



CITY OF MANITOWOC COMPREHENSIVE PLAN



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ACRONYMS

These acronyms are used throughout the *Plan* document for brevity.

ACS: American Community Survey.

ADA: Americans with Disabilities Act.

ADRC: Manitowoc County Aging and Disability Resource Center.

AQI: Air Quality Index.

BLRPC: Bay-Lake Regional Planning Commission.

CBCWA: Central Brown County Water Authority.

CBF: Circulating fluidized bed boiler.

CN: Canadian National-Wisconsin Central Railroad.

CBED: Community Based Economic Development program.

CDBG: Community Development Block Grant.

City: City of Manitowoc, Wisconsin.

Comprehensive Plan or Plan: City of Manitowoc Comprehensive Plan.

County: Manitowoc County.

CMAQ: Congestion Mitigation and Air Quality.

CSM: Certified Survey Map.

CTH: County Trunk Highway.

EDCMC: Economic Development Corporation of Manitowoc County.

EPA: Environmental Protection Agency.

ETJ: Extraterritorial Jurisdiction.

EXCEL: Gifted & Talented program at MPSD.

FEMA: Federal Emergency Management Agency.

GOAL: Goal-Oriented Adult Learning.

GRB: Austin Straubel International Airport.

HNTB: Howard Needles Tammen & Bergendoff.

IAT: Ice Age Trail.

IB: International Baccalaureate.

I-TEC: I-43 Technology & Enterprise Campus.

LTC: Lakeshore Technical College.

LWE: Lakeshore Wind Ensemble.

MCLS: Manitowoc-Calumet Library System.

MAVCB: Manitowoc Area Visitors & Convention Bureau.

MCD: Minor civil division.

MCHS: Manitowoc County Historical Society.

MGD: Million gallons per day.

MKE: Milwaukee County General Mitchell International Airport.

MMT: Maritime Metro Transit System.

MPSD: Manitowoc Public School District.

MPU: Manitowoc Public Utilities.

MRF: Material Recovery Facility.

MTPD: Manitowoc Police Department.

MTW: Manitowoc County Airport.

NEWREP: Northeast Wisconsin Regional Economic Partnership.

NRCS: Natural Resources Conservation Service.

River: Manitowoc River.

SCADA: System Control and Data Acquisition.

SIB: State Infrastructure Bank program.

State: State of Wisconsin.

STC: School-to-Career.

STH: State Trunk Highway.

SWAP: Storm Water Assessment Program.

TIF: Tax Incremental Financing.

TSS: Total Suspended Solids.

U.S.: United States.

USA: Urban Service Area.

USCOC: United States Chamber of Commerce.

USH: United States Highway.

UW-Extension: University of Wisconsin - Extension, Manitowoc County.

WDPI: Wisconsin Department of Public Instruction.

WETAP: Wisconsin Employment Transportation Assistance Program.

WisCOM: Wisconsin Department of Commerce.

WisDNR: Wisconsin Department of Natural Resources.

WisDOT: Wisconsin Department of Transportation.

WisDWD: Wisconsin Department of Workforce Development.

Wis. Stats.: Wisconsin Statutes.

WPDES: Wisconsin Pollutant Discharge Elimination System.

EXECUTIVE SUMMARY

To carry out the City's ambitious vision, the *City of Manitowoc Comprehensive Plan* ("Comprehensive Plan" or "Plan") includes detailed goals, objectives, policies, and programs. These are generally organized in chapters according to the required comprehensive plan elements: agricultural, natural, and cultural resources; transportation; utilities and community facilities; housing and neighborhood development; economic development; land use; intergovernmental cooperation; and implementation.

The following is a brief summary of the key recommendations of this *Plan* organized by these elements. The City invites you to read the full *Comprehensive Plan* to explore these recommendations in significantly greater detail.

Agricultural, Natural, and Cultural Resources Recommendations Summary

- ◆ Promote a compact development pattern, focusing on techniques that minimize the amount of land required for additional growth.
- ◆ Continue to support the existing food processing cluster businesses, and promote the use of local foods.
- ◆ Explore waste to energy opportunities through the use of animal waste bio-digesters.
- ◆ Support agricultural diversification in the County.
- ◆ Continue progressive erosion control and stormwater management practices for protection and continued improvement of the Manitowoc River corridor and watershed.
- ◆ Encourage the construction of "green" buildings, and promote energy efficiency.
- ◆ Consider initiatives to celebrate Manitowoc's maritime history and expand tourism opportunities.



Lake Michigan shoreline

Land Use Recommendations Summary

- ◆ Plan for neighborhood growth areas north and south of the City.
- ◆ Pursue redevelopment of aging industrial, commercial, and railroad corridors.
- ◆ Advance Harbor Town Center as a major regional employment and shopping destination.
- ◆ Prioritize the commitment to downtown and riverfront revitalization.
- ◆ Limit premature development in long range urban growth areas until market-responsive urban development diversifies the City's housing and employment choices, and can be provided with a full range of urban services, specifically near the Waldo Blvd./I-43 interchange.

Transportation Recommendations Summary

- ◆ Consider converting the City's one-way pair – S. 8th and S. 10th Streets – to a two-way system to increase connectivity; begin by conducting a conversion engineering study.
- ◆ Enhance Manitowoc as a walkable, bicycle-friendly City by developing an interconnected sidewalk and trail network, carefully considering the needs of bicyclists and pedestrians in road design, and requiring designs of new developments that have the pedestrian in mind.
- ◆ Support the expansion of the Manitowoc County Airport as an economic development tool.
- ◆ In an era of rising fuel costs, enhance mobility for people and products through investments in inter- and intra-City transit and transshipment.

Utilities and Community Facilities Recommendations Summary

- ◆ Consider developing a sustainability plan to support and strengthen the City's current sustainability initiatives.
- ◆ Implement the recommendations of the City's "Park, Recreation, and Open Space Plan 2005-2010", and incorporate the recreational recommendations in this *Plan*, including establishment of a riverwalk system, as part of the next update.
- ◆ Recognize the essential link between education and community health, collaborate with educational providers to strengthen education, increase youth opportunities, and improve Manitowoc's overall quality of life.
- ◆ Expand the use of technology in municipal operations, through tools such as Geographic Information Systems ("GIS") and the internet, as a way to implement the recommendations of this *Plan* and improve the delivery of municipal services.



Example of a riverwalk

Housing and Neighborhood Development Recommendations Summary

- ◆ Support quality housing at all levels - including urban living and workforce housing, senior housing, and housing for young professionals - to contribute to the diversity, character, and economic vitality of the City.
- ◆ Help revitalize urban neighborhoods through a variety of approaches within key areas in partnership with residents and other stakeholders.
- ◆ Require detailed neighborhood development plans for large areas in advance of subdivision plat approvals for smaller pieces of those areas.

Economic Development Recommendations Summary

- ◆ Provide support throughout the community for “green” practices, and increase the potential for “green” jobs.
- ◆ Engage and facilitate the economic potential of the Baby Boomers and Zoomers to enhance economic prosperity – in tandem with young professional development and recruitment.
- ◆ Strengthen the link between jobs and people, including greater options for workforce housing, education, and transportation.
- ◆ Pursue redevelopment and infill of underutilized lands such as aging industrial corridors, the north side malls, and potentially the County Expo Grounds.
- ◆ Retain and expand existing local businesses utilizing local and State resources and innovative initiatives.
- ◆ Support companies creating tax base and higher wage jobs to support individual debt reduction and consumer spending.

Intergovernmental Cooperation Recommendations Summary

- ◆ Continue to participate in County-level events and coordination efforts, including the annual County municipal officials meeting.
- ◆ Maintain discussion of issues of mutual concern with surrounding communities, including long-range planning, land use regulations, and intergovernmental agreements for services.

Key Implementation Recommendations

- ◆ Update the City’s development codes as the first step to implementing the recommendations of this *Plan*.
- ◆ Explore mutually beneficial intergovernmental agreements with surrounding towns.
- ◆ Implement the recommendations of the special studies completed as part of the planning process including “The Port of Manitowoc Downtown and River Corridor Master Plan” and the “Manitowoc Expo Grounds Master Plan” focusing, in particular, on transforming the downtown and riverfront into a compelling residential, business, and entertainment district.



Downtown Manitowoc

INTRODUCTION

The City of Manitowoc (the “City”) is a vibrant historic community located where the Manitowoc River meets Lake Michigan on Wisconsin’s eastern shore. In the past, the City’s strategic location led to the creation of a thriving port in which shipbuilding and manufacturing flourished. The region’s rich land and water-based natural resources complimented these industries, growing the City’s population and economy.

While the nature of industry and trade has changed since the City’s founding in 1836, the City’s strong manufacturing base and inherent natural resources, combined with its hardworking residents and innovative businesses, have enabled it to maintain a high quality of life. The City has benefited from its picturesque shoreline, quality schools and safe neighborhoods, as well as strong regional connections. The City is located along major ground and water transportation corridors connecting it to regional markets, population, and economic cores of the Midwest and beyond.

Today, it is the vision of the City to continue to support and encourage its industrial heritage, along with being a friendly, culturally diverse, and economically vibrant community that embraces the arts and humanities, and preserves the best of small town life on the lakeshore including health, long-life, beauty, comfort, and safety.

The City has established a mission by which it will effectively manage public resources to enhance the quality of life for the benefit of the entire community, and will achieve this mission through innovative and dynamic leadership by:

- ◆ Fostering opportunities for economic growth.
- ◆ Protecting the safety and well-being of the community.
- ◆ Serving the needs of the community with respect and dedication.
- ◆ Embracing the arts, humanities, and cultural diversity.
- ◆ Providing a welcome atmosphere for our citizens and visitors.



Lake Michigan shoreline

In 2007, the City began the effort to prepare this *Comprehensive Plan*. This *Plan* will provide consistent direction for the City as it addresses growth and change, preservation, and redevelopment through 2030. This *Plan* will enable the City to maintain its mission, and to guide its vision into the future.

PURPOSE OF THIS PLAN

This *Plan* is intended to help the City guide short-range and long-range growth and development.

The purposes of this *Plan* are to:

- ◆ Provide a vision for future growth and development in and around the City.
- ◆ Identify areas appropriate for development and preservation over the next 20 years.
- ◆ Recommend appropriate types of land use for specific areas in and around the City.
- ◆ Advise the “character” of development (i.e. aesthetic components of development that are not related to the location or use of development such as architecture, building scale, urban form, and landscaping).

- ◆ Preserve natural resources (e.g. the Manitowoc River) and promote the conservation of agricultural resources around the City.
- ◆ Identify needed transportation and community facilities to serve future land uses.
- ◆ Foster economic development based on the City's unique opportunities.
- ◆ Direct housing, commercial, office, research, and industrial investments in the City.
- ◆ Provide a framework for intergovernmental cooperation to achieve *Plan* directions.
- ◆ Supply detailed strategies to implement plan recommendations.

