-use facilities for the most part. In addition, other open spaces are also included such as greenways and other conservancy areas. Local parks are usually intensively developed with a variety of facilities and equipment.

An analysis of the existing and needed park and open space areas by jurisdiction is shown on Table 8 on page 79. From the table a number of pertinent conclusions may be drawn:

- 1. The State of Wisconsin is providing a substantial amount of open space in the County which can be utilized for various recreational uses as well as helping to improve the environment. It is impossible to quantify this type need exactly. However, the state is presently providing about 38 acres per 1,000 persons in Dane County.
- 2. With only 3.6 acres of open space per 1,000 persons, the County falls far short of meeting the need as measured by any standard. If it is to even approach the need as defined, about 360 acres per year for the next 20 years will have to be added to the present acreage. As indicated in later sections, the County Park System in the future will have to reflect a truly regional scope.
- 3. The City of Madison has, for the most part, kept pace with the standard. However, the size and

range of the facilities indicates that Madison is, in fact, providing for some of the regional recreation demand. Examples of this are Yahara Hills Golf Course, Vilas Park Zoo and some of the larger parks on Lakes Mendota and Monona.

4. Overall, the County (including all governmental jurisdictions) provided about 58 acres of open space per 1,000 population. If the acreage of public school playgrounds throughout the County were added to the total,* another approximately 800 acres could be included in the overall inventory.

^{*}Assuming 2/3 of the school site is useable open space for outdoor recreation, about 800 acres could be also considered as open space.

TABLE 8

PRESENT AND FUTURE PARK AND OPEN SPACE NEEDS IN DANE COUNTY

		POPULATIO	N*	STANDARD		TOTAL	AREA	
Jurisdiction	1970	1980	1990	ACRES/ 1000 pop.	Existing 1970	Needed 1970	Needed 1980	Needed 1990
State	287,501	398,000	550,000	50	10,402	14,400	19,900	27,500
County	287,501	**398,000	550,000	15	1,040	4,327	5,970	8,250
Local				14				
Urbanizing Area***	237,000	336,500	473,500		4,292	3,318	4,711	6,629
Madison Parks	171,500	243,500	_		2,224	2,401	3,409	4,796
Madison Resource								
Areas	171,500	-	-		1,690+	1,690+	1,690+	1,690
Others	65,500	-	_	14	378	917	1,302	1,833
Outer Area Municipali-								
ties	30,400	40,400	55,500	10	202	304	404	555
TOTAL				75-79	16,006	24,039	32,675	44,624

^{*} Projections for County from Regional Planning Commission

^{** 1970} Census Preliminary figure

^{***} Includes Madison and all municipalities in nine-town area - see map

TABLE 8

PRESENT AND FUTURE PARK AND OPEN SPACE NEEDS IN DANE COUNTY

		POPULATIO	N*	STANDARD		TOTAL	AREA		
Jurisdiction	1970	1980	1990	ACRES/ 1000 pop.	Existing 1970	Needed 1970	Needed 1980	Needed 1990	
State	287,501	398,000	550,000	50	10,402	14,400	19,900	27,500	
County	287,501	**398,000	550,000	15	1,040	4,327	5,970	8,250	
Local				14					
Urbanizing Area***	237,000	336,500	473,500		4,292	3,318	4,711	6,629	
Madison Parks	171,500	243,500	_		2,224	2,401	3,409	4,796	
Madison Resource Areas	171,500	· · ·	_		1,690+	1,690+	1,690+	1,690+	
Others	65,500	<u> </u>	_	14	378	917	1,302	1,833	
Outer Area Municipali- ties	30,400	40,400	55,500	10	202	304	404	555	
TOTAL				75-79	16,006	24,039	32,675	44,624	

^{*} Projections for County from Regional Planning Commission

^{** 1970} Census Preliminary figure

^{***} Includes Madison and all municipalities in nine-town area - see map

SECTION VIII

OBJECTIVES AND POLICIES

SECTION VIII - OBJECTIVES AND POLICIES

It has been stated that a plan is the place where policy decisions are recorded. Because of the importance of developing objectives from which policies can be formulated, it is essential that these be recorded.

The purpose of this section is to identify certain basic objectives concerning parks, and open spaces in Dane County. The objectives proposed are essentially broad statements of goals or intents. They have been translated into policies to assist in achieving the objectives.

- I. It is an objective of this plan to utilize open space, whether for active or for non-recreation purposes, as a major device or element for directing urban growth and influencing the overall environment of the region. The location of open space areas should be an integral part of the regional land use plan as well as other elements of the comprehensive plan.
 - 1. The plan for parks and open spaces should reflect and help carry out the overall settlement policies of the region.
- II. It is an objective of this plan to locate parks and open spaces in such a way as to assist in water pollution abatement, water quality improvement, flood control, regional drainage, and environmental enhancement. To achieve this objective:

- 1. Acquire park and open spaces along rivers, streams and in marsh areas particularly those that are tributary to the lakes, and to delineate a countywide drainage-way system utilizing, where feasible, a system of greenways or open water drainage-ways.
- III. It is an objective of this plan to meet the outdoor recreation needs of the people of Dane County. To achieve this objective:
 - Base acquisition and development of facilities on present and projected demands for recreation.
 - Place priority on meeting recreation needs of Dane County residents first.
 - 3. Provide recreation areas in proximity to the public.
 - IV. It is an objective of this plan to develop a coordinated system of parks and open spaces for the region. To achieve this objective:
 - It should be the policy of the cities, villages and towns to give priority to the provision of parks, playgrounds and playfields to meet local community or neighborhood needs.
 - 2. It should be the policy of the County to give priority to the provision of intermediate, resource base parks and preserves. Generally, new acquisitions should emphasize extensive areas and should tend to avoid intensive development.

- 3. It should be the policy of the state to provide parks and open spaces which help to fulfill state objectives and responsibilities.
- V. Because of high and continually rising land costs, and because of extensive needs and demands, it is an objective of this plan to provide park and open spaces as effectively and economically as possible. To achieve this objective:
 - 1. Place emphasis on acquisition now and development later.
 - Look for multi-purpose areas and larger acquisitions.
 - Place priorities on areas likely to be lost through urbanization.
 - 4. Utilize a variety of devices for implementing plan, and not limit open space provision to direct acquisition only.
 - (a) Utilize federal and state aids where available.
 - (b) Dedication of land or easements in subdivisions and developments.
 - (c) Cluster subdivisions.
 - (d) Exclusive agricultural zoning and conservancy zoning.
 - (e) Acquisition of scenic and other recreational easements.

- (f) Encourage the donation of land through private philanthropy.
- VI. It is an objective of this plan to preserve for posterity where possible some of the heritage of Dane County. To achieve this objective:
 - Identify and acquire so as to preserve and protect areas of scenic beauty, geologic, topographic, scientific or historic interest; areas displaying Indian antiquities and culture, and other areas worth preservation.
 - 2. Evaluate and develop plans for the greatest protection and appreciation of the resources of each selected site.
 - Define and interpret the significance of the selected sites in order to add greater interest and meaning to park visitation and use.

SECTION IX

GENERAL RECOMMENDATIONS

SECTION IX - RECREATION ACTIVITY RECOMMENDATIONS

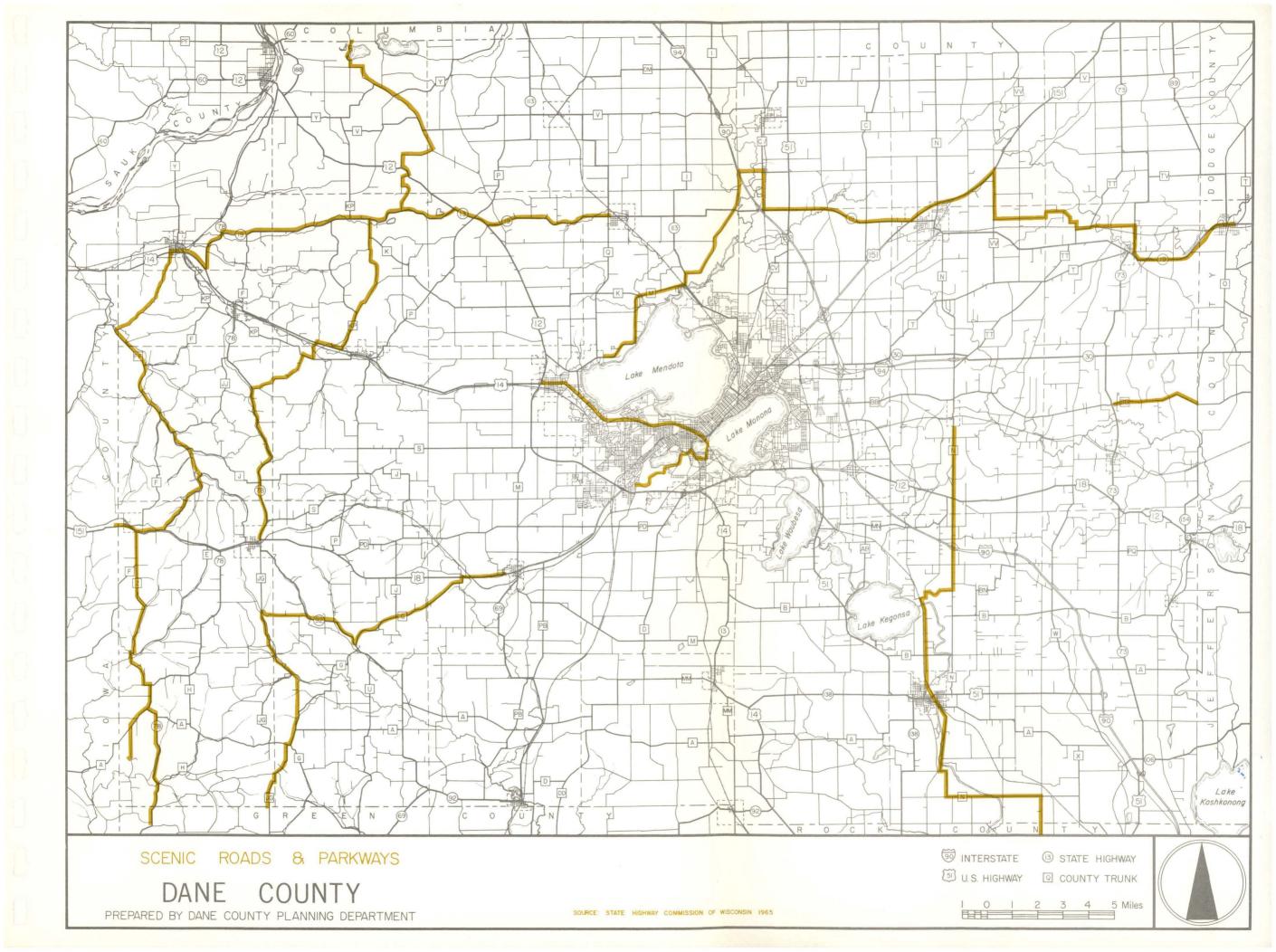
The following recommendations are for improvement in the recreational activities provided by Dane County. These recommendations are based on the demands established in Section VI and coordinated with the previously set forth objectives and policies. They are general guides to assist future decision making.

