



2016 MANITOWOC COUNTY PARK AND OPEN SPACE PLAN



**MANITOWOC COUNTY
PARK AND OPEN SPACE PLAN
2016**

Prepared by
Manitowoc County Planning and Park Commission

MANITOWOC COUNTY PLANNING AND PARK COMMISSION

Melvin Waack
Jim Falkowski
Chuck Hoffman
Dave Korinek
Mary Muench
Norb Vogt
Don Zimmer

STAFF

Sandi Christman, Grant Writer
Cathy DeLain, GIS Coordinator
Marc Holsen, Highway Commissioner
Gary Robinson, Parks Superintendent

TABLE of CONTENTS

CHAPTER I - INTRODUCTION

PURPOSE	2
MISSION	2
VISION	2
AUTHORITY	2
PLAN FORMAT	3

CHAPTER II – GENERAL NATURAL AND CULTURAL RESOURCES

NATURAL RESOURCES	6
Topography	6
Climate	7
Water Resources	7
Soils	10
Major Landscape Groups	10
CULTURAL RESOURCES	14
Present Trends in Population Change	14
Components of Population Change	14
Population Growth of Minor Civil Divisions	15
Age and Male/Female Composition	19
Population Distribution	20
Population Projections	20

CHAPTER III- PARK AND OPEN SPACE PLANNING GUIDELINES

GENERAL PARK AND OPEN SPACE PLAN POLICIES	25
General Park and Open Space Goals and Objectives	25
General Park and Open Space Planning Principles	26
General Standards	27
Site Selection Criteria	27
Jurisdictional Responsibility	28

CHAPTER IV – PARK AND OPEN SPACE PLAN FOR THE CITIES

PARK AND OPEN SPACE PLAN POLICIES FOR CITIES	30
City of Kiel Park and Open Space Plan	34
Inventory of Existing Recreation Facilities	34
Deficiencies and Recommended Plan	40
Summary of Priorities	42

CHAPTER V – PARK AND OPEN SPACE PLAN FOR THE VILLAGES

PARK AND OPEN SPACE PLAN FOR VILLAGES	46
Introduction	46

Recreation Standards for Villages.....	47
Village of Cleveland Park and Open Space Plan	48
Village of Francis Creek Park and Open Space Plan	51
Village of Kellnersville Park and Open Space Plan.....	52
Village of Maribel Park and Open Space Plan	54
Village of Mishicot Park and Open Space Plan	56
Village of Reedsville Park and Open Space Plan	59
Village of St. Nazianz Park and Open Space Plan.....	61
Village of Valders Park and Open Space Plan	63
Village of Whitelaw Park and Open Space Plan	65
CHAPTER VI – PARK AND OPEN SPACE PLAN FOR MANITOWOC COUNTY AND REGIONAL FACILITIES	
PARK AND OPEN SPACE PLAN FOR MANITOWOC COUNTY AND REGIONAL FACILITIES.....	68
Introduction	68
Standards for County and Regional Facilities.....	69
Manitowoc County Park and Open Space Plan	72
Inventory of Existing Facilities.....	72
Analysis of Deficiencies	79
Regional Facilities Plan and Priorities	80
Special Facilities and Activities	84
Activity Standards.....	85
Discussion on Selected Activities	89
Town Recreation Needs.....	90
CHAPTER VII – IMPLEMENTING MEASURES	
IMPLEMENTING MEASURES	94
Methods of Acquiring Recreation Land	94
Regulatory Devices Available to Local Governments.....	95
State and Federal Aid Programs Pertaining to Recreation and Open Space	96
 APPENDIX A – ADOPTION OF RESOLUTIONS.....	 98
APPENDIX B – ADA STUDY OF COUNTY PARKS AND PUBLIC ACCESS.....	109
APPENDIX C – ACCESSIBILITY DEFINITIONS AND GUIDELINES.....	123

This page intentionally left blank

CHAPTER I

INTRODUCTION

PURPOSE

The primary purpose of this report is to provide guidance to the County, Cities, Villages, and Towns of Manitowoc County in their efforts to meet the recreation needs of the people and to aid in preserving the bountiful natural resources of the area.

By treating nearly every part of Manitowoc County within a single report such as this, we have a unique opportunity to coordinate the development and preservation efforts of the numerous levels of government. Each level of government should, ideally, provide only a certain part of the spectrum of parks or open space opportunities. This plan is a vehicle of coordination whereby a municipality can focus its efforts on specified local goals secure in the knowledge that other governmental units are providing complementary, not duplicate facilities.

Since funds for parks and open space are seldom a high governmental priority, it becomes doubly important to carefully plan for the use of these funds which are available. The preparation of study and plan will help to ensure the prudent expenditure of governmental funds for recreation and open space programs in the county.

MISSION

To responsibly manage natural resources; provide excellent parks, facilities, and recreation opportunities for the community; and ensure preservation and enhancements of park land, trails, waterways, and public open spaces for the benefit of citizens, visitors, and future generations.

VISION

We will strive to deliver recreation and leisure opportunities that will improve the health and well-being of the community utilizing well maintained and aesthetically pleasing parks, green spaces, waterways, recreation areas and facilities, all which will be provided in a hazard free and safe environment.

AUTHORITY

The Manitowoc County Planning and Park Commission is charged by the provisions of Section 27.04 of the Wisconsin Statutes with the responsibility to “make a thorough study of the county with reference to make reservations and acquisitions of lands therein for public uses....make plans and maps of a county comprehensive park system....and report same to the County Board”. In response to this mandate and to comply with planning requirements for maintaining eligibility to participate in state and federal recreation aid programs, the Commission first prepared a plan for the County park system in 1963, 1972, 1978, 1985, and then again in 1997. This park and open space planning program is also designed to meet the statutory responsibilities of the Commission and to obtain eligibility for another five-year period under the LAWCON and Aids for the Acquisition and Development of Local Parks Programs.

The Commission is also established under Section 59.97 of the Wisconsin Statutes which allows a county to prepare a county development plan or parts thereof and to include in such efforts those incorporated places which, by resolution, agree to have their areas included in the plan. Additionally, Section 66.30 of the Wisconsin Statutes allows intergovernmental cooperation in provision of services if mutually agreed to by the government units. Under provisions of these statutes all of the nine villages in the County and the City of Kiel have agreed by resolution to have the commission assist in preparing their respective Park and Open Space Plan. The City of Manitowoc and the City of Two Rivers, through its Plan Commission, has elected to prepare its own plan.

PLAN FORMAT

This plan follows essentially the same format used in past Park and Open Space Plans (formerly called Manitowoc County Recreation and Open Space Plan) and relies to a great extent on and repeats much of the background or supplementary information provided in the past plans. Prior to analysis of recreation needs in the communities, towns, and County, it is appropriate to review the natural resources base and socio-economic characteristics of the County. They are factors or elements to be considered in the recreation planning process as they serve to establish the constraints within which the need for resource preservation and the demand for recreation can be determined.

General recreation planning guidelines which can be of benefit to all levels of government in planning, acquiring, and developing the park and open space also precede the specific plans. These guidelines include a series of goal and objective statements, park planning principles, site selection criteria, and a discussion of jurisdictional responsibilities.

The Manitowoc County Planning and Park Commission previously contracted with Bay Lake Regional Planning Commission to do a study of our parks and determine the needs to comply with the Americans with Disabilities Act (ADA) of 1990. This data was included in the 1997 report. In 2016, the Manitowoc County Parks completed the same study, but applied the 2010 ADA Standards for accessible design. A copy of this report is included under Appendix B.

The recreation plans for the cities, towns, and county are then presented with chapters devoted to each of these levels of government. A generally consistent approach is used throughout the plan chapters in that each begins with a list of goals and policies geared specifically to that level of government followed by a list of recommended standards. Within the plan for each unit there is an inventory of existing facilities which is examined and measured against the standards to determine their deficiencies. A plan with recommended priorities is then presented which addresses the noted deficiencies and any other projects and activities identified by the governing body, its planning groups, or citizen advisory committee. Additionally, the county chapter includes a discussion on special activities and facilities which may or may not be included in the traditional park-types or which for some other reason require special consideration.

A separate chapter on means by which plan recommendations can be implemented is also provided.

This format has the distinct advantage of allowing any community to focus their attention on that segment of the plan that deals with their local area and in fact, to remove same for further reproduction and distribution.

CHAPTER II

GENERAL NATURAL AND CULTURAL RESOURCES

NATURAL RESOURCES

One of the generally accepted purposes of inaugurating and maintaining a park and open space program is the protection and preservation of an area's natural resources. This section of the report identifies only the major characteristics of Manitowoc County's natural resources as they relate to park and open space planning in a somewhat abbreviated fashion because detailed studies of the county's topography, soils, and water resources have been conducted and assembled in numerous past reports. Major emphasis will therefore be placed on the relationship between the county's natural resources and the provision of park and open space facilities.

Topography

The topography of Manitowoc County is essentially a result of the last two substages of the Wisconsin Stage of Glaciation. Each glacial substage carried in glacial debris known as "drift" and pushed or deposited it to form plains, depressions, valleys, and hills. The most recent substage did not cover the entire county, consequently, the northwestern and southwestern portions of Manitowoc County have more difference in relief than the rest of the county.

Generally, Manitowoc County has a gently rolling to almost flat topography. Exceptions to this occur in the southwestern and northwestern areas of the county as well as in some areas adjacent to Lake Michigan and next to major rivers. The elevation ranges from 580 feet MSL (average Lake Michigan elevation) at Lake Michigan shore to over 1000 feet MSL in the southwestern corner of the county.

The southwestern corner of Manitowoc County in the towns Schleswig, Eaton, Meeme, and Liberty, has a Kettle Moraine type topography. It is characterized by rugged, gravelly hills, kettle-shaped holes, and coarse sandy soils.

The northwestern portion of the county in the towns of Cooperstown, Gibson, Maple Grove, and Mishicot, is characterized by a very hilly topography, with steep slopes and Dolomite outcrops.

Flat marshlands such as Collins Marsh and portions of Point Beach State Forest have been preserved by state acquisition and the preservation of their natural beauty has thus been assured. The county has obtained three major parks in areas with hippy topography but much more protection or acquisition is needed to preserve the unique topographic relief such as the Lake Michigan shoreline between the Village of Cleveland and the City of Manitowoc. The varied topography of the county offers an unprecedented opportunity to provide a variety of parks and open space facilities to the residents of Manitowoc County.

Climate

Climate is one of the major influencing factors in determining the nature of our physical resources. Agriculture, forestry, and recreation activities are all strongly influenced by the climate.

The climate of Manitowoc County is classified as continental, and is characterized by marked seasonal changes, which occur frequently at the interior of large land masses at this latitude. Polar air masses from Canada during winter and air from the Gulf of Mexico, which brings hot, humid weather in summer, have the most influence on Manitowoc County's weather patterns.

Lake Michigan modifies the climate to some degree, but because of prevailing westerly winds, its effect is limited to a narrow strip of land immediately adjacent to Lake Michigan. Its influence is greatest during spring, summer, and fall.

Manitowoc County's overall climate has a tendency to be marked by extremes. Spring is often slow in arrival and is a mixture of cold and warm stages. Several hot and humid periods occur during summer and cool periods can occur during any summer month. Often times, heavy dew forms in mornings. After the first killing frost, which can arrive suddenly, there are usually periods of Indian Summer, which are abnormally warm with clear sunny skies and clear nights.

Monthly temperatures range from an average daily low of 10° F in January to an average daily high of about 70° F in July. The average yearly temperature of Manitowoc County over the last 50 years is 46.6° F.

The last killing frost usually occurs in late April in the eastern portion of the county near Lake Michigan and in early May in the western part. The first killing frost usefully occurs in mid-October in the eastern portion and early October in the western part. The average growing season length in Manitowoc County ranges from 140 days to 160 days depending upon proximity to Lake Michigan.

Yearly precipitation has averaged 29.16" over the last 50 years according to data gathered by the U.S. Weather Bureau Climatological Station in Manitowoc. Approximately 65% of the total yearly precipitation falls from April to November, which coincides with the growing season.

Manitowoc County has a sufficiently long period of warm weather to allow visitors and residents alike to make ample use of the County's seasonal recreation facilities such as campgrounds, golf courses, boating facilities, and its abundant natural resources. On the other hand, the winters in the County are such that, during a normal year, there is sufficient snow cover and cold temperatures to provide for winter sports such as snow skiing, snowmobiling, ice skating, and other similar winter activities.

Water Resources

Manitowoc County is blessed with abundant water resources including both ground water and surface waters. Potable ground water is available in almost any part of the County although it is

sometimes necessary to drill 200 feet or more to tap an adequate supply. A park location is therefore not limited to any degree insofar as the availability of well water is concerned.

Surface waters include the approximately thirty-four miles of Lake Michigan shoreline on the County's eastern boundary; eight rivers ranging from the very small Meeme River to the relatively large Sheboygan and Manitowoc Rivers along with numerous creeks and tributaries feeding into the rivers and over 30 small to medium sized tributaries feeding into the rivers and over 30 small to medium sized inland lakes. One is never very far from a lake or stream in Manitowoc County and this rich resource provides abundant opportunities for boating, fishing, water skiing, and for the establishment of summer homes adjacent to lake and stream shores. In general, the lakes of the County are relatively small (less than one hundred acres) except for Cedar Lake and Long Lake. It should be noted that with only a few exceptions the inland lakes are found in an approximately five mile wide band extending from the City of Manitowoc to the City of Kiel.

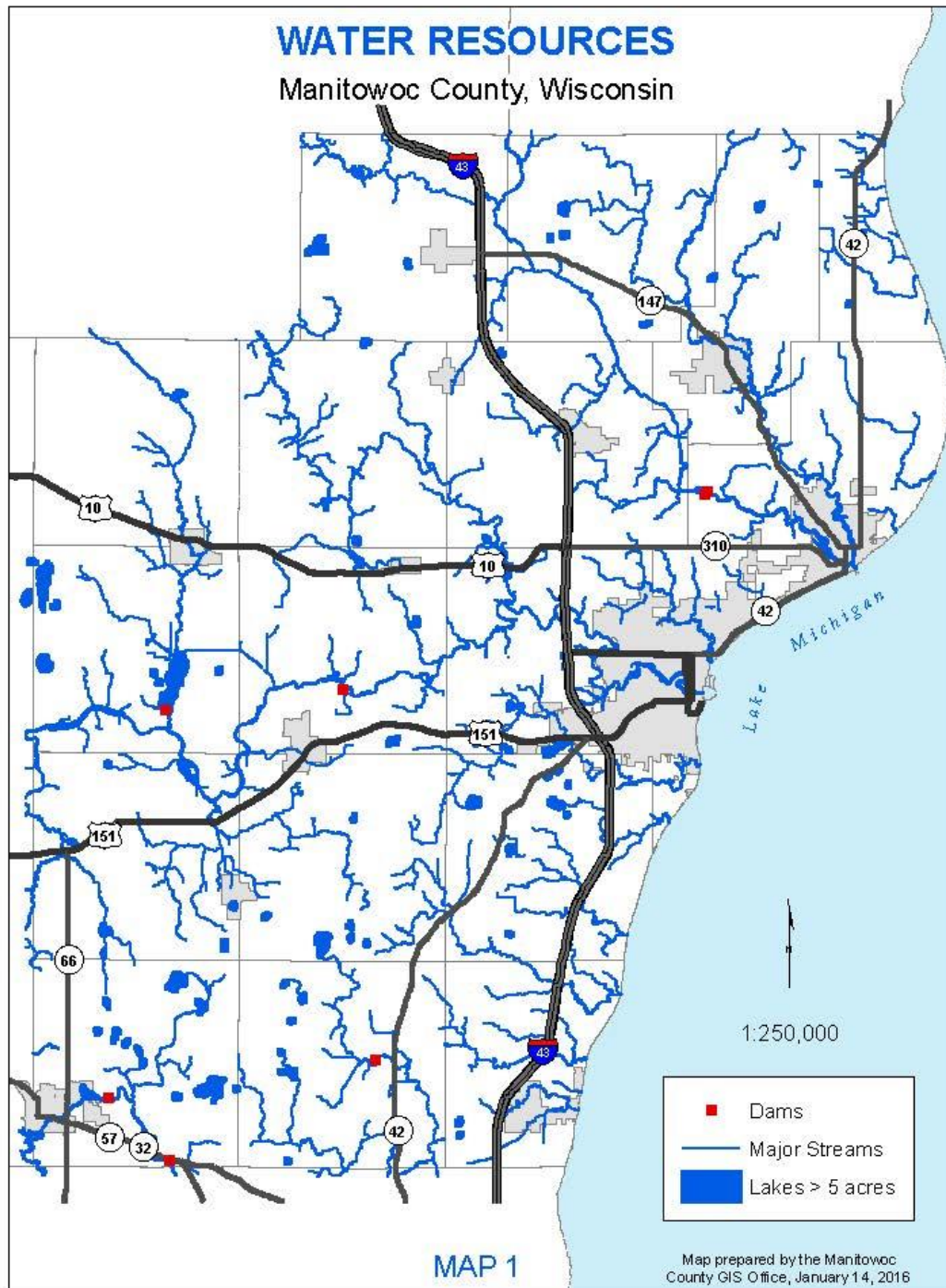
The lakes and streams of the County are one of its most precious heritages. The County has instituted a shore land and floodplain zoning ordinance to protect its valuable water resources; but zoning by itself, cannot and should not be expected to be the sole protector of this most valuable resource. Park land acquisition policies should be used wherever possible, to safeguard and preserve the waters of the County. The County's park acquisition program has reflected a commitment to preserving water resources by ensuring that lakes or stream are included in proposed recreation areas.

The residents of private recreation facilities in the form of summer cottages must exercise restraint in the development of their lakeshore properties or the quality of the water that attracted development will deteriorate at the point of eliminating the very reason for the cottage's existence.

Other models of control of lakeshore and stream-front properties including purchase and lease back, conservancy zoning, and purchase of development rights should be explored and vigorously pursued by all levels of government.

The County's abundant water resources are graphically illustrated on the accompanying map entitled "Water Resources". This map which, by design, highlights the waters of the County and subordinates all other features can serve as a ready reference to those charged with selected public and private recreation areas and those who are concerned with preserving and protecting this most vital County resource.

WATER RESOURCES MAP



Soils

Manitowoc County's soils are typical of those areas of the county that have been affected by glaciation. The predominant soils are loam to silt loam surface texture with a clayey sub soil, high fertility, and more moderate depth to bedrock.

Soils have a distinct effect upon recreation planning, particularly when the process leads to selection of a possible recreation site. Soils maps give an indication of areas subject to flooding, erosion, and drainage which may have to be avoided. The drainage characteristics of soils are important when designing ball fields, roads, parking lots, and even campsites. Drainage patterns affect the location of culverts, roads, and hiking trails. The installation of on-site sewage disposal systems in parks and recreation areas is affected by the percolation rate of the soils and high ground water. Soils in the County should be satisfactory to allow construction of on-site sewage disposal systems when a sufficient size area is available to provide alternatives. The soil adjacent to the lakes and rivers are an important factor to consider when contemplating the provision of boat launch facilities and swimming areas. Unfortunately many lake front and shoreline properties in the County have a much soil that has poor traffic ability and will require pea gravel, sand, or some other similar substance to make the shoreline and lake bottom suitable for swimming, etc.

An accelerated soil survey has been completed in the County which provides more detailed data on the soil characteristics in each area of the County. Even with this detailed soil survey, it should be noted that soil borings and an on-site investigation of each parcel considered for recreation purposes should be conducted prior to purchase and development of the property.

In general, however, the soils that occur in the County should present no significant problems for recreational development. The majority of the soils exhibit good drainage characteristics which should facilitate the construction of roads, buildings, and active play areas; they are reasonably fertile, thereby allowing for appropriate and necessary landscaping and the soils generally have a satisfactory percolation rate which makes possible the installation of various on-site disposal systems.

Major Landscape Groups

The following section of "Major Landscape Groups" was excerpted from Manitowoc County's original Master Plan for Parks and Recreation Areas. The general discussion of these landscape groups and the conclusions contained therein as presented on the original plan are just as applicable and accurate today as when the first plan was published.

In order to facilitate the identification of the various kinds of proposed and existing locations for recreation areas and parks, six landscape groups have been identified for the County. The following discussion and illustration will identify the major features of each group. The illustration "Landscape Groups" portrays the generalized location of each of the landscape groups discussed.

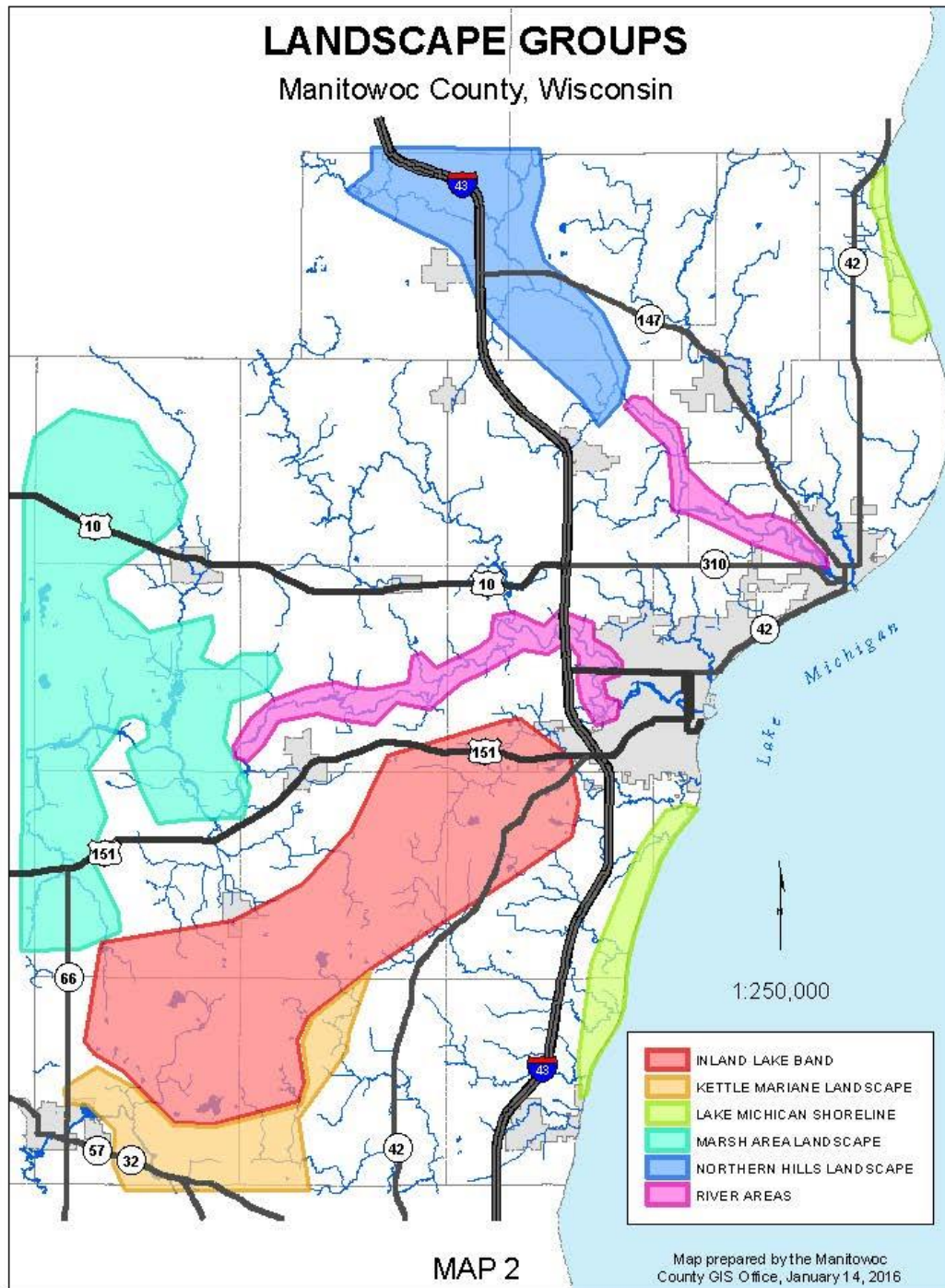
1. Marsh Area Landscape – Manitowoc County is amply endowed with a unique type landscape, which for purposes of this report is called the large marsh. These areas are characterized by very wet conditions, organic soils, dense tree cover or open grassy areas, and an abundance of wildlife. They are areas that usually do not attract any type of urban development because of the many problems connected with drainage and they provide an excellent opportunity to study migratory waterfowl habits. It has been found that at least as many, if not more, people come to watch the geese at Horicon Marsh as come to shoot them. This appears to be true for Collins Marsh as well.
2. Inland Lake Band – This landscape group is not as definable as the other groups are because of the scattered location of some of the smaller lakes. However, as mentioned previously, there are only about six lakes of any size outside a five mile band from the City of Manitowoc southwest to Kiel. This landscape group is generally characterized by rolling to hilly topography, numerous wooded areas, and most important, many small-to-medium sized lakes. These lakes vary in size from less than 5 acres to Cedar Lake which is 130 acres. The depth may vary from about 20 feet to over 85 feet. The range in the characteristics of the individual lakes is also varied. As pointed out in a previous section, some of the features found in several, but not all, areas are marsh conditions surrounding the shoreline, high wooded banks, open grassy banks, sandy or rocky shorelines, mucky lake bottoms, and heavy algae and weed growth. All the lakes with a public access are stocked with various types of game fish. This particular landscape group offers the greatest potential for the provision of small Special Purpose Parks.
3. Kettle Moraine Landscape – Near the southwestern corner of the County in the vicinity of Cedar Lake and the unincorporated Village of School Hill, is an area that marks the typical kettle moraine landscape. This area is characterized by the same features found in the Kettle Moraine State Forest: accumulations of glacial drift (rugged, gravelly hills), kettle-shaped holes, coarse sandy soil, mixed areas of forest growth, partially denuded hillsides, and cultivated fields. It is especially attractive scenery that has little value for agriculture or urban-type development.
4. Lake Michigan Shoreline – This is the major landscape group in the County because Lake Michigan is the most dominant natural feature found in the entire County. Generally, this landscape group occupies the entire lakeshore and is characterized by the familiar wide beaches, high bluffs, and wooded areas interspersed with wide grassy hills. Within the City Limits of Manitowoc and Two Rivers, there are 5 parks with Lake Michigan shoreline that includes extensive beach areas. Additional character is provided by the cuts of the streams and creeks that empty into the Lake.

This type of feature is especially picturesque south of the City of Manitowoc and is found in the areas of Fischer Creek (near Cleveland), Centerville Creek (in Cleveland), Pine Creek (at Norheim), and Calvin Creek (south of the City of Manitowoc).

5. River Areas – The river area landscape group, because of the nature of the water bodies, forms linear patterns in the County which obviously follow the courses of the rivers. In a study of the river resources of the County, it was found that the various rivers had individual and unique characteristics. Of the eight rivers within the County, the major river is the Manitowoc. It is formed from two branches, the north and south branches, which are the drainage outlets of two very large marsh areas in Calumet County. The Manitowoc River is quite varied in its character. At times, it is a wide, slow-moving body of water that meanders through miles of cropland. At other times, it becomes fast-moving rapids with falls that border on the impassable. There were three dams on the river; they are especially attractive areas because of the picturesque scenery, old bridges, and remnants of old grist mills that are on the sites. The topography adjacent to the river is also extremely varied – from low, flat, grassy marsh areas at the western boundaries of the County to the more typical high bluffs that are so prominent throughout the area in the Town of Manitowoc Rapids and between Clarks Mills and the Oslo Dam Bridge. With the advent of the Department of Natural Resources planting of various strains of Steelhead trout in the Manitowoc and Branch Rivers it will be imperative for all units of government to work together to acquire access points at locations along the rivers.

The West Twin River has a wide appeal due to the combination of Northern Hills Landscape and river qualities. From the dam at the unincorporated Village of Shoto where the river is especially scenic, north to the County line, the area adjacent to the river is characterized by rock outcroppings, wooded banks, steep bluffs, and generally attractive scenery. The river has been planted with Brown trout by the Department of Natural Resources.

LANDSCAPE GROUPS MAP



CULTURAL RESOURCES

Present Trends in Population Change

Components of population change, population growth by minor civil divisions, age distribution, and population densities are all factors in determining the present trends in population changes. This information, along with the historical population change, is often used to make population projections at the local, regional, and state level.

Components of Population Change

Manitowoc County, with an out-migration of 384 persons, along with Marinette County, and Sheboygan County experienced an overall population loss during the 2000-2014 decade (Table 1) in the Bay-Lake District. The remaining district counties had larger natural increases than out-migrations, which accounted for the increase in overall population for these counties. All counties except Door, Florence, Marinette, and Oconto experienced out-migration during the ten-year period.