Additional purposes of the *Plan* may be identified as the City goes through the planning process.

PLAN ORGANIZATION

This *Plan* contains chapters that present background information on each element (e.g. Transportation, Land Use, Economic Development) required by Wisconsin's Comprehensive Planning legislation (§66.1001, Wis. Stats.). The background information in each chapter shapes the goals, objectives, policies, and programs. Each chapter contains general goals, objectives, policies, and programs for the City to address each of the nine elements required by the Comprehensive Planning legislation (§66.1001 Wis. Stats.). Chapter Nine: Implementation includes proposed Citywide strategies and implementation timelines to ensure that the recommendations presented in this *Plan* become a reality.

PLANNING PROCESS

This *Plan* was prepared under Wisconsin's comprehensive planning legislation, adopted in 1999 and contained in §66.1001, Wis. Stats. This *Plan* meets all of the statutory elements and requirements of the comprehensive planning law. After January 1, 2010, only those plans containing the nine required elements, and adopted under the State's prescribed procedures will be able to be legally used to make zoning, subdivision, and Official Map decisions (§62.23(6), Wis. Stats.) that are consistent with this *Plan*.

In order to provide sound public policy guidance, a comprehensive planning process should incorporate inclusive public participation procedures to ensure that recommendations reflect a broadly supported vision for the community. On July 16, 2007, at the outset of this planning process, the Manitowoc Common Council adopted the City's public participation plan by resolution. Due to this extensive public participation process outlined by the City, the recommendations in this *Plan* are generally consistent with other adopted local and regional plans, long-standing State and regional policies, and sound planning practices.

PLAN ADOPTION PROCESS

Preparation of a comprehensive plan is authorized under §66.1001, Wis. Stats. Before adoption, a *Plan* must go through a formal public hearing and review process. The Plan Commission adopts by resolution a public hearing draft of the *Plan*, and recommends that the Common Council enact an ordinance adopting the *Plan* as the City's official *Comprehensive Plan*.

Following Plan Commission approval, the Common Council holds a public hearing to discuss the proposed ordinance adopting the *Plan*. Copies of the public hearing draft of the *Plan* are forwarded to a list of local and state governments for review. A Class "1" notice must precede the public hearing at least 30 days before the hearing. The notice must include a summary of the *Plan*, and information concerning where the entire document may be inspected or obtained. The Council may then adopt the ordinance approving the *Plan* as the City's official *Comprehensive Plan*.

This formal, well-publicized process facilitates broad support of plan goals and recommendations. Consideration by both the Plan Commission and Common Council assures that both bodies understand and endorse the *Plan's* recommendations.

CONCURRENT PLANNING EFFORTS

This *Plan* was prepared as part of a larger process which encompassed not only a comprehensive plan, but also a series of Special Area Studies including:

- ◆ Manitowoc Snapshot of Economic Assets and Opportunities.
- ◆ The Port of Manitowoc Downtown and River Corridor Master Plan.
- ◆ Manitowoc Economic Base Assessment and Market Analysis.
- ◆ Manitowoc Expo Grounds Master Plan.
- ◆ Strategies to Engage Manitowoc's Baby Boomer Population to Maintain a Thriving Residential and Business Community.
- ◆ Go Green! An Approach for the Future of Community Sustainability in Manitowoc.
- ◆ Review of Development Codes.

While referenced in this *Plan*, these Special Area Studies are intended to be stand alone documents focused on specific issues that will affect the City's future. Each study contains detailed recommendations on its particular topic.

GENERAL REGIONAL CONTEXT

Map 1 shows the relationship of the City to neighboring communities in the region. The City is centrally located along the County's eastern border and the Lake Michigan shoreline. The City also serves as the County seat. Manitowoc is located 25 miles north of the City of Sheboygan, 40 miles southeast of the City of Green Bay, and 50 miles southwest of Door County, Wisconsin. Manitowoc is bordered by Lake Michigan to the east, the City of Two Rivers to the northeast, the Town of Manitowoc to the north and south, the Town of Manitowoc Rapids to the west, and the Town of Newton to the southwest.

In a broader regional context, the City is located roughly 80 miles northeast of Milwaukee, 165 miles north of Chicago, and 315 miles southeast of Minneapolis-St. Paul.

SELECTION OF THE PLANNING AREA

State statutes enable the City to plan for those areas that bear relation to the City's development. The area that will be the subject of the *Plan* includes all lands currently within the City's municipal limits, and the unincorporated areas within the City's extraterritorial jurisdiction ("ETJ") pursuant to §62.23(7), Wis. Stats. and Chapter 236, Wis. Stats., as may be amended from time to time. The ETJ generally expands three miles from the boundaries of the City, or as set by agreements between the City and its neighbors. Except for where such agreements preclude expansion, the ETJ expands automatically as annexations occur. This *Plan* considers and makes recommendations for areas beyond the current ETJ limits, acknowledging that as the City grows, its ETJ will grow commensurately. In addition to planning, a City's ETJ authorities include reviewing subdivisions, enacting extraterritorial zoning, and implementing an Official Map.



Downtown Manitowoc

The City's 2008 ETJ extended into seven towns—Manitowoc Rapids, Manitowoc, Newton, Liberty, Cato, Kossuth, and Two Rivers. As indicated on Map 1, the ETJ of the Town of Two Rivers and the City overlap. The joint line depicted on Map 1 follows State law concerning division of the ETJ in such situations. The City may consider formally extending all or some of its ETJ powers into these areas – including planning, Official Map, and land division approval.

DEFINITIONS

Baby Boomers: The record-breaking 76 million Americans born between 1946 and 1964.

Bay-Lake Regional Planning Commission: The public agency that has been established to provide planning service on area-wide issues, to represent local interests on State and Federal planning program activities, and to provide local planning assistance to communities in the Bay-Lake Region. The Bay-Lake Regional Planning Commission was established by Governor Patrick Lucey in 1972 by Executive Order 35, and covers the counties of Brown, Door, Florence, Kewaunee, Manitowoc, Marinette, Oconto, and Sheboygan in north-eastern Wisconsin.

Best Management Practices (“BMP”): Methods, techniques, practices, procedures, programs, or other measures found to be the most effective and practical means in achieving an objective. Often referred to in terms of stormwater management.

Certified Survey Map (“CSM”): A map of land split prepared in accordance with this Ordinance and Chapter 236, Wis. Stats.

Compact Development: Land developed at a higher than average density to preserve natural resources, and enhance community character and walkability.

Comprehensive Plan: A master plan that is adopted or amended under §62.23(2) Wis. Stats.

Consistent: Free from variation or contradiction. All regulations that are used to implement this *Comprehensive Plan* must be consistent with the recommendations and policies of the *Plan*.

Environmental Corridors: Continuous systems of open space containing environmentally sensitive lands and natural resources requiring protection from disturbances and development, and lands needed for open space and recreational uses. They are based mainly on drainage-ways and stream channels, floodplains, wetlands, steep slopes, and other resource features, and are part of a countywide system of continuous open space corridors.

Extraterritorial Jurisdiction (“ETJ”): Per §62.23(7a) Wis. Stats., the unincorporated area within three miles of the corporate limits of the City.

Final Plat: A final plat of subdivided land meeting the requirements of Chapter 236, Wis. Stats.

Green: A collective term for efforts and initiatives to protect the environment.

Heritage Tree: A tree or stand of trees that due to its age, size, species, quality or historic association, is of landmark importance, and its retention as such will not unreasonably interfere with the use of the property upon which it is located.

Heritage Tree Ordinance: An ordinance adopted to preserve significant mature trees.

Manitowoc I-43 Industrial Park: Manitowoc's industrial park located at I-43 and USH 151. See also I-TEC.

I-TEC: Manitowoc I-43 Industrial Park, otherwise known as Manitowoc I-43 Technology & Enterprise Campus (“I-TEC”).

Leadership in Energy and Environmental Design (“LEED”): LEED is green building certification system designed to improve performance in energy savings, water efficiency, carbon dioxide emissions reduction, improved indoor environmental quality, and stewardship of resources and sensitivity to their impacts.

Manitowoc Planning Area: All lands currently within the City’s municipal limits, and the unincorporated areas within the City’s ETJ, which generally expands three miles from the boundaries of the City, or as set by agreements between the City and its neighbors.

Official Map: Per §62.23(6) Wis. Stats., an adopted map that shows existing and proposed streets, highways, parkways, parks and playgrounds, and school sites.

Original Plat: A map of the 1851 recorded subdivision plat covering Blocks 1-359 in the City.

Preliminary Plat: Per §236.02(9) Wis. Stats., a map showing the salient features of a proposed subdivision submitted to an approving authority for purposes of preliminary consideration.

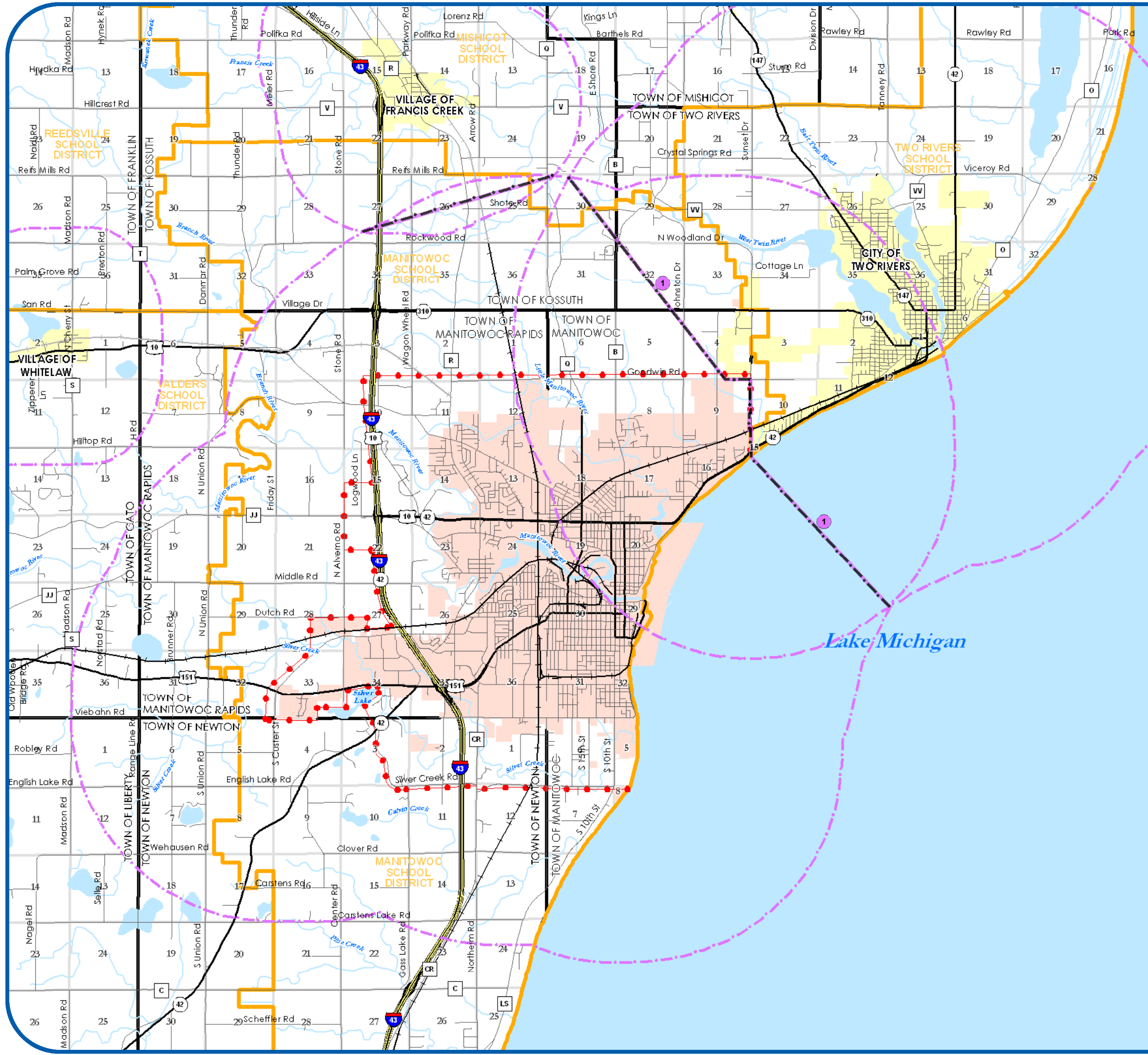
Smart Growth Areas: Per §16.965(1)(b) Wis. Stats., an area that will enable the development and redevelopment of lands with existing infrastructure and municipal, State and utility services, where practicable, or that will encourage efficient development patterns that are both contiguous to existing development and at densities that have relatively low municipal, State governmental and utility costs.