ROAD ORIENTED

Pleasure Driving and Sightseeing

Dane County offers a wide range of esthetically pleasing landscape that could be utilized for pleasure driving. With a system of nearly 2,000 miles of county and local roads and numerous historical sites and buildings, there is ample opportunity for pleasure driving and sightseeing activities.

The Wisconsin Department of Transportation has delineated a series of scenic drives for every county in the state. The following map titled Scenic Roads and Parkways shows the system in Dane County--10 routes totaling 176 miles. These are not the only roads of scenic value; the County should add to this basic system periodically. Plans are to eventually accentuate the unique features by developing scenic overlooks, picnic areas, trails and rest stops, many in conjunction with historical or cultural sites.



All opportunities should be taken to protect the scenic resources through zoning, easements and acquisitions. In the improvement of county and local roads, there should be cooperation between other agencies and the Highway Department to provide not only safe roads, but design them for diversity. Blights on the landscape such as gravelpits, junkyards and dumps should be fenced or obscured by land forms or plantings.

Many of the sightseeing groups of families with children and older adults combine this activity with picnicking and camping. Therefore, in addition to providing access and parking at the special sites, other facilities should also be considered.

TRAIL ORIENTED

Bicycling

Some of the minor roads between New Glarus and Sauk City in Dane County are included in the Wisconsin Bikeway (under the sponsorship of the Governor's Council on Physical Activity and Sports for Fitness). Pamphlets are available showing the complete route.

With the cooperation of the City Planning and Park Departments, the County Park Commission, and interested bicycling groups, bikeways could be laid out and marked with officially accepted signs.

Four areas that lend themselves well for the initial development of these bikeways are:

- 1. A joint City-County-University project which would connect the campus area (see Working Paper #5 "Circulation of Campus Plan") with the adjacent residential areas, following the route of the ICRR tracks to and through the UW Arboretum, under the Beltline (underpass) to connect with the proposed greenbelt (Dunn's Marsh, Fish Hatchery wetlands, Mud Lake area, etc., see page 123). This route could provide an alternative needed transportation mode for students and workers in the campus-west side areas.
- A bikeway in the new Cam-Rock Park on the old RR bed; this is currently being studied in conjunction with a development plan of the park.
- 3. A third area that lends itself well for a coordinated bikeway is in the vicinity of the Cherokee Marsh and Token Creek. This bikeway is shown on the revised Park Plan for the City of Madison. The portion of the trail outside the City limits generally follows the minor road systems of county trunk CV and Haepker and Portage roads, to Token Creek Park.
- 4. Another excellent potential for a bike, hiking or horseback trail could be developed in the west side of the Yahara River. This proposed linear or corridor parkway is another coordinated City-County project currently being implemented through official mapping

and subdivision dedication. It is planned to encompass the wetlands shoreline of the Yahara River including some parcels of upland from the intersection of River Road (relocated) and Wis. 113 along the proposed parkway to its intersection with the old River Road.

Bikeways, particularly those in urban areas, also can help promote the growing trend toward the use of bicycles as an alternative mode of transportation. Not only is there an absence of pollution and its accompanying costly effects, but there is a healthful value as well.

Hiking

Because many people enjoy taking advantage of the city and village streets for walking, an interesting brochure (mentioned in Section II) has recently been published that describes many of the historic homes and buildings of Madison and designates a specified route to walk.

Dane County is fortunate to have the many trails in the Arboretum and on Picnic Point, however these are heavily used. Additional trails should be planned and developed in the county parks. Walking should be encouraged because it is not only healthy, but particularly because it can be done by the older people that are no longer capable of actively pursuing many of the other types of recreation. Paths along the greenways within cities and villages should be laid out.

Horseback Riding

There are no public bridle paths in Dane County, but in all probability, the majority of horse owners would be interested in an occasional outing on a scenic bridle path. Since most horse owners also own horse trailers, they would experience no difficulty in transporting the animals. A bridle path in connection with the expansion of Brigham Park with many glimpses of the exceptional views should be considered. The new Hermann Eisner Park south of Mazomanie could also provide this activity when development begins. It is felt by some that Dane County may be atypical and that the demand is greater due to a larger horse population. This should be studied further.

FIELD ORIENTED

Nature Walks

It is generally accepted that the most successful approach to learning about the living world for young pupils is not in the laboratories, but with the naturalist's approach where children learn about animals, plants and the living world around them by being taken into it. If the young people are to preserve the heritage of natural resources, it is imperative that they be made aware of and grow up with the knowledge of the resources of the county.

The University of Wisconsin's educational walks in the Arboretum, open to all citizens, are constantly being expanded. Dane County is fortunate to have the Arboretum within its boundaries. Most people agree that it has reached the point of overuse. It should be the county's responsibility to provide a system of trails through selective sites indicating and explaining the different geology, vegetation and other unique elements of the region.

Hunting

Successful hunting is dependent upon the availability of the game and this in turn is regulated by suitable habitat. As mentioned in Section VI. the sale of small game licenses has increased 54.8% between 1960 and 1968, which indicated an increased interest over just an increased population. On the other hand, the decline by 13.8% in the same of duck stamps in just a four-year period (1964 to 1968) reflects the decrease in the number of ducks landing in Dane County during their fall migration because of the lack of suitable wetlands without sedimentation and pollution. Draining and grazing of the wetlands over the years has contributed to the decline of wildlife. The number of cattle in the county is slowly declining because of the increased milk production and, fortunately, the trend to lot feeding and less pasturing. This should benefit the wetlands and woodlots that have been pastured and overpastured in the past.

Another factor contributing to the decline of wildlife, especially upland game, is the fact that the farmer today, with the new mechanized equipment, is able to plow and mow closer to the fences and thus any upland game habitat is either

completely destroyed or significantly reduced in size and usefulness. A limited number and variety of wildlife coexist in woodlots and small uncultivated fields, but the majority of game depends upon special wildlife areas that have a history of wildlife use, a mixture of cover, unpolluted water and are isolated from noise and urban sprawl. The Wisconsin Department of Natural Resources, according to the inventory in Section 3, has over 10,000 acres in Dane County under its jurisdiction for fishery and wildlife management, including six public hunting grounds, and plans to continue to purchase suitable lands. These wildlife areas provide not only hunting and fishing but a splendid opportunity for hiking, painting and photography, or as an outdoor laboratory for the biological sciences.

A great deal of hunting is now done on private land. Individuals obtain permission from the owners to hunt native game or have membership in a private hunting preserve. The latter has the advantage of a longer shooting season and uses released, pen-raised upland game birds which more or less guarantees success. Preserve sites have been further improved for bird habitat by the planting of both cover and food.

It is important that the public be educated on the value of our wetlands so there will be more support for acquisition. Farm owners should be encouraged to protect existing wetlands on their property in addition to maintaining a wide belt of suitable vegetation cover along the fence row and to use shrubs such as multiflora rose for fencing whenever possible.

Picnicking

Picnicking is the type of activity frequently done in connection with another form of recreation. It often adds to the enjoyment to eat outside and it is usually considered a "free" activity. As a result, the demands for picnicking are great now and predicted to increase even more. (Section VI)

Picnicking can be divided into three categories (Section V and VI) -- urban, rural and group. The city and village parks should provide for part of the urban picnickers. As shown in Table 8, some municipalities are lacking in park acreage and consequently inadequate facilities too.

Group picnics have become increasingly popular for family reunions, commercial and industrial groups, schools and churches, clubs, youth groups and other organizations. The shelters in the City of Madison and county parks are reserved for group picnics from late May through October on a first come first served basis. study of the bookings for the nine Madison park shelters are reserved weeks in advance for all weekends and many week days. The county's 20 shelters, especially those a short distance from Madison and other cities and villages, are also in great demand. More shelters for group picnics are definitely needed in and near urban areas. Effort should be made when developing other facilities such as historic sites, trails for hiking, bicycling and horseback riding and areas for nature study, that accommodations for picnicking be included.

Camping

The demands for camping (Section VI) are high now but will increase another 26% by 1975. According to Table 9, on the following page, the camping in Dane County parks increased 31.6% in the four years of 1965 through 1968 with 69% of the campers coming from out of the state. Six of the county parks allow camping and these areas are small in size with few acres available for additional activities.

There are private campgrounds in Dane County now and their future development should be encouraged because people will pay for attractive and comfortable sites. Furthermore, it is not realistic nor financially feasible for the county to provide the amount of space and facilities indicated by the demand figures. Much of this will have to be provided by the State.

Since camping is often combined with participation in other activities, it is imperative that the campsites conform to the accepted standards, and that they be located in the larger parks and not monopolize the space in any park.

Skiing (Snow)

Dane County has one privately owned 120 acre ski area in the driftless area where the vertical drop is the greatest, but the hills in south central Wisconsin are not high enough or extensive enough for a large ski development. Nevertheless, it is a popular place to go for an

TABLE 9

SUMMARY OF CAMPING IN 6 DANE COUNTY PARKS 1965-1968*

	Total Number of Campers
1965	12,143
	- An increase of 31.6%
1968	15,977

Use of Campgrounds over the Four Year Period

Park	% of Total Campers	% From Out of State
Mendota	31	62
Babcock	28	82
Goodland	21	64
LaFollette	8	83
Brigham	8	55
Stewart	4	42

66.86% of total campers were not residents of Wisconsin

A camping unit averaged 3.89 people

The average stay at a campground was 1.54 days

^{*}From the records of the Dane County Park Commission, 1969.

afternoon, day or evening of skiing. The hill has snow-making equipment but with the winter weather in Dane County with fluctuations between freezing and thawing, it is difficult to keep the slopes in good shape. There are a number of other privately operated ski hills in surrounding counties and within easy driving distance.

WATER ORIENTED

As discussed in Section VI, the demands for water oriented activities are great now and will become almost overwhelming in the not too distant future. In the meantime, other factors are contributing to the issue. Water quality of the lakes significantly affects their use--especially for swimming and water skiing. This is just one of the many reasons for controlling all the sources of pollution. with excessive nutrients, weeks and algae present mechanical, odor and esthetic problems. At times they are too thick to navigate; and, when the weeds and algae die, they smell and are an ugly sight and, consequently, completely inhibit any activities in the area. The feasibility of developing artificial lakes and flowages in the County should be studied as one way of trying to meet the great demand.

Swimming

As much public beach property should be acquired and developed as possible. The feasibility of improving and using some of the smaller lakes for swimming should be investigated and planned.

Fishing

Due to excessive nutrients, siltation and the draining of adjacent marshlands used as fish spawning grounds, most of the lakes offer poorer fishing than in the past. In spite of this, fishing licenses issued in Dane County have increased 23.2% between 1960 and 1968. It is assumed that many of the people that purchased fishing licenses in the county will fish elsewhere in the state.

Support for a restoration and restocking project for the mill ponds and smaller lakes that have sufficient depth or water exchange to prevent winterkill is imperative. The problems are primarily siltation, excessive fertility and overabundance of rough fish. The wetlands surrounding the larger lakes are ideal spawning beds for the game fish, as well as habitat for waterfowl and fur bearing animals. They should be protected from filling and draining and managed in order to maintain the highest possible quality. With proper watershed control and habitat improvement, more miles of the driftless area spring-fed streams could support trout.