TABLE 1										
COMPARISON OF MANITOWOC COUNTY COMPONENTS OF POPULATION CHANGE 2000-2010										
County Name	POPULATION		NUMERIC CHANGE 2000-2010					PERCENT CHANGE		
	2000	2010	Total Births	Total Deaths	Natural Increase	Net Migration	Total	Natural Increase	Net Migration	Total
Brown	248,007	253,156	12,889	6,017	6,872	- 1,723	5,149	2.77%	- 0.69%	2.08%
Door	27,785	27,976	829	1,169	- 340	531	191	- 1.22%	1.91%	0.69%
Florence	4,423	4,450	114	176	- 62	89	27	- 1.40%	2.01%	0.61%
Kewaunee	20,574	20,652	792	624	168	- 90	78	0.82%	- 0.44%	0.38%
Manitowoc	81,442	81,320	3,124	2,862	262	- 384	- 122	0.32%	- 0.47%	- 0.15%
Marinette	41,749	41,605	1,461	1,718	- 257	113	- 144	- 0.62%	0.27%	- 0.34%
Oconto	37,660	38,014	1,381	1,210	171	183	354	0.45%	0.49%	0.94%
Sheboygan	115,507	115,362	4,947	3,765	1,182	- 1,327	- 145	1.02%	- 1.15%	- 0.13%
Bay-Lake Dist.	577,147	582,535	25,537	17,541	7,996	-2,608	5,388	0.27%	0.24%	0.51%
Wisconsin	5,363,675	5,686,986	707,680	462,102	245,578	77,693	323,271	4.60%	1.40%	6.03%

Source: Wisconsin Department of Administration, Demographic Services Center

Population Growth of Minor Civil Divisions

Table 2 reveals a general overall slowdown in population growth for the cities in Manitowoc County since 1990. The cities Manitowoc and Two Rivers both experienced an overall decrease in population over the last decade with the City of Kiel experiencing a growth in population.

TABLE 2					
POPULATION OF CITIES WITHIN MANITOWOC COUNTY 1990-2010					
CITIES	1990	2000	% Change 1990- 2000	2010	% Change 2000- 2010
*Kiel	2,534	3,129	23.48%	3,429	9.59%
Manitowoc	32,521	34,053	4.71%	33,736	-0.93%
Two Rivers	13,030	12,639	-3.00%	11,712	-7.33%
All Cities	48,085	49,821	3.61%	48,877	-1.89%

Source: U.S. Census Bureau – Census of Population and Housing 2010

*Note: Population figures shown for the City of Kiel represent only that portion of the city in Manitowoc County.

Table 3, Manitowoc County's Population by Villages, shows a general decline in population for the various villages in Manitowoc County through 1990. The data collected from 2000 and 2010 shows that the villages are experiencing an increase in growth. The villages in total increased in population by 3.2% over the last decade.

TABLE 3 POPULATION OF VILLAGES WITHIN MANITOWOC COUNTY 1990-2010					
VILLAGES	1990	2000	% Change 1990-2000	2010	% Change 2000-2010
Cleveland	1,398	1,361	-2.65%	1,485	9.11%
Francis Creek	562	681	21.17%	669	-1.76%
Kellnersville	350	374	6.86%	332	-11.23%
Maribel	372	284	-23.66%	351	23.60%
Mishicot	1,296	1,422	9.72%	1,442	1.41%
Reedsville	1,182	1,187	0.42%	1,206	1.60%
St Nazianz	693	749	8.08%	783	4.54%
Valders	905	948	4.75%	962	1.48%
Whitelaw	700	730	4.29%	757	3.70%
All Villages	7,458	7,736	3.73%	7,987	3.24%

Source: U.S. Census Bureau – Census of Population and Housing

TABLE 4					
POPULATION OF TOWNS WITHIN MANITOWOC COUNTY 1990-2010					
TOWNS	1990	2000	% Change 1990-2000	2010	% Change 2000-2010
Cato	1,503	1,616	7.52%	1,566	-3.09%
Centerville	685	713	4.09%	645	-9.56%
Cooperstown	1,320	1,403	6.29%	1,292	-7.91%
Eaton	761	761	0%	833	9.46%
Franklin	1,325	1,293	-2.42%	1,264	-2.24%
Gibson	1,445	1,352	-6.44%	1,344	-0.59%
Kossuth	1,951	2,033	4.20%	2,090	2.80%
Liberty	1,218	1,287	5.67%	1,281	-0.45%
Manitowoc	936	1,073	14.64%	1,083	0.93%
Manitowoc Rapids	2,560	2,520	-1.56%	2,150	-14.68%
Maple Grove	888	852	-4.05%	835	-2.00%
Meeme	1,516	1,538	1.45%	1,446	-5.98%
Mishicot	1,344	1,409	4.84%	1,289	-8.52%
Newton	2,261	2,241	-0.88%	2,264	1.03%
Rockland	911	896	-1.65%	1,001	11.72%
Schleswig	1,641	1,900	15.78%	1,963	3.32%
Two Creeks	466	551	18.24%	437	-20.69%
Two Rivers	2,147	1,912	-10.95%	1,795	-6.12%
All Towns	24,878	25,350	1.90%	24,578	-3.05%
ALL CIVIL DIVISIONS	80,421	82,907	3.09%	81,442	-1.77%

Source: U.S. Bureau of the Census, Census of Population and Housing

The towns experienced the greatest decrease in population when compared to the villages and cities in Manitowoc County (Table 4). In total the towns decreased 3.05% in the last decade. The towns in general have experienced an overall slowdown in population growth since 1990, with a slight increase in 2000. Most of the decline in the town populations may be attributed to annexation by the cities of Manitowoc, Kiel, and Two Rivers. The towns of Manitowoc Rapids and Two Rivers decreased 14.68% and 6.12% respectively. While the town of Manitowoc

showed a very slight increase of 0.93%. Another factor that may have attributed to the reduction in the various town populations is that several areas have been incorporated as villages since 1960. The villages of Francis Creek and Maribel were incorporated in the 1960's. The village of Kellnersville was incorporated in the 1970's. The towns of Eaton, Kossuth, Manitowoc, Newton, Rockland, and Schleswig all experienced population growth from 2000 to 2010, while the remaining townships decreased in population (Table 4).

Age and Male/Female Composition

An understanding of age and male/female composition is essential in making informed planning decisions that affect the amount of land designated for various land uses such as residential, commercial, agricultural, and recreational needs. This information also identifies the existing and potential labor force, school age children, women in their child bearing years, and other valuable information that provides a profile of the community, which is needed to make accurate population projections. Table 5 reveals the number of male/female population distribution by individual age groups for Manitowoc County. The age distribution of the population may be expected to influence the location and type of recreational areas and facilities provide within Manitowoc County.

TABLE 5 AGE DISTRIBUTION MANITOWOC COUNTY AND NORTHEAST WISCONSIN 2010			
AGE GROUP	MANITOWOC COUNTY		
	Total	Male	Female
Under 5	4,550	2,330	2,220
9-May	4,874	2,488	2,426
14-Oct	5,254	2,757	2,497
15-19	5,484	2,789	2,695
20-24	4,033	2,133	1,900
25-29	4,480	2,324	2,156
30-34	4,404	2,277	2,127
35-39	4,499	2,287	2,212
40-44	5,464	2,794	2,670
45-49	6,743	3,357	3,386
50-54	6,846	3,509	3,337
55-59	6,166	3,188	2,978
60-64	4,931	2,495	2,436
65-69	3,810	1,806	2,004
70-74	2,984	1,380	1,604
75-79	2,501	1,071	1,430
80-84	2,188	874	1,312
85+	2,233	670	1,563
Median Age	43		
TOTAL	81,442	40,529	40,953

Source: Office of Health Informatics, Division of Public Health, Wisconsin Department of Health Services

<https://www.dhs.wisconsin.gov/population/manitowoc.htm> for Northeast WI Population

Population Distribution

The population distribution map provides a means whereby the number of persons in an area of the County, e.g. within school district boundaries, fire districts, and park service areas, can be determined. This map also provides a pictorial representation of population densities. Housing units within the unincorporated areas of Manitowoc County consist of predominantly single-family homes. Therefore, this map may also be used to identify population densities. As you will observe from viewing the map, the greatest population densities, in the unincorporated areas of the County, occur near and adjacent to the cities. A trend of greater population densities can also be observed near the interchanges of I-43. This trend has occurred primarily in the townships of Cooperstown and Gibson mainly because there is a demand for rural living from people wishing to commute to Green Bay and other cities north of Manitowoc County. Other clusters of population densities can be detected in the towns of Schleswig and Centerville for the same reasons as the two previous townships except these individuals commute to various cities south and east of Manitowoc County.

Another trend, which is not obvious from looking at the population distribution map, is the conversion of seasonal homes to permanent residences on the inland lakes within the County. These trends have numerous implications when planning for adequate public facilities and community services. As residential areas increase in size and become denser, needs arise for such services as: public sewer and water, schools, commercial activities, police and fire protection. These trends must be addressed when preparing a meaningful land-use plan. (The distribution map was developed and based upon 2010 U.S. Census Bureau data and Manitowoc County Land-Use Maps.

Population Projections

The Wisconsin Department of Administration (WDOA) population projections for Manitowoc County is a decline from 81,442 in 2010 to 78,920 in 2040. This is a projected 3.10 percent decline in the next 30 years. The projections are not forecasts and therefore must be used with discretion as with any projection, with more confidence being placed on the earlier figures than for the year 2040 projections. Many forces work to influence the population of Manitowoc County and the distribution of the projected population among various units of government, including geophysical conditions, environmental concerns, existing zoning, taxation, and other factors influence business and residential location decisions.

POPULATION DISTRIBUTION MAP
2010 DATA

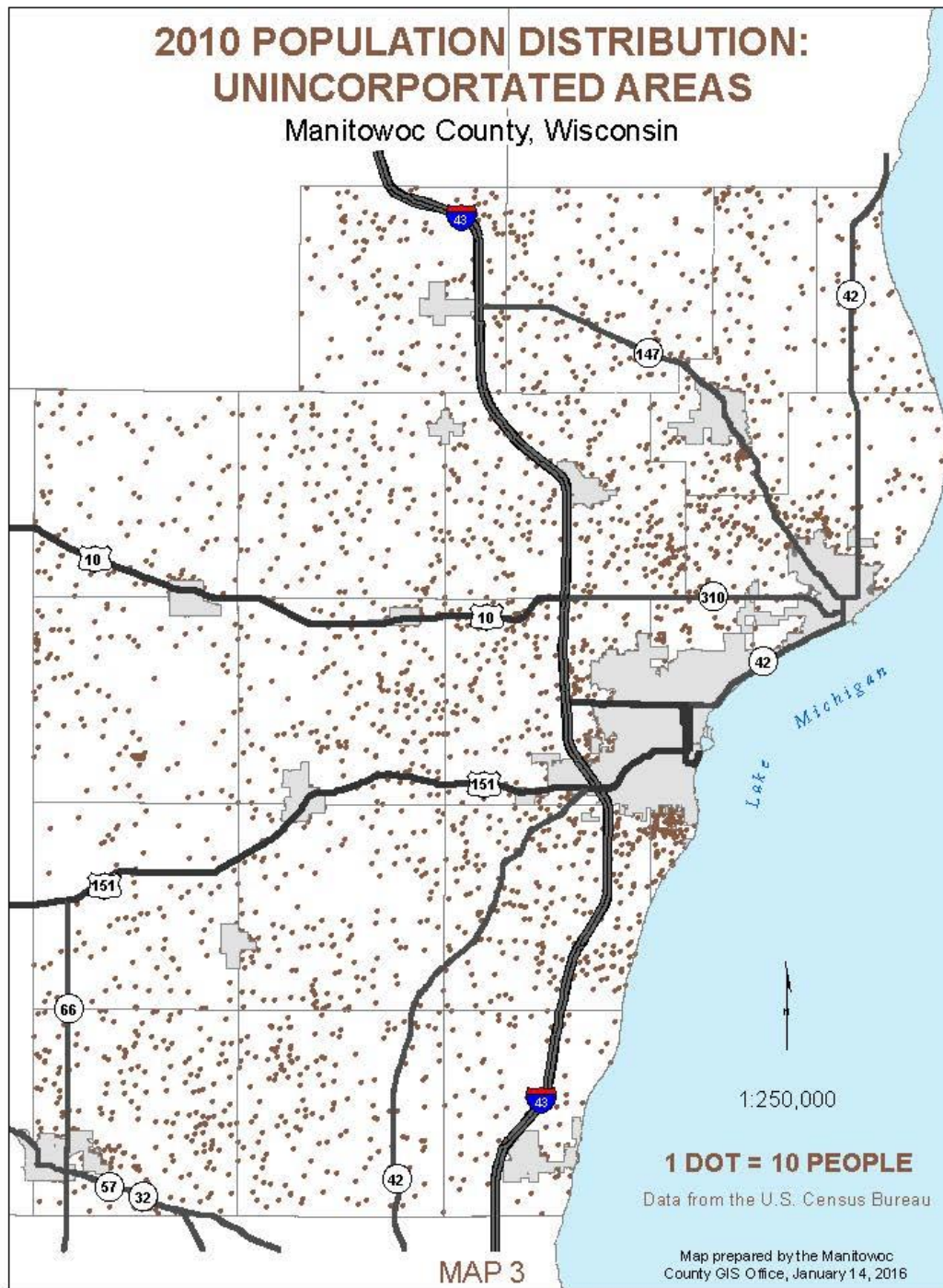


TABLE 6							
MANITOWOC COUNTY POPULATION BY CIVIL DIVISION FROM 1990-2010, WITH PROJECTION TO 2030							
CIVIL DIVISION	ACTUAL POPULATION			PROJECTED POPULATION			
CITIES	1990	2000	2010	2015	2020	2025	2030
Kiel	2,534	3,129	3,429	3,625	3,816	4,002	4,172
Manitowoc	32,520	34,053	33,736	36,240	37,101	37,895	38,538
Two Rivers	13,030	12,639	11,712	12,451	12,427	12,379	12,282
All Cities	48,084	49,821	48,877	52,316	53,344	54,276	54,992
Ten Year % Change	-1.00%	3.61%	-1.89%	-----	9.12%	-----	3.09%
VILLAGES							
Cleveland	1,398	1,361	1,485	1,492	1,534	1,573	1,605
Francis Creek	562	681	669	753	784	813	840
Kellnersville	350	374	332	358	357	354	351
Maribel	372	284	351	266	258	251	241
Mishicot	1,296	1,422	1,442	1,513	1,548	1,581	1,607
Reedsville	1,182	1,187	1,206	1,201	1,211	1,218	1,222
St Nazianz	693	749	783	752	759	763	766
Valders	905	948	962	1,053	1,086	1,116	1,142
Whitelaw	700	730	757	775	793	810	825
All Villages	7,458	7,736	7,987	8,163	8,330	8,479	8,599
Ten Year % Change	-1.90%	3.73%	3.24%	-----	4.29%	-----	3.23%
TOWNS							
Cato	1,503	1,616	1,566	1,746	1,790	1,832	1,865
Centerville	685	713	645	733	738	741	743
Cooperstown	1,320	1,403	1,292	1,452	1,481	1,509	1,529
Eaton	761	761	833	841	864	886	905
Franklin	1,325	1,293	1,264	1,338	1,351	1,362	1,367
Gibson	1,445	1,352	1,344	1,497	1,531	1,564	1,590
Kossuth	1,951	2,033	2,090	2,200	2,254	2,304	2,344
Liberty	1,218	1,287	1,281	1,457	1,514	1,568	1,615
Manitowoc	936	1,073	1,083	1,224	1,266	1,306	1,340
Manitowoc Rapids	2,560	2,520	2,150	2,415	2,346	2,272	2,189
Maple Grove	888	852	835	864	863	862	857
Meeme	1,516	1,538	1,446	1,567	1,583	1,594	1,599
Mishicot	1,344	1,409	1,289	1,507	1,541	1,573	1,599
Newton	2,261	2,241	2,264	2,397	2,440	2,479	2,508
Rockland	911	896	1,001	978	1,001	1,022	1,039
Schleswig	1,641	1,900	1,963	2,288	2,413	2,534	2,646
Two Creeks	466	551	437	584	601	617	631
Two Rivers	2,147	1,912	1,795	1,836	1,784	1,728	1,665
Total Towns	24,878	25,350	24,578	26,924	27,361	27,773	28,031
Ten Year % Change	-7.00%	1.90%	-3.05%	-----	11.32%	-----	2.45%
ALL CIVIL DIVISIONS							
Ten Year % Change	-3.09%	3.09%	-1.77%	-----	9.32%	-----	2.91%

Source: U.S. Bureau of the Census, Census of Population, for the years cited; projected populations are from the Demographic Services Center Division of Intergovernmental Relations Department of Administration State of Wisconsin. MCP & PC 2010
Notes: (1) Population figures shown for the city of Kiel represent only that portion of the City in Manitowoc County.

SUMMARY

The population in Manitowoc County has increased from 80,420 in 1990 to 81,442 in 2010. The county has experienced a slight population decline from 1990 to 2010. A moderate increase in population occurred between 1990 and 2000, with the population beginning to decline continuing up to 2010. Manitowoc County stands in contrast to the State, which experienced growth throughout this time frame.

The greatest percent decrease in the county population occurred in the unincorporated areas of the county. The towns lost 3.05% since 1990. The villages gained the most during the last decade with a 3.24% increase.

The population of Manitowoc County has not changed drastically in the amount of people living within the county, but has changed in composition. Some new development has taken place throughout the county regarding new housing and business startups and expansion. However, this has not caused an increase in population because of the changes in family size, fewer people living under one roof, the aging population, as well as other demographic and economic factors.

CHAPTER III

PARK AND OPEN SPACE PLANNING GUIDELINES

GENERAL PARK AND OPEN SPACE PLAN POLICIES

A number of planning policies relating to park and open space apply to all areas of the county including cities, villages, towns, and county at large, as well as to regional facilities. These policies which include goals and objectives (expressed preferences), principles (rule of action based on experience which can be used as a consistent guide), and standards (measure of quality or adequacy of the various components of the park system) are enumerated in the following paragraphs. Plan policies that are geared specifically to the cities, villages, towns, or county are discussed under the appropriate sub-headings.

The planning policies outlines in each area combined with the general park and open space policies applicable to all areas are truly the “heart” of the plan. Once the planning policies are adopted, the plans for meeting the dictates of the policies are primarily a mechanical process.

General Park and Open Space Goals and Objectives

The following goals and objectives are applicable to the county, cities, villages, and towns within the area.

1. The broad objective of all park and recreation systems is to provide a balanced program of recreation facilities for all sectors of the population including minorities, lower income, and disabled populations.
2. The facilities provided by each governmental unit should supplement and be coordinated with other public and private recreation and open space facilities to avoid the duplication of facilities.
3. The Manitowoc County Park and Open Space Plan should serve as an instrument or guide which will provide a basis on which to make rational decisions concerning the parks and open space uses within the county.
4. Open space should be viewed as a means of encouraging or controlling land use.
5. The open space plan must be used to protect the few remaining woodlots in the county, preserve areas adjacent to water courses and water bodies, and enhance the natural resource assets in the region.
6. The park and open space plan should promote activities and uses which have a water-based orientation wherever feasible in recognition of the county’s most significant natural resources of Lake Michigan and numerous inland lakes and waterways while recognizing the need for water quality management.
7. The park and open space plan programs should reflect the commitment of the county and local units of government to preserve the quality of the environment by acquisition of critical land areas or by control of land adjacent to water by means of other than fee simple purchase.

8. Parks and open spaces should be used to preserve the natural wooded areas, lakeshores, streams, rivers, unique topography, wildlife habitats, and other areas of exceptional beauty, from irreparable destruction by urban and rural development while providing a balanced array of active and passive recreational opportunities for all of Manitowoc County's residents.
9. All segments of the populace are to be served with adequate, properly designed recreational facilities including the special needs of the young, the elderly, the poor, and other disadvantaged members of the county's population.
10. Other planning and regulatory measures will be structured to complement and encourage the park and open space goals of the community, (e.g. conservancy zoning might be used in place of fee simple purchase where such zoning is not confiscatory or discriminating).

General Park and Open Space Planning Principles

The following park and open space planning principles have proven to be a rule of action that can be consistently used as a guide.

1. Land devoted to parks and open space should be protected and preserved against encroachment or by conversion to other uses which might be incompatible with park purposes.
2. The park and open space plan should be reviewed at least every five years to reflect changes in population trends, economic trends, land use, energy consumption, and other factors considered in preparation of the plan.
3. Most parks and open space should be accessible by improved roads.
4. Sites for parks and open space should be selected to complement local and county comprehensive plans.
5. Efforts should be made to interconnect open spaces to comprise systems of environmental corridors through out-right purchase, conservancy zoning, scenic easements, or other land development controls.
6. Commercial development should be kept to a minimum in recreational areas.
7. Good site design should be encouraged in all types of development to protect the natural resources and beauty on the property and to insure the maximum use of the site without overburdening them.

8. All means of financial assistance or donation should be explored in attempts to acquire or develop parks and open space lands.

General Standards

Standards for cities, villages, towns, and the county are provided in subsequent sections of this report under each category. The standards presented later in this report have been obtained from a variety of sources including National Recreation and Parks Association, and it is important to note that the acquired standards were modified to fit local needs and conditions.

Site Selection Criteria

Acquisition of additional park or open space land is recommended in the accompanying plans. The following is a listing of some of the factors that were considered in selecting proposed site locations. These same factors can and should be used by governmental units and others engaged in providing park and open space land.

1. A major park site should be capable of providing a wide range of activities including picnicking and winter sports.
2. The proposed site should be suitable for development without need for extensive grading or reclamation. Wetlands and even flood plains can be used to advantage but such property with its inherent limitations should not be solely relied upon. That is, a site may consist partially of wetlands but sufficient dry area should also be contained on the site.
3. A site that has intrinsic cultural, educational (e.g. Collins Marsh), or scientific use (e.g. Cherney Maribel Caves) should receive special consideration.
4. The potential for expansion of a proposed park site ranks high among the desirable characteristics of proposed park and recreational land.
5. The cost of proposed sites weighted against anticipated benefits must not be excessive. Care must be taken to ensure that the expected cost of development is not overlooked in computing total cost-benefit ratios.
6. Major park sites should be located so as to be convenient to users of the recreation facilities developed there. Not only geographic location must be considered but the quality of access to the site should be seriously considered.
7. The availability of natural resources and/or their limiting effects must be carefully examined when considering property for recreation purposes. Significant topographic relief provides character to a landscape; it can afford scenic views of surrounding areas but it must be noted that unusually hilly property can severely limit the potential for park development. The character of the soils that occur on the property has serious

implications for construction or roadways, the erection of buildings, and for adequate drainage. Water resources such as lakes and streams provide the potential for swimming, fishing, and boating and significantly enhance a parcel of property for recreation and open space use. Interesting water features such as falls, rapids, or bluffs adjacent to rivers adds immeasurably to the aesthetic desirability of a parcel of land proposed for park and open space purposes. The quality of the soils adjacent to lakes and streams should be studied. Muck bottom and shores on lakes are not conducive to swimming for example, are costly to develop for such purposes. Finally, a site with wood-cover should receive special consideration for obvious reasons.

8. A site should be selected of adequate size to accommodate the types of activities planned for the area.

Few potential park and open space sites will contain all of the desirable features alluded to in the preceding listing, therefore compromises must be made in selecting proposed parklands that reflect the dominant use that is to be made of the recreation area. These guidelines played an important role in identifying areas suitable for acquisition as park sites and/or open space land in this plan. It is hoped that local officials charged with the responsibility of acquiring parkland will make generous use of the preceding guidelines.

Jurisdictional Responsibility

Parks and recreation facilities might be viewed as falling into two very broad categories; namely, developed facilities and undeveloped areas. Developed facilities are exemplified by the intensively improved urban neighborhood playgrounds while a state preserve or wild life protection area epitomizes an undeveloped recreation area.

Traditionally, different levels of government have divided the responsibility for providing varying degrees of development of the recreation areas in their respective jurisdiction. In general, municipalities and local units of government have provided recreation areas with the highest degree of development and moving up toward the federal level, government responsibility progressively involves larger averages and lower intensities of use and development. In addition, private enterprise often provides supplementary intensive recreation facilities in the form of campgrounds, marinas, golf courses, and the like.

In general, this park and open space plan has been prepared in a manner that gives due recognition to the varying responsibilities of local, state, and federal agencies to provide differing degrees of development in their respective recreation areas.

CHAPTER IV

PARK AND OPEN SPACE PLAN FOR THE CITIES

PARK AND OPEN SPACE PLAN POLICIES FOR CITIES

It was noted in a previous section of this plan that some policies apply generally to all of the areas studied. The following policies, however, apply primarily to cities or densely settled areas.

1. Care should be taken to ensure that the various levels of parks and open space are provided in approximately equal measures for all parts of the city.
2. Parks and open space should be used as buffers between incompatible land uses, as delineators or constraints on urban development or as necessary complementary uses for other land development.
3. Recreation facilities and programs should be provided to meet the needs of all age groups and persons of various financial means, including particularly the elderly and indigent population.
4. The use of school/park combinations should be encouraged and utilized when possible.
5. Recreation programs should be strengthened and continued to assure maximum use and enjoyment of the facilities provided. Recreation programs should not be perceived as being secondary to park acquisition and development.
6. As new subdivisions are developed, provisions should be made for recreation and open space to serve the future residents of the new subdivisions.

PARK AND OPEN SPACE STANDARDS FOR CITIES

To guide the adequate provisions of both active and passive recreational facilities to urban residents, a system of park types has been organized. Each of these park types has a specific independent function, either active or passive, for a given sized area,

An overall standard of ten acres of park and recreation land for every 1,000 population has been established to measure the adequacy of Manitowoc County's urban park system. This is further broken down into acreage standards for each park type. The following section describes the characteristics of the various park types: play lots, neighborhood playgrounds, neighborhood parks, community playfields, and community parks. The descriptions list the normal facilities in each and the accepted size and service guidelines applicable to each type facility.

1. Play or "tot" lots – The play lot is a small recreational area planned for the outdoor play of children in the preschool age group. It is essentially a substitute for the individual backyard and is normally found in high density areas or as a part of a large housing development. The type of facilities and equipment provided should be safe and simple and may include the following: sand boxes, swings, slides, climbing apparatus, play sculptures, playhouses, an open area for free play, a shelter with benches for parents, a small wading or spray pool, and a paved area for wheeled toys. The area requirements

for a play lot usually vary between 2,000 and 5,000 square feet, depending upon space available and number of children served. The ideal location for a play lot is the center of a block or apartment area so that small children won't have to cross busy thoroughfares. The service area will depend on the density and character of the area in which a play lot is located, but the service area should generally not exceed a one or two block radius.

The play lot is generally considered prohibitive for cities to provide because of the large number required, the high supervision cost, and the excessive cost of maintaining small, scattered sites. When provided by a city, a play lot is usually developed as part of a neighborhood playground. Play lots provided and operated by the management of large, dense housing developments should be encouraged. A play lot is not considered essential in relatively large-lot residential developments, the type of development which is most common in the communities of Manitowoc County.

2. Neighborhood Playgrounds - The neighborhood playground is the basic unit in a city's active recreation system. The playground primarily serves the needs of the elementary school children and adolescents in the five to fifteen-year age group. It may offer limited use potential for older age groups in a neighborhood. The desirable facilities in a neighborhood playground include the following: play apparatus for school aged children, open space for free play and informal games, areas for field games (softball, soccer, and touch football), multi-use paved area for court games (tennis, volleyball, and basketball), and landscaped buffer strip to protect surrounding areas from playground noise. Optional facilities may include a handicraft and quiet game area, a wading or swimming pool, a shelter house or recreation building with game and club rooms, an area for lawn games, a picnic area, off-street parking, and lighting for evening use. A play lot for preschool children may be provided in a corner of a neighborhood playground site.

The size of a neighborhood playground and its service area vary according to residential densities, existing and expected future population characteristics of a neighborhood, and the amount of space available. The size of a playground should generally vary between three to eight acres, with five acres as a desirable minimum size. The service area of a playground should not exceed a radius of one-half mile, and it should serve a population of about 3,000 to 5,000 people. It is recommended that an overall standard of one and one-half acres per 1,000 population be used as a guide for the provision of playground acreages in a community.

Several preferred locations and desirable access provisions should be considered in locating a neighborhood playground. A playground should adjoin an elementary school or be located near the center of the neighborhood it serves. The location of and access to a playground should not require children to cross major thoroughfares, railroads, industrial or business areas, or other potentially hazardous conditions. Ideally, playgrounds should be accessible by pedestrian paths.

3. Neighborhood Parks – The neighborhood park is intended to provide an attractive setting and open space for the passive recreation of all age groups within a neighborhood. Parents with small children and elderly persons are primary users of neighborhood parks.

Desirable features include shrubbery, shaded areas with benches and tables for resting and quiet games, landscaped areas for sitting, sunning, and quiet relaxation, walks, pathways, and toilet facilities. A play lot with apparatus for small children may also be included in the park. It should be buffered from the rest of the park as the main purpose of the park is to meet the passive recreation needs of the neighborhood.