Stormwater Management Best Management Practices (“BMP”): Methods, measures, practices, activities, and management practices proven to be effective in preventing or reducing pollution of waters.

Sustainable: A clean and healthy environment that can support and sustain a high quality of life for all community members.

Urban Service Area: A geographic area, not always coincidental with a municipality’s corporate boundary, which defines the geographical limits of public facilities and services.

Zoomers: A subset of the Baby Boomers and people of retirement age or better (65 and older) who are characteristically active—active in their communities, in their cultural and social endeavors, and active in their profession or fields of interest.

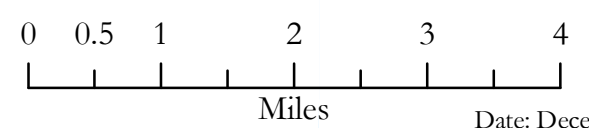


Jurisdictional Boundaries

Map 1

City of Manitowoc
Comprehensive Plan

- City of Manitowoc
- Other Cities & Villages
- Town Boundaries
- Sections with Section Numbers
- School District Boundaries
- Extraterritorial Jurisdiction Boundaries
 - Defacto ETJ Boundary between Cities of Manitowoc & Two Rivers per Wis Stats 66.0105
 - Defacto ETJ Boundary between City of Manitowoc & Village of Francis Creek per Wis Stats 66.0105
- City of Manitowoc Urban Service Boundary
- Interstate Highway
- Major Road
- Local Road
- Active Railroad
- Inactive Railroad
- Surface Water



VANDEWALLE & ASSOCIATES INC.
Shaping places, shaping change



Date: December 21, 2009
Source: City of Manitowoc;
Manitowoc County LIO;
Bay-Lake Regional Planning
Commission; US-DOT;
US Census Bureau

CHAPTER ONE: ISSUES AND OPPORTUNITIES

The purpose of this chapter is to identify potential issues and opportunities that will affect the future growth and development of the City. This chapter provides an overview of the various factors that initiate change within the City—population trends and forecasts including age and gender distribution, race, and ethnicity; household trends and forecasts; employment trends and forecasts, including income and labor force characteristics; and the population’s educational attainment levels. Chapter One also summarizes the efforts the City has directed to promote public participation during this *Comprehensive Plan* process; analyzes opportunities to capitalize on the City’s assets; and outlines an approach for community sustainability. It concludes with the City’s Mission and Vision Statement, which describes the preferred future direction of the City.

POPULATION TRENDS AND FORECASTS

The City’s population increased slightly between 1970 and 2000. While the City’s population declined from 1970 to 1990, largely due to the economic recession and high unemployment rates during the 1970s and 1980s, it rebounded between 1990 and 2000 enough to end this 30-year period with positive growth. Between 2000 and 2008, the City’s population has increased slightly by approximately two percent. Figure 1.1 compares the City’s population trends over the past 30 years with neighboring communities, the County, and the State. Of the towns surrounding the City, most experienced similarly stagnant populations during this time frame; only Liberty, Cato, and Kossuth had larger populations in 2000 than in 1970. However, it is notable that every town that lost population from 1980 to 2000 saw the greatest population decline from 1980 to 1990, and either slowed or reversed the decline during the following decade, from 1990 to 2000, suggesting these communities’ populations may be rebounding. The only exception was Liberty, whose population consistently grew throughout this time frame.

In 2000, the City accounted for 41 percent of the County’s population, a figure which remained relatively constant since 1970. Like the City, Manitowoc County experienced slow growth overall, buoyed by population growth from 1990 to 2000. The adjacent City of Two Rivers experienced a continually declining population during the decades from 1970 to 2000. These jurisdictions stand in contrast to the State, which experienced continued growth throughout this time period.

Figure 1.1: Historic Population of Area Communities, 1970 – 2008

	1970	1980	1990	2000	2009 ¹	% Pop. Change 1980- 2000	% Pop. Change 1990- 2000	% Pop. Change 2000- 2009
City of Manitowoc	33,430	32,547	32,520	34,053	34,700	4.6	4.7	0.02
Town of Manitowoc	1,258	1,177	937	1,073	1,165	-0.1	0.1	0.09
Town of Two Rivers	2,806	2,663	2,147	1,912	1,921	- 28.2	- 10.9	0.00
Town of Manitowoc Rapids	3,552	3,186	2,579	2,520	2,554	- 20.9	- 2.3	0.01
Town of Newton	2,256	2,332	2,242	2,241	2,374	- 3.9	0	0.06
Town of Liberty	1,089	1,170	1,218	1,287	1,379	10.0	5.7	0.07
Town of Cato	1,581	1,653	1,503	1,616	1,734	- 2.2	7.5	0.07
Town of Kossuth	1,966	2,097	1,951	2,033	2,116	- 3.1	4.2	0.04
City of Two Rivers	13,553	13,354	13,030	12,639	12,570	- 5.4	- 3.0	-0.01
Manitowoc County	82,294	82,918	80,421	82,893	82,603 ²	- 0.03	3.1	0.00 ²
Wisconsin	4,417,731	4,705,642	4,891,769	5,363,715	5,675,156 ²	14.0	9.6	0.06 ²

Source: U.S. Census 1970-2000

¹Wisconsin Demographic Services Center 2009

²WisDOA Population Estimates 2008

Prediction of the rate of future population growth is challenging and somewhat inexact. Actual future population will depend on market conditions, attitudes toward growth, and development regulations. For the purposes of this *Plan*, the projected population will be based on the Wisconsin Department of Administration (“WisDOA”) projections which forecast an annual population growth rate of 0.42 percent over the planning period. This means that later forecasts for housing, jobs, and land use demand will be based on a forecast population of 38,538 by 2030. These figures lend themselves to a conservative approach for projecting growth and development needs of the City by making sure that sufficient developable land is available to accommodate growth. Most notably, the Future Land Use Map (Map 5) was crafted to provide enough acreage to satisfy projected land use demand based on the WisDOA projections. The WisDOA projection is also a goal for the City to measure actual future population growth against. It is not intended as an absolute growth limit or quota.

Figure 1.2: City of Manitowoc Population Projections

	2005	2010	2015	2020	2025	2030 ¹
WisDOA Projections	34,722	35,409	36,240	37,101	37,895	38,538

¹Final WisDOA projections for the year 2030 were not available at the time of writing; this figure is preliminary.

DEMOGRAPHIC TRENDS

Figure 1.3 compares the age and gender distribution for the City in the year 2000 to neighboring communities, the County, State, and the U.S. Age distribution is an important factor when considering the future demands for housing, schools, park and recreational facilities, and the provision of social services. The City's year 2000 median age of 38.6 was similar to, or below, the median age in all of the towns surrounding the City, with the exception of the Town of Cato, which had a notably lower median age. The City's median age increased slightly from 2000 to 2007. The median age in Manitowoc was comparable to the City of Two Rivers and identical to Manitowoc County. In contrast, the median age for Wisconsin and the U.S., at 36.0 and 35.3 respectively, are lower than the City, City of Two Rivers, County, and the surrounding towns, again with the exception of the Town of Cato. The City's population over the age of 65 is notably larger than the U.S. and Wisconsin averages, as well as all of its neighboring towns, with the exception of the Town of Manitowoc Rapids. Manitowoc's over-65 population of 18 percent is more similar to the City of Two Rivers (17 percent) and the County (15.7 percent).

Manitowoc, as well as the City of Two Rivers, does show the "Baby Boomer factor" – one that is being realized nationwide and will be addressed in this *Plan*. The County's high percentage of population over 65 is largely the result of the aging demographics of these two cities which, in 2000, together comprised over 56 percent of the County's population.