Boating (Motor)

Boat registration in Dane County for the two threeyear license periods (1963-65 and 1966-68) has increased 20.26%. Many of the boats will be used outside of the county, but with the prevalence of boat trailers today, there will be many from outside the area using the lakes of Dane County. In fact, according to Table 6, Section VI, 75% of the boats on the lakes in 1970 will be owned by residents of other counties and other states. Furthermore, only lakes with over 500 acres (Table 1, Section II) have the space necessary for maneuvering the larger boats with the fast motors.

Dane County and the City of Madison now control boating on the lakes by following the State of Wisconsin's regulations concerning speed, distance away from shore and some other designated areas, and time of day for participation in certain activities. But the management of the congested lakes is going to have to become stricter in order to safely handle the conflicting water oriented activities. Regulations for area, time and protective space will have to be instituted and enforced.

An adequate public access in Dane County on large Lake Koshkonong should be acquired and developed.

Water Skiing

Although Lakes Mendota and Monona are the most popular for water skiing because of their size and location within the City of Madison, the other large lakes are used too.

Because the skier is at the end of a long rope behind the boat, a large amount of water area is required for this activity (Section VI). Furthermore, because of the speed and action involved, water skiing conflicts with canoeing, sailing, other motor boating, and especially fishing. Solutions to the use conflict should

include allowing water skiing only when fishing hours are generally thought to be poor, i.e., during mid-day to late afternoon.

Canoeing

As noted in Section IV, there is a substantial amount of canoeing done on Dane County lakes—especially the Madison Lakes Wingra, Monona and Mendota, because of the concentration of young people (University) and the availability of rental canoes. If a bank improvement and beautification program for Wingra and Starkweather Creeks were undertaken to remove the dumps, unsightly storm sewer outlets and other undesirable obstacles, they would be ideal for canoeing.

The Wisconsin Conservation Department's 1963 publication, "Wisconsin Water Trails," lists a canoe trip down the Yahara River, through the Madison area lakes, and out of the county down to the Rock River. The Sugar River, directly above Belleville, is also navigable.

Another scenic and interesting river for canoeing is the Wisconsin River, though only 14 miles pass along the northwestern corner of the county. Even though the Wisconsin Department of Natural Resources owns extensive acreage along the river with a boat launching site, the county should acquire an additional access point for launching and docking with space for picnicking and parking to increase the recreational value of the area.

Sailboating

Sailboats will have to be included in the area management of the lakes.

Scuba Diving

Perhaps area and time restrictions on the deep lakes would help control and increase the safety of scuba diving.

FACILITY ORIENTED

Golf

The demand for golf is predicted to increase 29.8% in Dane County (Table 7, Section VI) between 1960 and 1970. According to a survey of the City of Madison's four municipal courses, the rounds of golf played increased 26.9% between 1960 and 1968. The older courses located within the city are now accommodating about as many golfers as they safely can. This is likewise true for the privately owned and open to the public for a fee golf courses, especially those adjacent to the larger urban areas.

Table 6 indicates that all but 3-4% of the golfers will be from Dane County. But since the opening of the large City of Madison Yahara Hills course (36 holes) in 1968, it is apparent that the percentage of out of county and out of state golfers has already increased. Indications are that even more people will find Yahara Hills attractive

because of its accessibility from I-90 and 94. These extra golfers put an even greater strain on the existing facilities which are not adequate now.

Ice Skating

The standard for natural outdoor rinks of one per 5,000 is usually considered a municipal function. The number of rinks open for use depends upon the weather during any one winter and the budget allowed for preparation and upkeep by each municipality. Location is in any neighborhood park or playground.

SECTION X

EXISTING COUNTY PARK EVALUATION

SECTION X - EXISTING DANE COUNTY PARKS

This section of the report represents an analysis and comment on the existing County Park System. It is intended to be a constructive critique directed at the overall improvement of the system. A number of general suggestions applicable to all the areas is given first; this is followed by a description of and recommendations for the individual parks. A map of the location of the existing parks appears on the following page.

As a general rule, Dane County should aim to acquire, develop, and maintain large multiple-use recreation areas. An area should not only provide recreation and preserve the natural landscape but it should help to direct or limit urban growth. Except for special type areas (scientific or historic) county parks should not be less than 100 acres. Smaller, more specialized or intensively developed ("manicured") parks and playgrounds are more appropriately left under the jurisdiction of local municipalities.

A County park should be located within a one half hour drive of all the residents of Dane County.

Camping should be offered only in the large parks and facilities should be laid out in accordance with camping standards with 100 feet between sites in a cluster arrangement. Camping should be allowed only in these designated areas which are away from other use (picnic) areas. (Note Dane County Park pictures 2 and 5 following page 113.) There should be ample backup acres as recommended in Section V on Standards.

The signs that identify the parks and activities should be attractive, well designed and uniform. In addition, they should be as minimum as possible since numerous signs and directives are annoying and unattractive. The signs should all be consistent and properly identify the park.

Serious consideration should be given to transferring the small (15 acres or less) park areas to the community in which they are located. They are very expensive to maintain and probably generate mostly local use. One alternative to this would be a unified park system wherein all the recreation areas in the county, cities, villages and towns are acquired and maintained by a single agency.

Babcock Park

The park is located on a lagoon on the eastern side of Lake Waubesa and where the Yahara River flows out of the lake. Although it is 40 acres in size, over 26 acres are wetlands located on the other side of busy State Highway 51. Therefore, only 13 acres are being used for camping, picnicking and fishing in addition to the Department of Natural Resources carp holding operation. This puts substantial stress on a very small area. According to camping standards (Section V), there should be backup acres for this activity; the wetlands on the opposite side of a busy highway cannot meet this need. Furthermore, the designated campsites are directly adjacent to heavy summer traffic with no safety barrier or buffer zone. This is even more stress on the few acres available. Conflicting camping and picnicking acres should be separated.

Camping at Babcock Park should be discontinued and the park be used only for fishing and picnicking. Even though it is close to McFarland, the heavy influx of out of state campers (Table 11, Section IX) has discouraged the use of the park by local residents. If camping were prohibited, and the people in and near McFarland freely used the park, jurisdiction could be turned over to the village.

Brigham Park

The park, with a panoramic view toward the Wisconsin River, is just northeast of the village of Blue Mounds. Acquisition of a scenic easement should be obtained for the property directly north of the park in order to preclude the destruction of the view by the erection of buildings.

The park now has 56 acres, but only the older ten acres is developed into pleasant wooded picnic and play areas near two shelters. The additional acreage will be ideal for developing nature walks in the relatively untouched woods. Another possibility is a bridle path around the edge, taking advantage of the view.

Chapel Wayside

A one-acre picnic spot with an excellent view of Indian Lake and the Marxville Valley. This should be incorporated into a regional park and will be discussed in the section on the plan.

Eighmy Park

This is another small two-acre park that has a shelter and picnic tables. A boat launch site gives access to Lake Mendota by way of a marsh channel. This park should be combined with the Resource Protection area of Six Mile Creek and the large Lake Mendota Park Proposal.

Festge Park

This 47.5 acre park in the driftless area includes a commanding view of the Black Earth Valley to the south and east. The ridge is covered with a mature stand of hickory, oak and cedar woods with some exceptional burr oaks on the edges.

This land is ideal for the young group campers because, as an outdoor classroom, interesting and educational nature trails, guided or well marked, could be developed. There is a good undergrowth of tree seedlings, shrubs and wild flowers showing the regeneration of a forest. New growth generated from old stumps shows evidence of a previous fire. The bird and small animal population is also a challenge to watch. The ground offers a chance to geologically explain the driftless area. Picnicking and family camping areas are being developed and will be available.

Expansion by at least 50 to 100 acres to the north and east to include the next ridge would increase the usability of the existing facilities by adding needed open space.

The feasibility of developing a winter sports area, including a skating rink and toboggan runs on the

LaFollette Park

This park is a narrow strip of land that varies from 380 feet to 600 feet wide along the eastern shore of Lake Kegonsa. A wider, more attractive section was sold to the state for Kegonsa State Park.

The remaining property has the railroad going diagonally through besides a main electrical high voltage line. In order to use the unimproved weedy beach, a climb over the tracks is necessary (Dane County Park Problems Pictures 3 and 4 on page 115).

Camping is allowed, but according to records (Table 11, Section IX), it is not very popular, representing only 9% of the total Dane County Park camping. And 83% are from out of state which perhaps reflects that the Kegonsa State Park campsites were full and LaFollette Park accepted the overflow. The land is low and during rainy weather tends to be very wet.

The land is not attractive and its potential usefulness is extremely limited, especially since it is adjacent to the large and well planned state park. Serious consideration should be given to giving it to the Wisconsin Department of Natural Resources to be preserved as conservation lands.

Lakeview Woods

This heavily wooded 26 acre park is an excellent example of unspoiled woodland. It has been left in its primitive state and has a high population of wildlife such as squirrels, rabbits, pheasant and native and migratory birds. There are some cinder paths meandering through and some picnic tables and fireplaces.

northern slope, should be considered.

This park is close enough to the Madison Metropolitan Area to permit bicycling to the area and back in a relatively short day.

Fish Lake

Extra acreage should be acquired over the present three-acre park. A boat landing with a shelter and picnic tables is now provided; however, because of the depth and quality of this lake, more recreational land should be acquired for the development of a Regional Park.

Goodland Park

It is a small 14 acre park situated among private homes but with 600 feet of frontage on Lake Waubesa. The shore is badly in need of improvement (Dane County Park Problems Picture 1 following page 110) and there is no developed beach for swimming. The boat ramp is not in the park, but on a parcel a few lots south. Camping is permitted but, if it is desirable to continue this activity in the future, it should be kept at a minimum because Goodland Park is near the largest urban population of Dane County and the demand for picnic space is great. An increase in size of this park would be advantageous for it would offer more open space and perhaps the camping could then be better separated from the picnicking.

It would be practical to turn the woods over to the City of Madison to be used as a forest preserve. It could be very useful as an outdoor laboratory not only for the far east side school children, but for interested adults as well.