As with the neighborhood playground, population density is a significant factor in determining the space needs and service area of a neighborhood park. More open space is needed in high density neighborhoods and areas with significant elderly population than is needed in areas developed with single family residences. Three acres is generally considered a minimum size for a neighborhood park and five acres a desirable size. An overall provision of about one and one-half acres of neighborhood parks per 1,000 population for a community is recommended. The neighborhood park should be within easy walking distance of all areas in a neighborhood; usually not more than one-half mile.

In location a neighborhood park, both the physical characteristics and the location of the other neighborhood facilities should be evaluated and rated to determine the optimum site. Any rustic or naturally scenic areas should be considered as potential park sites. Consideration should be given to locating a park in conjunction with an elementary school and neighborhood playground as all three facilities could serve the same general area and number of people. The combined facilities would serve as the center for neighborhood activities.

4. Community Playfield – The purpose of a community playfield is to provide active and organized recreation space for the youths and adults of several neighborhoods. The playfield provides more elaborate facilities than neighborhood playfields, and activities which are not ordinarily available at a neighborhood playground. It should include most of the following features: area for court games, including basketball, tennis, volleyball, handball, horseshoes, and shuffleboard; individual sports field for football, softball, baseball, track, and soccer; sanitary facilities, lighting, and off-street parking; a children's playground, a picnic area, and landscaping to buffer the playfield from surrounding properties. A playfield may also include a field house, swimming pool, or indoor recreational complex.

The playfield should generally serve four or five neighborhoods, or a population of 15,000 to 25,000 persons. The size of a playfield should range from 12 to 25 acres, with 20 acres as a desirable size.

To determine the general needs for a playfields, it is recommended that a playfield serve an area of up to one mile in radius, and that two acres of playfield be provided for each 1,000 residents in a community. A playfield should be located near the center of the area it is to serve and can be located adjacent to a junior or senior high school. It should be located at or near the intersection of thoroughfares, and when possible, near public transportation systems.

5. Community Park – The community park is designed and developed for diversified use and contains facilities not found in the neighborhood park. It serves several neighborhoods, or in the case of smaller communities, it may serve the entire community. The community park should take advantage of natural areas such as lakes, ravines, cliffs, hills, views, woods, or undisturbed natural areas. It commonly includes most of the following: picnic areas, boating and swimming facilities, winter sports areas, areas for active play, shelters, day-camp, and hiking and nature trails. Specialized uses often found in a community park are a golf course, zoo, botanical garden, amphitheater, museum, and indoor recreational-cultural center. Prime consideration should be given to maintain the passive and natural features of the site when planning and developing active recreation areas within a community park. The community park should contain a minimum of 25 to 50 acres, with a service radius not exceeding one and one-half miles. An overall guideline of 5 acres per 1,000 persons, excluding such special areas as golf courses and athletic stadiums should be followed in providing community parkland in a community.

The City of Manitowoc and the City of Two Rivers prepared their own plans so this section will deal only with the City of Kiel.

City of Kiel Park and Open Space Plan

The City of Kiel is an agricultural and trade service center located about midway between Lake Winnebago and Lake Michigan on the Sheboygan River. This central location places Kiel within a thirty-mile radius of many of the major cities which comprise the northeastern Wisconsin population concentration. The city is somewhat unique in that it is located within two counties, Manitowoc and Calumet, and it is only one mile from Sheboygan County.

Originally laid out in 1853 by Henry F. Belitz, Kiel was first incorporated as a village in 1892 and then became a city in 1920. The city had a population of about 1,000 persons in 1900 and grew to a 2010 census total of 3,429 persons. Census figures for 2010 indicated that 92 percent of the population resided in the Manitowoc County portion of Kiel. The city has been experiencing moderate growth as indicated by the state estimates of 4,172 persons for 2030.

Kiel has a relatively significant commercial and industrial base for a community of its size. There are industrial firms engaged in a wide variety of categories including dairy products, dairy equipment, furniture and other wood products, iron casting, and machinery manufacturing. This rail line and state trunk highways, most importantly STH 57, provide transportation routes from Kiel to larger market areas. A well-established commercial area exists along Fremont Street in the center of Kiel with new commercial development occurring along STH 67 and STH 57 in the east and northwest portions of the city, respectively. The city has developed a new industrial park in the northeastern portion of the city and it is filling nicely.

Being at the northern extremity of the Kettle Moraine, the Kiel area has an especially varied and picturesque landscape with rolling farmland, rugged hills, small clear lakes, numerous wooded areas, and extensive marshes. A wealth of natural fish and game makes the area a popular recreation area. Within Kiel, the open space characteristic of the city is its orientation to the Sheboygan River. Cutting from the southwest to the northeast across the south-central part of the city, the river has been well preserved by the local government with extensive stretches of shoreline in public ownership and has added to the character and appearance of Kiel.

Because of the attractive living environment in the Kiel area and the fact that it has a diversified economic base which is likely to continue to expand, the modest, but steady growth trend Kiel has experienced in the past is expected to continue. It is projected that Kiel will have a population of about 4,172 by the year 2030.

Inventory of Existing Recreation Facilities

To serve the various recreational needs of the citizens of Kiel, the city provides a variety of both neighborhood and community level parks and playgrounds. The basic definition of different types of recreation functions and their interrelationships were explained earlier in this chapter of the plan. Specifically, the city provides Hingiss, Sisson, and Belitz Parks to meet the community park needs, active sports areas at the three public schools to meet the playfield and playground needs, and several smaller parks throughout the city to meet the passive neighborhood park needs. In addition, several sites are provided as special use or conservancy areas.

Community Parks

The public park system in Kiel is focused around Hingiss Park, which serves the function of the primary community park. This park consists of twelve acres of floodplain land on the south bank of the Sheboygan River. With approximately 1,000 feet of shoreline, Hingiss Park forms part of the open space corridor which exists along the Sheboygan River. The park is fairly flat, rising away from the river with an excellent stand of trees covering most of its area.

The focal point of the park is a modern gazebo which was constructed with donated funds. There are picnic tables and grills in the park along with assorted items of playground equipment, lighted horseshoe pits, a pedestrian bridge, concession stand, large grassy area, off-street parking, volleyball area, disc golf course, benches, and restrooms. There is a wooded area south of the pavilion which provides excellent open space back-up acreage to the developed portion of the site. Vehicular access to the park is provided by a public street leading west from First Street, which is the only bridge crossing the river in central part of the city. Through efforts of a local service club, the pedestrian bridge was constructed across the river connection the park with the Public Library, Stoelting House, Community Center, and Bessler Historical Home.

The second park in Kiel designated as a community level facility is Sisson Park. This four acre park is located in the northeast corner of the city near the sewage treatment plant and is adjacent to a pond on the Sheboygan River formed as a result of a dam across the river at Rockville. The park has been created by filling of lower land and there is additional land available for continued expansion of the park. Park facilities at Sisson Park include a large grassy picnic area, tables and grills, restroom facilities, river frontage, a boat launch, and off-street parking.

1. Hingiss Park

- (1) 12 acres
- (2) 15 picnic tables
- (3) 7 grills
- (4) 23 benches
- (5) Restrooms
- (6) Gazebo type shelter
- (7) 10 pieces of playground equipment
- (8) Bridge
- (9) Concession stand
- (10) Volleyball area
- (11) Horse shoe pit
- (12) 9-Hole Disc Golf course
- (13) Off-street parking (40 cars)
- (14) Large grassy area/large trees

2. Sisson Park

- (1) 4 acres
- (2) Large grassy picnic area

- (3) 2 picnic tables
- (4) 2 grills
- (5) Restrooms
- (6) Boat launch
- (7) River frontage
- (8) Off-street parking (20 cars)

Community Playfield

The playfield functions as described earlier are being provided at two locations. The sports field at the middle school between Paine and Chicago Streets does provide several of the activities found at a playfield. Therefore, it has been designated as a community playfield rather than a neighborhood playground; a function which it also performs for neighborhood children. This site of approximately nine acres includes a football field, baseball diamond, softball diamond, a one-quarter mile cinder track, three basketball hoops, play apparatus for younger children, and a one-half acre paved parking lot. The school gymnasium is also made available for the City's recreation program.

The other community playfield is the high school site. With development of the building and sports field complex over the years this site has become the major active sports area in Kiel. The outdoor facilities at the site include: a baseball diamond with bleachers, two softball diamonds, a track-football field with bleachers, archery, two basketball courts, and adequate off-street parking. These facilities, plus the indoor swimming pool and gymnasium, are available to the general public during non-school hours.

1. Middle School

- (1) 9 acres
- (2) Baseball diamond
- (3) Softball diamond
- (4) Football field
- (5) 3 basketball hoops
- (6) Play apparatus
- (7) Off-street parking
- (8) Gymnasium
- (9) Rope course

2. High School

- (1) 72 acres
- (2) Rope course
- (3) Track
- (4) 2 bleachers
- (5) 2 portable restrooms
- (6) Lighted, fenced baseball diamond
- (7) 8 benches

- (8) 2 lighted, fenced softball diamonds
- (9) Open playfield
- (10) Gymnasium
- (11) Pool
- (12) Storage shed
- (13) Off-street parking

Neighborhood Playgrounds

Active recreation on the neighborhood level is provided at two school sites which also serve as neighborhood playgrounds. The first playground is the middle school site which serves both a neighborhood and community function as was described in the preceding paragraphs. The second playground is at the elementary school between Adam and Cleveland Streets at North Street. The school building and playground are located on a sixteen acre site which provides ample room for recreation activities. The site contains two softball diamonds, a large paved play area, and a large grouping of play equipment. In addition, there is ample open area available for various field games.

1. Elementary School

- (1) 16 acres
- (2) 14 pieces of playground apparatus
- (3) Basketball hoop
- (4) Open play area
- (5) 2 backstops
- (6) Soccer field

Neighborhood Parks

There are eight sites in the City of Kiel which provide for passive recreational needs on the neighborhood level. The most developed of these is City Park, facing the municipal building and the middle school; it serves the central area of the city. City Park is a nine acre wooded site which provides open space for residents and serves as a focal point for the downtown area of Kiel. An open air amphitheater serves public gatherings while the large open central area provides space for relaxation, picnicking, or simple outdoor games. A small play equipment area complements the passive character of the park. This park is similar to the "Village Green" in many cities which humanizes the city center by providing a natural area and a focal point for the City's various activities. City Park has two shelters donated by a local service organization. Play equipment includes: climber, swing set, and merry-go-round.

The second site is Rock Park which functions as a neighborhood park and is a triangular parcel of slightly more than one acre bordered by Eighth Street, Calumet Avenue, and Sheboygan Avenue. This park is commonly called Sliding Rock Park and is used for sandlot baseball and similar games and for quiet relaxation by neighboring residents. Curbside parking only is available. Play equipment includes: climber, swing set, and slide.

The third area designated as a neighborhood park consists of the two riverfront parcels located at Second Street south of Fremont Street and known as Boy Scout Park. This flat floodplain property provides quiet shaded picnic areas with tables and grills. In addition to the passive recreation function, this property is a part of the linear river open space corridor which conserves the Sheboygan River's beauty. The lack of parking here minimizes the site's use as a wayside for transients. This park has a gazebo and a portion of the River Walkway meanders through it.

The fourth site is Lions Park which is located on the City's west side between Ninth and Tenth Streets and serves the community with both active and passive recreational areas. The existing facilities include: picnic tables and grills, benches, restrooms, playground equipment, shelter building, basketball court, and open grassy area.

The fifth site is Kiwanis Park which is located south of Fremont Street on the Sheboygan River and provides the area with over six acres of grassy open space, to satisfy passive recreational needs. A paved River Walkway passes through the park. Play equipment includes: swing set, and slide.

Fire Station Park is the sixth site and is located behind the Kiel Fire Station. Only passive recreation facilities are provided which include picnic tables and grills. A paved River Walkway passes through the park.

Triangle Park is the seventh site. This park is a small triangle shaped neighborhood park located at the intersection of Fourth and North Streets, offering a limited number of passive recreation facilities.

Conley Park is the eighth site located on Dewey Street and Raider Heights. The park is approximately one acre in size. Features: playground equipment, picnic tables, and an open area with trees. There is no restroom at this park.

Also, it should be noted that while Hingiss Park has been classified as a community facility, it does serve to meet the neighborhood park needs of the residents living south of the Sheboygan River.

Other Facilities

There are two other small parcels of land in Kiel which should be mentioned though they don't fit into the preceding classifications. One is a play lot south of SS. Peter and Paul School at Fifth and Fremont Streets. This 0.4 acre site has a paved play area, a basketball hoop, and some play equipment. This area serves students at the school and youngsters in the immediate vicinity. The second site is a small open area on the southeastern approach to the First Street bridge. This site is primarily a memorial and has been developed by the VFW.

1. City Park

- (1) 9 acres
- (2) Amphitheater

- (3) 8 picnic tables
- (4) 3 play apparatus
- (5) 5 benches
- (6) Sandbox
- (7) Large grassy area with trees
- (8) Internal walkway
- (9) 2 shelters
- (10) Restrooms

2. Rock Park

- (1) 1 acre
- (2) Picnic table
- (3) 2 play apparatus
- (4) Open grassy area

3. Boy Scout Park

- (1) 3 acres
- (2) 3 grills
- (3) Bench
- (4) Grassy area
- (5) Gazebo
- (6) River Walkway

4. Lions Park

- (1) 2 acres
- (2) 7 picnic tables
- (3) Restrooms
- (4) 12 play apparatus
- (5) Shelter
- (6) Basketball court
- (7) Open grassy area
- (8) Baseball field

5. Kiwanis Park

- (1) 4 acres
- (2) Swing
- (3) Restrooms
- (4) Off-street parking (40 cars)
- (5) Water fountain
- (6) River Walkway

6. Fire Station Park

- (1) 1 acre
- (2) 3 picnic tables
- (3) River walkway

7. Triangle Park

- (1) 1 acre
- (2) Bench
- (3) Picnic table

8. Conley Park

- (1) 1 acre
- (2) Jungle Gym
- (3) Picnic table

9. Belitz Park

- (1) 24 acres
- (2) 8 Tennis Courts
- (3) 3 Basketball hoops
- (4) 4 Baseball diamonds
- (5) Playground equipment
- (6) BMX bike track
- (7) Concession stand
- (8) Restrooms

State Lands

The Kiel Marsh Wildlife Area is a natural area which consists of approximately 807.57 acres of marshland located south of the city. The abundance of fish and wildlife provide recreation opportunities to the community and surrounding areas. The present facilities provided include: a parking lot adjacent to Kiel, public boat launch, and an undeveloped canoe access with limited parking.

Deficiencies and Recommended Plan

Having listed categorized the existing recreational facilities in Kiel, the next step is to analyze their adequacy in meeting the needs of the residents. The following section of this plan will show what deficiencies exists in the facilities at present and suggest ways of improving them to correct the deficiencies and to anticipate future needs. There are several ways of analyzing the effectiveness of parks including: minimum acres per 1,000 population, service radius standards,

and analysis of activities provided. Kiel's various park types were scrutinized using these measures.

Community Parks

Kiel currently has two developed community parks in Kiel, Hingiss Park and Sisson Park. The two have a total acreage of 16 acres. Using the standard of five acres of community park per 1,000 persons, Kiel has sufficient park land for the present.

Kiel has experienced significant residential growth to the north of Park Avenue and east of the Sheboygan River in the Rockville subdivision. In the development areas of Raider Heights, Rockville Road, Cemetery Road, and CTH 'XX' the city designated acreage for park lands. Designated areas are a one acre parcel on Raider Heights, a four acre parcel on Rockville Road, a ten acre parcel on Cemetery Road, and a forty acre parcel on CTH 'XX'. In addition, the city has acquired the right-of-way along the Sheboygan River between Sisson Park and Kiwanis Park and has developed a river-front walkway connecting the two parks. The city should develop plans for these areas to provide park and open space to accommodate the growth in Kiel and the surrounding area.

Community Playfield

The basic recreation facilities developed at the middle and high schools are adequate to meet the community playfield needs of the city. The two sites tend to complement one another. The middle school site easily serves the central part of the city and provides some facilities used on a community-wide basis. The high school site serves the community as a whole with its 4 lighted tennis courts, basketball courts, and lighted and fenced baseball and softball facilities.

Neighborhood Playground

Active recreation facilities (play apparatus, ball diamonds, and open play areas) on the neighborhood level generally appear to be adequate and are located so as to serve most of the developed areas of Kiel. The two school sites are located to service the older central part of the city and the newer development in the northern portion of the city. An additional playground should be considered in the eastern portion of the community.

The western portion of Kiel also does not have adequate neighborhood play facilities at present. The railroad track has the effect of creating a barrier for residents living west of the tracks desiring to use the playground facilities. There are between 300 and 400 persons in this area residing in single-family homes and a mobile home park. The development of Lions Park is a good start to meeting this need.

Neighborhood Parks

Passive recreation on the neighborhood level is well provided for numerous locations. Rock Park serves the northwest part of Kiel, in addition to serving as a wayside for motorists using STH 57. The park has a limited amount of development having a picnic table and a small

amount of play equipment. The park's limited size and the inability to expand it, means that additional major improvements are not desirable for the park.

City Park serves the needs of the City's central residential neighborhood. The park is well developed and it would appear that no additional facilities are necessary at this time.

Lions, Boy Scout, Kiwanis, Fire Station, and Triangle Park serve the passive needs of the rest of the city. As with Rock Park, expansion of some of these parks and provisions of additional facilities does not appear feasible. However, they do serve the passive needs of those who wish to relax in a pleasant setting. It should again be noted that Hingiss Park, also, serves the neighborhood level passive recreation needs of residents south of the Sheboygan River.

The need for any additional neighborhood parks is evident by the increased residential growth in the northern and eastern parts of Kiel and should be acquired and developed for neighborhood parks in the north, east, and western parts of the city.

Summary of Priorities

The City of Kiel has done an excellent job of developing their park system over the past number of years by accomplishing much of what they proposed in their last plan.

As a guide to the community in allocating funds for park purposes, a list of project priorities is provided on a park-by-park analysis indicating specific facilities improvements that are needed during the next five years.

I. Hingiss Park

- (1) Installation of additional lights along the shoreline and interior roadway
- (2) Develop an asphalt interior pedestrian walkway
- (3) Asphalt the interior roadways and parking areas
- (4) Develop lighted volleyball courts
- (5) Improve the park on an annual basis with planting of trees, shrubs, and flowers
- (6) Construct River Walkway
- (7) Improve horse shoe pits

II. Sisson Park

- (1) Provide additional picnic tables, benches, and grills
- (2) Install lighting to facilitate greater use and safety
- (3) Develop Vita exercise course
- (4) Upgrade the boat ramp to provide improved boater access to the adjoining water
- (5) Plant additional trees and shrubs
- (6) Periodic weed clearing in the Sheboygan River
- (7) Develop River Walkway

III. City Park

- (1) Install lights in the interior portion of the park
- (2) Further development of the stage and seating area
- (3) Plant additional trees and shrubs

IV. Rock Park

- (1) Construct a shelter to accommodate family picnicking
- (2) Construct an information sign on community events and group activities

V. Lions Park

- (1) Improve the site on an annual basis with the planting of trees, shrubs, and flowers
- (2) Update playground equipment

VI. Boy Scout Park

- (1) Provide additional picnic tables and park benches

VII. Kiwanis Park

- (1) Construct a shelter to accommodate large picnics and gatherings
- (2) Develop an open area along the river, east to the City Fire Station
- (3) Plant trees and shrubs near pond
- (4) Improve pond with lighting and fountain
- (5) Develop Walkway

VIII. Fire Station Park

- (1) Install fishing ramps
- (2) Provide more tables for picnicking

IX. Triangle Park

- (1) No specific park improvements are recommended at this time

The long term priorities for the City of Kiel are as follows:

1. Provision of a trail along the Sheboygan River extending to Rockville. This would include developing a riverfront trail, river bank stabilization, improvement of the water quality, river bank improvements-lighting, benches, and landscaping, dredging of the river and mill pond, and repair of the dam.
2. Improve the nature trail, north of the High School, for hiking, jogging, etc.

3. There is potential for the development of an 18-hole golf course south of Mueller Road and west of STH 67. The city's intention would be to develop hiking and x-country ski trails from there to County Line Road.
4. Develop Duerrwachter Park with playfields, benches, grills, and playground equipment. Develop nature trail/bike trail through park to connect with the River Walkway and Rockville Subdivision
5. Acquire and develop 60 acres of open space along River Road fronting River Walkway

CHAPTER V

PARK AND OPEN SPACE PLAN FOR VILLAGES

PARK AND OPEN SPACE PLAN FOR VILLAGES

Introduction

This chapter of the Manitowoc County Park and Open Space deals with the smaller municipalities found in the county. There are nine villages in Manitowoc County ranging in population from about 330 to 1,500 persons. The incorporated villages located in Manitowoc County are Cleveland, Francis Creek, Kellnersville, Maribel, Mishicot, Reedsville, St. Nazianz, Valders, and Whitelaw. All have chosen to evaluate their present and future recreational needs by participating in this park and open space planning program. Each of these villages has existing recreational facilities within its boundaries, but each has recognized that deficiencies may exist at present and that it must assume a greater role in providing facilities as population growth it experienced.

To arrive at the present and future recreational needs of each village, a basis for evaluation must be established. The basis for evaluation takes the form of goals and policies which delineate the responsibilities of a village to provide recreational experiences within the continuum of recreation facilities provided by all levels of government. Then a standard or general guideline for providing recreational facilities in a village can be developed and utilized as a measure of deficiencies or surpluses in an existing recreational system and as a means of determining future needs for facilities. This information, combined with the specific characteristics of a village, can lead to an action program for the improving and developing of new facilities in the future.

This process has been used in the preparation of the Park and Open Space Plan for each of the villages, which follow the policy and standard sections of this chapter. The recreational facilities of each village are evaluated in terms of the goals, policies, and standards to arrive at the apparent deficiencies in the existing facilities. This information, along with the development patterns other characteristics of each village, is used to develop a plan and action program for meeting future recreation needs in a village. A suggested development plan showing existing and proposed facilities is included for each village park.

A summary of the needs to acquire additional village park lands follows the plans for the villages.

PARK AND OPEN SPACE PLAN POLICIES FOR VILLAGES

Village policies differ only slightly from city policies. The majority of the planning policies enumerated for cities, therefore, that are particularly suited to villages.

1. Villages should strive to promote a wide variety of recreational activities in each park because of their limited population and land area. A village park, in most cases, must therefore, serve the multiple functions of park, playground, playfield, and sometimes community center.
2. The use of other public and quasi-public facilities such as schools, service club areas, etc., for recreational purposes is especially desirable in villages.

3. Every effort should be made to take advantage of water courses and water bodies within villages for recreation and open space purposes
4. In acquiring additional park land or when developing existing village parks, consideration should be given to the possibilities of year-round activities including winter sports.
5. Many of the villages in the county are divided by major roads or water courses. It should be noted that these roads or streams, in many instances, severely limit the practical service area of existing and proposed recreation areas.

Recreation Standards for Villages

The villages in Manitowoc County, because of their size, generally require only one park within their boundaries to satisfy the daily active and passive recreational needs of their citizens. Such a park serves the entire community and is generally referred to as the “Village Park”. The following is a description of the desirable development and location characteristics which the villages should use as a guideline in providing village recreation areas.

1. The village park usually has characteristics and functions common to the combined neighborhood park and playground found in the city recreation system. The village park should include a playground for preschool and school-aged children; a paved court area for basketball and volleyball; tennis courts; horseshoe pits; a playfield for baseball, softball, and football; a picnic area with cooking grills; a shelter and sanitary facilities; and preferably a shaded area with benches and walks for passive recreation.
2. A village park should be located within a reasonable walking distance of all residents of a village; one-half mile is considered the limit for a reasonable walking distance. Where a village is elongated, where significant developed areas are separated by large open areas, or where a physical (rivers) or man-made (highways) barriers tend to affect access to the park for a segment of the village population, it may become necessary to provide an additional park, the size of the park and number of facilities provided will vary depending on the specific circumstances found in a village. Generally, it should not be necessary to duplicate all of the facilities located in the main village park.
3. Each village should strive to provide a minimum of 1.2 acres of village parkland per 100 residents. However, in order to accommodate a reasonable variety of activities and facilities, six to seven acres is the recommended minimum size for a village park. Increasing participation in such recreation activities as softball, baseball, and tennis has required some villages to construct additional ball diamonds and tennis courts. The standards reflect the acreage needs for providing more active recreation areas in the village parks.

Village of Cleveland Park and Open Space Plan

The three unincorporated settlements of Cleveland, Hika and St. Wendel united in 1959 to form the unincorporated Village of Cleveland. Hika, established on the shore of Lake Michigan in about 1850, was first named Centerville because of its location midway between Manitowoc and Sheboygan. The settlement of Cleveland developed in the early 1900's when a rail line was constructed about a mile west of Hika. St. Wendel, the most westerly settlement, developed almost two miles west of Lake Michigan, giving the Village an elongated shape at the time of incorporation. Until recent years, when the vacant areas between these original settlements began to experience development, the physical separation between them was pronounced.

Population of the Village grew slowly from 687 at the time of incorporation to a 1970 census figure of 761 persons and the 1990 census placed the Village population at 1,398 persons. In 2010, the population grew to 1,485. A factor in the population increase has been the presence of Lakeshore Technical College in the northwest portion of the Village. The demand for residential development is expected to remain fairly strong and it is anticipated that the Village will have a population increase of 3.3% by 2020.

Public recreation in the Village of Cleveland is provided at four primary locations and several smaller relatively undeveloped areas. The primary locations include Veteran's Memorial Park in the west central portion of the Village's east side, the wayside in the Village's northwest, Cleveland Elementary School, which is located in the eastern portion of the Village and Hika Park, which is located along Lake Michigan on the Village's east side.

Veteran's Memorial Park, consisting of 15 acres, functions as the village park. Existing facilities in the upper portion of the park include a baseball diamond with grandstand and dugouts; a Little League/softball diamond with bleachers and benches, fencing for diamonds, a scoreboard, toilets—house in the Village pumphouse, a picnic shelter with storage rooms and restrooms, water bubbler, playground equipment, a blacktop parking area with two basketball backboards and goals, two tennis courts and a picnic area. There is a stairway for easy access to the lower level along with a gravel parking lot along the west side of the park, the lower level contains a softball diamond with bleachers and benches, sleigh hill, tetherball, volleyball, picnic and open play area and ice skating rink on the infield in the winter.

The wayside park on Dairyland Drive, which was transferred from the State to the Village, contains 5.8 acres. The wayside was well used by the traveling public as well as Village residents. The facility has grills, picnic tables, parking lot, which can accommodate 30-35 vehicles, water pump, toilets, playground equipment, open play area, paved parking lot and small wooded area.

Cleveland Elementary School provides recreation to residents of the Village. The facilities at the 21-acre school site include three softball diamonds, open play field, basketball court, volleyball area, and various playground equipment. The school site is used as a community playfield with pee-wee baseball and the Cleveland Softball League using the ball diamond facilities. Toile facilities are not available to Village residents after school hours or during the summer months.

Hika Park serves the passive recreational needs of the Hika area and functions as a neighborhood park. This park has modern flush toilets, ice rink, a parking area for approximately ten car-trailer units and a picnic area. About 250 feet of Lake Michigan shoreline highlights the site, which consists of approximately 1 acre.

Other Village recreation facilities available to residents include two outdoor tennis courts and a basketball/volleyball court at Lakeshore Technical College (LTC). The public is invited to use these facilities during non-school hours. Situated along the Centerville Creek, the LTC campus offers passive recreation with walking trails along the wooded creek bank.

The Village owns approximately one-half acre of land above the dam on Centerville Creek. This mini-park presently features a boat ramp for row boats or canoes, a pier for the docking and a fishing ledge. The dam has been condemned by the State and it appears that it will be removed.

The St. Wendel School site functions as a neighborhood play area on Cleveland's west side. It features a basketball court, sleigh hill and open play area.

The Village owns about 600 feet of bluff land along the Lake Michigan shoreline, which provides access for shore fishing and passive recreation.

Analysis of these recreational facilities is done by utilizing several measures of adequacy. The park area standard generally applied to village parks is a minimum of 1.2 acres per 100 persons. Using the 2010 population of 1,485 people, Cleveland has more than the recommended standard of 16.7 acres of land.

Accessibility is another measure of park adequacy. The standard service radius considered best for the village parks is one-half mile as this is a comfortable walking distance. A one-half mile area surrounding Veteran's Park covers the central and western development areas fairly well, but does not include the eastern developed area of the Village. The eastern area, however, is served by the combined facilities of Hika Bay Park, the mine-park on Centerville Creek, and the Cleveland Elementary School. While the combination of sites offers similar facilities to that of a village park, being in scattered locations does make it inconvenient for residents who are seeking a variety of recreational activities.

The wayside park will serve the residential development to the north, while the Village should continue to monitor growth patterns on its western fringes to determine whether or not an additional park site will be required to serve residential development.