Figure 1.3: Age and Gender Distribution, 2000 (2005-2007)

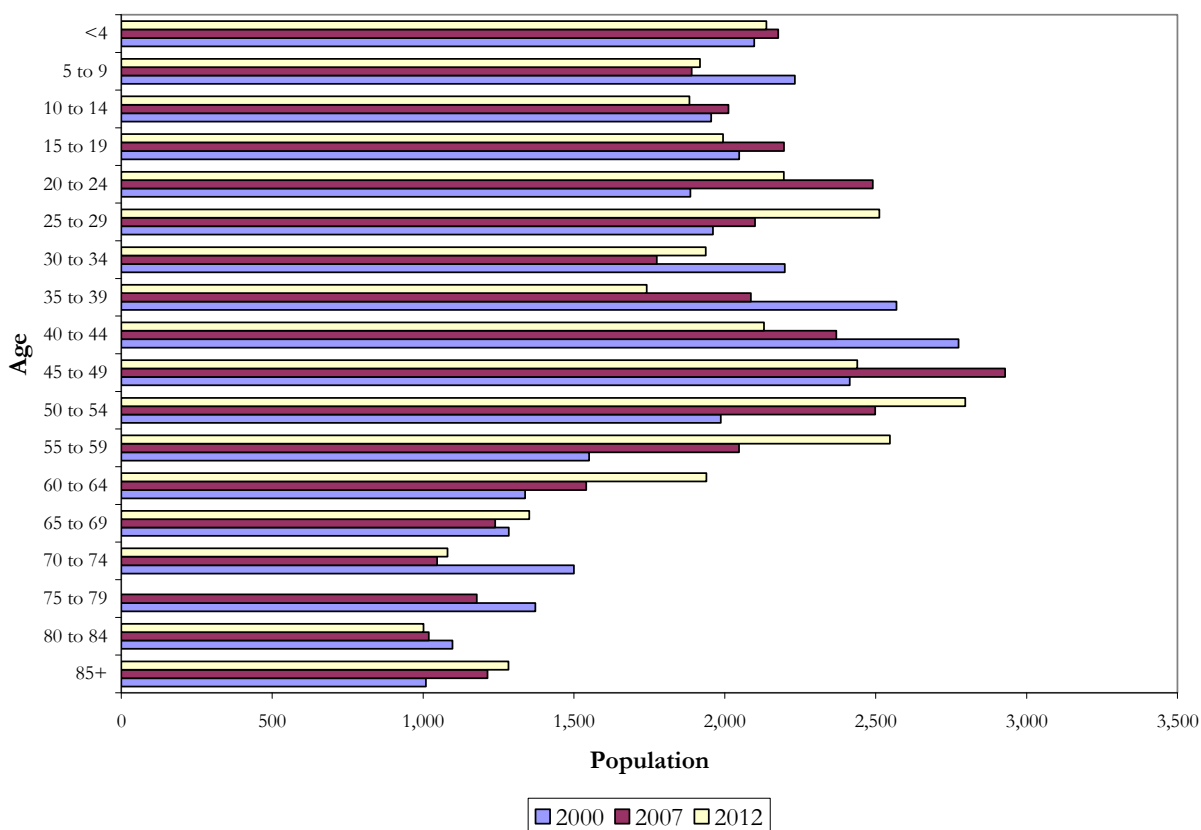
	Median Age	% Under 18	% Over 65	% Female
City of Manitowoc	38.6 (39.4)	24.1 (24.1)	18.4 (17.3)	51.6 (52.1)
Town of Manitowoc	40.9	22.4	14.2	50.8
Town of Two Rivers	42.6	21.7	13.0	48.0
Town of Manitowoc Rapids	43.7	22.5	20.0	53.6
Town of Newton	39.2	25.6	12.0	48.6
Town of Liberty	39.0	27.7	12.1	48.6
Town of Cato	35.7	28.1	10.2	48.5
Town of Kossuth	38.4	26.9	10.4	47.9
City of Two Rivers	38.2	25.6	16.8	50.9
Manitowoc County	38.3 (41.1)	25.5 (22.4)	15.7 (15.7)	50.5 (50.4)
Wisconsin	36.0 (37.7)	25.5 (23.8)	13.1 (13.1)	50.6 (50.3)
United States	35.3 (36.4)	25.7 (24.7)	12.4 (12.5)	50.9 (50.8)

Source: U.S. Census, 2000; American Community Survey, 2005-2007

Note: 2005-2007 ACS data available only for geographic areas with populations of 20,000 or more

Figure 1.4 depicts the City age trends for 2000 as well as age trend forecasts for 2007 and 2012. Age forecasts for 2007 show the largest amount of the population falling either within the age groups of 40 to 54 years, or 15 to 29 years. Age forecasts for 2012 again show the largest amount of the population falling within the age group of 45 to 59 (formerly 40 to 54 in the 2007 forecast). However, the other main age group from the 2007 forecast, 15 to 29 years, appears to decrease in number in the 2012 forecast. This *Plan* will explore opportunities intended to retain young people in Manitowoc.

Figure 1.4: City of Manitowoc Age Trends, 2000, 2007, 2012



Source: US Bureau of Census, 2000 Census of Population and Housing, ESRI forecasts for 2007 and 2012.

The 2000 Census and more recent data suggest that Manitowoc remains diverse relative to its County and its neighboring towns and city, yet notably less diverse than Wisconsin and the U.S. Figure 1.5 compares the City's racial and ethnic distribution to neighboring communities, the County, Wisconsin, and the U.S. Populations of the City and the surrounding towns are not diverse racially, though the City is notably more diverse than its neighboring communities. The City's non-white population in 2000, 6.9 percent, was higher than in the surrounding towns, where the non-white population ranged from 1.0 percent in Manitowoc and Manitowoc Rapids, to 2.4 percent in Cato. The City of Two Rivers non-white population, 4.3 percent, and the County's non-white population, 4.1 percent, are more comparable to, yet still less diverse than, the City. In contrast, the State's non-white population was 11.1 percent and the nation's was 24.9 percent.

The other racial groups represented in the City's population include a small percentage of Asian (3.8 percent), Black (0.6 percent), and some other race or races (2.6 percent). The 2000 Census does not include Hispanic and Latino people in the racial distribution. Rather, Hispanic and Latino are considered to be an ethnicity. Hispanic and Latinos can be any race and/or Hispanic.

Figure 1.5: Race and Ethnicity, 2000 (2005-2007)

	Racial Distribution				Ethnicity		
	% White	% Black	% Asian	% Other Race ¹	% Hispanic or Latino	% Not Hispanic or Latino	% White Alone
City of Manitowoc	93.1 (94.7)	0.6 (1.4)	3.8 (3.4)	2.6 (0.6)	2.5 (3.6)	97.5 (N) ²	91.8 (90.5)
Town of Manitowoc	99.0	0.2	0.3	0.6	0.5	99.5	98.9
Town of Two Rivers	98.7	0.1	0.2	1.1	0.4	99.6	98.3
Town of Manitowoc Rapids	99.0	0.2	0.1	0.8	1.0	99.0	98.6
Town of Newton	98.7	0.0	0.3	1.0	0.5	99.5	98.2
Town of Liberty	98.2	0.0	0.0	1.8	1.3	98.7	97.9
Town of Cato	97.6	0.0	0.7	1.7	1.7	98.3	96.5
Town of Kossuth	98.8	0.0	0.1	1.1	0.1	99.9	98.6
City of Two Rivers	95.7	0.2	2.2	1.8	1.3	98.7	95.0
Manitowoc County	95.9 (96.6)	0.3 (0.6)	2.0 (1.9)	1.8 (0.9)	1.6 (2.3)	98.4 (N) ²	95.0 (94.0)
Wisconsin	88.9 (88.6)	5.7 (6.0)	1.7 (2.0)	3.7 (3.2)	3.6 (4.7)	96.4 (95.3)	87.3 (85.6)
United States	75.1 (75.7)	12.3 (12.6)	3.6 (4.4)	9.0 (7.1)	12.5 (14.7)	87.5 (85.3)	69.1 (66.3)

Source: U.S. Census, 2000; American Community Survey, 2005-2007

Note: 2005-2007 ACS data available only for geographic areas with populations of 20,000 or more

¹Other Race category includes American Native or Alaska Native, Native Hawaiian and other Pacific Islander, other races, and people of two or more races.

²Data for this geographic area cannot be displayed because the number of sample cases is too small.

The region's ethnic diversity has increased over the last decade. For example, the County's Hispanic population increased from 0.7 percent in 1990 to 1.6 percent in 2000, and the percentage of its population classifying itself as white decreased from 97.9 percent in 1990 to 95.9 percent in 2000.

Figure 1.6 depicts the City's racial distribution in 2000, and the City's forecasted racial distribution in 2008. These data indicate that the City remains relatively diverse when compared to its surrounding communities and the County. The 2008 numbers forecast a slight increase in the racial distribution in the City, particularly in the Asian population, which is a trend reflected County-wide.

Figure 1.6: Racial Distribution

	2000				2008 ¹			
	% White	% Black	% Asian	% Other Race ²	% White	% Black	% Asian	% Other Race ²
City of Manitowoc	93.1	0.6	3.8	2.6	91.2	0.8	5.2	2.8
Town of Manitowoc	99.0	0.2	0.3	0.6	97.6	0.0	0.9	0.6
Town of Manitowoc Rapids	99.0	0.2	0.1	0.8	98.2	0.1	0.7	0.5
Town of Newton	98.7	0.0	0.3	1.0	97.6	0.1	0.4	1.8
City of Two Rivers	95.7	0.2	2.2	1.8	94.2	0.2	3.3	2.3
Manitowoc County	95.9	0.3	2.0	1.8	94.6	0.4	2.8	2.2

¹US Bureau of the Census, 2000 Census Population and Housing, ESRI forecasts for 2008.

²Other Race category includes American Native or Alaska Native, Native Hawaiian and other Pacific Islander, other races, and people of two or more races.

Figure 1.7 depicts the City's ethnic distribution in 2000, and the City's forecasted ethnic distribution in 2008. The 2000 data indicates that the City is relatively more ethnically diverse than the surrounding communities and County. This diversity is forecasted to increase, as reflected in the 2008 data. Overall, there appears to be a trend indicating an increase in the ethnic distribution throughout the County, particularly in the Hispanic or Latino population.

Figure 1.7: Ethnic Distribution

	2000			2008 ¹		
	% Hispanic or Latino	% Not Hispanic or Latino	% White Alone	% Hispanic or Latino	% Not Hispanic or Latino	% White Alone
City of Manitowoc	2.5	97.5	91.8	3.2	96.8	91.2
Town of Manitowoc	0.5	99.5	98.9	0.9	99.1	97.6
Town of Manitowoc Rapids	1.0	99.0	98.6	1.2	98.8	98.2
Town of Newton	0.5	99.5	98.2	1.4	98.6	97.6
City of Two Rivers	1.3	98.7	95.0	1.9	98.1	94.2
Manitowoc County	1.6	98.4	95.0	2.2	97.8	94.6

¹US Bureau of the Census, 2000 Census Population and Housing, ESRI forecasts for 2008.

Note: Other Race category includes American Native or Alaska Native, Native Hawaiian and other Pacific Islander, other races, and people of two or more races.

It is likely that Manitowoc will continue to be attractive for all racial and ethnic groups with its good schools, affordable housing, and high quality of life. This diversity presents many opportunities (e.g. new businesses, general cultural diversity) and challenges (e.g. language barriers, mixing of new cultures with long-term, Germanic traditionalists). As racial diversity in the City increases, median age may also begin to decline – as is observed in other diversifying communities.

HOUSEHOLD TRENDS AND FORECASTS

Figures 1.8, 1.9, and 1.10 present household characteristics for the City compared to neighboring communities, County, Wisconsin, and the U.S.