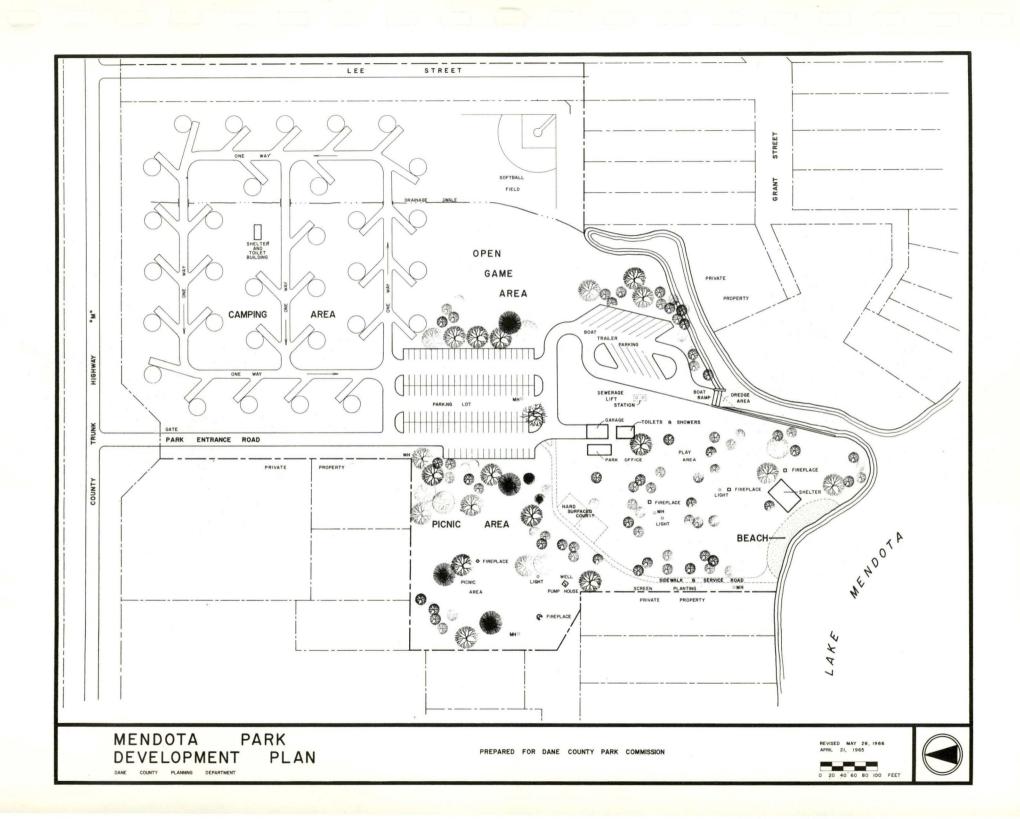
Mendota Park

Mendota Park, 20 acres on the northwest shores of Lake Mendota, with approximately 300 feet of lake frontage, represents a site in great demand for conflicting activities. Campers, of which 62% are from out of state (Table 11, Section IX) and many more are from out of the county, find the park convenient for visiting the Madison area and attractive because it is on the lake. Boat owners use it because of the public launching site. It is in great demand for picnics because of its proximity to the heavily populated Madison urbanizing area. Swimming is a popular activity because there is a public beach.

Additional acreage should be acquired to provide more open space to separate the activities; it would be beneficial, but high property value may preclude any additional purchase.

The park in its present size can be developed to best serve all the diverse activities. A development plan for using the park for the optimum interest of all is shown on the following page.

Camping should be permitted only in the area that is arranged for it and the number of units should not exceed the number of spaces provided. Under no circumstances should camping be allowed anywhere else in the park. Obviously the backup acres recommended in the Standard cannot be provided in this case.



The beach should be improved and washed up debris removed daily. (Dane County Park Problems Picture 6 following page 115.) For the sake of safety, the boat launching should be along the drainage lagoon away from any swimmers. The bank should have a retaining wall for additional moorings. Nearby is parking for the cars and boat trailers.

Riley-Deppe Park

A newly developed park west of the village of Marshall with ten acres of land, Riley-Deppe Park has a boat ramp on the Marshall Millpond. Fishing is also done along the shore. There is a shelter and picnic tables as well as playground equipment.

Consideration should be given to relinquishing this area to the Village of Marshall as a local park.

Stewart Park

Stewart Park is the most scenic of the present Dane County parks. It offers trout fishing and swimming in the artificial lake. Its five shelters and many picnic tables are in constant demand for picnics. There are a few rough paths for limited hiking, however the park suffers from extreme use pressure.

An effort should be made to purchase additional acreage, especially to the northwest, and to study the possibility of rerouting JG around the park instead of through it. Extensive, properly marked hiking and nature trails should be laid out around the lake and over the ridges.

Stewart Lake would make an ideal skating rink in winter.

Token Creek Park

Plans are now under way for the limited development of the entire 147 acre tract. A great deal of the park will have to be for low intensity usage because of the organic soils and wet conditions.

The purchase of the additional 140 acres of adjacent upland has greatly enhanced the development possibilities of the park. This gave Dane County its first large regional park with ideal open space and capacity for facilities to help meet the demands of the nearby populated areas besides providing for some of the visitors to the county.

A professionally developed plan has been drawn for Token Creek which will provide the County Park Commission an excellent guide in the long range development of the Park.

Hermann Eisner Park (Undeveloped)

This site now has 51 acres south of Mazomanie and includes a scenic wooded ridge. Additional adjacent acreage should be acquired so the regional park can be developed to optimum use and protection of the resources, allowing the activities to be separated by adequate buffer zones.

Cam-Rock

This newly acquired 197 acre park is located in scenic eastern Dane County along Koshkonong Creek between the Villages of Cambridge and Rockdale. The linear area is particularly unique due to: the location of the two villages at each end, the wide variety of landscape types, and the historical features of the area. A detailed plan for the area is currently underway by the Park Commission. It is recommended that approximately 100 additional acres be acquired on the west side of the creek where the slopes and views should be preserved.

Wetlands

Dane County should give very special attention to the acquisition of wetlands and other unique landscape types. As emphasized in Section II these types of areas serve a variety of functions - most importantly: the preservation of water quality and the guiding of urban growth.

An annual marsh acquisition program for Dane County should be established to supplement the shoreland and floodplain provisions. This could be coordinated with the Southern Wisconsin Wetlands Association, a private group interested in preserving the valuable wetlands of Wisconsin. The group has recommended the establishment of an independent foundation to assist with acquisition.

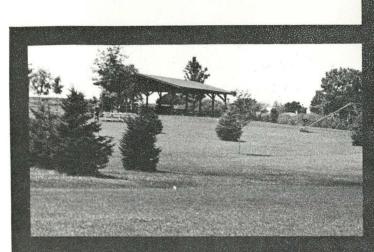
Pictures

Dane County Parks

- 1. Camping at Brigham Park
- 2. Newly purchased area at Brigham Park
- 3. Shelter and play area at Riley-Deppe Park
- 4. Public boat landing at Fish Lake
- 5. View of Indian Lake and valley from Chapel Wayside Park
- 6. Shelter and play area above lake at Stewart Park



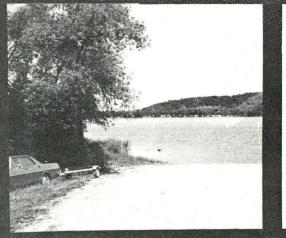
DANE COUNTY PARKS



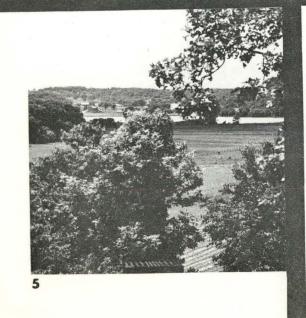


ī

3



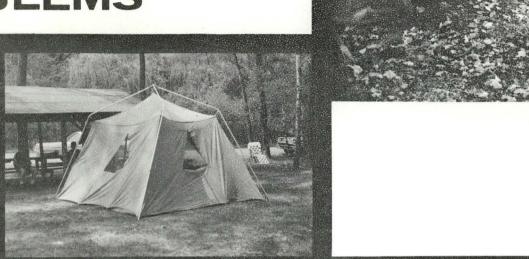
1





DANE COUNTY PARK **PROBLEMS**













Pictures

Dane County Park Problems

- 1. Eroded lake shore at Goodland Park
- 2. Tent adjacent to shelter at Stewart Park
- Path to beach from parking lot on Lake Kegonsa at LaFollette Park
- 4. Unkempt beach at LaFollette Park
- Cluttered camping in picnic area at Mendota Park
- 6. Unimproved water front at Mendota Park

SECTION XI

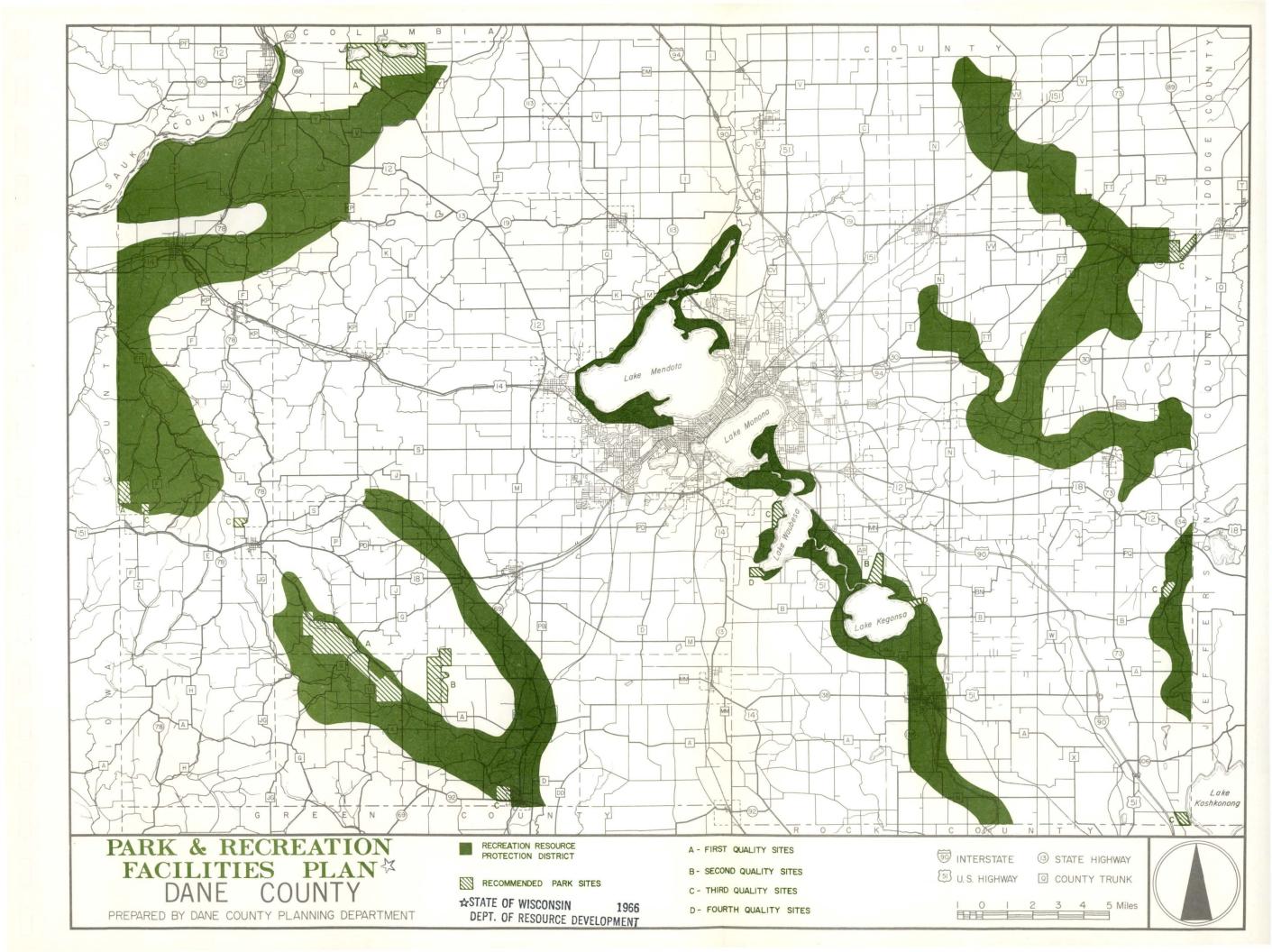
THE PLAN

PARK AND OPEN SPACE PLAN

The one-half million persons to live in Dane County by 1990 are going to require extensive open space and outdoor recreational facilities. Preceding sections of this study established the magnitude of this demand in terms of acreage requirements and specific activity demands. It is the purpose of this section to: (1) identify, in a general way, those areas that have the highest potential for parks or open spaces; (2) classify the proposed open space recommendations into specific types of areas based upon activities and natural features; (3) provide a guide in determining priorities.