The following set of priorities has been established by the Village of Cleveland to guide improvement of its park system for the next five year period.

1. Veteran's Park
 - a. Lighting and blacktopping for the east and west parking lot.
 - b. Lighting for the ball diamond and tennis courts.

- c. Relocate Little League diamond, scoreboard and lighting.
 - d. Enlarge ball diamond and provide additional bleachers and fencing.
 - e. Bleachers and fencing for volleyball courts.
 - f. Construct a soccer field.
 - g. Ice rink shelter and water system.
 - h. Central equipment storage building.
 - i. Upgrade existing concession stand and construct a central concession stand and a concession stand for volleyball courts.
 - j. Develop a roller hockey facility.
2. Dairyland Park
- a. Construct new bathrooms to replace old existing ones.
 - b. Extend sewer and water and upgrade electrical service.
 - c. Repave parking lot.
 - d. Install basketball hoop.
 - e. Construct horseshoe pits.
3. Henley Preserve
- a. Dedication sign.
 - b. Trail construction.
4. Hika Dam Impoundment Area
- a. Historical marker.
 - b. Dam removal.
 - c. Trail construction.
 - d. Pond construction.

Village of Francis Creek Park and Open Space Plan

The Village of Francis Creek is a small friendly community and is located off of I-43 in north central Manitowoc County. The Village was incorporated in 1960 and had a population of 589 in 1980. The population of Francis Creek was 669 persons in 2010. It is expected that the Village will experience a moderate population growth by the year 2020 due to migration from larger urban centers and its location in proximity to county trunk highways and I-43, which is located in west side of the Village.

Recreation facilities in Francis Creek are provided primarily at one location. The Village owned Pla-Mor Park located on the north eastern area of the Village. This site consists of about 20 acres and is bound by streets on the north, west and south with residential development on the south. The Devils River State Trail runs through the park. Existing development of the park includes three ball diamonds, two are lighted, all diamonds have backstops, fencing, bleachers and electric scoreboards; there is also a building and batting cage to house the pitching machine. There are two areas of play equipment, picnic tables, benches, two lighted tennis courts with basketball backboards, horseshoe pits, two lighted volleyball courts, 9 hole disc golf course, two concession stands with shelter, a covered open sided pavilion, restrooms and water fountains near the tennis courts, and a paved walking trail that goes around the west side of the park. There are also memorial trees and shrubs planted throughout the park.

The present size of the park meets the standard of 1.2 acres per 100 residents. The location of Pla-Mor Park is such that it is within a reasonable walking distance of most of the people of the Village. Residential development has been occurring to the south of the park and this trend is expected to continue in the immediate future.

Comparison of the existing park with the standard indicates that there are deficiencies in size, number, and type of facilities offered. In striving to provide a full complement of facilities to meet recreation needs of village residents, recommended improvements for the next five years and their priority are:

1. Install additional playground equipment to enhance the appeal of the park to children
2. Continue planting trees and shrubs
3. Complete parking lot on 2 acre parcel north of the lighted ball diamond.
4. Develop fourth diamond area in the east portion of the park.
5. Security lighting within park.
6. Signage and related items to utilize park as a trailhead for the Devils River State Trail.

Village of Kellnersville Park and Open Space Plan

The Village of Kellnersville is located in northwestern Manitowoc County. It is a small farming community that was incorporated as a village in 1971. The population of the Village at the time of incorporation was about 300 persons and its population increased to 369 persons in 1980, according to the U.S. Census. The 2010 population saw a slight decline at 332 persons. It is expected that the Village will experience a slight population growth by the year 2020 due in part to the availability of public sewer and water facilities. It is projected that the Village population will be approximately 357 persons by the year 2020.

Prior to incorporation, a group of citizens from the area formed the Kellnersville Betterment Association. This quasi-public association acquired and developed a park in Kellnersville. The park consisted of 2.87 acres and it served the same function as a village park. Since incorporation, the association has continued to maintain the park and the village has acquired an area of 2.46 acres to the west of the park. A sidewalk was installed to join the two parks. The combined area of the two parcels will serve as the Village Park for Kellnersville.

The Association's park contains a ball diamond, picnic area, concession stand and shelter, volleyball area, and privy-type toilet facilities. The ball diamond is fenced, has a backstop and bleachers, scoreboard, and is lighted for evening play. Picnic tables are also provided. A privately-owned parking lot to the south has served as the parking area for the park in the past. Sewer and water lines have been extended into the park.

Development of the Village-owned land, which has access from CTH "K" via a 60 foot street to a newly paved parking lot, also contains a shelter, picnic tables, grills, new playground equipment and benches, shade trees with the supplement of additional trees in remembrance of previous, deceased Village Board members, lighted tennis court and basketball hoops, volleyball area, lighted horseshoe pits, and play equipment. Recent park development includes the addition of a sidewalk from the Village Park parking lot around the playground equipment to the KBA Park, removal of tree line to the north and ditching along the north boundary.

In analyzing the recreation activities in Kellnersville, it is assumed that the Association Park will, as a minimum continue to be available for public use. The park and the village property should then be considered as one park. The combined area of 5.3 acres is somewhat below the minimum recommended size of six to seven acres for a village park. However, with careful planning of facilities, the park area should be able accommodate most of the desirable activities and support facilities recommended for a village park. Further, the park area is centrally located within the community and within a reasonable walking distance of existing and probable future development areas of the village. There does not appear to be any deficiencies since the development of the village property.

KBA Park land was donated by a now deceased resident. The way he had it drafted is if the park was to be sold to anyone other than the KBA, the property would revert back to his family. Before additional major improvements are undertaken by the village, it is strongly recommended that the village negotiate with the Association to purchase or lease on a long-term basis, the Association's land.

The village should attempt to acquire additional land along the north limits of the village and association properties. This area could be used for passive recreation or expansion of the exiting park. Additional projects and their priority for the next five years are as follows.

1. Bury the overhead power lines.

Village of Maribel Park and Open Space Plan

The Village of Maribel is a small, rural-oriented trade center situated in the northwestern portion of Manitowoc County. It is approximately three quarters of a mile west of the I-43 interchange, located at the junction of two county truck highways; access to Maribel is relatively easy from surrounding areas.

Although incorporated as village since only 1963, the community of Maribel has been established for many decades. It became a center for the rural mail delivery system as early as 1907. The railroad as a very important factor in the development of Maribel as the community became a shipping point for stone products from nearby extraction sites. Maribel was also an important early grain shipping center.

The Village has not experienced significant growth in the past, but has remained relatively constant in its population. In 1990 saw a decrease in population from 372 to 284 people, but rebounded with a slight increase of 351 in 2010. Population projections for 2020 reflect ten year downward trend by 27% percent in 2020.

There are two recreation facilities within the Village which serve the residents. The first is a parochial school located at the southern limits of the village. Active recreation facilities, including a ball field, play apparatus, and paved play area are provided for the school aged children at the school site.

The other facility is the Maribel Village Park. The park is centrally located and consists of over nine acres. The existing park contains two ball diamonds with bleachers and scoreboard, practice field with a backstop, play equipment, picnic area, concession stand, modern toilet facility and shelter, and tennis courts with basketball hoops. The picnic area has picnic tables that are grouped near the concession stand and shelter building. A parking lot and overflow parking area are provided in the southern portion of the park.

In comparing the park's location, size, and number of facilities with the suggested recreation standard for villages, some comments must be noted. The park is centrally located and is within one-half mile of walking distance of residents living within the developed area of the community. CTH's "T" and "Z", however, are somewhat of a barrier for some Village residents. The railroad tracks passing through the Village southeast and northeast have been abandoned and will become a public recreation trail maintained by Manitowoc County. Development of an additional public street access to the northwest corner of the park would improve access to the park for Village residents. Since significant growth is not anticipated, the existing park is centrally located and access to the park will improve, the need for an additional park site is not apparent. The size of the park is adequate even for the projected village population when measured in terms of recommended park size included in the village recreation standards.

Recent improvements for the park include improved entrance road, update of lighting system, new bleachers, and additional cooking grills. Projects recommended for the next five year period and their priority includes:

1. Provision of some passive facilities such as benches located in the wooded area west of the shelter.
2. Development of horseshoe pits.
3. Provide additional play apparatus.
4. Purchase land for expansion of the park.
5. Install a security system.
6. Develop a nature area in the conservancy zoned property.

Village of Mishicot Park and Open Space Plan

The Village of Mishicot is situated in northeastern Manitowoc County at the intersection of state and county highways. The settlement of Mishicot began in 1844 when Daniel Smith established a saw mill on the East Twin River. The settlement competed with Manitowoc in the 1870's and 1880's as a growing trade center. The settlement was incorporated as a Village in 1950 with a population of 617 persons and grew to a 1990 census population of 1,296 persons. Since 1980, large areas to the west have been annexed to the Village. These annexations have included areas presently used for agricultural purposes, part of the Fox Hills Resort Conference Center complex, and some small concentrations of residential development. New residential development and the population of these annexed areas have increased the Village's population to an estimated 1,339 persons in 1996 and 1,442 in 2010. Continued growth is expected with an upward projection of 7.35% by the year 2020.

The function of the Village has changed significantly as the Village and County have become developed. The Village now functions in a threefold manner: it is a rural trading center; a commuting center; and a recreation center. It has remained as a rural trading center for its hinterland by developing and maintaining a significant business district. Because agricultural products are processed in the Village, it is also a minor employment and industrial center. The proximity of the Village to the employment centers of Manitowoc and Two Rivers has made the Village somewhat of a satellite community with a significant number of people living in Mishicot and commuting to larger employment centers to work. The continued development of Fox Hills Resort Conference Center in recent years added to the dimension of the recreation to the Village's functions. Fox Hills now has 45 holes of golf available after construction of their National Course, which is designed as an old Scottish type course. They are also constructing condominiums with 124 units already developed and plans for additional units as the demand continues. People are traveling into Mishicot or in some cases, selecting Mishicot as a place of residence because of recreation and entertainment possibilities.

Additionally, the Village owns a small parcel (.37 acre), which includes a dam across the river from the Village Park. The Village is responsible for maintenance of the dam, which was replaced in 1995, and the acquisition of this property provides direct access to the dam and the existing park. This parcel could be used for small boat or canoe access to the water reservoir behind the dam during the boating season and for ice skating in the winter. The development facilities in the park include two ball diamonds and a scoreboard; an enclosed shelter building with toilets and an open covered shelter both of which are located near the ball diamonds.

There are four school sites in the Village, which also help to meet the active recreation needs of its residents. The two principal sites are located adjacent to one another on the northeast side of the Village; they are the Mishicot High School and O. H. Schultz Elementary School. The elementary school is a quite large parcel and offers numerous types of play apparatus and a paved area for court games. A football/track complex along with two recently completed baseball diamonds are located east of the elementary school. The third site is Holy Cross Catholic School located on Church Street. The fourth site is St. Peter's Lutheran School located on Randolph Street. Both of these sites have some play equipment and a basketball court. Neither private school is currently being used full time.

The Village Park in Mishicot is a more than adequate size when compared to the standard of 1.2 acres per 100 residents. It also offers most of the desirable facilities and activities listed in the standard and the quality of the facilities is quite high. The major deficiency with the park relates to the service area concept of the standard. The park is centrally located and within a reasonable walking distance for residents of the original developed area of the Village. However, residents of the annexed areas to the southeast are a significant distance from the park and there is a lack of a public recreation facility in their area. In all likelihood, the distance to the existing park serves as a deterrent to their ability to use the park on a regular basis. The Village owns several small parcels of land which they have begun developing as neighborhood parks, the first being 2.81 acre parcel of land at the southeastern corner of STH 147 and Steiner Drive, the second being a parcel located on Randolph Street. The development on these sites consists of play apparatus, grills, and tables.

In order to develop a park system in Mishicot to serve all residents, the Village should establish a recreation plan which includes: continued development of the existing park, making it the focal point for public recreation activities in the Village; development of a third neighborhood park on the land the Village owns on Samz Road which is the site of their second water tower and acquisition and development of a park in the Steiner's Corner area with such facilities as a ball diamond, tennis courts, play apparatus, etc.

The Village of Mishicot made great progress in improving their parks during the last several years with the acquisition of the dam property, development of the two neighborhood parks, acquisition of the new bleachers for the softball diamond, expansion of their picnic facilities, redoing the lighting for the main softball diamond and tree planting. A new asphalt paved and lighted Riverwalk has been added along the East Twin River from S. Main Street to S. Rockway Street at the covered bridge. Riverwalk expansion is planned in a more rustic fashion from the covered bridge west to S. State Street. Future expansion is being planned from S. State Street along the East Twin River west to the VFW River Access. Additional projects and their priority for the next five years, which will further improve the parks and the Village's recreation needs include:

1. Continued expansion and landscaping of the picnic facilities, provide additional play equipment and additional bleachers for the ball diamonds at the park.
2. Blacktopping of the parking lot.
3. Continue development of the neighborhood parks with additional play equipment and landscaping.
4. Acquisition and development of a second major park in the Steiner's Corner area.
5. Development of a third neighborhood park on and adjacent to a 150' x 150' parcel owned by the Village, on Samz Road on which the Village's second water tower is located as the residential development in the area warrants.
6. Acquire additional land and provide a walkway from South Rockway Street to the existing parking lot.
7. Clear the island below the dam and provide a foot bridge for access and develop picnic facilities there.

8. Construct the third phase of the large wood playground called Wooden Wonderland located to the northwest of the tennis courts. This complex features 2 slides as well as many other playground items. A handicapped playground area is proposed for the third phase of this project.

The local VFW Post donated their land and clubhouse to the Village in 1991. This facility is located at the west end of the Village south of STH 147. This parcel totals 2.93 acres and has frontage on the East Twin River. The building is used by senior citizens as a meal site three days a week throughout the year. It is also rented out to the public for picnics and other gatherings. The area includes a softball diamond, some playground equipment and picnic tables. In 2012 the area along the river was developed to include a new handicap accessible lighted river access and observation deck. This expansive project was paid for in part by a series of four DNR urban river and urban trail grants.

Finally, the East Twin River has played a very important role in shaping the physical development of the Village. But it can play an even more important role in shaping recreation and open space if the Village residents and governing body so desire. The Village has a unique opportunity to maintain a linear open space corridor from the existing park to the Steiner's Corner area. In 1979 the Village rezoned the entire floodplain area along the river from the existing park to the Steiner's Corner area C1 Conservancy, which effectively prohibits any development in this area. It is planned to leave this area in its natural and actively seek dedication of these areas when neighboring lands are subdivided. The Village should be commended for its efforts thus far in promoting intelligent development in the shoreline areas with its adoption of floodplain shoreline ordinance. Continued management through reasonable development will benefit the entire community.

Village of Reedsville Park and Open Space Plan

The Village of Reedsville, with a 1990 population of 1,182 persons, is located in west central Manitowoc County. This community is the oldest incorporated Village in the County having been incorporated in 1892. The Village is primarily an agricultural service community, but because of its proximity to industrial employment areas is, somewhat of a commuting center. It has also established an industrial park to help encourage economic development in the community. The Village has experienced slight, steady growth in the past few decades and is expected to continue to do so in the future with a 2010 population of 1,206 persons and a projected population of 1,211 persons by the year 2020.

At present, residents of Reedsville are served by a Village-owned park of 12 acres located in the south central area of the Village. Adjacent to the park is a parcel of 10.85 acres owned by the Reedsville Fire Department. This area is, also, devoted to recreational activities and the Village has a long-term lease on the land owned by the Reedsville Fire Department. The Village has acquired an approximately 3 acre Bubolz Park which is located north of U.S. 10 and has been developed with a lighted ball field with backstop, bleachers, play apparatus, grill, sign, and bathroom/concession stand.

The Village-owned property consists primarily of an open sports field, which has a baseball diamond with bleachers and softball diamond. It, also, has some picnic facilities and a paved area is located in its northeast corner across, Mud Creek, which is used for court games and parking. Mud Creek flows through the property from north to southeast increasing the attractiveness of the park. The Village has constructed a spancrete bridge across Mud Creek to join the paved area with the park. The adjoining Fireman's property has an extensive selection of play equipment, lighted volleyball area, two tennis courts, horseshoe pits, tether ball, an enclosed shelter, two concession stands, a storage building, and modern toilet facilities.

Additional recreational facilities are provided at various school sites in Reedsville. A small amount of play equipment is provided at St. John's Lutheran School, located in the eastern portion of the village. St. Mary's Catholic School site, situated near the western edge of the village, offers play apparatus and basketball court. An elementary school is located south of the park on school district property. Play equipment has been provided at the school and a track-football field complex has been developed between the park and the school.

The adequacy of existing recreation facilities provided by the Village can be measured in terms of park size, park location, and facilities offered. With respect to size, the combined area approximately 26 acres far exceeds the area (16.5 acres) recommended as a minimum by application of the 1.2 acres per 100 residents recreation standard. The parks are centrally located and are within reasonable walking distance (one-half mile) of nearly all of the developed area.

The existing parks offer essentially all of the facilities and activities recommended in the recreation standards for villages. While major facilities aren't lacking in the parks, the approach of promoting park use and enhancing their attractiveness through minor improvement projects, renovation projects, and expansion of existing facilities should be continued by the Village.

During the next five-year period, it is recommended that the following improvements be undertaken for the village parks.

Village Park South Side

1. Lighting for Park Street

Bubolz Park

1. Fencing along the south property line
2. Lights for the ball diamond
3. Relocate the existing drainage ditch

Village of St. Nazianz Park and Open Space Plan

The Village of St. Nazianz was incorporated in 1956 and has grown from a 1960 population of 669 to a 2010 population of 783 or growth rate of 17% over the past half-century. The community was founded in 1854 by Father Ambrose Oschwald, who with eighteen male followers, came from Baden, Germany to settle in this area. After his death in 1873, the community, which by then had become largely populated with people not belonging to the community's religious order, became a demographic village. The Village in addition to its religious focus, has also developed as an agricultural service center. A slight growth rate decline of 3% in population is projected from the year 2010 to 2020.

With the closing of JFK Prep there is only one major recreational facility in St. Nazianz, that being the 18-acre Oschwald Park, which is located in the western part of the village. The park contains a ball diamond with bleachers, a scoreboard and fencing, two lighted tennis courts, volleyball court, picnic area with tables, both shelter #1 and shelter #2 have enclosed kitchen facilities, playground equipment, horseshoe pits, 9-hole Frisbee golf course, large parking lot, and a hill that is used for sledding in the winter months.

In comparing the park's location, size, and number of facilities with the suggested recreation standards for villages, some deficiencies can be noted. The park is within a half-mile walking distance of existing community residents and areas likely to develop in the future. CTH's "A" and "C", however, are somewhat of a barrier for some village residents. 1984 traffic counts show that the average daily traffic on CTH "A" south of CTH "C" is 1830, CTH "A" north of CTH "C" is 1340, CTH "C" east of CTH "A" is 1390, while CTH "C" west of CTH "A" is 870. These traffic counts are not of a magnitude to create significant barrier that would warrant serious consideration of additional park sites in the near future.

Oschwald Park is more than adequate size to meet the needs of the residents, based on the standard of 1.2 acres per 100 residents. The topography of the land is quite suitable and the inclusion of the stream provides a pleasant water aspect to the area. Because of the adequacy of the park's location and size, acquisition of additional land for park purposes is not recommended at this time.

The Village has improved the park a great deal in recent years by construction of the horseshoe pits and volleyball courts, the lighting for the tennis courts, the additional fencing, and bleachers for the ball diamond.

To correct the deficiencies in facilities offered and to continue development of an already good park into a complete village park, it is recommended that the following improvements should occur in Oschwald Park within the next five years.

1. Curtains for around both shelters.
2. Safety matting under playground equipment.
3. Announcers stand behind backstop on ball diamond.

4. Develop creek area into nature area.
5. Plant 10 additional trees a year for 5 years.
6. Playground equipment (multiple gym set).
7. New handicapped accessible bathroom facilities, convert portion of old bathroom facility into concession stand and enlarge the equipment room.
8. Develop southeast corner of park to create more picnic area.
9. Regrade the toboggan slide.

Village of Valders Park and Open Space Plan

The Village of Valders is located near the center of Manitowoc County and is primarily an agricultural service community, with commercial and industrial employment opportunities. The village is also the hub of the Valders Area School District. Incorporated in 1919, Valders experienced gradual growth through 1960, increasing its population by only 118 persons in a 30 year period from 1930 to 1960 to 622. However, the population of the village increased to 905 persons by 1990, and by 2010 grew to 962 persons. Valders has experienced continuous growth over the past two decades with that trend to follow suite in 2020 with a projected population growth of 1,086 people, which is a 13% increase over the next 10 years.

Village residents have been served by one of the most well developed village parks in the County, in addition to the facilities offered by our local school district. The facilities in our parks have been continually improved by various volunteer community service organizations and the village staff to continue to provide an excellent resource of recreation in our community. The Valders Memorial Park consists of a developed area of about 15 acres within a nearly 21 acre parcel of village owned land. Located on the northern side of the village, it is adjacent to the Valders Area School District's building and athletic fields.

Memorial Park serves a dual purpose; it is both the center of the village's public recreational activities and the site of numerous scholastic athletic events. The Village, with the aid of various service groups, has provided a baseball diamond with dugouts and bleachers, two lighted tennis courts, play equipment for toddlers and school aged children, three open air picnic shelters, picnic tables and grills, a community/senior center with a meeting room, kitchen and restrooms which is utilized by many service organizations, and a large asphalt parking lot. These facilities are generally located in the southern half of the Village park property. Located in the northern area of the park is a lighted softball diamond with bleachers, a batting cage, horseshoe pits, and a shelter and restroom facility. The most northern area of the park provides a graveled parking area for the upper diamond. In 2007 the undeveloped hillside area to the east was utilized to plant a village nursery with 100 trees to mature and be available to plant in the future throughout our parks and public lands.

In 2010 a group of dedicated sports supportive volunteers conducted a major fundraising effort, along with countless hours of volunteer labor; where able to completely re-construct a new hardball diamond, including new fencing around its perimeter, and a new score board. In 2012 the Village Board was faced with a tough decision due to a fire which completely destroyed our community center men's restrooms. Repair the original structure built in phases during the 1960's, 1970's and 1980's which has adequately served our community for almost fifty years or start over and rebuild a new up to code facility. The Village decided to write for and was awarded a CDBG Public Facilities grant. The grant funds, a loan and generous donations allowed for construction to start in the spring of 2013 of our new Senior Community Center; with a concession stand for our baseball diamond, which opened for public use in august 2013. This facility is now utilized four times more than the old center and has proved to be a great asset to our park system.

The Melody Lane Mini Park is located on the Village's west side off of South Adams Street. This small 1.41 acre park provides close residential access for our growing residential subdivision. In 2008 our aging wooden playground equipment was removed and replaced with a new upgradeable play system with the aid of the Valders Lions Club and many volunteers. In 2010 and 2011 the Valders Lions Club provided funds and labor to continue to improve this park by constructing a new open shelter with restrooms.

Additional active recreation facilities in Valders are provided on the school district sites, which adjoin the park to the south and west. A hard surfaced area for court games, play equipment and soccer fields and practice football fields are located at the elementary school. A track and field area for the middle and high school complex lies to the west of the park and an indoor swimming pool which is available for use by the general public. There are also two practice baseball diamonds located on the school district grounds.

Based on the general standard of 1.2 acres per 100 persons, the village park site areas are adequate to meet existing and future acreage needs. The Village does not propose the creation of any new Village park or recreation area in the near future. However, should any new large subdivision be developed in the future, it will need to be reviewed if additional park land should be dedicated at that time.

Over the past five years, the Village has been very fortunate to have several of our wish list park projects become a reality. The Valders Village parks are what they are today due to the ongoing efforts of our dedicated community and local service organizations. Village budget constraints continue to tighten and the recommended park improvements for the next five year period will only become a reality with their continued support, generous donations and the award of possible grants which may be available thru state and private agencies. The future projects are listed in their priority from highest to the lowest as follows:

1. Continue to replace the aging playground equipment in Memorial Park.
2. Crack fill and re-paint tennis court surface.
3. Roadway improvements and application of an asphalt surface to the gravel parking area in the northern upper baseball diamond portion of the Memorial Park.
4. Resurface the original asphalt large parking lot in the southern part of Memorial Park.

Approved by a majority the Valders Village Board of Trustees at its regular meeting held on February 8, 2016 at the Valders Village Office.

Devan Schneider, Village President

Lori Bruckner, Village Clerk/Treasurer

Village of Whitelaw Park and Open Space Plan

The Village of Whitelaw was incorporated in 1958 and had a population of 649 persons in the 1980 census count. Its 1990 population was 700 persons, and coming in at 757 people in 2014 reflects an 8.14% increase in population over that past twenty years. The community is basically an agricultural service center, but its proximity to the employment centers of Manitowoc and Two Rivers and its location on a U.S. Highway have given it development potential as a commuting center. With this potential, it is expected that the village will continue to experience population growth and will have a projected population of 793 persons by the year 2020.

Whitelaw's residents are served by the Whitelaw Community Park which is located in the northwestern part of the village. The park consists of a developed area of approximately eight acres located in the southwestern portion of a village owned site of about 60 acres. Included in this village site with the park are the Village sewage treatment facilities, recycling center, an area used by the Sportsman's Club for a clubhouse and trap range, with the remainder of the site being wooded or wetland. The park has a lighted ball diamond with fencing, a scoreboard and dugouts, an assortment of play equipment, a shelter, picnic tables and grills, horseshoe pits, volleyball area, and toilet facilities. Parking areas are provided east of the ball diamond and also near the clubhouse. Water and flush toilets are available at the clubhouse when it is open for public functions.

In addition to the park, St. Michael's Parish helps to meet the active recreation needs of school aged children in the Village. Play apparatus, basketball, and an open play area are provided at the school site.

Based on a general standard of 1.2 acres of park land for every 100 residents, the Community Park has an adequate developed area of one-half mile, coupled with access problems caused by having to cross federal and county highways, leaves much of the developed area of the village somewhat removed from the park. Therefore, a second park site in the eastern and southern portion of the village has been identified for future development as a park. The facilities at this second site would not have to be as extensive as a well-developed village park, if the Village continues to develop the existing park. Until the second site can be developed the village could develop a small play area on the village water tower and pump house site north of U.S. Highway 10. It may, also, be able to utilize part of the adjacent Fire Department property with their consent. Because of the limited area and access to the above site and the future potential for residential development south of U.S. 10, the village has identified a potential future site in the southeastern portion of the village on their Official Map, the timing of which will be dependent on the amount of future residential growth in the southeastern sector of the village.

The demand for baseball and softball continues to increase. The Village, along with the service organizations have developed two additional baseball and softball diamonds at the Village park. A second smaller diamond was added to the west of the existing diamond and the Village is in the process of adding a third diamond to the southeast of the initial diamond. At this location, these new facilities are in relatively close proximity to existing support facilities (parking, toilets, etc.). This area of the park has two shelters complete with running water, flush toilets,

electricity, storage and a concession area. A reasonable amount of parking area exists to support the facilities.

Additional projects for the next five years which will further improve the park include:

1. Blacktop the parking lot at the existing park and look to expand parking.
2. Resurface tennis courts.
3. Purchase of handicapped assessable playground equipment to comply with ADA.
4. Acquisition of additional land for the existing park.
5. Acquisition of land for a second park on the south side of U.S. Highway 10.
6. Development of a nature, exercise, and bicycle trail.
7. Development of an outdoor ice skating rink.
8. Continue to remodel existing shelter.
9. Continue development of a third ball diamond.
10. Acquire new bleachers for all ball diamonds.
11. Additional playground equipment for existing park.
12. Additional lighting for the horseshoe pits.
13. Additional lighting for the tennis courts.
14. A public address system at the existing park.
15. Update existing bathrooms.

CHAPTER VI

PARK AND OPEN SPACE PLAN FOR MANITOWOC COUNTY AND REGIONAL FACILITIES

PARK AND OPEN SPACE PLAN FOR MANITOWOC COUNTY AND REGIONAL FACILITIES

Introduction

In an earlier section of this report, park and open space planning guidelines were established, including general park and open space goals and objectives. One of the objectives listed is to coordinate public and private facilities to avoid duplication of facilities. To realize this and the other goals set forth, each level of government must be aware of its responsibilities in providing outdoor recreational facilities. The recreational responsibilities of municipal levels of government have been discussed and action programs to meet these responsibilities have already been prepared.

As emphasized previously, the primary responsibility of a municipal government is to provide recreation facilities which meet the daily active and passive recreation needs of residents on both the neighborhood and community levels. It follows that a County's responsibility is to provide larger, less developed parks and special facilities with County-wide appeal and located within reasonable distances of all its residents. The State, in turn provides even larger, less developed facilities than the county, with its primary responsibility being resource protection.