The median value of a home in the City is lower than in all the neighboring towns, yet higher than in the City of Two Rivers. This is typical of the relationship between cities and neighboring towns, where larger lots facilitate the construction of larger, higher valued homes, and where older, smaller and lower valued houses are in shorter supply. Manitowoc's median home value is lower than the County as a whole, as well as Wisconsin and the U.S.

Figure 1.8: Household Characteristic Comparisons, 2000

	Total Housing Units	Total Households	Average Household Size	Median Home Value	Median Rent
City of Manitowoc	15,007	14,235	2.32	\$86,000	\$430
Town of Manitowoc	446	420	2.55	\$118,200	\$642
Town of Two Rivers	766	734	2.57	\$103,800	\$558
Town of Manitowoc Rapids	822	809	2.78	\$133,000	\$385
Town of Newton	850	795	2.78	\$111,500	\$525
Town of Liberty	498	456	2.82	\$122,500	\$475
Town of Cato	571	548	2.95	\$115,600	\$484
Town of Kossuth	795	752	2.70	\$110,900	\$419
City of Two Rivers	5,547	5,221	2.40	\$77,900	\$424
Manitowoc County	34,651	32,721	2.49	\$90,900	\$433
Wisconsin	2,321,144	2,084,544	3.05	\$112,200	\$540
United States	115,904,641	105,480,101	2.59	\$119,600	\$602

Source: U.S. Census, 2000

In 2000, Manitowoc's average household size was lower than all comparable jurisdictions. This trend may reflect the decline of average household size nationwide. On average, household size tends to be lower in urban areas, which is largely attributed to the greater number of single person households. This factor is important to consider when planning for land use demand and the distribution of housing in the City. The trend toward smaller households suggests the need for types of housing that accommodate singles, empty-nesters, aging Baby Boomers, and single-parent households.

The City also has a significantly lower percentage of owner-occupied homes than the surrounding towns and the County, but these jurisdictions are well above the State and national averages. This trend is a function of the City's income diversity and household mix. The City's rate of owner-occupied housing is comparable to Wisconsin and the U.S.

Figure 1.9 displays 2000 housing data for the City, neighboring communities, and the County, as well as 2008 and 2013 forecasted numbers. The data shows a steady increase in both the number of total housing units, and the number of total households in all communities, and throughout the County during the forecast period. Whereas the forecast shows the City experiencing the same steady increase in housing as the other communities and County, the City of Two Rivers is the only community expected to see a decrease in the number of total households.

Figure 1.9: Household Characteristic Comparisons Trends

	Total Housing Units			Total Households		
	2000	2008	2013	2000	2008	2013
City of Manitowoc	15,007	15,592	15,878	14,235	14,483	14,589
Town of Manitowoc	446	491	517	420	467	489
Town of Manitowoc Rapids	822	950	999	809	926	967
Town of Newton	850	1,001	1,059	795	926	969
City of Two Rivers	5,547	5,617	5,679	5,221	5,178	5,175
Manitowoc County	34,651	36,910	37,936	32,721	34,282	34,879

Source: US Bureau of the Census, 2000 Census of Population Housing. ESRI forecasts for 2008 and 2013.

Figure 1.10 further examines household characteristic comparison trends, focusing on average household size and median home value in the City, surrounding communities, and the County through 2013. Data from 2000 and forecasted data for 2008 and 2013 show a general decrease in the average household size in the City as well as County-wide. This decrease in average household size reflects a national trend, and is attributed to an aging population and lower birth rates than in previous generations. However, the data shows a forecasted steady increase in the median home value in the City and its surrounding communities.

Figure 1.10: Household Characteristic Comparisons Trends (cont.)

	Average Household Size			Median Home Value		
	2000	2008	2013	2000	2008	2013
City of Manitowoc	2.32	2.26	2.23	\$86,000	\$121,819	\$130,846
Town of Manitowoc	2.55	2.46	2.44	\$118,200	\$140,208	\$148,517
Town of Manitowoc Rapids	2.78	2.85	2.81	\$133,000	\$184,320	\$199,629
Town of Newton	2.78	2.43	2.40	\$111,500	\$161,391	\$173,411
City of Two Rivers	2.40	2.31	2.29	\$77,900	\$114,995	\$122,179
Manitowoc County	2.49	2.41	2.38	\$90,900	\$155,897	\$170,294

Source: US Bureau of the Census, 2000 Census of Population Housing. ESRI forecasts for 2008 and 2013.

Figure 1.11 presents a household forecast, based on the WisDOA population projections described earlier in this chapter. The development of household projections at the minor civil division (“MCD”) level is a multiple-step process that relies on a series of previously derived projections. County-level projections by age and sex serve as the basis for subsequent projection series, because they provide county control totals. Based on these county projections, projected county households, household population, group quarters and average household size are then calculated. Once all of these elements are in place, municipal household projections are then calculated. By producing detailed projections in this manner, all of the projection series are consistent in their basic assumptions about population change and household formation.

Figure 1.11: Household Projections, 2005-2030

	Households 2000	Projected Households						# of Additional Households 2000-2030
		2005	2010	2015	2020	2025	2030	
City of Manitowoc	14,235	14,969	15,543	16,118	16,834	17,409	17,983	3,748

Source: U.S. Census, 2000; Wisconsin Department of Administration

EMPLOYMENT TRENDS

Employment trends reflect shifts within the City's and the national economy. The City's labor force participation is 65.7 percent. This rate of participation increased from 60.8 percent at the 1990 Census.

The City's economy is diversifying, although still oriented toward manufacturing. Over 34 percent of the labor force is employed in the manufacturing sector, which is reflective of the City's large "blue collar" workforce and rich manufacturing heritage. The educational, health, and social services sector employs another 19.4 percent, and retail trade another 11.4 percent of the City's workforce.

The percentage of the City's labor force employed by sector in 1990 and 2000 is shown in Figure 1.12. Compared to 2000, a slightly higher percentage of the 1990 labor force was employed in manufacturing. This decline reflects trends realized around the region. A shift from manufacturing to service components of the labor force can be observed over the decade. The significant increase in the arts, entertainment, recreation, accommodation, and food services sector is indicative of categorical changes between the 1990 and 2000 Census methodology. In 1990, the Census category only included entertainment and recreation services – arts was not accounted for, and accommodation and food service industries were rolled into another category. Based on this change in methodology, trends in this category cannot be extrapolated.

Figure 1.12: City of Manitowoc Labor Force Characteristics, 1990, 2000, 2005-07

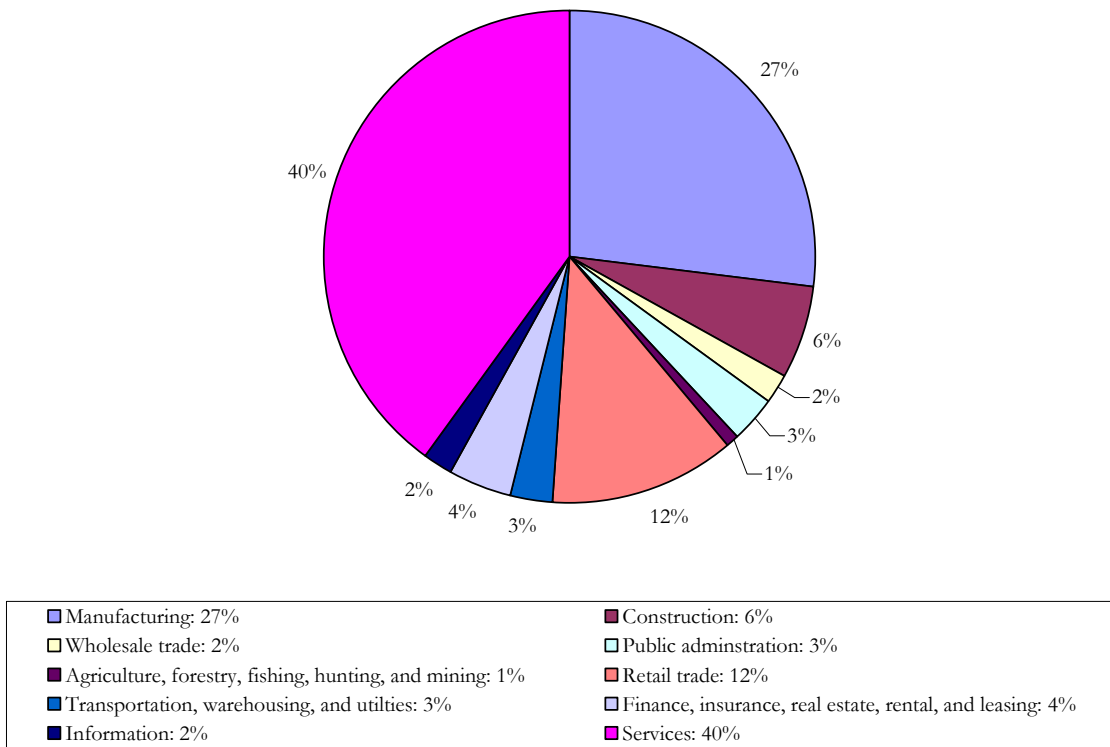
Occupational Group	% of Labor Force (1990)	% of Labor Force (2000)	% of Labor Force (2005-07) ¹
Manufacturing	35.8	34.1	33.0
Educational, health, and social services	17.5*	19.4	21.8
Retail trade	18.2	11.4	9.7
Arts, entertainment, recreation, accommodation, and food services	0.9	7.7	7.8
Professional, scientific, administrative, and waste management services	2.7	3.8	3.9
Construction	3.8	5.0	3.8
Transportation, warehousing, and utilities	4.4	3.7	5.0
Wholesale trade	2.5	2.1	1.6
Finance, insurance, real estate, rental, and leasing	3.4	3.3	4.9
Other services (except public administration)	8.0	3.5	3.0
Public Administration	2.1	3.1	2.9
Information	n/a	2.0	1.0
Agriculture, forestry, fishing, hunting, and mining	0.7	0.8	1.6

Source: U.S. Census Bureau, 1990 & 2000; ¹2005-2007 American Community Survey

*Note: Social services not included in 1990 category

Figure 1.13 depicts the 2008 forecasted labor force trends for the City. The data shows a substantial portion of the City's labor force as employed in the service or manufacturing sectors, reflecting the City's historic industrial base. The 2008 labor force forecasts generally align with the 2000 labor force data, as there is no significant change depicted in the percentages of labor force sectors over the eight-year period.

Figure 1.13: City of Manitowoc Labor Force Trends, 2008



Source: US Bureau of the Census, 2000 Census of Population and Housing. ESRI forecasts for 2008.

Figure 1.14 presents the percentages of each occupational group as a total of the labor force for the City, as compared to the County and State. The City is similar to the County, with the exception of the agriculture, forestry, fishing, hunting and mining industry, which employs a much larger portion of County residents than City residents.

Compared to the State, City and County residents are roughly 50 percent more likely to work in manufacturing, and nearly 50 percent less likely to work in professional, scientific, administrative, and waste management services, or in the finance, insurance, real estate, rental, and leasing industry. This trend is reflective of the City's economic base.