It should be emphasized again as brought out in Section VIII that this plan represents a major element in the Comprehensive Plan for Dane County. It is, therefore, long range in concept and will require periodic updating in view of changing conditions and unforeseen opportunities in the years ahead. In addition, as the land use plan, currently underway, is completed, a reassessment of the recommendations should be made. A short range, or five year plan will be updated annually in order to assure coordination with other plan elements and changing conditions.

In conjunction with the background data on natural resources, standards and demands presented in previous Sections, a series of other sources were considered in developing the long range plan: (1) the City of Madison's Open Space and Land Use Plans; (2) Madison Area Transportation Study Plan; (3) State of Wisconsin Outdoor Recreation Plan, and Landscape Resources Inventory Series. See the following map for state recommendations for local open space.



For the purposes of this plan, the various types of areas have been classified as follows:

- Major County Parks Areas consisting of not less than 100 acres or the equivalent usable acreage to provide a wide range of outdoor recreational facilities. These areas are meant to serve a population that is drawn from the entire county as opposed to just local adjacent residents.
- 2. Resource Protection Areas - No minimum area standard is possible since these types of areas exist because of the natural location of wetlands, scenic overlooks, wooded tracts and other historical or anthropological features. The areas may vary from thousands of acres to only a few depending on the particular resource. The Resource Protection Areas will be of major significance in: trolling or guiding urbanization; helping to present flood damage and pollution; providing for storm water drainage and storage; preserving wetlands and other similar areas for wildlife habitat and limited recreation; preserving recognized scientific areas; and producing a natural variety in the landscape as the urban area grows. In addition, these areas can be used for learning by school children, 4H people, and nature groups who have an interest in nature education.

The proposals that are presented and described in the following pages are numbered and shown graphically on the "Plan For Parks and Open Spaces" at the end of this Section.

REGIONAL PARK PROPOSALS

On the basis of the established demands and utilizing the standards and objectives set forth in previous sections, the following areas are recommended as major regional parks in two priority groupings.

First Priority Areas - With the diminishing open space on the shoreline of the county's major lakes, the highest priority should be given to acquisition of these areas. As pointed out in Section VI on demands (See Table 8), water oriented activities are anticipated for the greatest growth.

Stress should also be placed on the acquisition of prime parcels of property that most likely will be unavailable because of planned development or the great increase in property value. Every park should be analyzed for its best potential and an individual development plan be drawn up accordingly.

Lake Mendota (1)*

The greatest demand is for additional public lands adjacent to lakes, especially the larger ones. There are, on the northwest side of Lake Mendota, parcels of land relatively undeveloped. These are probably the last parcels of any size that will be obtainable for public ownership. Parts of the areas are shaded by large Elms and Maples and others are characterized by extensive flat open fields or wetlands. The land is capable of sustaining a wide variety of summer and winter recreational activities.

The lakeshore in the area has a naturally firm gently sloping sand bottom. This would provide for excellent swimming, boating and most other water oriented activities. About 200 acres should be acquired at this site in order to develope a regional facility.

^{*}Numbers refer to location on "Open Space Plan" on page 135.

Lake Waubesa Area (2)

This site is located in the Towns of Blooming Grove and Dunn, south of and adjacent to the City of Madison. It has been indicated on numerous other plans and proposals as highly desirable for preservation as open space. major features of this area are: its nearness to Lake Waubesa (extensive undeveloped shoreline remains); the varied landscape which ranges from marshland to wooded hills and upland meadow; the proximity of the area to the City of Madison; and the potential for tying together the linear greenbelt from the Fish Hatchery to Lake Waubesa including the Mud Lake area and adjacent wetlands to the west. The generalized location of this greenbelt can be noted on the "Park and Open Space Plan." About 190 acres should be considered for acquisition of this location.

Mt. Vernon - Deer Creek Area (3)

One of the most scenic areas in the county, this site is located in the Towns of Springdale and Primrose near the Village of Mt. Vernon. The rugged topography, combined with wooded tracts, interesting rock formations and the trout stream qualities of the Deer Creek and Mt. Vernon Creek all encompass the resources required of a regional park. The area acquired should include a linear strip on both sides of the creek about three miles long. The width would vary widely depending on topography, road access and other features. This area should be combined with the linear resource protection area as shown on the plan. A wide range of activities could be provided: sightseeing and pleasure driving, hiking, picnicking, camping

and fishing. The existing three-acre wayside park that includes the "picture rock" could serve as the basis for this major park; 250 acres should be acquired for the developed park area.

Second Priority Areas

Indian Lake - Marxville Valley (4)

Located in the Town of Berry, this driftless region is one of the major scenic areas of the region. The area combines the resource qualities of wooded rugged hills; historic old buildings in the Village of Marxville; the small existing county park (Chapel Wayside); and the existence of 66 acre Indian Lake. Although the lake is shallow (6 feet) it is managed for pan fish. Waterfowl frequent the area which further enhances its value as a recreational area. Study should be made to determine the feasibility of creating a larger, more attractive lake at this site by control structures. The potential appears favorable.

A minimum of 500 acres should be acquired in this area in order to provide for the range of activities possible in this landscape type. The range of activities could be very wide including picnicking, hiking, swimming, horseback riding and camping. This area, because of its rugged topography and considerable open space, should be considered for a winter sports area incorporating smowmobile trails, toboggan runs and some limited skiing.

Richardson Cave Area (5)

Located in the Town of Verona about 1½ miles northwest of the Village of Verona, this area is within the terminal moraine with such characteristics as small potholes, steep wooded hills,

gravel deposits and small intermittent streams. In addition, the presence of caves adds considerable interest. The area is generally undeveloped and because of the natural beauty values, should probably remain relatively undeveloped in terms of the recreational activities. About 250 acres should be acquired. Alternative sites in this general area will be evaluated.

Fish Lake Area (6)

Although there is a small public area adjacent to the lake, there is a need for acquiring enough acreage at this location to include the historic Kehl winery and other buildings, extensive hiking and horseback trails, improved access to Fish Lake and an enlarged waterfront. The major activities to be provided include: picnicking, sightseeing, boating, swimming, fishing and hiking. Total acreage to be acquired is about 550 acres.

Lower Yahara River Area (7)

The site of approximately 150 acres is characterized by wide areas in the river with adjacent wetlands. Although the area tract has a minimum of varying natural features, there is ample opportunity for development on the upland areas. The canals that have been constructed might be of value in creating boat slips or a marina. The area also provides an excellent access to Lake Kegonsa via the Yahara River. This area is not a high priority site because of the limited recreation potential; however, it is important that it be preserved.

Additions to Existing Parks

First Priority

Brigham Park (8)

An additional 60 acres would bring this area up to regional park standards and provide picnic areas, hiking trails and bridle paths. In addition, the views which are a major asset, could be permanently preserved.

Festge Park (9)

Another 90 acres to the north and east should be acquired in order to provide a fuller range of activities that are in demand such as: group picnic areas, additional nature and hiking trails, and limited camping. As pointed out in Section X, the park could become an ideal winter sports area providing tobaggan runs, some limited skiing and smowmobile trails.

Stewart Park (10)

This is probably the county's most attractive park in terms of scenic features and the range of facilities. An additional 80 acres should be acquired on the north and west.

Second Priority

Goodland Park (11)

Should be enlarged where possible to provide the necessary backup acreage for the camping. In addition, large group picnic areas could be provided at this site. About 20 acres should be added to the existing park.

Herman Eisner Park (12)

Although undeveloped at the present time, this 50-acre park should be expanded to at least 130 acres.

Cam-Rock (13)

The newly acquired park area located on extreme eastern boundary of the County should be expanded in the future to the west to include some of the hilly areas overlooking the Rockdale Millpond. In addition, another access to the park area could be provided. The total acreage of the present park is 197 acres. It is recommended that another 100 acres be acquired.

RESOURCE PROTECTION AREAS

The areas represent those lands in the county that have major values that should be preserved. Generally, these values may be classified as natural resource, historical, scientific or scenic.* Obviously some areas may be a combination of two or three of these.

First Priority Areas - These areas are those that represent the greatest potential in helping to preserve or enhance the environment. Because of the special contribution that the wetlands and marshes make toward control of environmental problems, as described in Section II, and because of the continuing loss of these important areas, they should be given the highest priority.

Six Mile and Spring Creeks (14) **

This is a high priority area because of the growing urbanization in the entire watershed. If the quality of Lake Mendota is to be improved at all, control of the quality of the runoff and protection of the wetlands are imperative.

The acquisition should include not only the existing Eighmy Park but the stream valleys and extensive wetlands adjacent to them including the complete Waunakee Marsh west of the Village of Waunakee (about 400 acres is now owned by the Department of Natural Resources).

^{*}Sometimes broadly categorized as intrinsic and extrinsic. See Section II, on environmental corridors discussion and map.

^{**}Numbers refer to location on "Open Space Plan" on page 135.

Nine Springs Creek Greenbelt (15)

The wetlands and marsh areas adjacent to the creek south of Madison stretching from Verona Road on the west to Upper Mud Lake on the east form a natural greenbelt or band of open space that should be preserved. As indicated on the Plan for Parks and Open Spaces, presently there are a series of public ownerships that form a good nucleus on which to build: the Dunn's Marsh area at the intersection of Seminole Highway and the I.C.R.R. tracks; the U.W. Arboretum; Nevin Fish Hatchery (over 200 acres); Madison Metropolitan Sewage District (over 400 acres) and the Department of Natural Resource ownerships on Upper Mud Lake (113 acres). The proposed area is coordinated with the park proposals and recommendations as shown on the Master Plan for Parks for the City of Madison. The total additional acreage of this greenbelt amounts to over 670 acres. This greenbelt area should be coordinated with and made a part of the Proposed Environmental Awareness Center as this concept develops.

Yahara River Area (16)

Continued acquisition of this invaluable resource should be encouraged. Not only is this entire marsh a key element in the control of lake pollution, but also has the great potential for controlling and guiding the anticipated urbanization. The state, county and City of Madison presently own or control over 1,200 acres. The State should continue to be the leader in acquiring these lands, however the County's role should be one of cooperating in providing areas that help to complete the total acquisition.

The control or acquisition should extend from Lake Mendota to the Village of DeForest. The wetlands and lands subject to flooding should be acquired as soon as possible. The general extent of this proposal may be noted on the map "Open Space and Park Plan."

Token Creek (17)

The area adjacent to Token Creek from the Yahara River to the Token Creek Millpond (including the area presently owned by the Wisconsin DNR) should be further protected.

Second Priority

While these areas are not the top priority areas, it should be emphasized that public control is essential for their protection immediately.