This section of the report elaborates on County and State responsibilities with the primary focus being to present a park and open space plan to guide the county in its decision-making. Goals and policy statements and standards specifically relating to regional park and open space facilities are recommended. Existing facilities are reviewed to determine deficiencies. A plan and priority program dealing specifically with county facilities is then presented. In addition, special use activities and facilities for which the Department of Natural Resources has developed standard and make estimates of participation levels are evaluated in some instances, general recommendations are made on meeting the demand for an activity. Finally, there is a brief discussion on recreation needs within the individual town which compromises the unincorporated area of Manitowoc County together with a series of general recommendations to serve as a guide for town officials.

PARK AND OPEN SPACE PLAN POLICIES FOR MANITOWOC COUNTY

The Manitowoc County Planning and Park Commission has, over the years, developed some rather specific policies to guide them in their decisions regarding parks and open space. Not all of these policies have been formally adopted but they have, nonetheless, significantly influenced the Planning Commission in their decision making regarding the county parks. The following list of County policies should be viewed as additions to the general policies outlined in a previous section of this plan.

1. A major emphasis shall be placed on acquisition of additional park land with development to be of secondary importance. This policy has evolved because desirable

recreation land is rapidly becoming committed to other land uses which will be virtually irretrievable for park and open space purposes.

2. The County should strive to acquire and develop recreational facilities that are not provided by other units of government. Thus, the provision of the neighborhood playground or village size parks is viewed as the responsibility of local governments whereas, the provision of large acreage, natural parks which provide for the recreational needs not met by city, village, or state recreational facilities is the responsibility of the County.
3. Efforts should be made in existing and future county parks to maintain as much of the natural character of the area as is possible. County parks are therefore, not intended to have the same “manicured” look of urban parks. This should not be interpreted to preclude all active recreation areas.
4. Park and open space acquisition should be used where possible to protect resources and for areas with outstanding or scenic qualities.
5. Special consideration should be given to the few remaining woodlots in the county when park and open space acquisition or preservation is contemplated.
6. Americans with Disability Act (ADA) analysis was conducted on Manitowoc County’s recreational facilities. See Appendix B.

Standards for County and Regional Facilities

Like municipal recreational facilities, numerous standards based on past experiences and recreation trends have been developed to serve as guidelines in providing regional recreation facilities. The commonly used standard of 15 acres of regional park and open space areas per 1,000 residents in addition to municipal park acreages is recognized by the National Recreation and Parks Association (NRPA).

The overall standard will be used in preparing the park and open space plan for Manitowoc County. However, it is a general guideline and should not be the measure of need in determining regional parks and open space areas. As examples, the recreational function of a proposed regional facility and its location in relation to population centers, or the need to preserve an irreplaceable or unique resource, are of greater significance than whether a general acreage standard is being met. Regional facilities to be considered in the plan have, therefore, been categorized and more specific standards have been developed, which are intended to be consistent with the overall goals, objectives, and policies contained in the plan. The three designated categories of regional facilities are: County Park; Special Purpose Park; and Reservation, Preserves, and Greenbelts. Each is discussed below, including a description of its intended function, desirable size, the amount and type of development likely to be provided in the facility, and the governmental body responsible for providing the facility.

1. County Park: The county park has an intermediate function in the public park system, which progresses from neighborhood level to the national level. Its role is to fill the gap between the intensively developed facilities found in cities and villages and the resource protection-oriented state parks and resource areas. The county park should offer a wide variety of active and passive recreation experiences and be designed for day-long use, or perhaps, over-night use by the family.

Several considerations must be weighed and balanced when considering appropriate locations for parks. These considerations have been expressed in the goals, objectives, planning principles, and site selection criteria contained in the Recreation Planning Guidelines, as well as the park and open space policies relating to Manitowoc County. Some of the major considerations specifically relative to locating a county park are: proximity to significant population centers, accessibility from county and state highways, location in relation to existing recreation areas, a maximum reasonable travel time of one-half hour, and locating county parks in a variety of landscapes and scenic areas throughout the county. In general, a location for a county park should emphasize interesting topography and be characterized by scenic views, wooded areas, lakes, streams, or rivers.

The facilities and areas developed or provided for in a specific county park will depend on the physical characteristics of the site. The developed facilities should generally include areas for active sports, playground equipment, trails and paths, picnic area, a shelter building, water and toilet facilities, ample parking, and day or over-night camping areas. Hiking trails, nature walks, scenic overlooks, and large undeveloped areas should be considered in meeting passive recreation needs. When the natural potential and location of the site is appropriate, summer water sport activities (fishing, swimming, boating, etc.), and active winter sports (skiing, tobogganing, snowmobiling, etc.) may be included in the county park.

It should again be emphasized that the county park is not intended to be as developed and manicured as a city or village park; nor is its function to be as natural as a preserve or reservation. To accomplish this balance between developed and natural areas and to provide the facilities listed above, a desirable minimum size for a properly developed county park is 100 acres. Finally, the county should, as a general guide, provide a minimum of 4 acres of county park for each 1,000 county residents.

2. Special Purpose Park: The special purpose park is a park which is acquired and developed to meet a specific need of the general public. There are four broad types of special purpose parks: the lake access, the small park with limited number of facilities, and the wayside and/or historical marker, and multi-purpose trails. The main purpose of the lake access is to provide public boat access to lakes and rivers for fishing and boating. The small park with a limited number of facilities is generally a more sophisticated and larger version of the lake access. Like the lake access, such a park contains boat launching facilities, but it has additional areas for such activities as swimming and picnicking.

The wayside and/or historical marker are designed for the purpose of providing rest and picnic areas of the motoring public, or information on the historical background of the area. The lake access and small park are generally provided by the county and the wayside and/or historical marker is usually developed by the state. Multi-purpose trails, such as the Devil's River Trail, which was part of the Rails-to- Trails program, are generally owned by the State but maintained by the county.

The location and size requirements for a special purpose park will, for the most part, depend on such factors as the size of the water resource, the physical nature of the area, the availability of land for lake accesses and small parks, and on the amount of traffic and potential use for waysides. Similar types of factors must be considered in evaluating whether existing facilities should be increased in area, or whether additional facilities should be added. Thus, a list of desirable facilities cannot be listed and a desirable minimum size cannot be recommended for a special purpose park. But, it is recommended that a guide of one acre per 1,000 county residents be used in providing an adequate amount of acreage for special purpose parks in Manitowoc County.

3. Reservations, Preserves, and Greenbelts: These types of open space areas are usually located outside of urban concentrations and include large tracts of land, which are undeveloped or have limited development. Such areas are usually provided by county, state, or federal government and have the primary function of resource protection. Reservations and preserves may be established to conserve forest lands, marsh lands, flood plains, wildlife habitats, and other areas having scenic or natural values. Normally reservations and preserves include several hundred acres of land and some physical improvements are provided which are incidental to the enjoyment of the natural scenery.

The improvements are usually located in one section of the reservation or preserve so that the area, by the large, remains undeveloped. Improvements may include: over-night and long-term camping facilities, picnic areas, swimming and boating facilities, winter sports areas, and hiking and bridle trails.

The greenbelt has basically the same characteristics and functions as the reservation or preserve. However, a greenbelt may, as a major function in addition to protecting and controlling resources and as a means of shaping urban development in a metropolitan area. It may also act as a buffer between an urban area and surrounding rural areas and serve as a means of connecting parks within an urban area.

Because these open space areas function to preserve natural resources and to supplement municipal and county park facilities, a significant number of acres per 1,000 residents should be provided. The remaining ten acres of the commonly used 15-acre standard is recommended, as a minimum guide, for providing reservations, preserves, and greenbelts for every 1,000 residents. However, it must be emphasized that the actual acreage devoted to this category of regional facilities can vary greatly from one locality to another depending on the magnitude of or variation in resources existing in an area, the degree of development pressures, which might adversely affect significant or unique resources and general public attitudes on preservation resources.

Manitowoc County Park and Open Space Plan

Inventory of Existing Facilities

An important step in preparing a recreation and open space plan for Manitowoc County is to conduct an inventory of park facilities and open space areas. Such an inventory was conducted and the information was collected by the planning staff according to the three categories of regional parks and facilities.

There are at present, five facilities which can be classified as county parks; 18 special purpose parks which function as either small parks or lake or river accesses; and five areas which are public reservations or preserves. The locations of these existing regional facilities are shown on the map. Number designations for site locations on the map correspond to numbers given to facilities in the text and accompanying table.

County Parks

1. Cherney Maribel Caves County Park (No. 5) is situated in the Town of Cooperstown approximately fourteen miles north of the City of Manitowoc, thirteen miles northwest of the City of Two Rivers, and is adjacent to CTH "R". This 75-acre site was acquired in 1963 as the first major park in the Manitowoc County Park System. The upland area of the park is gently rolling and partially covered by stands of tall trees. A rugged cliff line separates the upland area from the lowland area which is adjacent to the West Twin River. The foot of the cliff line contains caves and openings in the rock layers.

The upland wooded area and its fringe are developed with facilities for picnicking, biking, skiing, and hiking. A shelter with toilets, picnic tables, grills, playground equipment, a hard surface driveway and parking area are provided in or near the picnic area. Portions of the open land have been planted in seedlings in a reforestation project. A staircase and trail system has been constructed for greater accessibility to the scenic lowland area consisting of the caves and rivers.

The lowland and cliff areas contain several medium to small caves and opening in the rock layers.

2. Fischer Creek Park (No. 8) is a 160-acre park was purchased by the State of Wisconsin using Stewardship Money along with a contribution from Manitowoc County. The property is owned by the state and developed and maintained by the county. The park site is located north of the Village of Cleveland with nearly a mile frontage along the shore of Lake Michigan.

Topographically the most prominent feature of the property is the Lake Michigan shoreline. The sheer 50' to 60' high sandy clay bluffs provide a spectacular panoramic view of Lake Michigan. Additionally, in recent years, lower lake levels have exposed a beautiful white sand beach which borders the entire east boundary of the park. The property is unique in that, typically, it is very difficult, if not impossible, to provide

access to the beach in those areas with high bluffs. This area has a naturally sloped access to the beach which was created by Fischer Creek and the gently sloped valley adjacent to it.

Portions of the property lie on either side of Fischer Creek. Fischer Creek is a narrow, shallow tributary to Lake Michigan with an approximate length of 6.3 miles. The creek meanders through a small tree lined valley emptying into the lake near the southern one third of the property. There is evidence that this stream supports natural reproduction of native trout as well as a seasonal run of steelhead from Lake Michigan. A steel bridge which crosses the creek near its mouth marks the location of the original military road which linked Milwaukee with Fort Howard, which was located in Green Bay. There is also evidence of Native American Mounds located on the property overlooking Fischer Creek along with evidence of several campsites on the park property. The property is divided into two relatively similar sections, north to south by the creek. The landscape on both sides of the creek, slopes down to the bed of the watercourse and then slopes easterly to the lake. The property also contains a number of abandoned agricultural fields and grassy meadows bordered by a lowland pine forest, which corresponds to the drainage patterns and water courses of the area. Because of the diversity of the landscapes found on the property it will be ideal for passive recreational uses such as hiking, cross country skiing, nature study, picnics on the beach, and sightseeing.

A citizens committee was formed and helped develop a master plan for the future development and use of the park. This plan was adopted by the Manitowoc County Planning and Park Commission and forwarded to the Department of Natural Resources for their review.

3. Lower Cato Falls County Park (No. 15) is the second facility in the County Park System that is classified as a county park. This park is located in the Town of Cato about one mile east of the unincorporated settlement of Clarks Mills near the geographic center of the county. This 84-acre park was purchased in two stages, the last acquisition of 50 acres occurred in 1974. The park is located between CTH "JJ" and the Manitowoc River. Playground equipment, picnic tables, grills, toilets, an 18-hole disc golf course, 3 wooden staircases that lead to the lower levels of the park and a hard surface driveway and parking area are provided in or near the picnic area. It is very scenic with wooded hills, rock outcroppings, and a wide variety of vegetative cover. The river, at the point where the park is located, flows through a narrow gorge and cascades over a falls into a large pool to form a good fishing hole as well as a very scenic river landscape. This park offers approximately 2,040 feet of river frontage.
4. Point Creek Conservation Area (No. 20) is the most recent addition to the Manitowoc County Park System, which is located in the Town of Centerville in the southeastern portion of Manitowoc County. The property consists of 39 acres of woodlands, meadows, estuary, wetlands and coastal bluffs with approximately 2,800 feet of high bluff bank and associated Lake Michigan shore. Point Creek defines the southern boundary of the property, which includes over 1,000 feet of riparian corridor.

5. Silver Lake Park (No. 24) is a 12-acre park that is leased to Manitowoc County by the Franciscan Sisters of Christian Charity of Holy Family Convent. The park offers an excellent family picnic area, complete with a shelter, grills, tables and toilet building. A concrete boat ramp and pier are available for launching canoes, sailboats and rowboats. Motors, except for electric motors are restricted from the lake by Town ordinance.

The lake itself is 55 acres in size, almost divided into two separate lakes, by a long narrow neck located in the middle. The wooded margins of both sections of the lake and Silver Creek, offers the delights of bird watching, especially at the time of the spring and fall migration of warblers.

Silver Lake provides an excellent opportunity for families to fish from shore or by boat.

6. Walla Hi County Park (No. 28) is a 160-acre site purchased in early 1977. The park site is located in the Town of Schleswig about 4 miles east of the City of Kiel. The park was open to the public in 1977 for picnicking, hiking, and cross country skiing. The park features heavily wooded areas with winding trails over varied terrain, open areas, and a stream and pond fed by natural springs. Facilities include a picnic area, grills, picnic tables, playground equipment and toilet facilities. The park offers picnicking, hiking, fishing, cross country skiing, and a horse trail.

With assistance from the Wisconsin Department of Natural Resources and Trout Stamp Monies, the concrete raceways have been removed and the stream returned to its natural state. Development of the park has occurred in the area of the reforestation project. An access road and parking areas have been developed, with the assistance from the U.S. Marine Corps Reserve Unit in Green Bay. The road offers access to the toilet facility, playground equipment, hiking and cross country ski trails, trout stream, and former hatchery building.

The park site offers great potential for recreational opportunities. The westernmost 80 acres is heavily wooded with significant topographic variations. It is in this area that many existing trails used for hiking and snowmobiling can be found. The easternmost 80 acres has more of a rolling topography with open meadows and areas reforested with softwoods, many of which are 20 feet in height. A home is, also, located in the area and is rented out.

In the spring of 1989, the Department of Natural Resources used the park as one of the release sites for the re-establishment of the Wild Turkey in Manitowoc County.

Special Purpose Parks

The twenty-three special purpose parks owned by the County and State and the facilities offered at each are listed in the table. These special purpose parks are further delineated by the four broad types mentioned in the standards section; namely, small parks with limited facilities, access to water, and multi-purpose trails.

As shown in the table, the most common functions of these parks are to gain public access to lakes and to provide picnic sites. A limited amount of play equipment and toilet facilities are also provided at Long Lake and Horseshoe Lake. Silver Lake has a picnic shelter (gazebo) and toilet facility but because of the long term lease agreement for the property there is no play equipment permitted.

Most of the accesses listed in the table are lake accesses and are owned by the county. The county maintains an access on the West Twin River just east of Shoto. An access on the Manitowoc River just outside of the City of Manitowoc, which is owned by the Department of Natural Resources, has also been included in the access category because its function is to provide access to the water. Designed to provide public access for fishing on the Manitowoc River, the access was opened to the public in 1977 and a toilet facility and off-street parking lot were developed in 1978. The county maintains this access area.

The University of Wisconsin - Manitowoc Center has an area designated as a soccer field which is primarily used by youth leagues. They also have frontage along the shore of Lake Michigan.

The Manitowoc County Fish and Game Association have several parcels of land: a) land along the Manitowoc River just east of Clarks Mills which will provide access for fishing to the general public. b) a parcel of land along the inlet to Long Lake abutting the public access, which has been reclaimed to provide a spawning area for the fish in the lake (primarily Northern Pike). The Association has long maintained an access and parking lot to Weyers Lake.

The State has discontinued the waysides along the major highways in Manitowoc County and turned them over to either another municipality or a private individual. The I-43 rest area, located in the Town of Cooperstown, contains approximately 100 acres. Water, modern toilet facilities, and picnicking areas are available. The county maintains the waysides at Memorial Drive and Millhome is maintained by Holiday House.

Reservations and Preserves

1. Point Beach State Forest (No. 32) is a state forest and sandy beach area consisting of 2,770 acres and is located six miles northeast of the City of Two Rivers along the shoreline of Lake Michigan. The forest's topography is highlighted by a series of ridges and swales which were formed within a glacial lake and exposed when the level of the lake was lowered by geological factors. It is a major preserve and recreational feature in the area because of its size and facilities offered. In addition to preservation of a geological area, timber and scenic resources, the Forest also has the largest public campground (about 127 sites) in the county; numerous trails for hiking, cross country skiing, and snowmobiling; and several picnic and swimming areas situated along about five miles of Lake Michigan shoreline.
2. Collins Marsh Wildlife Area (No.33) is located in the Town of Rockland and consists of about 4,200 acres. The area provides an excellent opportunity to observe wildlife and hunting is allowed within some sections. Within the past year the Department of Natural Resources, with financial assistance from Ducks Unlimited, has developed a large

impoundment for improving the wild duck habitat. Conservation Education, Inc., a non-profit conservation minded group, uses a portion of the area for nature education purposes. It maintains a study center, observation tower, toilets, and parking area.

3. Killsnake Marsh Wildlife Area (No. 34) is proposed to include 8,000 acres of land when acquisition is completed. The area will function as a state controlled hunting ground as well as an educational area for the study of wildlife. The area in Manitowoc County presently consists of over 1,400 acres.
4. The State of Wisconsin owns three other smaller areas which are designated as wildlife or conservancy areas. It has 190 acres south of Kiel and along the Sheboygan River, which is designated for wildlife and public hunting (No. 35). A smaller conservancy and wildlife area (10 acres) is owned by the State on the north shore of Wilke Lake (No. 36). The State has, also, acquired about 30 acres in the Town of Two Creek along Lake Michigan as part of the Ice Age National Scientific Reserve. The significant glacial feature at this location is a buried spruce forest and the site is known as the Two Creeks Buried Forest (No. 37).
5. Sixteen acres of land adjacent to the Manitowoc River have been given to the Town of Manitowoc Rapids, to be maintained as a conservancy area (No. 38). A large portion of this area is flood plain, but there is a great variety of topography between the upland and the river proper.
6. Some quasi-public groups and institutions have also set aside land as reservations and preserves. These lands have not been included in the acreage total for reservations and preserves as they are not municipally owned. They are being noted, however, as their purpose is very similar to a public preserve and they are generally open to the public. Drum Memorial Forest, a 36-acre conservancy area, is owned by the Isaak Walton League and is located just south of Cherney Maribel Caves County Park. A trail has been constructed which links their trails with the lower end of Cherney Maribel Caves.

Another site, the Rahr Memorial School Forest, is owned by the Manitowoc Public Schools. It contains 130 acres and is located just north of Point Beach State Forest. The larger of the quasi-public reservations is Woodland Dunes. This wooded conservancy area is located between the two cities of Manitowoc and Two Rivers and is being acquired by a non-profit organization of the same name. The first acquisition occurred in early 1975 and the new area now consists of approximately 700 acres with a projected acreage of 1,200 acres. The Dunes has a marked trail system open to the general public for hiking, nature study walks, and cross country skiing. It also has a nature study center and office located on STH 310. Camp Sinawa is a former Boy Scout Camp located along the northwest shore of Pigeon Lake and contains approximately 240 acres, 160 acres of which is wooded with hiking and cross country skiing trails.

EXISTING REGIONAL FACILITIES (UNINCORPORATED AREAS) MAP

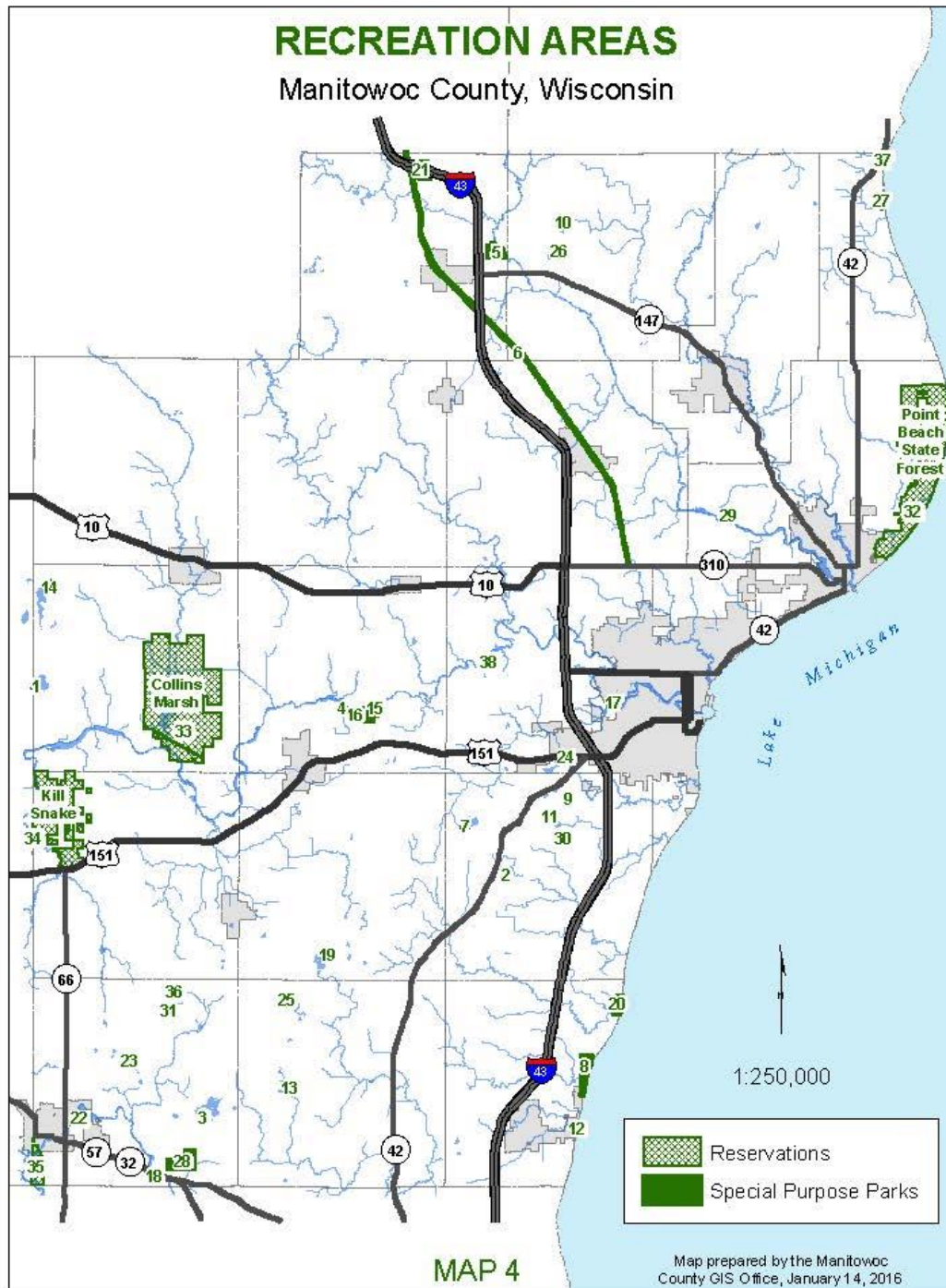


TABLE 7

EXISTING SPECIAL PURPOSE PARKS				
Name	Location	Type	Map No.	Size (acres)
Bullhead Lake	Rockland Tn.	Access	1	2.87
Carstens Lake	Newton Tn	Access	2	1.01
Cedar Lake	Schleswig Tn.	Access	3	2.01
Cherney Maribel Caves	Maribel	Park	5	75
Clarks Mills (7)	Cato Tn.	Access	4	0.65
Devils River State Trail (2)	Maribel to Kossuth	Trail	6	14
English Lake	Newton Tn	Access	7	2.63
Fischer Creek (2)	Centerville	Park	8	160
Gass Lake	Newton Tn	Access	9	2.01
Harpt Lake	Gibson Tn.	Access	10	0.35
Hartlaub Lake	Newton Tn	Access	11	1.4
Hika Bay(9)	Centerville Tn.	Access	12	0.02
Horseshoe Lake	Meeme Tn.	Park	13	8.2
Long Lake	Rockland Tn.	Park	14	5.61
Lower Cato Falls	Cato Tn.	Park	15	84
Manitowoc River (5)	Cato Tn.	Access	16	21.72
Manitowoc River (2)	Man. Rapids Tn.	Access	17	2.5
Millhome (4)	Wis. 32 & 57	Wayside	18	2.27
Pigeon Lake	Liberty Tn.	Access	19	0.46
Point Creek Park	Centerville	Park	20	39
Rest Area (3)	I-43	Wayside	21	100
Sheboygan River (8)	Schleswig Tn.	Access	22	3.35
Shoe Lake	Schleswig Tn.	Access	23	2.42
Silver Lake	Man. Rapids Tn.	Park	24	12.4
Spring Lake	Meeme Tn.	Access	25	1.96
Tuma Lake	Gibson Tn.	Access	26	0.86
Two Creeks (1)	Two Creeks Tn.	Park	27	20
Walla Hi Park	Schleswig Tn.	Park	28	160
West Twin River	Two Rivers Tn.	Access	29	2.03
Weyers Lake (6)	Newton Tn	Access	30	23.44
Wilke Lake	Schleswig Tn.	Access	31	0.89

Footnotes:

- (1) Park is owned and maintained by the Town of Two Creeks
- (2) Access is owned by the WI DNR but leased to Manitowoc County
- (3) Maintained by DOT
- (4) Maintained by the State
- (5) Maintained by Manitowoc County Fish and Game Association
- (6) Maintained by Manitowoc County Fish and Game Association and Manitowoc County
- (7) Maintained by the Town of Cato
- (8) Maintained by the Town of Schleswig
- (9) Maintained by the Town of Cleveland

Analysis of Deficiencies

In a previous section of this chapter, a series of standards or guidelines for providing regional park facilities and open space were recommended for Manitowoc County. A comparison of the guidelines for size, location, and development of regional facilities with the preceding inventory of existing facilities will indicate some of the general deficiencies that might exist in the present regional system. These indications can then serve as a springboard for making specific plan recommendations on park acquisition and development.

County Parks

There are at present, eight county parks with a total acreage of 543 acres: Cherney Maribel Caves, Fisher Creek, Horse Shoe Lake, Long Lake, Lower Cato Falls, Point Creek, Silver Lake and Walla Hi Park. Although not a county park, in 2010, the Devil's River State Trail, which is state owned but maintained by Manitowoc County Parks, was added to the County Park's inventory. There is 14 miles of trail in Manitowoc County that navigates through a variety of scenery, such as prairies, rivers, wetlands, and farmland. The Devil's River State Trail is a multi-use trail that is accessible year round. Activities include: hiking, walking, bicycling, snowshoeing, cross-country skiing, and snowmobiling. No other motorized vehicles are allowed on this trail. In 2015, the Wisconsin DNR acquired additional trail segment, which added approximately 6.8 miles to the Devil's River Trail. This is located in the southeast sector of the County and is yet to be developed.

All county parks, except Point Creek, offer picnicking areas. Five of the eight parks: Cherney Maribel Caves, Fischer Creek, Lower Cato Falls, Point Creek and Walla Hi are developed to meet needs in such recreational activities as hiking and bird watching. Currently, Walla Hi Park is the only park that offers an equestrian area. Cherney Maribel Caves offers a unique recreational opportunity of cave tours and they are the only park at this time with a mountain bike trail.

All county parks, except Fisher Creek (160 acres) and Walla Hi (160 acres) are smaller than the minimum desirable size of 100 acres. However, overall park and trail acreage devoted to Manitowoc County should be able to serve the citizens for years to come.

The location of County Parks in relation to population concentrations and to landscape groups also serves as an important factor in determining deficiencies. The County Parks are located in the north-central (Cherney Maribel Caves), central (Lower Cato Falls), southeast (Fischer Creek and Point Creek), and southwest (Walla Hi) sectors of the County. This distribution places a County Park within a reasonable travel distance of the major urban concentrations, the Manitowoc-Two Rivers area and the City of Kiel and several villages located throughout the northern and west-central parts of the county. It is, also, important to offer recreational areas in a variety of landscape types to take advantage of the scenic amenities and educational potentials inherent in the county's natural environment. The Marsh Area and Inland Lake Band Landscape Groups do not have a major County Park. However, the State has preserved thousands of acres of wildlife areas in the Marsh Landscape and the county maintains a series of numerous small parks and lake accesses in the Inland Lake Band Landscape. Point Beach State Forest is located

in the northern part of the Lake Michigan Shoreline Landscape, but that portion of the shoreline south of Manitowoc, which does have a different shoreline characteristic than Point Beach, lacks an area of significant public ownership.

Special Purpose Park

On an overall acreage basis, there seems to be an adequate supply of Special Purpose Parks in the county. The recommended standard is one acre per 1,000 county residents.