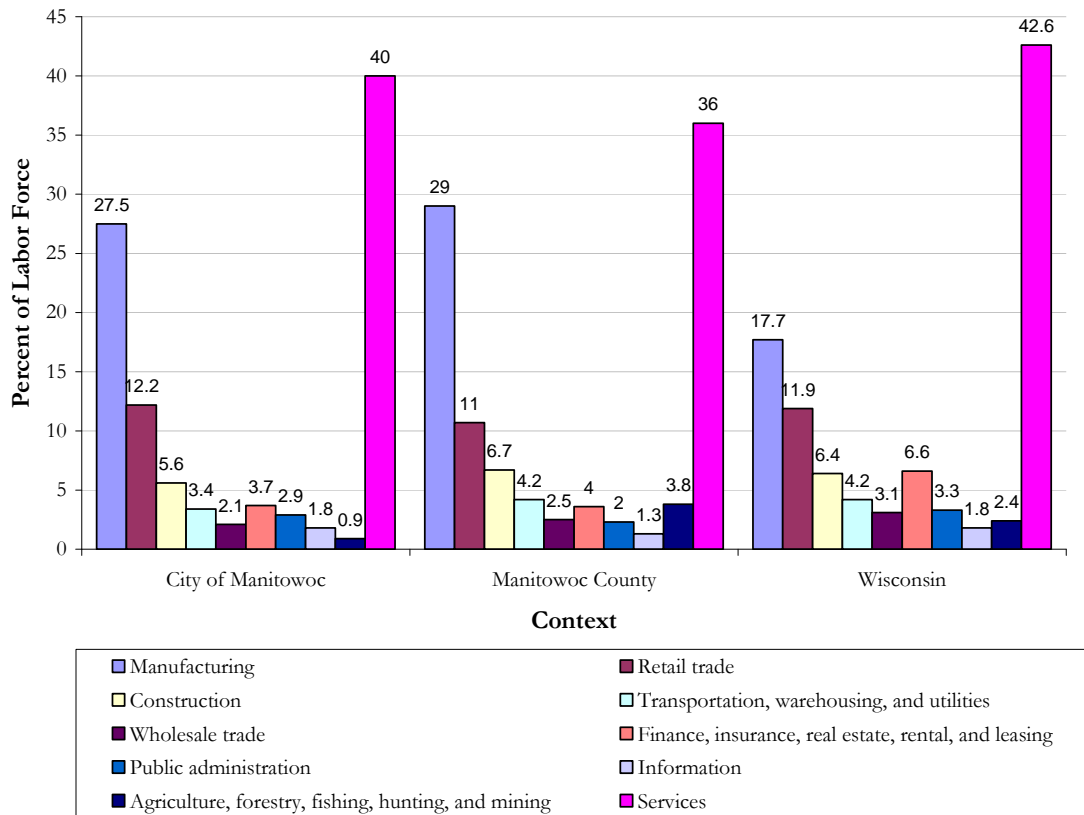
Figure 1.14: Labor Force Characteristics Comparison, 2000

Occupational Group	Manitowoc	Manitowoc County	Wisconsin
Percent of Labor Force (2000)			
Manufacturing	34.1	35.2	22.2
Educational, health, and social services	19.4	16.8	20.0
Retail trade	11.4	10.0	11.6
Arts, entertainment, recreation, accommodation, and food services	7.7	6.3	7.3
Professional, scientific, administrative, and waste management services	3.8	3.8	6.6
Construction	5.0	6.0	5.9
Transportation, warehousing, and utilities	3.7	4.4	4.5
Wholesale trade	2.1	2.4	3.2
Finance, insurance, real estate, rental, and leasing	3.3	3.2	6.1
Other services (except public administration)	3.5	3.7	4.1
Public Administration	3.1	2.4	3.5
Information	2.0	1.4	2.2
Agriculture, forestry, fishing, hunting, and mining	0.8	4.2	2.8

Source: U.S. Census Bureau, 2000

Figure 1.15 depicts a labor force characteristics comparison between the City, County, and State forecasted for 2008. The data presents a general similarity between City, County, and State labor force sector trends. Manufacturing and services are depicted as the sectors employing the highest percentage of the labor force in all three geographies. The City appears to be keeping in line with County and State labor force trends. However, the data shows both the City and County are noticeably behind the State in the percentage of labor force employed in the finance, insurance, real estate, rental, and leasing sector.

Figure 1.15: Labor Force Characteristics Comparison, 2008



Source: US Bureau of the Census, 2000 Census of Population and Housing. ESRI forecasts for 2008.

County employment projections were provided by Woods & Poole Economics, Inc., a regional economic and demographics analysis firm (Figure 1.16). These data predict the County's total employment to grow approximately 17 percent by the year 2030. Over this time period, the most significant increase in jobs is projected to be in the transport, communications, and public utilities sector (80 percent increase). By 2030, the percentage of employees working in federal civilian government is projected to decrease by 35 percent. Similarly, the percentage of workers in manufacturing, wholesale trade, mining, and on farms is also projected to decrease. Projections are not available at the City level.

Figure 1.16: Manitowoc County Employment Projections

	2000	2005	2010	2015	2020	2025	2030	Percent Change, 2000-2030
Total Employment	45,714	43,979	45,780	47,622	49,529	51,510	53,580	+17%
Farming	2,123	2,030	2,013	1,996	1,980	1,963	1,946	-8%
Agricultural Services	464	545	577	609	642	675	709	+53%
Mining	106	90	91	91	92	92	93	-12%
Construction	2,208	1,993	2,197	2,399	2,600	2,799	2,996	+36%
Manufacturing	13,693	11,534	11,469	11,430	11,417	11,431	11,474	-16%
Transport, Communications, Public Utilities	2,229	2,339	2,659	2,985	3,318	3,663	4,019	+80%
Wholesale Trade	1,449	1,342	1,328	1,317	1,311	1,310	1,313	-9%
Retail Trade	7,098	6,766	6,921	7,086	7,264	7,455	7,662	+8%
Finance, Insurance, Real Estate	1,894	2,030	2,102	2,176	2,255	2,340	2,433	+28%
Services	9,733	10,436	11,165	11,882	12,594	13,310	14,035	+44%
Federal Civilian Government	225	186	178	170	162	154	146	-35%
Federal Military Government	293	298	300	301	303	305	307	+5%
State and Local Government	4,199	4,390	4,780	5,180	5,591	6,013	6,447	+54%

Source: Woods & Poole, 2006

EDUCATION TRENDS

Detailed information on education trends can be found in the Chapter Seven: Economic Development of this *Plan*.

EXISTING CITY PLANS

The City did not “start from scratch” in the development of this *Plan*. Over the years, the City has engaged in numerous planning efforts – development plans for the City overall, plans for downtown, as well as special topical plans covering utilities, transportation, or other *Plan* elements. The *Plan* cross-references many of these previous plans and documents. The recommendations in this *Plan* bring forth the key directives from previous planning efforts in the City.

SUMMARY OF PUBLIC PARTICIPATION

The City's planning process was guided by several participation events and tools, in addition to regular meetings of the Plan Commission. The following is a summary of those activities conducted during the early information gathering, issues identification, and priority identification components of this planning process.

Project Kick-off Meeting

The City hosted a kick off meeting for the *Plan* process on February 5, 2008. This meeting was attended by Aldermen; Plan Commissioners; City staff; representatives from the MPSD, UW-Manitowoc, Silver Lake College, Manitowoc Public Utilities ("MPU"); and other key stakeholders. The group was introduced to the planning processes, and offered initial input about existing conditions in the City, including opportunities, challenges, and where and how the City should focus the most attention and its resources to address these issues.

Participants identified a wide range of opportunities, building on the City's location and current assets. Manitowoc's location along the shore of Lake Michigan with access to nearby metropolitan areas via I-43 presents numerous opportunities, particularly for regional water uses and technologies. Another locational opportunity relates to the City's potential as a future destination for "urban refugees" from larger metropolitan areas such as Milwaukee and Chicago. Participants identified the City's existing assets to be an adequate water supply and infrastructure, City-owned water and electric utility, fiber optics, cultural attractions, good schools, local post secondary education institutions, airport, and cross-lake carferry. These assets also present unique opportunities for the future.

Like all places, Manitowoc faces challenges. Physical expansion limitations, stormwater and other regulatory mandates, underutilized riverfront and properties, brownfields, an aging labor market, a shortage of workers equipped with skills demanded by today's industries, and the lack of a strong connection between I-43 and downtown are significant issues that the City will need to address in the future. Participants identified other challenges such as negative perceptions of Manitowoc, and the lack of a framework to encourage and support innovation in the community. This planning process will be an opportunity to think collaboratively and creatively about these challenges.

Finally, participants suggested where the City should focus the most attention to address these issues. Responses centered on infill and redevelopment of key areas in the City, as well as maintenance of existing developed areas. There was also a desire to raise awareness of, and encourage, "green" technologies and development, which for purposes of the Plan is meant to mean encouraging the practice of creating structures and using processes that are environmentally responsible and resource efficient. It will be important to improve the transportation network through the City, both for pedestrians and automobiles, particularly from the lake-shore to I-43. In addition, the City should continue to collaborate with neighboring communities, institutions, and the County on issues of mutual concern and benefit including maintaining rural character, economic development, the future of the County Expo Grounds, and the I-43/Waldo Blvd. interchange. All of these issues will be taken into consideration throughout the planning process.

Community Vision Workshop

A community-wide Vision Workshop was held on March 4, 2008. This interactive meeting allowed participants to identify key values and opportunities, spotlight areas of interest and concern, and evaluate sustainability strategies for the City. Participants utilized this workshop to express their concerns and ideas for the future of the community and assist in the *Comprehensive Plan* process.

In the first part of this workshop, participants identified what they believed were the City's most significant opportunities for the future, and the top challenges the City will face over the next 20 years. After the small group discussions, the groups reported their top responses to the large group.

Participants identified the following as the community assets they valued most:

- ◆ Waterfront access.
- ◆ Green space and cleanliness.

- ◆ Small size of the community.

Participants identified the following as the top opportunities for the future development of Manitowoc:

- ◆ Tourism.
- ◆ Waterfront and downtown development.
- ◆ Becoming a leader in clean energy and sustainability.

Participants identified the following as the top challenges facing the future of Manitowoc:

- ◆ An aging population and workforce.
- ◆ Problems attracting and retaining young people.
- ◆ Perceptions of a high percentage of low-wage jobs.