Marshall Area (18)

The millpond and general area adjacent to the Maunesha River should be protected as shown on the plan. The open space should include the 30-acre county park and be coordinated with existing Department of Natural Resources holdings near the Deansville Marsh. Approximately 140 acres should be acquired or controlled through zoning or easements in order to: protect the watershed, prevent sedimentation of the mill-pond and control the flooding of the creek. The interesting drumlins which are characteristic of this glaciated area should also be protected.

Lake Kegonsa Area (19)

An extensive area comprised of wetlands, river property, lake shorelands, a state park, a county park and parcels owned by the Department of Natural Resources, this proposed protection area extends from the eastern shore of Lake Waubesa to the southern shore of Lake Kegonsa, then south along the Yahara River to the county line. The area contains substantial wetlands adjacent to Door Creek, the Yahara River and Lower Mud Lake. Acquisition of this resource area would provide a major check on extensive urbanization and uncontrolled sprawl. The area should contain about 1100 acres.

Black Earth Creek (20)

This area represents a very important acquisition in terms of preserving or protecting a wide range of natural resources. First, the proposal encompasses the Black Earth Creek which is a spring-fed trout stream. The Wisconsin Department of Natural Resources presently owns about 60 acres adjacent to the creek where trout ponds are maintained. In addition the DNR maintains considerable acreage adjacent to the Creek as fishing easement. This permits public use while the land remains in private ownership. Dane County's Festge Park is close by north of highway 14; an interesting scientific area exists in Section 11 of the Town of Cross Plains where additional springs feed Black Earth Creek; and finally, an area designated as part of the Ice Age National Scientific Reserve (160 acres) lies in Sections 12 and 13 of Cross Plains. Considerably greater acreage might be acquired by the

Department of Interior relative to the Ice Age National Reserve in order to preserve substantial parts of the Terminal Moraine that extends diagonally across western Dane County (see "Glacial Features" Map on page 4.) With these numerous features, it is essential that all units of government cooperate in acquiring as much of the area as possible. The County should be responsible for about 1000 acres.

Pheasant Branch Creek and Marsh (21)

This area is essential to the protection of the quality of Lake Mendota and particularly the Baskerville Harbor area. The mouth of Pheasant Creek is badly silted as a result of erosion on the Steep creek banks and other runoff. The current improvement and dredging project will be a significant contribution not only toward helping the quality of Lake Mendota, but in enhancing the recreational qualities of the creek and harbor. About 350 acres of land from the mouth of the creek to the large wetland area in the Towns of Middleton and Springfield should be acquired.

Additional Areas

Numerous other areas throughout Dane County deserve to be protected because of their cultural, historic or scientific value. Many of these are identified on the plan and described in the Appendix. Others that should receive particular attention are:

1. The <u>drumlin area</u> in most of Eastern Dane County (described in Section I) is unique in the entire world. These geologic features are many times wooded and incapable of cultivation due to topography. Scattered sites with drumlin formations should be preserved and left undeveloped.

- 2. Even though a small percentage of the Lake Koshkonong shoreline area is within Dane County it is particularly important for two reasons: (1) the size of the Lake (10,460 Acres) can help meet the County's demand for water recreation, and (2) the highest quality shoreline is in Dane County. Special effort should be made to acguire an access to the lake with some accompanying open land for the development of a small park and beach. The general area of the long, linear strip of waterfront and the ends of town roads would be ideal in that it is sparsely developed and a beach exists. Also the high small triangle of land at the intersection of Wis. 106 and the town road that borders Dane and Jefferson Counties provides a panoramic view.
- 3. The identified historic and scientific areas and the areas of Indian antiquities should be acquired as resources permit. Special note should be made as development takes place in these areas or as they transfer ownership.
- 4. Door Creek from the north shore of Lake Kogonsa up to the general area south of Sun Prairie following the general outline of the environmental corridor would form a western greenbelt for the growing Madison area. This linear corridor ties together numerous drumlins, wetlands, and the 36-hole Yahara Hills golf course. In addition, the important corridor may provide the basis for a drainage system as urbanization pushes eastward.
- 5. The area adjacent to Starkweather Creek and the wetlands and excavations on the east side of

the City of Madison should be studied in detail in order to provide a linear open space area that can help to direct the quality of urban growth that is expected to be generated by the development of East Town Shopping Center and other growth stimulants, such as the 151 improvement, in the area.

- 6. The ridge lands and steep slopes marking, in part, the divide of the Mendota Drainage Basin (see the Environmental Corridor Map) should be earmarked for protection. Not only are these areas difficult and expensive to develop but they can be useful in providing the needed open areas prior to the expected extensive urban growth in the area.
- 7. Other significant resource areas that are important are indicated on the Plan that follows. These are generally floodplains, wetlands, or other areas of geologic or historic value. Coordination with the Wisconsin DNR and their scattered wetland program would assist the County in preserving these assets particularly in Eastern Dane County.

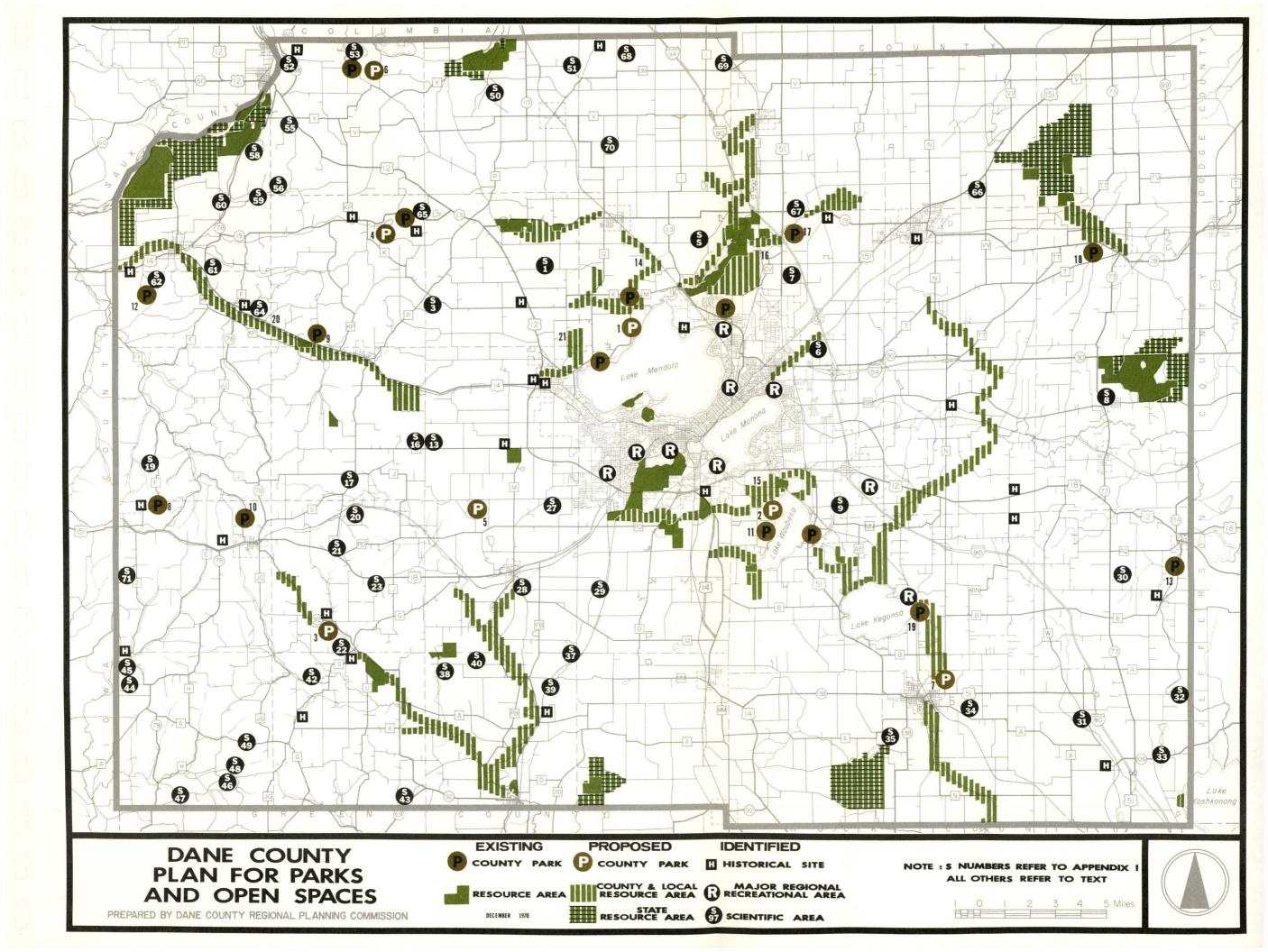
A final word on the acquisition program and the established priorities: Opportunities to buy alternate sites or to acquire lands "out of phase" should be carefully investigated. It is not unusual for unforseen opportunities to arise or for alternative parcels to become available. For example: If the Verona Home property were to be considered for some other use, the feasibility of utilizing the area for open space should be studied in terms of how it fits into the total plan.

Also, the opportunities for the multiple use of certain areas will certainly arise. The utilization of solid waste sites as future recreation areas is a concept that is gaining acceptance nationwide. If the County develops the proposed Water Resource Management Plan large areas of open space suitable for certain types of recreation could be made available.

TABLE 10 SUMMARY OF OPEN SPACE PROPOSALS*

							Cost Sharing	g
				Estimated				To all
County Park	Recreation Areas No	on Map	Acres	Cost per Acre	Total Cost	HUD or LAWCON	ORAP	Local
	Lake Mendota	1	200	\$2,500	\$ 500,000	250,000	125,000	125,000
First	Lake Waubesa	2	190	2,000	380,000	190,000	95,000	95,000
Priority	Mount Vernon	3	250	1,000	250,000	125,000	62,500	62,500
	(Deer Creek)		640		1,130,000	220,000	02,000	
	Indian Lake	4	500	1,200	600,000	300,000	150,000	150,000
Second	Richardson Cave	5	250	1,500	375,000	187,500	93,750	93,750
Priority	Fish Lake	6	550	1,800	990,000	495,000	247,500	247,500
	Lower Yahara	7	1,450	1,700	255,000	127,500	63,750	63,750
			2,090		\$3,350,000			
Additions to	Existing Parks							
	Brigham Park	8	60	1,000	60,000	30,000	15,000	15,000
First	Festge Park	9	90	1,000	90,000	45,000	22,500	22,500
Priority	Stewart Park	10	80	1,500	120,000	60,000	30,000	30,000
			230	2	270,000	135,000	67,500	67,500
	Goodland Park	11	20	1,000	20,000	10,000	5,000	5,000
Second	Herman Eisner	12	80	900	72,000	36,000	18,000	18,000
Priority	Cam-Rock	13	100	1,500	150,000	75,000	37,500	37,500
			200		242,000	121,000	60,500	60,500
Total Park A	rea Proposals		2,520		\$6,292,000	3,146,000	1,573,000	1,573,000
County Resou	rce Areas							
	Six Mile Creek	14	1,000	300	300,000	150,000	75,000	75,000
First	Nine Springs Greenbelt	15	700	300	210,000	105,000	52,500	52,500
Priority	Yahara River	16	200	300	60,000	30,000	15,000	15,000
	Token Creek	17	200	200	40,000	20,000	10,000	10,000
			2,100		610,000	305,000	152,500	152,500
	Marshall Area	18	140	200	28,000	14,000	7,000	7,000
Second	Lake Kegonsa	19	1,100	300	390,000	195,000	97,500	97,500
Priority	Black Earth Creek	20	1,000	200	200,000	100,000	50,000	50,000
	Pheasant Branch	21	350	300	105,000	52,500	26,250	26,250
			2,590		723,000	361,500	180,750	180,750

^{*} Not including Scientific, Historic or Special sites



SECTION XII

IMPLEMENTATION

IMPLEMENTATION

Acquisition and Alternative Methods of Providing Open Space

In the provision of open space for recreation and conservation purposes, numerous methods can be utilized. Direct fee simple purchase is the preferred method in that it provides complete control and is without limitations. However, public agencies may not always be in the position to finance the acquisition of all the recreation land that is needed. In addition, outright ownership may not always be necessary to provide for a particular function or need. The following discussion is concerned with outlining various methods of implementing the objectives and proposals.