The location and distribution of Special Purpose Parks are as important, if not more important, than the amount of acres supplied. Here again, the system of Special Purpose Parks seems to be adequate. Small parks and lake accesses have been developed at all of the significant inland lakes. For the most part, Special Purpose Parks are distributed so as to complement the larger regional facilities. As an example, the parks on Long Lake and Horseshoe Lake serve rural populations which are a significant distance from the County Parks. Waysides have been quite well distributed throughout the county, with the larger waysides located on highways which carry the heavier traffic volumes.

Reservations and Preserves

Reservations and preserves generally include large tracts of land which are undeveloped and function as resource protection areas. They are usually established to protect forest lands, marshes, floodplain, wildlife habitats, or scenic or natural values. Manitowoc County residents are fortunate that such public areas have been set aside to the extent of nearly 8,400 acres. The existing acreage is well above the recommended standard of 10 acres per 1,000 county residents. These reservations and preserves have been established in the most significant resource areas of the county and Point Beach State Forest offers especially excellent recreation opportunities to the general public.

Regional Facilities Plan and Priorities

The importance of providing recreation and open space has been pronounced throughout this report. A strong point has been made on the need to provide recreation and open space if a quality of living environment is to be sustained in Manitowoc County. It has also been emphasized that each level of government has a responsibility to provide certain types of recreation facilities. Recreation systems in cities and villages should be quite extensively developed to meet the daily active and passive recreation needs of their citizens. Counties and the State, to a greater extent, are responsible for providing regional facilities, which normally cannot be developed in cities and villages and which complement recreation development at other levels of government.

Realizing that there is a spectrum of park and open space responsibilities involving all levels of government, the Planning and Park Commission has sought to identify the role Manitowoc County should assume. A Citizens' Advisory Committee with a diversity of attitudes, values, and feelings on park and open space was assembled previously to assist the Commission in this process. The Committee met several times to review the past goals and policies and develop

new ones to guide the county and to prepare a list of specific recommendations to the commission. More currently, a review of those priorities was conducted and presented to the Planning and Park Commission.

Plan recommendations for County Parks and Special Purpose Parks for which the county has acquisition and development responsibilities follow and acquisition proposals are shown on the Regional Facilities Plan Map. Those projects which are recommended for completion during the next five-year period are preceded by an asterisk (*), while the remaining projects are recommended for completion by the year 2021.

County Parks

1. Land Acquisition Projects

- A. A County park should be acquired in the west to central portion of the county, preferably along the Branch River or Mud Creek.
- B. No other specific proposals for new County Park sites or expansion of existing sites are being recommended. Any expansion of the existing County Parks should occur only if it would serve a specific purpose (preservation of a resource or use, the use should be one which can't be accommodated on the exiting site such as a nature center on the sewerred lots south of Fischer Creek Park). Evaluation of any acquisition proposals should be based on the principles, standards, site selection criteria, goals, and policies contained in the plan.

2. Park Development Projects

A. Cherney Maribel Caves

- 1. *Develop an information system along the hiking trails. This should include identification or unique vegetation, land forms, and scenic vistas.
- 2. *Improve current parking lot with an overlay of asphalt.
- 3. Replace worn out play equipment with timber type play apparatus as needed.
- 4. Replace worn out, storm-damaged storage trailer used by the Wisconsin Speleological Society and Manitowoc County Parks.

B. Fischer Creek

- 1. *Strategically place sitting benches along the hiking trail where bird watching areas are most notably used.
- 2. Construction of handicapped accessible trail from the north and south parking lots and to the picnic area.
- 3. Construction of an observation platform, bridge, wetland boardwalk, signage, and fishing access to Fisher Creek.

C. Horse Shoe

1. *Install an ADA-Compliant restroom.
2. Improve the access road and parking area.

D. Long Lake

1. *Install an ADA-Compliant restroom.
2. *Install an ADA-Compliant pier.
3. Improve the access road and parking area.

E. Lower Cato Falls

1. *Develop an information system along the hiking trails. This should include identification or unique vegetation, land forms, and scenic vistas.
2. *Improve the access road and parking area with an overlay of asphalt.
3. *Install an ADA-Compliant restroom.
4. Replace worn out play equipment with timber type play apparatus as needed.
5. Construct a stair way in the western area of the park and link it to the existing hiking trails.
6. Attempt to extend the existing trail to connect the park with the property owned by Manitowoc County Fish and Game Association at the Oslo dam site.

F. Point Creek

1. *Install an ADA-Compliant restroom.
2. *Improve the access road and parking area.
3. Strategically place sitting benches along the hiking trail where bird watching areas are most notably used.

G. Silver Lake

1. *Replace current boat launch and pier to improve lake health for fishing and to reduce flooding. Includes raising several berms to reduce flooding.
2. Expand current parking lot to create additional parking spaces and for safer boat launching room.

H. Walla Hi

1. *Develop an information system along the hiking trails. This should include identification or unique vegetation, land forms, and scenic vistas.
2. *A point of interest sign should be located to describe the efforts at returning the stream to its natural state.
3. *Install an ADA-Compliant restroom.
4. Improve the access road and parking area.

Special Purpose Parks

1. Land Acquisition Projects

- A. The parks at Long Lake and Horseshoe Lake do have some expansion potential. Expansion should occur at a time in the future, but the acquisition of such land should be considered a lower priority need.
- B. The county should continue to pursue the possibility of developing a park on the Point Beach Nuclear Power Plant site in conjunction with the nature trails which have already been established by the power company along with the potential for a fish rearing pond.
- C. Purchase of additional land at Tuma Lake and Wilke Lake accesses is recommended primarily for the purpose of providing more parking and picnic sites.
- D. Public access to Schisel Lake and Hempton Lake should be acquired and developed. These accesses may be acquired with the assistance of the Manitowoc County Fish and Game Association with the county then assuming full responsibility for development and maintenance.
- E. Additional land should be acquired on Hartlaub Lake and the access relocated.

2. Park Development Projects

- A. A shelter building should be constructed and some play equipment should be replaced at Long Lake.
- B. The lake accesses have receive considerable attention over the years with the roads being regraveled or paved, the launches have been improved with metal mesh or concrete ramps, and toilets have been constructed in accordance with ADA specs, where there has been adequate land area and the demand has warranted their construction. This policy of improving the accesses should continue and as a 5-year objective, it is recommended that access roads be paved to eliminate annual maintenance cost associated with gravel roads (regraveling, grading, and dust control).
- C. The current boat launch and pier at Silver Lake needs to be moved for safe boat launch access and to reduce lake overflow/flooding. This will be accomplished with a new lake access structure (truss) and raising several strategically placed berms.
- D. All launch ramps (where topography allows) and fishing piers as well as the restroom facilities are to be brought into compliance with the ADA requirements. Handicapped parking spaces will be provided at all parking lots.

- E. Although not a County Park, the State recently acquired an additional trail segment of the Devil's River State Trail. This is located in the southeast corner of the County. Manitowoc County Parks has been approached by the State to develop and maintain this new recreational trail segment.

An excellent variety of reservations and preservation have been acquired by the State and in the case of Point Beach State Forest, excellent recreation facilities have been provided for use by county, non-county, and out-of-state residents. For all practical purposes, acquisition has been completed at Point Beach and Collins Wildlife Area and it is anticipated that the State will continue to acquire land for the Killsnake Wildlife Area. It is recommended that in the future, the State improve the Two Creeks Buried Forest site so that there is more public awareness of its value so that it can be better used as a resource and scientific education tool.

The Village of Reedsville has expressed an interest using the old Chicago and Northwestern route to develop a trail to Brillion. Eventually this trail could run from Brillion to the City of Manitowoc using a rail road right-of-way and U.S. Highway 10 right-of-way. The lakeshore counties of Sheboygan, Manitowoc, Kewaunee, and Door have long discussed the potential of development of a trail system along Lake Michigan. The City of Kiel has a trail system which they have interest in connecting Walla Hi County Park. A trail connecting Lower Cato Falls County Park with Manitowoc County Fish and Game property at the Oslo dam site would open up a section of the Manitowoc River for hiking and fishing.

County Parks and other types of public regional facilities described above are generally acquired by gaining fee simple title to land. But it is impossible for the County and State to acquire all of the natural and scenic areas that should be preserved or protected to some measure for future generations to enjoy. Thus, principal areas in which resources should be protected include river and stream valleys, marshes, lake shorelines, and areas of significant topography and woodlands. They, also, serve as open space linkages between most of the existing proposed regional facilities. The protection of these areas can range from outright public ownership or ownership by a quasi-public conservation group to protection by enactment of zoning or other regulatory controls.

Special Facilities and Activities

By design, the planning for recreation activities has primarily focused on park and recreation types, e.g., county parks, for which the various levels of government in the county are responsible. A list of facilities and the extent of development have been recommended for each type starting at the neighborhood level in cities and village parks in villages and continuing with county park and reservations and preserves on a regional level. This park-type system of standards does not, however, consider certain special recreation activities and facilities which are not necessarily found in any of the park types; nor does it provide a guide for meeting the demand for specific recreation activity. Examples of special recreation facilities and activities include boating, swimming, golfing, canoeing, bicycling, snow skiing, cross country skiing, and snowmobiling.

There are additional reasons why special recreation facilities should be considered separate from park types. Special facilities often have different topography and location requirements than parks and are, therefore, not necessarily part of a large publicly-owned facility. Whereas, park types are provided by public agencies, special facilities may also be provided by quasi-public and private concerns. This requires a more flexible program for providing special facilities as implementation becomes more difficult to coordinate. Also, special facilities are somewhat different from the normal acquisition and development of park types in that they can require greater financial commitments for the percentage of the general public to be served. Finally, the standards and guidelines must be more flexible as the need for special facilities is based on personal preferences, local social and economic characteristics, and the political clout of special interest groups.

This section provides the standards for individual recreation activities and the recreation demand for those activities; both developed by the Department of Natural Resources as a data base on activities. The base should prove valuable to government officials and private developers in assessing the need for new facilities for an activities and in designing and developing the facilities. A limited discussion on some of the special activities follows the standards. The activities discussed are those, which the county has been involved in, may become involved in, or which have some county-wide significance.

Activity Standards

The Department of Natural Resources has developed a list of standards for the more common recreation activities for use in preparing the State's outdoor recreation plan. The standards were determined on the basis of what would appear necessary for quality recreation experiences. The standards and assumptions permit future activity demands to be measured in terms of facilities needed and they also represent minimum goals in developing facilities. Each standard is an expression of the relationship between physical space required and recreation occasion. A recreation occasion is one person engaging in one recreation activity in one day.

STANDARDS FOR ANALYZING RECREATION DEMANDS

<u>ACTIVITY</u>	<u>STANDARD</u>	<u>ASSUMPTIONS</u>
Swimming Pools	One swimming occasion requires 9 sq. ft. of water.	1. Each swimmer requires 27 sq. ft. of surface water. 2. Turnover rate is 3.
Natural Swimming	One swimming occasion requires 35 sq. ft. of beach.	1. Each swimmer requires 105 sq. ft. of beach. 2. Turnover rate is 3.
Boating	One boating occasion requires 2 acres of water.	1. Each boat requires 15 acres of surface water. 2. The number of persons per boat is 2½. 3. Turnover rate is 3.
Water skiing	One water skiing occasion requires 5 acres of water.	1. Each boat and water skier requires 20 acres.

Fishing	One acre of surface water can accommodate 1 fishing occasion per day.	<ul style="list-style-type: none"> 2. Length of water skiing day is 8 hours. 3. Turnover rate is 3. 1. One boat requires 4 acres of surface water. 2. The average number of fishermen per boat is 2. 3. Turnover rate is 2.
Canoeing	One mile of stream can accommodate 8 canoeing occasions per day.	<ul style="list-style-type: none"> 1. The average speed of a canoe is 2 mph, including short stops. 2. Waters are entered from 7:00 a.m. thru 11:00 a.m. at 7½ min. intervals. 3. Spacing between groups is ¼ mile. 4. All canoers are off the water by 7:00 p.m. 5. The average number of canoes per group is 2. 6. The average number of persons per canoe is 2.
Snowmobiling	One mile of trail can accommodate 22 snowmobiling occasions per day.	<ul style="list-style-type: none"> 1. Snowmobilers ride an average of 2 hours. 2. The average speed of a snowmobile is 12 mph. 3. The average number of machines traveling together in a group is 5. 4. The spacing between groups is one mile. 5. The average number of people per snowmobile is 1½. 6. Snowmobile trails are entered from 10:00 a.m. thru 10:00 p.m. 7. The number of people or machines that can enter a trail per hour is 90 people or 60 machines. 8. However, to compensate for existing trail maintenance efforts and average climate conditions, entrance capacity is reduced by ½ to 45 people and 30 machines per hour of

Camping	One acre of campground can accommodate 20 camping occasions per day.	<p>entrance time.</p> <ol style="list-style-type: none"> 1. The average number of campsites per acre is 5. 2. The number of campers per campsite is 4. 3. There is no daily turnover.
Picnicking	One acre of picnic area can accommodate 72 picnicking occasions per day.	<ol style="list-style-type: none"> 1. Number of tables per acre is 12. 2. The number of persons per table is 4. 3. Turnover rate is 1½.
Hiking	Each mile of hiking trail can accommodate 8 hiking occasions per day.	<ol style="list-style-type: none"> 1. The average hiker travels 1 mph over an 8 hour period, which includes eating and rest stops. 2. The average trail is a minimum of 8 miles long. 3. Two hikers enter the trail every 7½ minutes. 4. Trails are entered from 7:00 a.m. 5. All hikers are off the trail by 7:00 p.m.
Horseback Riding	One mile of trail can accommodate 48 horseback riding occasions per day.	<ol style="list-style-type: none"> 1. The average horseback riding occasion is 2 hrs. long 2. An average number of riders and horses per group is 3 riders and 3 horses. 3. The average speed is 3 mph. 4. Spacing between groups is ¼ miles. 5. Trails are entered from 8:00 a.m. to 4:00 p.m. 6. The number of groups that can enter the trail every hour is 12.
Motorcycle Trail Riding	One mile of trail can accommodate 3.3 motorcycling occasions per day.	<ol style="list-style-type: none"> 1. Motorcyclists ride an average of 3 hrs. per day. 2. A motorcycling day runs from 10:00 a.m. thru 6:00 p.m. 3. Motorcycling trails are entered from 10:00 a.m. thru 3:00 p.m. 4. Average speed is 12 mph. 5. The number of cyclist per group is 2.

Cross Country Skiing	One mile of trail can accommodate 13 skiing occasions per day.	6. Spacing between groups is 1 mile. 7. Trails are entered at 5 minute intervals. 1. Based on average existing use of ski trails.
Bicycling	One mile of a bicycle trail can accommodate 52 bicycling occasions per day.	1. The average bicycling trip is 4 hrs. in duration. 2. Average speed is 5 mph. 3. Average number of bicycles per group is 3. 4. Spacing between groups is 1/10 mile. 5. Bicycling routes or trails are entered from 8:00 a.m. thru 3:00 p.m. 6. The number of groups that can enter trail every hour is 50.
Golfing	1. One 9-hole course can accommodate 250 golfing occasions per day. 2. One 18-hole course can accommodate 400 golfing occasions per day.	1. Based on average of existing operating capacities.
Competitive	One ball field can accommodate 50 recreation occasions per day.	1. There are 25 people on a ball field at one time. 2. Turnover rate is 2.
Snow Skiing	One acre of developed slope can accommodate 184 skiing occasions per day.	1. One skiing occasion consumes 15 units of tow capacity. 2. One acre of developed slope accommodates 40 skiers at a time. 3. At the same time 40 skiers ascend a hill, 40 other skiers are descending the slope. 4. Ski tows operate an average of 7 hrs. per day.
Target Shooting	1. One firing point can accommodate 4 archery occasions per day. 2. One firing point can accommodate 4 rifle or pistol shooting occasions per day.	1. Archers and rifle or pistol shooters participate an average of 2 hours when target shooting. 2. Trap and skeet shooters shoot an average of 2 rounds

- | | |
|---|---|
| <p>3. One trap or skeet range can accommodate 40 trap or skeet occasions per day.</p> | <p>per participant per day.</p> <p>3. Hours for target, trap, and skeet shooting starts at 10:00 a.m. and ends at 6:00 p.m.</p> <p>4. Each round of trap or skeet takes approximately ½ hour.</p> <p>5. The number of participants per round of trap or skeet is 5.</p> |
|---|---|

Discussion on Selected Activities

There are some special recreational activities, which have significance or which the county has been involved in and warrant special emphasis in this plan. These activities include: boating, cross-country skiing, bicycling, and snowmobiling.

In 2015, the State has acquired an additional 6.8 miles of the Devil's River Trail, in southern Manitowoc County and has asked Manitowoc County Parks to develop and maintain this property. This is an opportunity to provide more recreational multi-use trail opportunities. It is intended to develop this trail as funds become available through grant awards.

The promotion and development of sport fishing for local residents and as a means of increasing the recreation and tourism industry has significantly increased the use of Lake Michigan for small-craft boating. The increase has resulted in an over-taxing of existing launching, mooring, and craft servicing facilities.

The City of Manitowoc's Marina has been expanded to 250 slips, with power and water; there is also the potential to add 100 additional slips to reach a capacity of 350 slips. Slip sizes range from 24 to 48 feet, with the ability to accommodate even large vessels at the pier ends. For those who trailer their boats, the marina has a large, lighted, six lane launch ramp, and convenient parking for vehicles and trailers. A modern fish cleaning station and rest rooms are available. A 6,000 square foot administration building enables the marina to perform a wide range of services, on a year-round basis.

The existing boating facilities in Two Rivers are quite scattered along both the East and West Twin Rivers. Some excellent private marinas have been developed to try and meet the growing boater demands (see the City of Two Rivers Section of this plan for detailed information). It is interesting to note that Two Rivers offers some of the few free launch ramps found on Lake Michigan.

Bicycling is another recreation activity which has experienced an increase in interest over the years. Cherney Maribel Caves offers a mountain bike trail that is currently being maintained by volunteers of the New OM (Northeast Wisconsin Off-road Mountain biking club). Bicycling opportunities are also available on the Devil's River Trail, and the Mariners Trail. It would appear that there is a need to re-evaluate bicycle trails in Manitowoc County. A trail system,

which would reach out into various landscape groups of the county and linking regional park facilities is certainly desirable, but care must be exercised in using existing roads so that serious safety hazards for bicyclists and motorists are not created. This can best be accomplished through a special study effort which should be cooperatively undertaken by government units and bicyclist groups.

Cross Country Skiing activity has significantly increased during recent years. Within Manitowoc County trails have developed and made available to the public at Point Beach State Forest, Walla Hi County Park, Silver Creek Park, Devil's River State Trail, Cherney Maribel Caves Park, and Woodland Dunes. There are three sites developed, 4-H Camp Tapawingo, Fox Hills Resort and Convention Center, and Camp Sinawa, which have a fee for trail use. They also offer equipment for rents.

Snowmobiling is another recreation activity to be given special consideration. Enthusiasts of the sport have established clubs and alliances to promote trail development and snowmobile safety. In Manitowoc County, several clubs were formed in the early 1970's, primarily to sponsor social functions and to establish club trails on private land within the membership area of each respective club. An alliance, the Manitowoc County Snowmobile Alliance, presently has 9 snowmobile clubs, which represents the members. Currently, Manitowoc County has 248.35 miles of State funded snowmobile trails. Using the activity standard of 22 snowmobiling occasions per day found in the standards for analyzing recreation demands, there appears to be more than adequate trail miles to serve the public needs.

There are considerations other than the snowmobiler per trail mile ration which can be used to evaluate the capacity of a given snowmobile trail system to satisfy demand. These considerations include:

1. The need to provide adequate trail mileage to link population centers to the public trail system.
2. Provisions of diverse snowmobiling experiences and opportunities.
3. Trail development to take advantage of the scenic resources where practical and compatible.
4. Utilization of existing recreational facilities and the support facilities they provide.
5. Inter-county public snowmobile trails.

Based upon all of the criteria mentioned, it appears as though Manitowoc County's Snowmobile Program is in excellent shape for the years to come.

Town Recreation Needs

Recreation facilities for individual towns and unincorporated communities within the towns have not been included in the county plan. However, some towns may wish to identify special

recreation needs over the next five years or to expand existing facilities. Any needs or activities identified by towns are likely to be within one of the following areas:

1. Active Recreation Parks - Some towns may experience the need for active recreation-oriented parks to serve residents of small unincorporated communities or to serve towns as a whole as residential development continues to occur. These parks may be needed to serve the daily active recreation needs of town residents and should ideally be patterned after the village park as described in Chapter V. Minimum facilities should include play equipment, picnic tables, shelter and sanitary facilities, a playfield for softball, etc., and one desirable location consideration for such a park would be to provide it in conjunction with other government services such as the town hall, shop, or volunteer fire department.
2. Water access sites - While the county does provide a system of public access points to the major water bodies, some towns may desire to own and maintain additional public access, which they feel would have special significance or public value. However, a town should carefully evaluate any site offered for sale or donation before making a commitment to develop and maintain the site.
3. Historical or Natural Preservation Sites - There may be areas with local historical value or small, but locally significant natural areas, which a town wishes to preserve. Again, the town should evaluate such proposals for initial outlay of funds and any long term maintenance costs. Service clubs and other civic groups may be of assistance in planning, acquiring, and operating such sites.

Towns may elect to become involved in any of these areas or may develop a proposal which involves a combination of activities and purposes. In any case, the goals, objectives, planning principles, and site selection criteria in Park and Open Space Planning Guidelines are applicable to towns and should be considered by them in decisions relating to parks and open space. This plan supports any efforts by towns to provide new, or to improve existing facilities which are consistent with the overall objectives of this plan. In this support, it is assumed that any improvements or developments are based on a reasonable assessment of needs and preparation of adequate site plans.

Some of the Towns have taken an active role in developing parks and open space as follows:

1. The Town of Cato has a small park on the north side of the Manitowoc River in the unincorporated area of Clarks Mills
2. The Town of Newton: Newton Firefighters Community Park are in the process of developing their present park into a community park.
3. The Town of Two Creeks has taken over the Two Creeks Park and launch ramp and is actively trying to acquire all of the available lake frontage in their township to save it for

open space and possible development of a recreation trail along the lake shore. They intend to move an existing dwelling onto Wisconsin Electric Power Company property and develop it as a nature/information center. The town should consider a joint program with the state using Stewardship money to help acquire this lake frontage.

4. The Town of Schleswig is the owner of the Millhome Dam on the Sheboygan River. They provide some parking and a fishing area along with a garbage can.

CHAPTER VII

IMPLEMENTING MEASURES

IMPLEMENTING MEASURES

The analysis of and planning for park and open space systems is of little value unless there are means by which plan recommendations can be implemented. Most of the recommendations have been aimed at fee simple acquisitions of lands and development of those lands for recreation activities. While fee simple acquisition is obviously the most effective means by which to provide recreation and to preserve open space, communities don't have the financial resources to acquire all desirable lands. Fortunately, additional implementation measures are available which communities can rely on to implement their adopted plans and policies.

Various implementation measures available to communities have been grouped into three categories: methods of acquiring recreation land, regulatory devices available to local governments, and state and federal aid programs pertaining to recreation and open space. The most effective implementation of plan recommendations will likely involve a combination of these measures.

Methods of Acquiring Recreation Land

Out-right Purchase: The most direct method of acquiring land, out-right purchase, involves the exchange of a payment in a lump sum or over a period of time for the complete ownership rights to a piece of land. This is the most common and usually, the most costly means of acquisition.

Donation: The ideal means of acquiring park land and open space lands since it minimizes the public cost.

Leaseback: In this arrangement, the property is acquired by the public agency and then leased back to the original owner either in whole or part. This relieves the original owner of the tax burden, gives the public protective control of the land's use and yet allows limited continued use of the property.

Advance Purchase: By signing purchase agreements ahead of the actual date of purchase the public agency fixes the purchase price, the landowner is relieved of up to 100 percent of the property tax, and the lands are preserved in their natural condition for future park development.

Option: This is a desirable tool to utilize on the short or long-term basis since it holds prices from rising while the purchase agreements and sources of funds are being arranged.

Leases: Long-term leases are often suitable for acquiring developable park sites at a minimal cost.

Eminent Domain: Though its use should be kept to a minimum, eminent domain is useful in protecting threatened parcels of unique land or to complete the acquisition of large parcels having many different owners. Eminent domain is, also, useful to clear clouded titles. Excess condemnation of areas adjacent to road rights-of-way is another method of acquiring scenic and park lands.

Easement and Rights: Several legal devices are commonly used to acquire less-than-fee title or partial rights to a piece of real estate. Such things as access rights, fishing or hunting rights, or scenic easements can usually be purchased at a cost substantially below the cost of fee title ownership. These arrangements allow concurrent public and private uses on the same property.

Option of Tax Delinquent Property: Often overlooked as a simple way of acquiring the public goods through this means.

Sanitary Landfills: Public uses, such as sanitary landfills may be a limited life expectancy for their intended use. Once their original function is completed, however, they could usually be converted to recreation purposes.

Regulatory Devices Available to Local Governments

Zoning: As the major tool in land use control, zoning establishes natural resource districts and other development zones, which define and preserve each district's specific character. Though not an ideal control measure, zoning districts help to keep conflicting and destructive developments out of agricultural and open space areas; provided pleasant residential areas and limit the spread of urban growth with green belts and cluster developments.

Subdivision Regulations: A type of zoning ordinance, subdivision regulations can expand the acquisition capabilities for a community by requiring developers to reserve a certain percent of their subdivision land for recreation purposes. Or, in lieu of land, they may often contribute to the local park fund. This practice saddles the developer with the burden, which their development would normally place upon the local government.

Shoreland/Floodplain Zoning: Wisconsin Statutes require all villages, cities, and counties to develop and adopt adequate shoreland/floodplain zoning ordinances to protect areas adjacent to lakes and rivers. This type of zoning protects against unsafe developments in potential flood areas and helps preserve the natural resources remaining along our waterways and marshlands from undesirable development.

Official Map: This device designates the lands, which a municipality intends to purchase of future streets and parks use. As a means of implementing a comprehensive park plan, the official map provides tangible evidence of governmental intent to acquire open space parcels.

Assessment Policies/Tax Credits: By assessing land that is used for agriculture, recreation, or open space at a preferential rate, or by establishing some form of a tax credit program, the tax burden which often stimulates owners to sell their land to sub-dividers can be reduced and the land preserved. The enactment of the Wisconsin Farmland Preservation Program combines the tax credit technique and local planning and zoning in an attempt to preserve prime agricultural lands.

State and Federal Aid Programs Pertaining to Recreation and Open Space

State and federal aid programs are available to local units of government to acquire and develop recreation facilities and to preserve open space areas. Most of these programs have limited funds and must be competitively sought after by governmental units. It is important, therefore, that a clear consensus on priorities exists in a community and that it prepares grant applications in a careful, well thought out manner. Information on most of the state programs and state administered federal programs can be obtained from the recreation aids specialist assigned to the district office of the Department of Natural Resources. Some of the more significant programs are:

Land and Water Conservation Fund (LAWCON): LAWCON provides financial assistance to state agencies, counties, villages, towns, school districts, cities, and Indian tribes for the acquisition and the development of public outdoor recreation areas and facilities. In Wisconsin the LAWCON program is administered by the Wisconsin Department of Natural Resources.

Wisconsin's LAWCON program allocates 40 percent of available funds to local governments, 40 percent to state agencies, and 20 percent to a contingency fund for use by local governments and state agencies. The contingency fund allocation is reserved by the Department for projects meeting high priority, unforeseen or emergency needs. The LAWCON program provides up to 50 percent reimbursement grants for approved state and local projects.

Stewardship Local Assistance Grants - Aids for the Acquisition and Development of Local Parks (ADLP): ADLP provides up to 50 percent matching grants to towns, villages, cities, counties, or Indian tribes to acquire or develop public outdoor recreation areas for nature-based outdoor recreation purposes. A comprehensive outdoor recreation plan is required to participate. Funds are apportioned on a department district allocation system, with 70 percent of the funds distributed on the basis of each county's proportionate share of the state population and 30 percent distributed equally to each county. Funds may be used for both land acquisition projects and development projects for nature-based outdoor recreation.

Recreational Boating Facilities Program (RBFP): The RBFP is a program which encourages the development of recreational facilities by providing cost sharing assistance to governmental units for the development and improvement of public accesses to water and harbors of refuge. The program is administered by the Department of Natural Resources. Recreational boating projects must be approved by the Wisconsin Waterway Commission. The Commission reviews applications, determines the priority of the projects, and determines the rate of cost sharing for projects.

County Conservation Aids (CCA): To assist counties in general conservation projects, which improve fish and wildlife habitat or provide related facilities, this Wisconsin funded and Department of Natural Resources administered program is available to counties every year. As funds are available, a pre-determined allocation is made available to all counties. Currently Manitowoc County is allocated \$1,575 per fiscal year. Additional funds could be available if counties do not use their annual allocation.