Part two of the Vision Workshop involved spotlighting areas of public interest and concern. Within groups, participants were asked to identify areas of interest and concern on large aerial maps, including potential areas for new commercial, residential, industrial, redevelopment and infill, and preservation. The maps focused on three areas within the City—north, south-east, and southwest. Groups then presented their maps to the larger group, followed by a large group discussion. Areas of interest and concern identified by the participants will be addressed in Chapter Three: Land Use of this *Plan*. Participant-identified areas of interest and concern for each of the designated areas are as follows:



The Comprehensive Planning Process Allowed for Numerous Community Participation Opportunities

- ◆ *North Area/River Corridor* (an area roughly bounded by Goodwin Road on the north, Lake Michigan on the east, Broadway Street on the south, and N. Rapids Road on the west):

Participants identified the area northeast of the intersection of Magnolia Ave. and N. 18th St. as well as where Magnolia Ave. approaches STH 42 as potential new commercial areas. Regarding potential areas for new residential development, the areas northeast of the intersection of Magnolia Ave. and N. 18th St., as well as the far northeast corner of the City were identified. Areas northeast of Mirro Dr., as well as the areas north and south of the Manitowoc County Airport (“MTW”) were identified as potential areas for new industrial development. The area where Magnolia Ave. approaches STH 42 was identified as an area for potential redevelopment and infill. Likewise, the area east of Revere Dr. was also identified for potential redevelopment and infill. Lastly, regarding potential preservation areas, the wooded area between Reed Ave. and Waldo Blvd., as well as open space and farmland on the southwest side of the “North Area” were identified as desired preservation areas.

- ◆ *Southeast Area* (an area roughly bounded by St. Clair St. on the north, Lake Michigan on the east, Viebahn St. on the south, and S. Rapids Road on the west):

Potential new commercial areas were identified east of Maritime Dr. north of State St., downtown, and west of S. 9th St. north of Dewey St. The downtown area, as well as the area southeast of the intersection of Custer St. and S. 35th St., were identified as potential areas for new residential development. Many areas in downtown Manitowoc, an area west of S. Rapids Road between Expo Dr. and Calumet Ave. (USH 151), as well as the area bordered by Dewey St., S. 14th St., Viebahn St., and S. 22nd St. were identified as

potential areas of redevelopment and infill. The Lake Michigan lakeshore, green space and wooded areas in the northwest corner of the southeast quadrant were identified as key potential preservation areas. In addition to potential development and preservation areas, several areas downtown as well as the area where Dewey St. intersects with Calumet Ave. (USH 151) were identified as areas of concern regarding transportation issues.

- ◆ *Southwest Area* (an area roughly bounded by Middle Road on the north, S. 39th St. on the east, Viebahn St. on the south, and S. Custer St./CTH CS on the west):

Participants identified areas for potential development and preservation within this area of the City. The area where STH 42 approaches Calumet Ave., south of Calumet Ave. (USH 151), was identified as a potential area for new commercial development. The area south of USH 151 east of S. Custer St. was identified as a potential area for new residential development. The large northern area between Calumet Ave. (USH 151), I-43, W. Custer St., and S. Alverno Road was identified as a potential new industrial area. Two areas east of I-43, one north of Calumet Ave. (USH 151) and one south of Calumet Ave. (USH 151), were identified as potential redevelopment and infill areas. Regarding preservation, the area surrounding Silver Lake south of Calumet Ave. (USH 151) and west of STH 42 was identified as a large potential preservation area.

Finally, participants were asked to select preferred sustainability strategies. Participants indicated promoting local food, and encouraging bicycle and pedestrian facilities in new developments as the top sustainability strategies. Participants felt the City should promote infill development and encourage “green” business attraction and retention. As a community, participants felt they should encourage groundwater infiltration, promote “traditional” residential development (i.e. incorporating compactness and mixed land uses), and encourage high wage jobs.

Focus Groups

Focus group meetings were held on April 29, 2008. Focus groups are designed to be intensive, small-group discussions that concentrate on specific or specialized areas of interest or expertise. The following includes a summary of the key outcomes of each group.

Education Focus Group

Key challenges facing education and job training in Manitowoc:

- ◆ Quickly changing demography and diversification of the population.
- ◆ Lack of progressive attitudes and willingness to take risks.
- ◆ Aging workforce and work skills/knowledge lost with a retiring generation.

Opportunities for collaboration:

- ◆ Collaborate with minority organizations regarding workforce development and education.
- ◆ Encourage public schools to create/expand apprenticeship programs.
- ◆ Work with the Chamber of Commerce and other local groups to promote young professionals development program.

Young Professionals Focus Group

Biggest challenges to attracting and retaining young professionals:

- ◆ Not enough activities in the City aimed at young professionals.
- ◆ Downtown needs to be revitalized to include more housing, specialty stores, and businesses.

Desired activities:

- ◆ Improving events/activities communication by updating the City website to contain more content.

- ◆ Creating a newsletter for young professionals and implementing downtown-wide WiFi.

Seniors Focus Group

Challenges facing an aging population in Manitowoc:

- ◆ Lack of transportation, healthy-eating, and shopping options.
- ◆ Deficiency of living options/places for seniors.

Desired types of housing:

- ◆ Small senior-oriented developments with a community center.
- ◆ One-story housing that allows pets and enables seniors to maintain their independence.

Housing Focus Group

Critical issues facing housing in the City:

- ◆ Declining home values and poor quality rental housing.
- ◆ A good portion of the housing stock in need of rehabilitation and/or reinvestment.

Opportunities for collaboration and/or improvements in housing:

- ◆ Take advantage of the lakefront for housing.
- ◆ Promote City housing rehabilitation programs, and collaborate with local schools on trade education.

Water and Recreation Focus Group

Opportunities for water as a recreational/tourism asset:

- ◆ Lakeshore needs to improve its marketability through improved trail access, shops, coffee houses, and clean water.
- ◆ Increased number of water-based activities and festivals through creation of nonprofit cooperatives.

Approaches to improving water quality:

- ◆ Encourage the City to allow permeable paving and promote the use of rain gardens as stormwater management strategies.
- ◆ Collaborate with non-profits such as Gathering Waters and Lakeshore Natural Resource Partnership to improve water resources and services.

Community Leader Interviews

The consultant team conducted individual interviews with more than 15 people on April 29, 2008, to learn more about the issues confronting the City. Participants represented a broad range of community interests including community character, land use, pace and location of development, housing, transportation, and economic development. Recurring themes included:

Issues facing Manitowoc:

- ◆ Aging population and companies facing large amounts of higher skilled staff retirement.
- ◆ Job/skill mismatch and difficulty attracting and retaining new workers.
- ◆ Undervalued and underutilized lakefront.
- ◆ Lack of housing, shopping, dining opportunities downtown.
- ◆ City's image, not focusing on "quality of life" issues.
- ◆ Difficulty attracting new businesses.

Opportunities for the City:

- ◆ People coming to Manitowoc to raise families.
- ◆ Improved communication and partnerships with school systems to prepare students for the local job market.
- ◆ Developed lakeshore area, keeping in mind the needs and desires of residents and visitors.
- ◆ Increased community diversity and the number of people wanting to live downtown, both young and old.
- ◆ Preservation and addition of community assets and events.

Student Visioning Session

On May 6, 2008, a Student Visioning Session was held on the UW-Manitowoc campus. A total of 25 students attended from the following institutions—Lincoln High School, Roncalli High School, Manitowoc Lutheran High School, Silver Lake College, and UW-Manitowoc. The primary goal of the workshop was to provide an opportunity for students to express their vision for the City's future. Participants were asked to express their ideas on the existing condition of the City, and how the City should change over the next 20 years. Area students contributed their thoughts and opinions about the issues confronting the City from a young person's perspective.

When asked to identify what they liked about Manitowoc, top responses included:

- ◆ Proximity to Lake Michigan.
- ◆ Small-town atmosphere.
- ◆ Recreational opportunities and parks, on and adjacent to the lake.

When asked to identify what they disliked about Manitowoc, top responses included:

- ◆ Lack of activities for teens.
- ◆ Dirty lakefront and beaches.
- ◆ Lack of places for teens to shop.

When asked to describe the ideal future development for Manitowoc, students responded with these visions:

- ◆ A relatively compact City that preserves the countryside and promotes growth of more businesses, restaurants, and entertainment facilities within the City's existing districts.
- ◆ The downtown boasts busy sidewalks where residents shop and enjoy outdoor-seating at restaurants. There are more activities for youth, the buildings are well-kept, and apartments have been built to attract young professionals.
- ◆ The Manitowoc River and Lake Michigan areas are cleaned-up, gift-shops and restaurants are present along the waterfront, and more water-based activities such as kayaking and canoeing are taking place.
- ◆ City-wide, students envision more improved public transit, more trails for walking and biking, parks are preserved, schools are well-kept and active in the community, and there is a diverse population.
- ◆ The three most frequent words used to describe the future of Manitowoc—safe, clean, and exciting.



Students sharing their input with the group

Students also worked in small groups to identify points of interest and concern in different geographic areas of the City. The four key areas and student responses are listed below:

North Area (an area roughly bounded by Goodwin Road on the north, Mirro Dr. on the east, Huron St. on the south, and N. Rapids Road on the west):

- ◆ Students liked Citizen Park, Manitou Park, Manitowoc Lutheran High School, waysides, and the bowling alley in the North Area. Students also enjoyed the sidewalks in this area, and would like to see the area around the airport, lakefront, and Fleetwood Dr. preserved for parks and open spaces.
- ◆ Students would improve Fleetwood Park, fix up the malls, widen the streets to alleviate traffic congestion, and improve the Waldo Blvd./Memorial Dr. intersection to make it less dangerous.

Calumet Ave. (USH 151) Corridor (an area roughly bounded by Custer St. on the north, 21st St. on the east, Dewey St. on the south, and I-43 on the west):

- ◆ Students like the existing Anytime Fitness, Taco Bell, and shopping along Calumet Ave. (USH 151). Students would like to see new townhouses, a new mall, and a sports complex in this area, as well as the preservation of Dewey St. Park and its ball fields.
- ◆ Students would improve this corridor by expanding the County Expo Grounds, and preventing the overcrowding of businesses that make the area seem congested.

Southeast Area (an area roughly bounded by Marshall St. on the north, Lake Michigan on the east, Viebahn St. on the south, and S. 35th St. on the west):

- ◆ Students like Silver Creek Park, UW-Manitowoc, Family Cinema, Red Arrow Park and Beach, and Municipal Athletic Field (now known as “Ron Kubick Municipal Athletic Field”) in the Southeast Area. Students also would like to see a new strip mall, new playground equipment in Dewey St. Park and Silver Creek Park, and the overall preservation of the area’s parks and open spaces.
- ◆ Students would improve the area by cleaning up Red Arrow Park and Beach, and creating more shopping opportunities.