- Purchase As indicated previously, this is usually the preferred method of acquisition for general park purposes. It may be accomplished by either negotiation or condemnation. In order to avoid the adverse image and the added expense, condemnation should be avoided.
- 2. Option of Tax Delinquent Lands A frequent method of land acquisition, this method has been successfully used in the past by the County.*
- 3. Excess Condemnation Areas adjacent to roads and highways could be acquired both for recreation and scenic easement purposes at the time that the Rights-of-way are acquired.
- 4. <u>Donation</u> Civic minded people or groups may give land outright for public use. Private philanthropy should be encouraged.

^{*}In Dane County, 2,663 certificates were issued in October, 1969 against parcels that were delinquent in taxes or special assessments for 1968.

- 5. Purchase of Rights The governmental unit may buy certain limited development rights or conservation easements; the owner retains the title but must keep the land in an open space state. Scenic and fishing easements are most often acquired by this method.
- 6. Zoning Through the police power the County or a Municipality establish agricultural districts or cluster development zones which strictly limit urban development and may create open spaces. The nonpermanance of zoning districts is the chief weakness of relying too heavily on this method. However, new shoreline and floodplain zoning regulations will go much further in preserving open space adjacent to lakes and rivers.
- 7. <u>Subdivision Regulations</u> Open spaces or park sites as well as improved site design may be required by ordinance with the effect of providing needed recreation areas. This method is most effective in providing small parcels, greenways, or drainageways.
- 8. Official Map Park spaces may be reserved on the official map; however this method is more of a declaration of public intent, rather than actual acquisition.
- 9. Municipal Service Control Little used in the past, but the method with greatest long range potential for directing urbanization. Withholding, limiting, or directing the extension of utilities or highway routes could be a major implementing device not only in implementing open space proposals but in actually controlling the quality of the whole environment.
- 10. <u>Sanitary Landfills</u> May be used to provide open spaces for recreation. This would require long range, close cooperation between various levels of government; however, it has been successful in other areas.

- 11. Taxing Power New policy in Taxation can give a preferential assessment to land that is used for agriculture, recreation or left as open space. At the present time, there is no statutory authority for localities to hold land as open space; nevertheless the County should study the advantages of this approach and seek ways of accomplishing it. Some states provide tax incentives to owners for land that is to be dedicated to public use.
- 12. Grants in Aid The lack of financial resources is usually the major deterrent to providing adequate parks and open spaces. The wide range of state and federal aid programs should be fully utilized by local governments. Appendix II is a list of the service and aid programs that local bodies may participate in.
- 13. Encouragement of Private Action through conservation oriented groups such as Nature Conservancy, Southern Wisconsin Wetlands Association and similar types of organizations.

APPENDIX I

Natural Areas and Features of Scientific Interest

 $\label{eq:appendix} \mbox{\ensuremath{\mathtt{APPENDIX}}\ I}$ Natural Areas and Features of Scientific Interest $^{\!1}$

AREA NAME	LOCATION	ACRES	GEN. DESCRIPTION, GEOLOGY, COMMENTS
Springfield Township	8N 8E		
1. Missouri Tavern Prairie	SWSE14	5	Prairie remnant on land unfit to cul- tivate - good number species.
2. South of Waunakee Marsh Wild * Life Area			
3. Mainholz Woods	SWNE30	20	Oak hickory woods Bot. No. 1079 - Form A
Westport Township	8N 9E		
4. Bolz Woods *	S½NE, N½SE16		Oak woods along 6-mile creek. Spring flora
5. Chapman Prairie	NWSE, NWSW11	20	Exc. dry prairie on glacial till Bot. #30 Rich in species
Burke Township	8N 10E		
6. Burke Prairie	27 & 34 along RR		Deep soil prairie, adj to oak opening, Botany files. Fair
7. Airport Woods	W 10A of NWSW Sec. 16	10	Oak Woods - spring flowers - Adj. to Hwy. 51 - small

¹State of Wisconsin Scientific Areas Preservation Council - 1969
*These areas are not numbered on the Plan since they are a part of other proposals

	AREA NAME	LOCATION	ACRES	GEN. DESCRIPTION, GEOLOGY, COMMENTS
	Deerfield Township	7N 12E		
8.	Barn Swallow Colony	Hwy. 73 and BB		Barn swallow colony on barn exterior - Long history of use.
	Blooming Grove Township	7N 10E		
9.	McFarland Quarry	SWSW26	20	Limestone quarry collection area for calcite and chert nodules
	Madison Township	7N 9E		
10.	Second Point Woods *	NWNE16	10	Red oak woods
11.	Greene Prairie & Oak Opening*	S. of Beltline	70	Sandy soil prairie, different gradients, restored from farm land
12.	Curtis Prairie *	Adj. to Beltline N. side	60	Silt loam prairie, different gradients, restored from farm land
	Middleton Township	7N 8E		
13.	Johnstown Terminal Moraine	W119		Cut in prominent terminal moraine wooded small park, private
14.	Pheasant Branch Creek, Woods	1,11,12		Bot. 4032, 4046, 4020 creek cut through lake terraces. Bottom land Forest NWSE1
15.	Middleton-Black Earth RR Prairie *			Along RR between Black Earth & Middleton managed by Game Mgt.

AREA NAME	LOCATION	ACRES	GEN. DESCRIPTION, GEOLOGY, COMMENTS
Cross Plains Township	7N 7E		
16.Camel's Back Hill W. of Johnstown Moraine	Co.S, 24		Sandstone-limestone contact in roadcut, just east of terminal moraine, $E^{1}_{4}24$ $W^{1}_{4}19$
17.Norway Pine Bluff	NWNW34	30	Sandstone outcrop with Norway Pine, birch, red oak
18.Festge Springs *	NW11		Springs into Black Earth Creek
Vermont Township	7N 6E		
19.Talinum Hill	NESW29	3	Sandstone outcrop, prairie on steep hill, small area, good quality - A frame development.
Springdale Township	6N 7E		
20. Klevenville Quarry	NW 3	10	Massive St. Peter Sandstone quarry
21. Springdale Fossil Area	SESW9		Highway 18 & P Complete fossils in Platte- ville - limestone
22. Mt. Vernon Sandstone Butte	SE33	60	Wooded outcrop, northern species
23. Galena Limestone Quarry	NWNW23		On Erb Road - sunflower fossils in Galena formation.

	AREA NAME	LOCATION	ACRES	GEN. DESCRIPTION, GEOLOGY, COMMENTS
	Verona Township	6N 8E		
24.	Madison School Forest *	SE31,SW32	200	Mixed oak woods, Bot. No. 1041, part scientific area
25.	Richardson's Cave *	NE5		Cave in limestone, mud filled
26.	Sugar River Meadows *	NE 20	100	Low marsh, meadow, springs
27.	Raymond Road Prairie	NWNE 2		Dry prairie
28.	Terminal Moraine & Out- Wash Quarry	E ¹ 222		Quarry & pond, excellent rock collecting area in outwash gravel adjacent to terminal moraine.
	Fitchburg Township	6N 9E		
29.	Vroman Woods	SWNW20	26	Red oak, cherry, hardwoods - for sale 1969
	Christiana	6N 12E		
30.	Hanson Prairie	SENW15	3	Dry to dry-mesic, small prairie. Needs management. Bood quality. Best dry prairie in eastern Dane County.
	Albion	5N 12E		
31.	Albion Oak Opening near Saunder Dreek	NWNW16	20	Grazed but well known oak opening, large oaks, scenic

AREA NAME	LOCATION	ACRES	GEN. DESCRIPTION, GEOLOGY, COMMENTS
32. Busseyville Woods - Kosh- konong Creek	SESE11, NE12	35	Dry Mesic to wet mesic forest. Bot, 1083 and 4030
33. Sweet Lake in private preserve	NE23	100+	Deep marsh with rolling oak hills
Dunkirk	5N 11E		
34. Sundby Quarry	NESW10		Best outwash gravel pit in eastern Dane Co.
35. Grass Lake	19, 18	70	Deep marsh, habitat for a variety of birds
Oregon	5N 9E		
36. Story Creek *	NE31		Story Creek - ½ mile fair trout stream
Montrose	5N 8E		
37. Sayles Woods	N ¹ 2NE1	35	Xeric oak woods; Bot. 1209, Bur, white, black and red oak mixture medium age
38. Paoli Woods	NWSE6	45	Xeric oak woods; some cutting Bot. No. 1002 outcroppings, Sandstone outcrop, small
39. Basco Prairie	Along RR near ctr.	11	Deep soil high prairie, Bot. No. 27, Low RR prairie SE-SE22
40. Legler Woods	NWNW4	10	Closed oak woods, Bot. No. 1210, clearing and cutting

AREA N	AME	LOCATION	ACRES	GEN. DESCRIPTION, GEOLOGY, COMMENTS
Primrose		5N 7E		
41. Witwer Woods *		N½NW24	50	Dry oak woods, Bot. No. 1003, mixed oaks cherry elm, moderate age some cutting 15 yrs. ago. Rich understory. Pigs rooting
42. Haag Woods		N ¹ ₂ 8	130	Red oak, maple-mixed, hardwoods-br. Sugar river across road, Bot. No. 1001
43. Peerless Rd. O	Outcrop	35, 36	25	Prairie species, open cliff species, zeric oaks on sandstone.
Perry		5N 6E		
44.Stennan Pines		SW46	60	White pine on sandstone, mt. maple, grazed
45.Bergum's Cliff		NW6	10	Shaded sandstone cliff along Blue Mounds Branch - ferns, oaks, prairie
46.Jelle Woods		NWNW35	15	Ash, maple, basswood, red elm Bot. No. 1005 & 1006
47.Jeglum Woods		SWSW33	20	Maple, red and white oak - some cutting
48.Cactus Prairie		Center 26	25	Dry prairie, sandstone outcrop, juniperus horizontalis, cactus
49.Bigler Prairie		Along road W1/424	3	Small prairie patches