Wisconsin Coastal Management Program (WCMP): WCMP are federal funds which are administered by the Wisconsin Coastal Management Council and are available to government agencies to assist in preserving and improving access to the natural and historic resources of Wisconsin's Great Lakes coasts.

Snowmobile Trail Aids Program: Wisconsin provides funds to counties for the acquisition, development, and maintenance of public snowmobile trails. The Aids Program also provides funds for snowmobile route signing to local units of government and also for safety training, law enforcement, insurance, and signing of club trails open to the public. It is administered by the Department of Natural Resources and money for the program comes from snowmobile registration fees.

Conservation Easement: Wisconsin Department of Natural Resources provides financial assistance to local units of government to purchase Conservation Easements. These easements usually preserve natural resources such as water quality or scenic beauty by limiting the rights of the owner for the affected part of the property.

APPENDIX A

ADOPTION RESOLUTIONS

**VILLAGE OF CLEVELAND
MANITOWOC COUNTY, WISCONSIN**

RESOLUTION NO. 2016-R-02

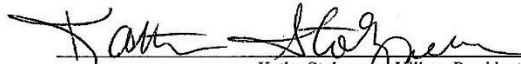
MANITOWOC COUNTY PARK AND OPEN SPACE PLAN

WHEREAS, the Village of Cleveland has previously resolved to authorize the Manitowoc County Planning and Park Commission to assist the Village in preparing a Park and Open Space Plan, and the Commission has prepared a Park and Open Space Plan for the Village;


NOW, THEREFORE, BE IT RESOLVED, that the Village Board of Cleveland hereby adopts the Village of Cleveland Park and Open Space Plan under provisions of s. 61.35, Wis. Stats., and authorizes the Manitowoc County Planning and Park Commission to include the Village plan in the Manitowoc County Park and Open Space Plan.

BE IT FURTHER RESOLVED, that a copy of this resolution be submitted to the Commission and that the Commission be asked to submit a copy of this resolution together with the Village plan to the Department of Natural Resources for the purpose of maintaining eligibility for recreational aids programs for the next five (5) years.

Passed and adopted by the Village Board of Cleveland this 1st day of March, 2016.


Kathy Stolzmann Village President

ATTEST:


Stacy Grunwald, Director of Village Services

MOTION: JOEL ROEHRIG/JOHN ADER

VOTE: 6 Ayes 0 Noes 0 Abstentions

EFFECTIVE DATE: MARCH 4, 2016

RESOLUTION #2016-2

RESOLUTION TO AMEND VILLAGE PARK AND OPEN SPACE PLAN

WHEREAS, The Board of Trustees for the Village of Francis Creek have previously resolved to authorize the Manitowoc County Planning and Park Commission to assist the Village in preparing its Park and Open Space Plan, and

WHEREAS, the following analysis and discussion of park and open space needs by the Village, an amended Park and Open Space Plan has been prepared by the Commission for the Village, and

WHEREAS, the Village has reviewed the amended plan and finds it reflective of the assessment of the park and open space needs made by officials and citizens.

NOW THEREFORE BE IT RESOLVED, that the Village of Francis Creek Hereby adopts the Village of Francis Creek Park and Open Space Plan as amended under provisions of SS. 61.35 Wisconsin Statutes and authorizes the Commission to include the amended Village plan in the Manitowoc County Park and Open Space Plan.

BE IT FURTHER RESOLVED, that a copy of this resolution be submitted to the Commission, and that the Commission be asked to submit a copy of this resolution together with the Village Plan to the Department of Natural Resources for the purpose of maintaining eligibility for recreation aids programs for the period of five years.

Introduced, adopted, and dated this 8th day of February, 2016.

APPROVED:


Ted Zigmunt Village President


Motion by Trustee


Seconded by Trustee

**VILLAGE OF KELLNERSVILLE
MANITOWOC COUNTY, WISCONSIN**

RESOLUTION NO. 2016-03

RESOLUTION ON VILLAGE PARK AND OPEN SPACE PLAN

WHEREAS, the Village of Kellnersville has previously resolved to authorize the Manitowoc County Planning and Park Commission to assist the Village in preparing its Park and Open Space Plan, and


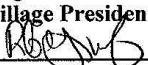
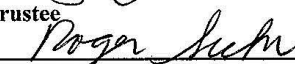

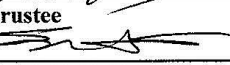
WHEREAS, following an analysis and discussion of park and open space needs by the Village, a Park and Open Space Plan has been prepared by the Commission for the Village, and

WHEREAS, the Village has reviewed the plan and finds it reflective of the assessment of park and open space needs made by officials and citizens.

NOW THEREFORE BE IT RESOLVED, that the Village of Kellnersville hereby adopts The Village of Kellnersville Park and Open Space Plan under provisions of s.61.35 Wisconsin Statutes

BE IT FURTHER RESOLVED, that a copy of this resolution be submitted to the Commission, and that the Commission be asked to submit a copy of this resolution together with the Village plan to the Department of Natural resources or the purpose of maintaining eligibility for the recreational aids for the next five (5) years.

Adopted this 1st day of February, 2016.

Signed		_____
	Village President	
Signed		_____
	Trustee	
Signed		_____
	Trustee	
Signed		_____
	Trustee	
Signed		_____
	Trustee	

I hereby certify that the foregoing resolution is a true and correct copy of a resolution duly enacted by the Board of the Village of Kellnersville, Manitowoc County, Wisconsin at a regular meeting held on the 1st day of February, 2016, and in testimony whereof, I have set my hand and affixed the seal of the Village of Kellnersville on this 1st day of February, 2016.

Dated 2/1/2016 Attested Elizabeth D. Welch
Elizabeth Welch, Clerk

**VILLAGE OF MARIBEL
MANITOWOC COUNTY, WISCONSIN
RESOLUTION No. 2016-01**

**“Authorization to Participate in the Manitowoc County Planning and Park
Commission Park and Open Space Plan”**

WHEREAS, the Village of Maribel has previously resolved to authorize the Manitowoc County Planning and Park Commission to assist the Village in preparing its Park and Open Space Plan; and

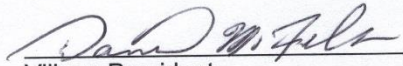
WHEREAS, the Village of Maribel Park and Open Space Plan encompasses a general outline and plan for the recreational development of the Village's park system; and

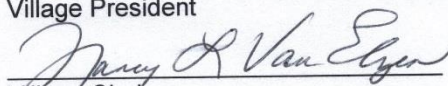
WHEREAS, the Village has reviewed and updated their Parks and Open Space Plan and find it reflective of the assessment of the park and open space needs made by officials and citizens; and

WHEREAS, adoption of said plan is required for the Village of Maribel to become eligible for cost sharing aid programs administered by the State of Wisconsin.

NOW, THEREFORE BE IT RESOLVED, that a copy of this resolution be submitted to the Commission, and that the Commission be asked to submit a copy of this resolution together with the Village's plan to the Department of Natural Resources for the purpose of maintaining eligibility for recreational aids programs for the next five (5) years.

Date this 10th day of February, 2016



Village President


Village Clerk

**RESOLUTION 2016-2
VILLAGE OF MISHICOT
MANITOWOC COUNTY, WISCONSIN**

**PARK AND OPEN SPACE PLAN
VILLAGE OF MISHICOT**

WHEREAS, the Village of Mishicot has previously resolved to authorize the Manitowoc County Planning and Park Commission to assist the Village in preparing its Park and Open Space Plan, and

WHEREAS, the following an analysis and discussion of park and open space needs by the Village, a Park and Open Space Plan has been prepared by the Commission for the Village, and

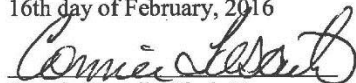
WHEREAS, the Village of Mishicot has reviewed the plan and finds it reflective of the assessment of park and open space needs made by officials and citizens; now, therefore, be it

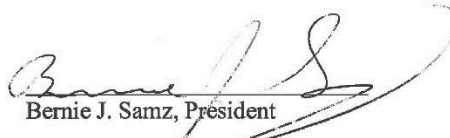
RESOLVED, that the Village of Mishicot hereby adopts the Village of Mishicot Park and Open Space Plan under provisions of s.61.35 Wisconsin Statutes and authorizes the Commission to include the Village plan in the Manitowoc County Park and Open Space Plan.

BE IT FURTHER RESOLVED, that a copy of this resolution be submitted to the Commission, and that the Commission be asked to submit a copy of this resolution together with the Village plan to be Department of Natural Resources for the purpose of maintaining eligibility for recreational aids programs for the next (5) years.

Attest:

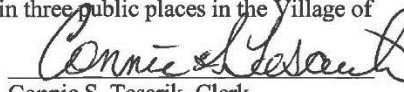
Adopted and Approved this
16th day of February, 2016


Connie Tesarik, Clerk-Treasurer


Bernie J. Samz, President

STATE OF WISCONSIN
Village of Mishicot
Manitowoc County

Connie S. Tesarik, clerk-treasurer of the Village of Mishicot being duly sworn, states that the above resolution was duly adopted by a unanimous vote of the Village Board on the 16th day of February, 2016, and that she posted said resolution in three public places in the Village of Mishicot on the 17th day of February, 2016.


Connie S. Tesarik, Clerk

RESOLUTION 1-2016

**VILLAGE OF REEDSVILLE
PARK AND OPEN SPACE PLAN**

WHEREAS, the Village of Reedsville has previously resolved to authorize the Manitowoc County Planning and Park Commission to assist the Village in preparing its Park and Open Space Plan, and

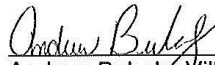
WHEREAS, the Village of Reedsville Park & Open Space Plan encompasses a general outline and plan for the recreational development of the Village's Park System; and

WHEREAS, the Village has reviewed their plan and finds it reflective of the assessment of park and open space needs made by officials and citizens; and

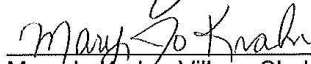
WHEREAS, adoption of said plan is required for the Village of Reedsville to become eligible for cost sharing aid programs administered by the State of Wisconsin.

NOW, THEREFORE BE RESOLVED, that a copy of this resolution be submitted to the Commission, and that the Commission be asked to submit a copy of this resolution together with the Village plan to the Department of Natural Resources for the purpose of maintaining eligibility for recreational aids programs for the next five (5) years.

Date this 1st day of March, 2016



Andrew Bubolz, Village President



Mary Jo Krahn, Village Clerk-Treasurer

RESOLUTION No. 2016-01

WHEREAS, the Village of St Nazianz has previously resolved to authorize the Manitowoc County Planning and Park Commission to assist the City in preparing its Park and Open Space Plan; and


WHEREAS, the Village of St Nazianz Park and Open Space Plan encompasses a general outline and plan for the recreational development of the Village's park system; and

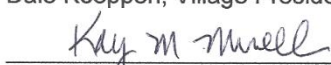
WHEREAS, the Village has reviewed and updated their Parks and Open Space Plan and find it reflective of the assessment of the park and open space needs made by officials and citizens; and

WHEREAS, adoption of said plan is required for the Village of St Nazianz to become eligible for cost sharing aid programs administered by the State of Wisconsin.

NOW, THEREFORE BE IT RESOLVED, that a copy of this resolution be submitted to the Commission, and that the Commission be asked to submit a copy of this resolution together with the City's plan to the Department of Natural Resources for the purpose of maintaining eligibility for recreational aids programs for the next five (5) years.

Date this 15th day of February, 2016


Dale Koeppen, Village President


Kay M Mueller, Village Clerk-Treasurer

RESOLUTION NO. 2016-1

RESOLUTION ON VILLAGE PARK AND OPEN SPACE PLAN

WHEREAS, the Village of Valders has previously resolved to authorize the Manitowoc County Planning and Park Commission to assist the Village in preparing its Park and Open Space Plan, and

WHEREAS, following an analysis and discussion of park and open space needs by the Village, a Park and Open Space Plan has been updated and has been prepared by the Public Welfare Committee and Director of Public Works; and


WHEREAS; the Village Board has reviewed the plan and finds it reflective of the assessment of park and open space needs made by officials and citizens.

NOW THEREFORE BE IT RESOLVED, that the Village of Valders hereby adopts the Village of Valders Park and Open Space Plan under provisions of the §61.35 Wisconsin Statutes and authorizes the Commission to include the Village Plan in the Manitowoc County Park and Open Space Plan.


BE IT FURTHER RESOLVED, that a copy of this Resolution be submitted to the Commission, and that the Commission be asked to submit a copy of this Resolution together with the Village Plan to the Department of Natural Resources for the purpose of maintaining eligibility for recreational aid programs for the next five (5) years.

I HEREBY CERTIFY that the foregoing Resolution was adopted by a majority of the Board of the Village of Valders, Manitowoc County, Wisconsin on the 8th day of February 2016.

By:


Devan Schneider, Village President

Attest:


Lori Bruckner, Village Clerk/Treasurer

RESOLUTION ON VILLAGE PARK AND OPEN SPACE PLAN

WHEREAS, Village of Whitelaw has previously resolved to authorize the Manitowoc County Planning and Park Commission to assist the Village in preparing it Park and Open Space Plan, and


WHEREAS, following an analysis and discussion of park and open space needs by the Village, a Park and Open Space Plan has been prepared by the Commission for the Village, and

WHEREAS, the Village has reviewed the plan and finds it reflective of the assessment of park and open space needs made by officials and citizens.

NOW THEREFORE BE IT RESOLVED, that the Village of Whitelaw hereby adopts the Village of Whitelaw Park and Open Space Plan under provisions of s.61.35 Wisconsin Statutes and authorizes the Commission to include the Village plan in the Manitowoc County Park and Open Space Plan.

BE IT FURTHER RESOLVED, that a copy of this resolution be submitted to the Commission, and that the Commission be asked to submit a copy of this resolution together with the Village plan to the Department of Natural Resources for the purpose of maintaining eligibility for recreational aids programs for the next five (5) years.

Dated this 1st day of February, 2016.


Village President


Village Clerk

RESOLUTION No. 2016-6


WHEREAS, the City of Kiel has previously resolved to authorize the Manitowoc County Planning and Park Commission to assist the City in preparing its Park and Open Space Plan; and

WHEREAS, the City of Kiel Park and Open Space Plan encompasses a general outline and plan for the recreational development of the City's park system; and

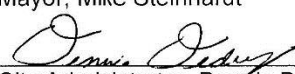
WHEREAS, adoption of said plan is required for the City of Kiel to become eligible for cost sharing aid programs administered by the State of Wisconsin.

NOW, THEREFORE BE IT RESOLVED, that a copy of this resolution be submitted to the Commission, and that the Commission be asked to submit a copy of this resolution together with the City's plan to the Department of Natural Resources for the purpose of maintaining eligibility for recreational aids programs for the next five (5) years.

Date this 2nd day of MARCH, 2016



Mayor, Mike Steinhardt



City Administrator, Dennis Dederig

APPENDIX B
ADA ANALYSIS

INTRODUCTION

The purpose of this report is to analyze the Manitowoc County Park System for its accessibility for the disabled. In October 2015, Manitowoc County Parks developed an Americans with Disabilities Act (ADA) Compliance report for all their parks and public lake accesses. The disability rights movement advocates equal access to social, political, and economic life which includes not only physical access but access to the same tools, services, organizations and facilities for which we all pay for.

By building ADA compliant restrooms, pavilions, boat piers, platforms, and safe/accessible lake and park access areas, Manitowoc County will ensure the *universal design* is taken into consideration. Universal design is the process of creating products that are usable by people with the widest possible range of abilities, operating within the widest possible range of situations.

Construction of new and upgrades of recreational accessibility, restroom, picnic tables, boat piers are completed in accordance with rules and regulations of the 2010 Standards for State & Government Facilities Title II. These types of facilities all have current standards set by the ADA. Those standards which apply to facilities found in outdoor recreation area are listed in Appendix C of this document.

Manitowoc County Parks has utilized several Recreational Boating Facilities Grants and other funding opportunities to build ADA accessible restrooms. Most recently built ADA restrooms include: Maribel Caves, Bullhead Lake, and Carstens Lake (English Lake is in progress).

PARK INVENTORY

INTRODUCTION

The following is an inventory of the Manitowoc County Park facilities that are available throughout the county. The inventory of each site also includes a list of recommended accessibility improvements to all the disabled population access to the park and its amenities (Table 8).

1. Bullhead Lake Access

This lake access is located in the western portion of the county in the town of Rockland. The lake has gained popularity as being one of the best fishing lakes in Manitowoc County. It has an abundance of good size walleye and panfish. At the access, restrictions on operation of motorboats and water-skiing are posited. The access offers the following facilities:

- | | |
|--------------------------------|------------------------------|
| -Gravel Parking Area | -Boat Ramp and Boarding Pier |
| -Unisex ADA-Compliant Restroom | -One Picnic Table |
| -One Grill | -One Garbage Can |

RECOMMENDATIONS:

- At least one disabled accessible picnic table, grill and parking stall should be provided.
- The boarding pier should be 60 inches wide.
- Pavement could be overlaid due to cracking.

2. Carstens Lake Access

This public lake access is located along Carstens Lake Road, east of STH 42, in the town of Newton. The access to the lake is limited to boats and electric motors only. The lake has a large stock of northern pike and bass. Facilities at the lake access include:

- | | |
|--------------------------------|-------------------|
| -Paved Parking Lot | -One Garbage Can |
| -Boat Ramp and Boarding Pier | -One Picnic Table |
| -Unisex ADA Compliant Restroom | -One Grill |
| -Disabled Parking Stall | |

RECOMMENDATIONS:

- The designated disabled parking space provided at the site needs a 60-inch access lane adjacent to it, if possible.
- The boarding pier adjacent to the boat ramp needs to be widened and have a sturdier access ramp.
- Pavement needs to be re-done.

3. Cherney Maribel Caves

This park is located in the northern portion of the county along CTH R in the town of Cooperstown. This 75 acre park was the first major park developed by the county. It is famous for the rugged cliff-line that contains several caves. The park is primarily used for cave tours, site-seeing, hiking, picnicking, and bird-watching. The following facilities are provided at the park:

- | | |
|--|------------------------------------|
| -Pavilion Shelter | -Eight Picnic Tables |
| -Men & Women's ADA-Compliant Restrooms | -Two Grills |
| -Pathway, Steps & Stairs to Cave Area | -Hiking Trails |
| -Two Paved Parking Areas | -Natural Spring & Observation Deck |
| -Bike Trail | -Four Garbage Cans |

RECOMMENDATIONS:

- Install electricity to pavilion and restrooms.
- Improve lighting and security with the installation of 4 utility light poles in parking lot area.
- Barrier-free pathways are needed to link designated disabled parking stalls in the parking areas to playground equipment and grassy picnic area.
- An area within the level portion of the grassy picnic area should be furnished with an accessible picnic table and grill.
- Access to the covered picnic area should be provided from existing limestone pathway via a spur leading to the picnic area.
- Include a picnic table that is ADA accessible.

4. Cedar Lake

The lake access is located in the town of Schleswig in the southern portion of the county. It is Manitowoc County's largest inland lake, which is inhabited by several fish species. The parking area is located on a plot of land across the street from the launch area. The access provides limited picnicking opportunities; however, camping and campfires are prohibited. The following facilities are located at the access:

- | | |
|--------------------------------|--------------------------------|
| -Gravel Parking Area | -Boat Ramp and Boarding Pier |
| -Two Garbage Cans | -Wooden Bridge in Parking Area |
| -Unisex ADA-Compliant Restroom | -One Picnic Table |

RECOMMENDATIONS:

- The boarding pier should be 60 inches wide.
- The pier's access ramp should have less of a slope and should have a more level entrance area adjacent to the ramp.
- The bridge connecting the parking area and the road leading to the access ramp and restroom facility should be leveled.
- A parking stall for the disabled should be designated.

5. English Lake

The 2.6 acre public lake access area is located along Brunner Road, west of STH 42, in the town of Newton. The lake is a popular location for catching walleye, largemouth bass, and panfish. It has restrictions on the use of motorboats and water-skiing. The access provides the following facilities:

- | | |
|--|--------------------------------|
| -One Picnic Table | -One Grill |
| -One Garbage Can | -One Small Covered Shelter |
| -Boat Ramp | -Unisex ADA-Compliant Restroom |
| -Combination Boarding and Fishing Pier | |

RECOMMENDATIONS:

- A barrier-free pathway should connect the parking area to the picnic area.
- The grills within the picnic area should rotate and be at least 30 inches high for clearance.
- The combination boarding and fishing pier should be 60 inches wide and designed with areas for wheelchair fishing.

6. Fischer Creek State Recreation Area

This 160 acre site was purchased by the State of Wisconsin using Stewardship money along with a contribution from Manitowoc County. The property is owned by the State and developed and maintained by the County. It is located 1 mile north of Cleveland on Lakeshore Road. The only development on the property is the two parking lots, a toilet building, picnic area and recreation trails.

- | | |
|---------------------|-------------------|
| -Toilet Building | -Two Garbage Cans |
| -Five Picnic Tables | -Four Grills |

RECOMMENDATIONS:

- A network of barrier-free pathways are needed, linking the parking areas to the restrooms and picnic area.
- The parking areas should have at least one designated space for the disabled nearest to the park facilities.
- The restroom structure needs basic accessibility improvements.
- Within the picnic area, at least one disabled accessible picnic table and grill should be available.
- The grills within the picnic area should rotate and be at least 30 inches high for clearance.

7. Gass Lake

This 2.0 acre lake access is located southwest of the City of Manitowoc in the town of Newton. The spring fed lake has no development along its shoreline. It is a popular lake for catching large-mouth bass. Electric motors are the only type of power motor allowed on the lake. The facilities provided at the lake access include:

- | | |
|--|-------------------------|
| -One Grill | -One Garbage Can |
| -One Picnic Table | -Paved Parking Lot |
| -Combination Boarding and Fishing Pier | -Disabled Parking Stall |

-Boat Ramp

RECOMMENDATIONS:

- If possible, the present designated disabled parking space should be moved to a level area. The current parking area is located in an area that is too steep for safe, easy access to the boat ramp area.
- Install an ADA-Compliant float pier with railing.
- Install an ADA-Compliant unisex restroom.

8. Harpt Lake

This 0.35 acre access is located in the town of Gibson in north central Manitowoc County. The lake is a popular fishing area for large walleye, large-mouth bass, and black crappie. Only one horsepower electric motors are allowed on the lake. Facilities at the lake access included:

-One Garbage Can	-One Picnic Table
-Paved Parking Area	-Boat Ramp
-Combination Boarding and Fishing Pier	

RECOMMENDATIONS:

- Install an ADA-Compliant float pier with railing.
- The entrance to the combination boarding and fishing pier's access ramp needs to be leveled.
- Add a disabled parking stall.

9. Hartlaub Lake

This small lake access is located southwest of the City of Manitowoc in the town of Newton. The lake is used for fishing northern pike, bass, walleye, and panfish. Electric motors are the only type of power motor allowed on the lake. The lake access has the following facilities available:

-One Garbage Can	-One Picnic Table
-Boat Ramp and Boarding Pier	-Paved Parking Area

RECOMMENDATIONS:

- Install an ADA-Compliant float pier with railing.
- Install an ADA-Compliant restroom.
- The entrance to the boarding pier should be leveled.
- Although parking is limited along the paved road, a parking stall for the disabled should be designated.

10. Horseshoe Lake

This 8.2 acre park is located in the town of Meeme, in the south central portion of the county west of State Highway 42. The park is located along Horseshoe Lake. The lower portion of the park is principally used as a lake access area while the hilly upper portion is used for picnicking. Swimming and boats with motors are prohibited in the park. Facilities at the park include:

- | | |
|--|-------------------|
| -Two Picnic Tables | -Boat Ramp |
| -3 Grills | -One Bench |
| -Small Covered Picnic Area | -Two Garbage Cans |
| -Slide and Swing with maintained woodchips | |
| -Combination Boarding and Fishing Pier | |
| -Single Restroom | |

RECOMMENDATIONS:

The Lower Portion of the Park

- Install an ADA-Compliant restroom.
- A barrier-free pathway linking all the facilities in the lower section of the park to the parking area, including a designated stall for the disabled should be established.

The Upper Portion of the Park

- If possible, a barrier-free pathway with less of an incline should be constructed.
- The entrance to the grassy area near the restroom facilities is divided by wooden posts. These posts are too close together causing a barrier and should be at least 36 inches apart.
- Within the picnic area, at least one table and grill should be provided for the disabled.
- The wood chips under the playground are being maintained, but a better alternative is to use rubber mats for safety and accessibility.

11. Long Lake

This park occupies 5.6 acres, located in the town of Rockland, in the far western portion of the county. Long Lake contains many different types of fish species that provide excellent opportunity for fishing. During the winter months, the lake is a popular location for ice fishing. In the summer, the park's large grassy area along the shores of the lake provides a scenic location for picnics and playing. The park provides the following facilities:

- | | |
|--|-----------------------|
| -Four Picnic Tables (2 are ADA-Compliant) | -Three Grills |
| -Two Garbage Cans | -Fishing Pier |
| -Double Concrete Boat Ramp and Boarding Pier | -Two Benches |
| -Single Restroom | -Asphalt Parking Area |
| -Swing Set (with maintained woodchips) | |

RECOMMENDATIONS:

- Install an ADA-Compliant restroom.
- Install an ADA-Compliant float pier with railing.
- A stable, barrier-free pathway linking the parking area and the park amenities.
- The parking area should have one stall designated for the disabled nearest to the park facilities and/or pathway.
- The wood chips under the playground are being maintained, but a better alternative is to use rubber mats for safety and accessibility.

12. Lower Cato Falls

This county park is located in the town of Cato, about one mile east of the community of Clarks Mills, between CTH JJ and the Manitowoc River. This 84 acre park has two principal landscaped features: the developed upland area and the lower natural wooded area along the Manitowoc River. The lower section of the park includes unique rock formations and a waterfall along the river. Four wooded stairways are provided for access from the upper portion of the park, down the steep escarpment, to the lower portion of the park. Popular activities at the park include: 18-holes disc golf, 4-holes disc golf area with challenge equipment for park users with disabilities, picnicking, hiking, and nature trail walks. The removals of the dam at Manitowoc Rapids has allowed the Manitowoc River to be managed as a rainbow trout fishery. The park offer approximately 2,040 feet of river frontage. The park provides the following facilities:

West End

- | | |
|--|---|
| -Large Grassy Area | -Gravel Parking Area |
| -Four Garbage Cans | -Three Picnic Tables |
| -Two Grills | -Two Benches |
| -Two Climbing Apparatus | -Pathway and Stairs to Waterfall Area |
| -Concrete Tees and Baskets for Disc Golf | -Park User with Disabilities Disc Golf Area |

East End

- | | |
|-------------------------|----------------------|
| -Three Grills | -Seven Picnic Tables |
| -Four Garbage Cans | -Five Benches |
| -Wooden Stairs | -Slide |
| -Climber | -Swing Set |
| -Two Spring Animals | -Wooden Bridge |
| -Restroom (Men & Women) | |

RECOMMENDATIONS:

- Install an ADA-Compliant restroom.
- A barrier-free pathway should be provided, linking a designated disabled parking stall to the picnic area, playground area, restroom facilities, and to the 4-hole disc golf area for park users with disabilities (ADA accessible).
- In both the east and west parking areas, one space should be designated for disabled parking nearest to the park facilities.
- Accessible picnic tables and grills should be made available.
- The wood chips under the playground are being maintained, but a better alternative is to use rubber mats for safety and accessibility.

13. Manitowoc River Access

Manitowoc River access is a 2.5 acre public access located on the Manitowoc River just west of CTH R Bridge in Manitowoc Rapids. This facility gives fishermen the ability to fish off the banks of the Manitowoc River. This site has ample parking, toilet building, trails to shoreline and open space for picnic area. The river holds trout, salmon, northern pike, catfish and smallmouth bass. The facilities provided at the lake access include:

- | | |
|-------------------------|----------------|
| -Restroom (Men & Women) | -One Trash Can |
| -Three Picnic Tables | -Two Grills |

RECOMMENDATIONS:

- Install an ADA-Compliant restroom.
- Improve the access road and create additional parking.
- The parking area should have one stall designated for the disabled nearest to the park facilities and/or pathway.
- Accessible picnic table and grill should be made available.

14. Pigeon Lake

The access is located in the south central portion of the county in the town of Liberty. The lake is a popular area for water skiing and boating. It is also very popular for fishing northern pike and walleye. During the winter months, ice fishing shanties are hauled onto the lake from the access. The following facilities are provided at the access:

- | | |
|----------------------------------|-------------------|
| -Concrete Ramp and Boarding Pier | -Unisex Restroom |
| -One Trash Can | -One Picnic Table |
| -Paved Parking Area | |

RECOMMENDATIONS:

- A designated disabled parking stall should be established near the restroom facility.
- Install an ADA-Compliant restroom.
- Install an ADA-Compliant float pier with railing.
- Improve the access road with an overlay of asphalt.

15. Point Creek Conservation Area

Point Creek Conservation Area is the most recent addition to the Manitowoc County Park System, which is located in the Town of Centerville in the southeastern portion of Manitowoc County. The property consists of 39 acres of woodlands, meadows, estuary, wetlands and coastal bluffs with approximately 2,800 feet of high bluff bank and associated Lake Michigan shore. Point Creek defines the southern boundary of the property, which includes over 1,000 feet of riparian corridor. The park offers the following facilities:

- | | |
|---------------|----------------|
| -Parking Area | -One Trash Can |
|---------------|----------------|

RECOMMENDATIONS:

- Install an ADA-Compliant restroom.
- Improve the access road with an overlay of asphalt.
- Strategically place park benches at various bird watching sites.

16. Shoe Lake

This 2.4 acre lake access is located in the town of Schleswig in the southwestern portion of the county. The lake is surrounded by forest growth and very little shoreline development. Motor powered boats are prohibited on the lake, as well as camping and campfires at the access area. The public access has 105 feet of frontage and can accommodate 15 car/trailer units. The lake access has the following facilities:

- | | |
|----------------------|----------------|
| -Gravel Parking Area | -One Trash Can |
| -ADA-Compliant Pier | -Boat Ramp |

RECOMMENDATIONS:

- Grant in progress, awarded by the Wisconsin Department of Natural Resources, to replace the current boat ramp with a new one. Completion expected in June of 2017.

17. Silver Lake

This 12 acre park is located along U.S. Highway 151, west of the City of Manitowoc in the town of Manitowoc Rapids. It is leased to the county by the Franciscan Sisters of Christian Charity of the Holy Family Convent. The park provides opportunities for picnicking, bird watching and fishing. Restrictions enforced at the park include no motorboats, no campfires, no camping, and no swimming. The facilities at the park include:

- | | |
|-----------------------------|----------------------|
| -Three Grills | -Eight Picnic Tables |
| -Four Benches | -Concrete Boat Ramp |
| -ADA-Compliant Fishing Pier | -Three Trash Cans |
| -Shelter (Gazebo) | -Foot Bridge |
| -Single Restroom | |

RECOMMENDATIONS:

- Replace the current boat launch/bridge and raise various berms to reduce flooding from Silver Creek, which flows into Silver Lake, and to improve fishing.
- Expand current parking lot for boat launching safety, creating additional parking spots, and create designated ADA parking spaces.
- An improved entrance ramp at the restroom.
- The restroom structure needs basic accessibility improvements such as higher toilets and grab bars.
- The boarding pier along the boat ramp should be 60 inches wide, and the access ramp should have a more gradual slope and a level entrance up to the ramp.

18. Spring Lake

This 2.0 acre lake access is located in the town of Meeme in south central Manitowoc County. The lake is known for its northern pike and largemouth bass. No motor boats are allowed on the lake and no camping or campfires are allowed in the park. Parking spaces for 8 car/trailer units is provided at the lake access. Several years ago, a combination launch and fishing pier was installed. The following facilities are provided at the access:

- | | |
|----------------------|--|
| -Gravel Parking Area | -Disabled Parking Stall |
| -One Picnic Table | -One Trash Can |
| -Boat Ramp | -Combination Boarding and Fishing Pier |

RECOMMENDATIONS:

- Pave the gravel access road.
- Install an ADA-Compliant pier.
- Install an ADA-Compliant restroom.
- A barrier-free pathway is needed between the parking area and the picnic area.
- Picnic area should have one disabled accessible picnic table and grill.

19. Tuma Lake

The lake access area is located in the town of Gibson in the north central portion of the county. The lake provides good fishing for walleye, bass, bluegills, perch, black crappies, and northern pike. One horsepower electric motors are the only type of power motor allowed on the lake. The public access has parking space for 4 car/trailer units. Facilities at the site include the following:

- | | |
|----------------------|------------------------------|
| -Gravel Parking Area | -One Picnic Table |
| -One Trash Can | -Boat Ramp and Boarding Pier |

RECOMMENDATIONS:

- Pave the gravel access road.
- One parking stall for the disabled should be designated.
- Install and ADA- Compliant pier.
- Install an ADA-Compliant restroom.

20. Walla Hi Park

This 160 acre county park is located in southwestern Manitowoc County in the town of Schleswig, about four miles east of the City of Kiel. The park has varying environmental characteristics located within its boundaries. The scenic kettle moraine landscape of the park ranges from wooded areas to open grassy spaces. In addition, small springs and streams flow through the park. Popular activities at the park include fishing, hiking, cross-country skiing, horse-back riding, and picnicking. An abandoned fish hatchery and pond fed by natural springs are two interesting attractions found within the site. Camping and campfires are prohibited in the park. Facilities at the park include:

- | | |
|---|--------------------------------|
| -Gravel Parking Area | -Two Wooden Teeter-Totters |
| -Wooden Bench | -Wooden Swing Set |
| -Three Grills | -Four Picnic Tables |
| -Three Trash Cans | -Two Restrooms (Men and Women) |
| -Wooden Climber with Swings and Slide (with maintained woodchips) | |

RECOMMENDATIONS:

- Pave the gravel access road.
- Install an ADA-Compliant restroom.
- A network of barrier-free pathways are needed, linking the parking areas to the restrooms, picnic area, and playground equipment.
- Within the picnic area, at least one disabled accessible picnic table and grill should be available.
- The wood chips under the playground are being maintained, but a better alternative is to use rubber mats for safety and accessibility.

21. West Twin River

This public access is on a 2.0 acre parcel of land located east of Shoto, along County Trunk Highway VV, in the town of Two Rivers. The access area is within a floodplain of Lake Michigan, along the West Twin River. It provides an opportunity for fishing. There is no camping allowed in the park. The site includes a small picnic area, concrete ramp and a port-a-pier to make access to the river much easier. Trout, salmon, northern pike, catfish and bass may be taken from the river. The public access compliments the Shoto Conservation Club located to the west. Facilities provided at the access area include:

- | | |
|----------------------|----------------------------------|
| -One Picnic Table | -One Trash Can |
| -Gravel Parking Area | -Concrete Ramp and Boarding Pier |

RECOMMENDATIONS:

- Pave the gravel access road.
- A parking stall for the disabled should be designated.
- Install an ADA-Compliant pier.
- Install an ADA-Compliant restroom.

22. Wilke Lake

This lake access is located in the southwestern portion of the county in the town of Schleswig. It is a popular place for catching largemouth bass, northern pike, and walleye. Restrictions on motorboats and water-skiing are in place on the lake. The access has a small area designated for picnicking. The following facilities are available at the site:

- | | |
|----------------------|-------------------------|
| -Grassy Parking Area | -Picnic Area |
| -Three Picnic Tables | -One Grill |
| -One Trash Can | -ADA-Compliant Restroom |

-Boat Ramp and Boarding Pier

RECOMMENDATIONS:

- A barrier-free pathway should be in place, linking a designated parking stall to the other park amenities.
- Pave the gravel parking lot and boat turn-around.
- Install an ADA-Compliant pier.
- The picnic area should have an area to accommodate the disabled, including an accessible picnic table and grill.

23. Weyers Lake

Weyers Lake, which is 6 acres in size, has a maximum depth of 32 feet. A picturesque lake with very little shoreline development, it offers big bluegill, largemouth bass and an occasional northern pike. The public access has 46 feet of frontage and can accommodate 5-8 car/trailer units. A port-a-pier was recently added to make lake access much easier. Green sunfish, pumpkinseed, black crappie, suckers and bullhead also abound here. Motor boating is prohibited; but, the lake, surrounded with dense forest growth, is a perfect place for row boating and canoeing. Facilities provided at the access area include:

-One Trash Can

-Pier

RECOMMENDATIONS:

- Install an ADA-Compliant pier.
- Install an ADA-Compliant restroom.
- Expand parking.
- Pave the access road and parking area.

SUMMARY

In reviewing the inventory of the Manitowoc County Park facilities, it is evident that many of the county facilities are accessible to the disabled. However, at most park sites, additional efforts will be necessary to meet ADA accessibility guidelines. The summary provides an overall summation of the common types of ADA needs throughout the Manitowoc County Park System:

The boat landing facilities at most of the county's public water access area have similar types of needs. Many boarding pier access ramps at these sites are too steep and have barriers at the entrance of the structures. The piers should be 60 inches wide. A few sites in the county do provide piers with railings; however, the cross bars need to be adjusted to meet ADA guidelines. The pier at Spring Lake Access is a good example of addressing ADA accessibility. The Spring Lake Access pier; however, will need a barrier-free entrance.

The majority of the county's park sites need designated parking facilities. According to ADA standards, at least one parking space in every 25 or fewer spaces should be designated for the disabled. This space should be nearest to the recreational facility's access route. The county

should place universal disabled symbol signs in the parking areas designating them for the disabled.

Only a few of the restroom structures in the county park system meet all the ADA standards. Many restrooms at the county's recreational areas will need a ramp entrance to the facilities. The ramps to the doorways should have proper slope and level landings at the bottom and top. The restroom should allow a safe approach, entrance, and exit to the disabled user.

Except for Long Lake, the park sites in the county with picnic facilities currently do not provide tables for the disabled. There are no park sites that offer grill for the disabled. At least one picnic table and one grill designated to accommodate persons in wheelchairs should be available at each picnic area. In addition, accessible picnic facilities should be on a stable surface. All newly purchased picnic tables, grills, and benches, as well as any other equipment or facilities, should be accessible.

The county's park sites with playground areas should be improved for better accessibility by the disabled population. While every piece of play apparatus need not be accessible, at least one of each type is recommended. For example, when several swings are provided, at least one swing should be designated with the young disabled population in mind. The majority of playground areas in these park sites had wood chip surfaces with plastic lawn edging under the play apparatus. This type of surface is only adequate when the wood chips are maintained at proper levels and the edging material around the area is at ground level with 36 inch cut-out spaces for accessibility. Because of recent safety and accessibility concerns brought out by consumer protection groups regarding the use of wood chips, the recommended method of providing a safe surface below play equipment would be rubber matting.

To follow each and every recommendation in this report will be a major undertaking by the county. Therefore, at a minimum, it is recommended that the county develop a schedule of parks to be made accessible. The county could concentrate their efforts on the heavy use parks first. When accessibility guidelines have been met, an accessible symbol could be placed on the identification sign of the park and on related maps. These efforts can be programmed to continue until all parks and recreation sites in the county are accessible. Any and all new facilities or park amenities should be purchased or designated and built with the disabled population in mind. The long range goal should be to have every park of public facility, including all recreational opportunities, 100 percent disabled accessible.

APPENDIX C

ACCESSIBILITY DEFINITIONS AND GUIDELINESS

APPENDIX C: ACCESSIBILITY DEFINITIONS AND GUIDELINES

The guidelines and definitions in this appendix are based on the federal requirements for the compliance with the Americans with Disabilities Act (ADA) of 1990. Local codes may vary and should be reviewed before any new construction or remodeling is undertaken. They contain only a portion of the accessibility guidelines necessary to be in compliance with the ADA and should not be used as the only source when analyzing accessibility needs. (Source: Accessible Design Handbook, Cash-Callahan & Company, 1991; and Design Guide for Accessible Outdoor Recreation, USDA Forest Service; Barrier-Free Fishing, Access to the Outdoors, University of Wisconsin-Madison, Department of Landscape Architecture, 1990).

DEFINITIONS

Accessible Aisle

An accessible pedestrian space between elements such as parking spaces, seating, and desks that provides proper clearance to use the elements.

Accessible

Describes a site, building, facility or portion thereof that complies with these standards and that can be approached, entered, and used by physically disabled people.

Accessible Route

A continuous unobstructed path connecting all accessible elements and spaces in a building or facility. Interior accessible routes may include corridors, floors, ramps, elevators, lifts and clear floor space at fixtures. Exterior accessible routes may include parking access aisles, curb ramps, walks, ramps and lifts.

Administrative Authority

A government agency that adopts or enforces regulations and standards for the design, construction, and alteration of buildings and facilities.

Area of Rescue Assistance

An area with direct access to an exit where people who are unable to use stairs may remain temporarily in safety to await instructions or assistance in an emergency. Such areas must meet all applicable code specifications of the regulatory building agency having jurisdiction over the building or facility.

Assembly Area

A room or space accommodating a group of individuals for recreational, educational, political, social, or amusement purposes, or for the consumption of food and drinks.

Bevel (Threshold)

The slope between the floor surface and the top of the threshold.

Clear

Unobstructed.

Cross Slope

The slop that is perpendicular to the direction of travel.

Curb Ramp

A short ramp cutting through a curb or built up to it.

Egress, Means of

A continuous exit route from any point in a building or facility to a public way. An accessible means of egress must comply with all regulations regarding accessibility. Area of rescue assistance may be included as part of an accessible means of egress.

Element

An architectural or mechanical component of a building, facility, space, or site, e.g., telephone, curb ramp, door, drinking fountain, seating, water closet.

Entrance

An access point to a building or portion of a building or facility used for the purpose of entering. An entrance includes the approach walk; the vertical access leading to the entrance platform; vestibules, if provided; the entry door(s) or gate(s); and the hardware of the entry door(s) or gate(s). The principal entrance of a building or facility is the main door through which most people enter.

Facility

All or any portion of a building, structure, or area including the site on which such building, structure, or area is located, where specific services are provided or activities performed.

Forward Approach

Where the approach to an object or element can be made from a forward position.

Nosing (Stair)

The prominent, usually rounded horizontal edge which extends beyond the riser.

Parallel Approach

Where the approach to an object or element is from the side.

Physically Handicapped

An individual who has a physical impairment, including impaired sensory, manual, or speaking abilities, which results in a functional limitation in access to and use of a building or facility.

Ramp

A walking surface in an accessible space that has a running slope greater than 1:20.

Ramp Slope

The ratio of the rise to the run of the ramp.

Rise

The vertical distance measurement from top to bottom of a ramp.

Riser (Stair)

The vertical face of a stair step.

Run

The sloped horizontal distance covered by a ramp or flight of steps. See Ramp Slope.

Signage

Verbal, symbolic, tactile and pictorial information.

Site

A parcel of land bounded by a property line or a designated portion of a right-of-way.

Space

A definable area, e.g., toilet room, hall, assembly area, entrance, storage room, alcove, courtyard or lobby.

Tactile

Something that can be perceived using the sense of touch.

Tread (Stair)

The horizontal part of a step that also includes the nosing.

Walk

An exterior pathway with a prepared surface intended for pedestrian use, including general pedestrian areas such as plazas and courts.

GUIDELINES

Space Allowance & Reach Ranges

- The minimum clear width for single wheelchair passage must be 36 inches continuously and 32 inches at any one point (e.g., doorways).
- The minimum width required for two wheelchairs to pass each other is 60 inches.
- A wheelchair requires a 60 inch diameter space in order to make 180 degree turn.
- Where the floor space allows only forward approach to an object, the maximum high forward reach allowed is 48 inches above the finished floor and the minimum low forward reach must be no less than 15 inches above the finished floor. There must be no obstructions.
- Where the clear floor space allows parallel approach by a person in a wheelchair, the maximum high side reach allowed is 54 inches above the finished floor and the low side reach must be no less than 9 inches above the finished floor. There must be no obstructions.
- Although people with walking aids (e.g., canes, crutches, walkers, guide dogs) can maneuver through a clear width opening of 32 inches, they require 36 inch wide passageways for comfortable gaits.
- Crutch tips extending down at a wide angle are a hazard in narrow passageways where they might not be seen by other pedestrians. A width of 36 inches provides a safety allowance for both the disabled person and for others.
- A person with a seeing-eye dog or a semi-ambulatory person requires the same passing width as a person in a wheelchair.

Accessible Routes

- Accessible routes within the boundary of the site must be provided from public transportation stops, accessible parking, accessible passenger loading zones, and public streets or sidewalks to the accessible building entrance they serve.
- Accessible route(s) must connect buildings, facilities, and spaces that are on the same site.
- The minimum clear width of an accessible route must be 36 inches except at doors where the minimum clear width must be at least 32 inches.
- Where an accessible route has less than 60 inches clear width, passing spaces of at least 60 by 60 inches must be located at reasonable intervals that do not exceed 200 feet. The intersection of two corridors or walks is considered a passing space.
- Accessible routes serving any accessible space or element must also serve as a means of egress for emergencies or connect to an accessible place of rescue. These areas of rescue must comply with the requirements established by the administrative authority having local jurisdiction.
- Changes in levels along an accessible route which are greater than ½ inch must be ramped.
- Changes in levels along an accessible route which are between ¼ and ½ inch must be sloped 1:2.

- Changes in levels along an accessible route ¼ inch or less can remain.

Protruding Objects

- Protruding objects must not reduce the clear width required for an accessible route or maneuvering space.
- Objects protruding from walls (telephones, etc.) with their edges between 27 and 80 inches above the finished floor must protrude no more than 4 inches into walks, halls, corridors, passageways, or aisles.
- Objects protruding from walls with their leading edges at or below 27 inches above the finished floor may protrude any amount; provided the minimum requirements for accessible routes are met.
- Free standing objects mounted on posts between 27 and 80 inches above the finished floor may overhang a maximum of 12 inches.
- All walks, halls, corridors, passageways, aisles, or other circulation paths must have 80 inches clear headroom.
- Where vertical clearance of an area adjoin an accessible route is reduced to less than 80 inches, a guardrail or other barrier must be provided.

Parking

- Each parking lot provided for employees or visitors is required to have accessible parking spaces.
- Accessible parking spaces must be the closest spaces to the building's accessible entrance.
- Check with the municipal zoning department for the total number of parking spaces required in your lot. The rule of thumb is as follows:

<u>Total Parking in Lot</u>	<u>Minimum # of Accessible Spaces</u>
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1,000	2% of total spaces
1,001 and over	20 plus 1 for each 100 over, 1000

- Accessible parking spaces must be at least 96 inches wide with a clearly marked adjacent access aisle of 60 inches. Two spaces may share a common aisle.
- The access aisle must connect directly to the accessible route.
- Spaces and aisles must be level with no slope greater than 1:50.

- All accessible parking spaces must have an unobscured vertical sign that shows the universal symbol of accessibility.
- Provide one in every eight accessible spaces, but not less than one, for van parking. This space(s) must have a minimum of a 96 inch wide access aisle and a minimum of 98 inches vertical clearance. Signage designating the space as “van accessible” must be provided below the symbol of accessibility.

Passenger Loading Zones

- Where passenger loading zones are provided, at least one must be accessible.
- The accessible passenger loading zone should be the closest to the accessible entrance and have a minimum vertical clearance of 114 inches.
- The international symbol of accessibility must be displayed at the passenger loading zone.
- The pull up space must be level with a slope no greater than 1:50.
- A pedestrian aisle must be adjacent to the passenger loading zone and it must be at least 5 feet wide and 20 feet long.
- A curb ramp must be provided where a curb occurs at the passenger loading zone.
- The pedestrian aisle and parking surface must be firm and slip resistant.
- The slope of the accessible route adjoining the ramp must be no greater than 1:20.
- The width of the curb ramp, not including the flared sides, must be at least 36 inches.
- The slope of the flared sides of the curb ramp must be 1:10 or less.
- Curb ramps must have flared sides or must be protected by a hand rail.
- Provide detectable warnings on curb ramps that contrast with the walkway. The material used must be an integral part of the surface and consist of raised domes with a nominal diameter of 0.9 inches, a nominal height of 0.2 inches and center to center nominal spacing 2.36 inches.
- Where grate openings occur, openings must be ½ inch or less and openings must be placed perpendicular to the usual direction of travel.

Ramp

- Any part of an accessible route with a slope greater than 1:20 will be considered a ramp.
- The maximum slope of a ramp in new construction should be 1:12 or less.
- The maximum rise of any run should be 30 inches or less.
- The cross slope of the ramp should be no greater than 1:50.
- The ramp surface must be non-slip.
- All grating openings must be ½ inch or smaller and must be placed perpendicular to the usual direction of travel.
- The clear width of the ramp must be at least 36 inches.
- A level landing must be provided at the top and bottom of each run.
- The landing must be at least as wide as the ramp and at least 60 inches long.
- Where ramps change direction, the landing must be at least 60 by 60 inches.
- A handrail on either side must be provided if the ramp rises more than 6 inches or is longer than 72 inches.

- The handrails must be continuous and fixed so they do not rotate or rack.
- The top of the handrail must be between 34 and 38 inches above the ramp surface.
- At the end of the handrails there must be at least 12 inches of level handrail beyond the top and bottom of the ramp segment.
- All handrail ends must be rounded and returned smoothly to the floor, wall or post.
- The diameter of the handrail must be between 1-1/4 and 1-1/2 inches.
- All wall-mounted handrails must be mounted with exactly 1-1/2 inches between handrail and wall.
- Where ramps or landings have drop-offs, provide a 2 inch curb, wall, railing or projecting surface to prevent people from falling off ramp.
- Design ramps with proper drainage so that water will not accumulate on surfaces.

Stairs

- All steps must have uniform height and tread width in any one flight.
- All risers in accessible routes must be closed.
- Treads should be a minimum of 11 inches measured from nosing to nosing.
- Nosings must not project more than 1-1/2 inches.
- Where nosings project, bevel undersides to prevent tripping.
- Stairways must have continuous handrails on both sides of all steps.
- Handrails should continue at the top and bottom of stairs. At the top, the handrail must continue on a level for a minimum of 12 inches; at the bottom, the handrail must slope for a distance of at least the tread width and then continue on a level plane for a minimum of 12 inches.
- All wall-mounted handrails must be mounted with exactly 1-1/2 inches between the handrail and the wall.
- Gripping surfaces must be uninterrupted by posts or other obstructions.
- Mount top of handrails between 34 and 38 inches above nosing.
- All handrail ends must be rounded and returned smoothly to the floor, wall or post.
- Handrails must be secure and not rotate.
- The diameter of the handrail must be between 1-1/4 and 1-1/2 inches.
- Outdoor stairs must be designed so that water does not accumulate on walking surfaces.

Doors and Gates

- Where revolving doors occur along the accessible route, provide an accessible door or gate.
- A doorway with two independently operated door panels must have at least one active door panel with 32 inches clear opening maneuvering space.
- An accessible door must have a 32 inch clear opening measured between the face of the door and the door stop on the latch side.
- Provide 18 inches or more of clear space on the operable side of the door.
- Floor must be level at all doors in the accessible route.
- Where two doors occur in a series, provide a vestibule of at least 48 inches plus the width of the opened door swinging into the space.

- All thresholds should be level or have a bevel of not more than 1:2.
- All door handles, locks and latches must be operable with one hand and without twisting the wrist.
- Hardware should be mounted no higher than 48 inches above the finished floor.
- Door closers and gate closers shall be adjust so that from an open position of 90 degrees, the time required to move the door to a position of 12 degrees from the latch is 5 seconds minimum.
- Interior doors must have an opening force of 5 pounds or less.
- The opening force of exterior doors must be determined by the appropriate administrative authority.

Entrances

- The accessible entrance must not be a service entrance unless the service entrance is the only entrance.
- The accessible entrance must be connected to accessible parking, passenger loading zones, and public streets or sidewalks.
- The accessible entrance should connect to an accessible route to all accessible elements or spaces within the building or facility.
- Where vertical level changes between ¼ and ½ inches occur along the route, the edge must be beveled with a slope of 1:2 or less.
- Where vertical level changes at the entrance are greater than ½ inch, provide a ramp, curb ramp, or platform lift.

Drinking Fountains

- Fountains that are free standing or built-in and do not have clear space underneath must have a clear floor space alongside the fountain for a parallel approach of at least 30 by 48 inches.
- Fountains that are wall or post mounted must have a clear knee space under the fountain apron of at least 27 inches high by 17 to 19 inches deep by 30 inches wide.
- The spout of the fountain must be no higher than 36 inches above the finished floor.
- The water stream must be at least 4 inches high to allow the insertion of a cup under the stream.
- Spout must be at the front of the unit with the water flow parallel or nearly parallel to the front edge of the fountain.
- Controls must be located at the front edge of the fountain.
- Controls must be operable with one hand and without twisting the wrist.

Restrooms

Toilet Stalls

- Accessible toilet stalls must be on an accessible route.
- The stall must be at least 60 inches wide.
- Where toilets are wall mounted, stall must be at least 56 inches deep.

- Where toilet stalls are floor mounted, stall must be at least 59 inches deep.
- A clear opening of 32 inches measured between the face of the door and the edge of the partition on the latch side must be provided when the stall door is open 90 degrees.
- Where the door swings into the stall, provide at least 36 additional inches in the depth of the stall.
- Where stall door opens out and at the end of an aisle, provide at least 18 inches of maneuvering space at the latch side of the stall door.
- Install grab bars 33 to 36 inches above the finished floor. Grab bars must be secure and rotate in their fittings.
- Mount toilet paper dispenser no more than 36 inches from the back wall and at least 19 inches above the finished floor.
- Toilet paper dispenser must allow continuous paper delivery.
- The centerline of the toilet must be 18 inches from the wall or partition which has the grab bar location.
- The top of the toilet must be between 17 and 19 inches above the finished floor.
- Flush controls must be mounted no higher than 44 inches above the finished floor and on the wide side of the toilet area and be automatic or operable with one hand.

Urinals

- Urinals must have elongated rims mounted no more than 17 inches above the finished floor.
- Urinals shall be 13 1/2 inches deep minimum measured from the outer face of the urinal rim to the back of the fixture.
- Provide 30 by 48 inch clear space for forward approach to the urinal.
- Urinal shields which do not extend beyond the front of the urinal rim may be provided by 29 inches clearance between the two panels.
- Flush controls must be automatic or operate with one hand.
- Controls must not be mounted higher than 44 inches above the finished floor.

Lavatory

- The lavatory rim or counter surface must be no higher than 34 inches above the finished floor.
- A clearance of at least 29 inches from the finished floor to the bottom of the apron must be provided.
- Provide a clear floor space of at least 30 by 48 inches in front of the lavatory for a forward approach.
- Provide a clear floor space of at least 17 inches under the lavatory.
- Hot water and drain pipes must be insulated or covered.
- The faucet must be operable with one hand and without twisting the wrist; self-closing type valves must remain open at least 10 seconds.
- Where valves are self-closing, provide that the valve remain open for at least 10 seconds.

Mirrors

- Provide at least one mirror with the bottom edge of the reflecting surface no higher than 40 inches above the finished floor.

Dispensers

- Provide at least one of each dispenser type on an accessible route.
- Provide at least 30 by 48 inch clear space to allow either a forward or a parallel approach to the dispensers.
- Where a forward approach is provided, the highest operable part must be no higher than 48 inches above the finished floor.
- Where a side approach is provided, the highest operable part must be no higher than 54 inches above the finished floor.
- All dispensers must be operated with one hand and without twisting of the wrist.

Pathways

- There must be an accessible route linking accessible parking and passenger loading zones with the accessible building entrance.
- The accessible pathway must be free of steps and stairs.
- The accessible pathway must be at least 36 inches wide.
- If the pathway is less than 60 inches wide, provide passing spaces at least 60 inches wide and 60 inches long at intervals not exceeding 200 feet.
- Provide at least 80 inches of clear head room along the pathway.
- Objects mounted to the wall between 27 inches and 80 inches must not protrude more than 4 inches into the space. The accessible pathway must be 36 inches wide alongside the protruding object.
- Accessible pathways must be firm and slip resistant.
- The slope of the accessible pathway must be no greater than 1:20.
- Where walkway levels change, the vertical difference between them must be less than ¼ inch.
- Changes in level between ¼ inch and ½ inch anywhere on the accessible route must be beveled with a slope of 1:2.
- Changes greater than ½ inch must be ramped.
- The transition from the curb ramp to the walkway, road and gutter must be flush and free of abrupt changes.

Boating and Fishing Facilities

Piers Adjacent to Boat Ramps

- The pier should have nonslip materials on surface to aid in transfers.
- Access to pier site should be across a barrier-free path.
- The access ramp to a dock should have a slope no greater than 1:20.
- The pier should have a 60 inch turnaround area.

Fishing and Boarding Piers

- Depending on the environment, a railing should be provided along one side of the pier, except boarding piers, with sections at 32 inches high for sitting and 43 inch high for standing.

- If no railing is used on a fishing pier, the pier should have a 6 inch kick plate and should be wider. A good size fishing pier of this type would be 12 feet by 20 feet.
- The pier should have nonslip materials on surface for increased safety.
- Access to pier site should be across a barrier-free path.
- The access ramp to a pier should have a slope no greater than 1:20.
- Fishing piers should be at least 5 feet wide. Ten feet is preferred.
- Top railings on fishing docks should be angled for relaxing while holding a fishing rod.

Picnic Area

- At least one disabled accessible table and grill should be provided within the picnic area.
- Picnic tables should be placed on a level hard surface.
- Grill and picnic tables should have a clearance of 36 inches.
- Grills should rotate and have a stable surface around them.