AREA NAME	LOCATION	ACRES	GEN. DESCRIPTION, GEOLOGY, COMMENTS
Dane Township	9N 8E		
50. Fellows Woods	SE9, E-16	200	Oak woods Bot. #1027 - Best part SESE9 and SWSE of 16
51. Eden Glen Woods	SWSENE, NENE12	60	Oak woods - N. part W. ash, elm, basswood - balance red and white oak.
Roxbury	9N 7E		
52. Carlson Cedar Forest	NE6	20	Steep SW-facing slope covered with low juniper and red cedars few prairie species (See also Cactus Rock to west)
53. Marx Pond	NE4	80	Emergent vegetation - shorebird habitat - grazed by horses
54. Fish Lake *	3, 4		Emergent vegetation, cisco population, Glacial Kettle Lake
55. Quarry	NENE19		Corner of Dunlap Hollow Rd. and US 12
56. Cactus Prairie	NESW31	5	Cactus, sand prairie, cliff species on sandstone
Mazomanie	9N 6E		
57. Mazomanie Mesic Prairie *	(9N)NWNE24 W. of RR	6	Rich mesic prairie with scattered black oaks - easy access

AREA NAME	LOCATION	ACRES	GEN. DESCRIPTION, GEOLOGY, COMMENTS
AREA MANE	LOCATION	ACRES	GEN. DESCRIPTION, GEOLOGI, COMMENTS
58. Beeche's Woods	NWNW25 (9N)	30	Mesic woods to zeric woods with dry prairie on top.
59. Dunlop Hollow Fen	(8N)N1 N. of stream		Cattail and grass-sedge marsh N. of Dunlop Creek several small springs, beaver dams
60. Mazomanie RR Prairie	(8N)N3/4-2 S. of Dunlop Hol- low Rd. along RR		Strip of tall grass mesic prairie on both sides of RR
61. Duhr Prairie - Glade	W ¹ 2SE15 (8N)	15	Dry prairie on bluffs, red cedar
Black Earth Township	8N 6E		
62. Lark Sparrow Site	NE NE20	10	Small, shallow sand blow, scattered bl. oak pastured - Not botanically significant
63. Black Earth Prairie *	NESW27	5	Rich low to mesic prairie, between county F and Fensenfeld Rd.
64. Black Earth Road Cut	SWSW25		A complete section of the Cambrian Formation worms stone fossils - in area of dendritic drainage pattern - scattered red cedars on "goat pastures."
Berry Township	8N 7E		
65.Marx Prairie	5½ SE1 NESE1	35	South-facing hill, thin black soil over lime-stone, zeric forest, cedar glade, prairie

AREA NAME	LOCATION	ACRES	GEN. DESCRIPTION, GEOLOGY, COMMENT
Bristol Township	9N llE		
66. Sun Prairie Quarry	34		Good fossils in Platteville-Galena lime- stone quarry
Windsor Township	9N 10E		
67. Pederson Springs	SWSE33	5	Springs, creek, marsh spring pond, 50 ft. in diameter near buildings - flow 500 g.p.m.
Vienna Township	9N 9E		
68. Ephermeral Ponds	NENW, SESE Sec. 4, SWNE Sec. 9, NWNE 16; NWNW22; NWSE22;		Shorebirds - see aerial photos for locations - largest in Sec. 4,9
69. Morrisonville Prairie	NESE Sec. 1		Fair mesic prairie along tracks in this general area. Much bluegrass and weeds but potential still good. Bot No. 118
70. Hauser Rd. Prairie Blue Mounds Township	SESW 20	3	Dry mesic prairie, very rich prairie facing north, thin limy soil
71. Thousand Rocks Point Prairie	NWNW19	20	Dry prairie on thin soil over limestone

APPENDIX II

State and Federal Aid Programs

Regarding Open Space

State and Federal Programs and Services which Provide Assistance to Local Units of Government.

Housing and Urban Development Act of 1965 (PL89 - 117)

Purpose: To assist in the acquisition and development of open space for park, recreation, conservation, scenic or aesthetic purposes.

Cost-sharing: 50% Federal - 50% Other. Demonstration beautification grants may be up to 90% federal.

Eligible Agencies: All units of government with taxing authority and a comprehensive plan.

Application: Administration is with the Regional Office. Contact Regional Administrator, 360 North Michigan Avenue, Chicago, Illinois 60601.

Outdoor Recreation Act Program (ORAP - 200) Chapter 353 Laws of 1969

Purpose: To assist in the acquisition of land for park and recreation uses, and pollution control.

Cost-sharing: 50% State - 50% Local.

Eligible Agencies: All units of government.

Application: Department of Natural Resources, Bureau of Planning and Aids, Box 450, Madison, Wisconsin 53701.

County Forest Aids - Outdoor Recreation Act Program, Wisconsin Statutes 23.09 and 28.11

Purpose: Provide cost-sharing for the development of outdoor recreation facilities including, camping areas, picnic sites, sanitary facilities, etc. on County Forest Land.

Cost-sharing: 50% State - 50% County. \$80,000 available annually.

Eligible Agencies: 27 Central and Northern Wisconsin counties with lands entered under the County Forest Crop Law.

Application: Department of Natural Resources, Bureau of Forest Management, Box 450, Madison, Wisconsin 53701.

County Conservation Fund - Wisconsin Statutes 23.09 (18)

Purpose: To improve fish and game habitat and to assist in the acquisition and development of related facilities such as rifle ranges, water access, nature trails, etc.

Cost-sharing: 50% State - 50% Local.

Eligible Agencies: All counties in Wisconsin. Submits and conservation clubs by formal agreement with county.

Application: Department of Natural Resources, Field Offices or Department of Natural Resources, Box 450, Madison, Wisconsin 53701.

Access to Public Water - Wisconsin Statutes 23.09 (15) (a)

Purpose: To assist local units of government in acquiring or developing access to public water including access roads, parking and toilet facilities.

Cost-sharing: 50% State - 50% Local.

Eligible Agencies: All Wisconsin villages, towns, cities and counties.

Application: Department of Natural Resources, Bureau of Fish Management, Box 450, Madison, Wisconsin 53701.

Land and Water Conservation Fund Act - LAWCON PL88-578 and PL 90-401

Purpose: Encourage the acquisition and development of land for outdoor recreation purposes, including parks and open space. Development may include facilities to make the area usable for public outdoor recreation purposes.

Cost-sharing: 50% Federal - 50% State.

Eligible Agencies: Towns, counties, cities and incorporated villages.

Application: Administrator with the Department of Natural Resources, Bureau of Planning & Aids, Box 450, Madison, Wisconsin 53701.

Municipal Water Safety Patrols - Wisconsin Statutes 30.79

Purpose: To provide necessary enforcement to insure the safety of the water activity and water-oriented public and obtain compliance to laws.

Cost-sharing: 75% State - 25% Local of the cost of operation. (Training and informational services also provided.)

Eligible Agencies: Cities, counties, towns, villages.

Application: Department of Natural Resources, Bureau of Law Enforcement,

Hill Farms State Office Building, Box 450, Madison, Wisconsin 53701.

Artificial Lakes Creation - Outdoor Recreation Act Program, Wisconsin Statute 92.18

Purpose: Assist Soil and Water Conservation Districts with cost-sharing in the acquisition of land and development of multiple purpose structures on approved PL 566 projects for recreational lake creation.

Cost-sharing: State share up to 50%, local share will vary from 12.5 to 25%.

Eligible Agencies: Soil and Water Conservation Districts.

Application: Department of Natural Resources, Bureau of Fish Management,

Box 450, Madison, Wisconsin 53701.

Shoreland and Floodplain Zoning Programs

Purpose: To reduce flood damage and improve aesthetic value of shorelands.

Cost-sharing: Up to \$1,000 per year for counties that have ordinances which

meet program standards.

Eligible Agencies: All Wisconsin counties.

Application: Department of Natural Resources, Bureau of Water and Shoreland

Management, Box 450, Madison, Wisconsin 53701.

County Recreational Planning Assistance - Wisconsin Statutes 23.09 and 28.01

Purpose: To assist the counties in the development of high quality forest recreational areas and associated facilities on lands under the

County Forest Law.

Cost-sharing: 100% of the cost of County Forest Recreation Plans and specific

project site plans.

Eligible Agencies: Counties with forest lands entered under the County Forest Law.

Application: Department of Natural Resources, Bureau of Forest Management,

or local state forester.

APPENDIX III

The following brief analysis represents a method of making a comparison of the areas required for selected recreation activities, the back up acreage with the overall standard of fifteen acres per 1000 population. Obviously, numerous assumptions were necessary due to the overlapping of activities and areas. It is apparent that some of the park areas would remain as undeveloped open space and some of the resource protection areas would be used for parking areas, boat ramps and trails.

RECREATION ACTIVITY DEMANDS FOR DANE COUNTY

Activity	Land Acres		n 1990
		Backup	
(1)	Primary Use	Acres	Total
Group I: (1)			
Pleasure Driving	N/A	N/A	_
Bicycling	N/A	N/A	
Hiking (2)	27	267	294
Nature Walking (2)	13	133	146
Picnicking	119	1350	1469
Camping	27	484	511
Skiing	100	-	100
Swimming	N/A	-	-
Fishing	N/A	-	_
Boating	N/A	_	_
Water Skiing	N/A	-	-
Canoeing	N/A		-
Golf	650	_	650
SUB TOTAL	936	2234	3170
Group II: Horseback Riding (3)			
Hunting (3) Snowmobiling Ice Skating Outdoor Sports and Games	5080	_	5080
Non recreation resource areas			
TOTAL OPEN SPACE REQUIRED	6016	2234	8250
EXISTING (1970) PARK ACREAGE	1040		1040
TOTAL ADDITIONAL SPACE TO BE ACQUIRED			7210

⁽¹⁾ Group I activities overlap with Group II to some extent.

⁽²⁾ Assumption: Trails are 10' wide with backup area of 50' on each side.

⁽³⁾ Areas for which no standard exists.

TOTAL OPEN SPACE DEMAND IN DANE COUNTY FOR 1990

Recreation Activity	1990 Total Demand in Acres of Land	Public Acquisition	Other Acquisition
Driving			_
Sightseeing			_
Bicycling		_	
Hiking	1,000	1,000 ²	0
Horseback Riding		_	
Snowmobiling		_	
Ice Skating			_
Nature Walking	400	360-400	0-40
Hunting	<u>-</u>	_	_
Picnicking	3,000	3,000	0
Camping	10,300	7,000-8,000	2,300-3,300
Skiing	300	100-200	100-200
Swimming	600	350-450	150-250
Boating		-	_
Fishing	-	-	_
Water Skiing	_	<u> -</u>	-
Canoing	_	_	-
Sailing	_	_	_
Scuba Diving	» - · · ·	-	_
Golf	3,100	1,500-1,600	1,500,1,600
Tennis			
Sub-Total	18,700	13,980	4,720
Non-Recreation			
Open Space and Activities for	30 611	20 644	0
which no standards exist.	30,644	30,644	0
TOTAL	49,344 Acres	44,624	4,720
	State County		50A/1000 pop./1990) 15A/1000 pop./1990)
	Local-Urba	an 8,319 (at	14A/1000 pop./1990)
	Local-Othe	er 555 (at	10A/1000 pop./1990)

¹ Commercial or Private

 $^{^{2}}$ Division of responsibility between public and other was estimated based on existing trends.