Downtown (an area roughly bounded by New York Ave. on the north, Lake Michigan on the east, Hamilton St. on the south, and railroad tracks on the west):

- ◆ Students like the Strand Theatre, Jenn’s Java, the YMCA, the Marina, and Washington Park. Students also would like to see more affordable homes and apartments along the lake and in the downtown, as well as more events in Washington Park.
- ◆ Students would reuse the former Schuette building, the former Mirro Plant No. 9 on Washington St., and the former Rockwell Lime properties, and support the addition of more specialty shops, restaurants, and clothing stores. In addition, students would improve the transportation system downtown by keeping the one-way streets, improving the bus system, adding more trails, and improving the Memorial Dr./Waldo Blvd. intersection to make it less dangerous.

Community Survey

As part of the City’s *Plan*, a City-wide survey was conducted in the spring of 2008. The survey was posted on the City’s website, and sent out in March to 14,434 postal addresses in the City with approximately 100 being returned as “undeliverable.” The City received 2,993 completed surveys for a response rate of nearly 20 percent; strong for this type of survey. The results of the survey will be used, along with the other public input generated during the *Comprehensive Plan* process, to form the core recommendations of the *Plan*.

Detailed analysis of the survey results uncovered that in some cases respondent answers varied depending on the number of years they have resided in the City, age, and educational attainment. Generally, responses for those 34 years old and younger, and those who had lived in the community less than 10 years, varied greatly from the overall survey results. The following is a summary of the survey analysis including demographic cross tabulations for certain questions where responses varied widely.

Demographic Information

The respondents to the survey were, on average, older than the City's population. Overall, 77 percent of respondents were 45 years old and older, with 39 percent over the age of 65. The majority of survey respondents (75 percent) have lived in Manitowoc for over 20 years, or are lifetime residents. Figure 1.17 illustrates a cross-tabulation of age and length of residency. Most respondents own their own home (87.6 percent) and 80 percent of respondents reside in a single-family home. When asked to describe their current household, most respondents described their household as "married with adult children not living at home." "Married with children in the home" and "single with no children" were the next most common responses. "Professional/administrative/managerial" and "skilled labor/trade" were indicated as the top two primary occupations for all household types. More than half of all respondents work outside the home, and slightly less than half of respondents work in the City. Figure 1.18 illustrates a cross-tabulation of income and City employment which suggests that respondents are finding higher paying jobs outside the City. Most respondents indicated "high school diploma or degree (GED)" as the highest level of education completed, and the highest percentage of respondents who indicated they were employed reported an anticipated 2008 household income of between \$50,000 and \$75,000.

Figure 1.17: City of Manitowoc Survey Respondents' Age by Length of Residency

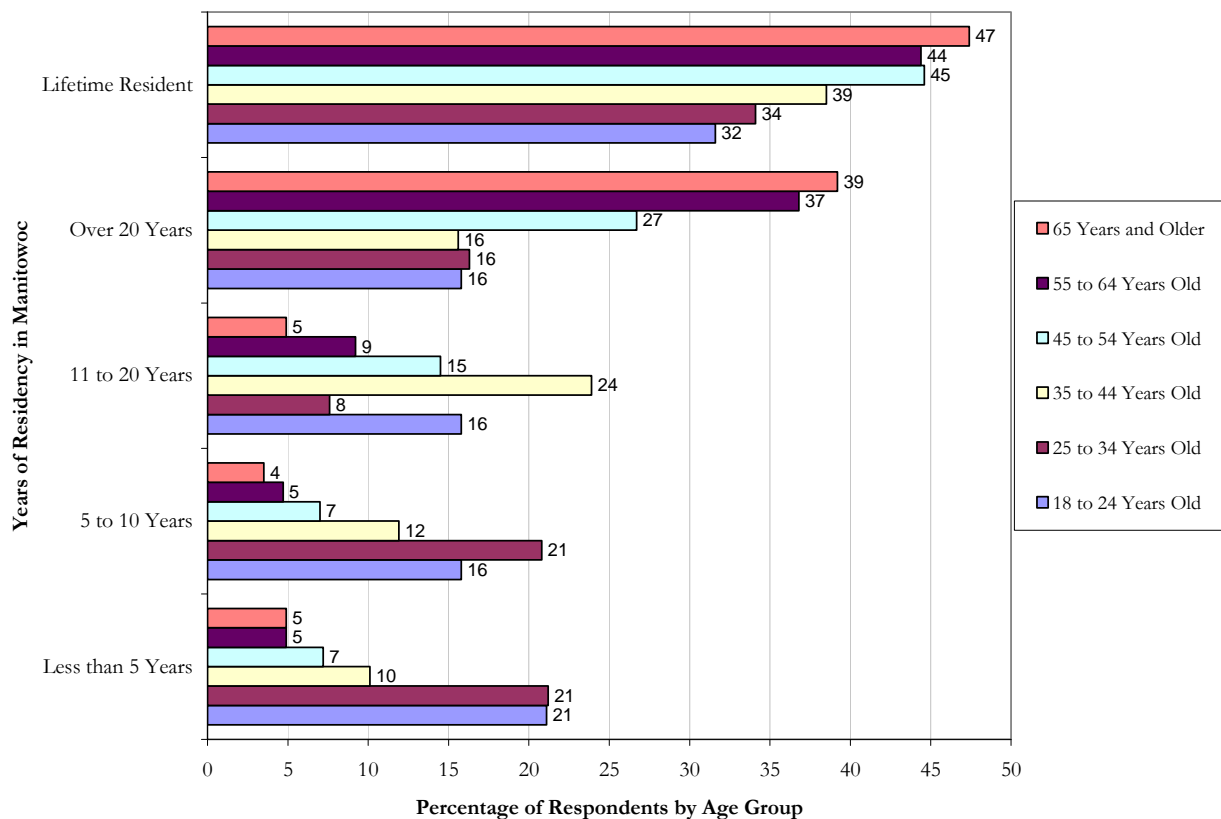
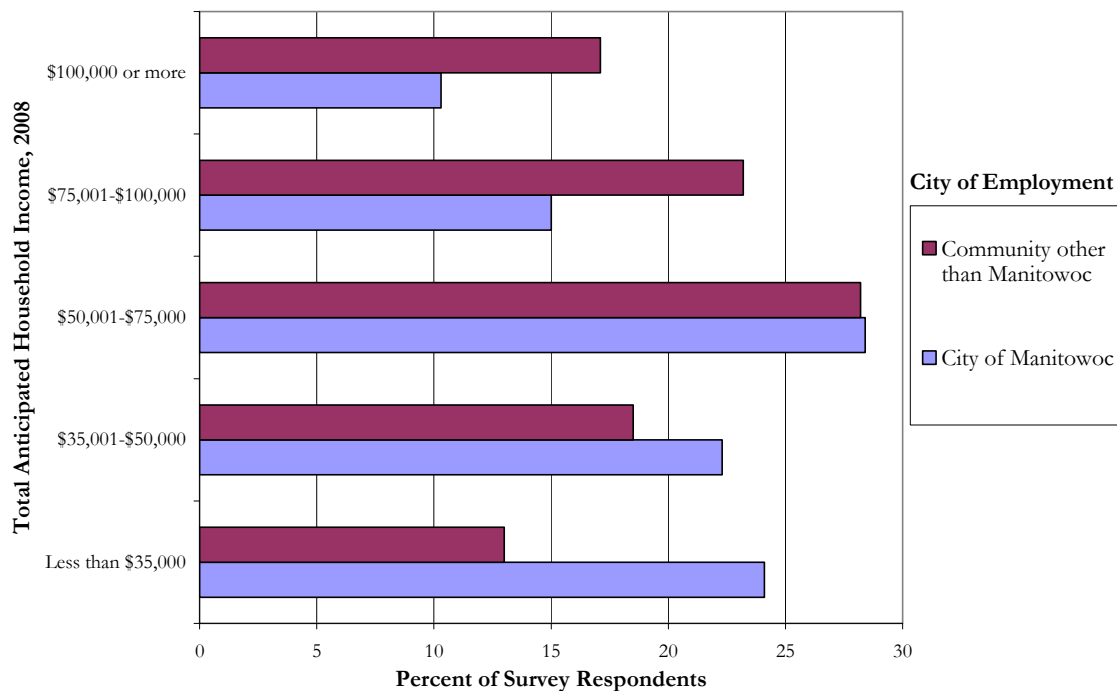


Figure 1.18: Survey Respondents Income by City of Employment

Quality of Life and Services

When asked to describe the overall quality of life in Manitowoc, the majority of respondents stated that they were “satisfied.” Respondents also indicated the three most important reasons they live in Manitowoc were: (1) hometown—grew up in Manitowoc; (2) near job/business opportunity; and (3) good place to raise a family. In addition, respondents were asked to identify their top potential vision statements for the future of Manitowoc. The top three responses were: (1) Manitowoc encourages “sustainable” development, meaning development that maintains or enhances economic opportunity and community well-being while protecting and restoring the natural environment; (2) Manitowoc is a recreation hub with an interconnected network of trails and parkland, with a special emphasis on its river and lakefront; and (3) Manitowoc provides excellent community services including public safety, water and electric service, and other facilities.

When the survey is analyzed by respondent length of residence, age, and education level, the following differences were found:

- ◆ Respondents between the ages of 18 and 34 indicated that they were generally unsatisfied with the overall quality of life in Manitowoc at a rate of 17 percent; almost twice the rate of that of the average survey respondent, or eight percent. Likewise, respondents who have lived in the City for less than 20 years, on average, also indicated they were unsatisfied at a higher rate than average.
- ◆ Respondents who are residents of Manitowoc for less than 10 years indicated their top three reasons for living in Manitowoc as: (1) affordable housing/good housing choices; (2) lakeshore location; and (3) proximity to job/business opportunities. These responses indicate that those who have moved here relatively recently have different values and priorities than long-term residents.
- ◆ Overall, those between the ages of 18 and 34 who have lived in Manitowoc less than 10 years, and those respondents with bachelor’s degrees and/or graduate or professional degrees assigned “high priority” to shopping and entertainment/cultural opportunities in Manitowoc, while the overall survey respondents assigned a “medium priority” to these opportunities. The City’s recent efforts and successes in attracting entertainment and shopping to the community, particularly in the Harbor Town area, are on the right track—with some similar development needed in the downtown and lakefront areas.

Housing and Development

Survey respondents reported a general satisfaction with the housing stock in Manitowoc, and agree that more housing and programs for affordable housing, elderly people, and low and moderate income people are needed in the City. Most respondents indicated that they do not plan to move in the next three to five years, and if they do move, most intend to stay in Manitowoc. Of those that indicated they would be moving out of Manitowoc, the three most common reasons were: (1) other (moving to a rural location, closer to family, unhappy with local government); (2) job location; and (3) retirement to another state.

When asked about desired housing type, most respondents prefer single-family homes. Respondents expressed a range of preferences regarding the character of new neighborhoods. Most respondents prefer neighborhoods to have either distinct areas of single-family, two-family, or multi-family development, or a mix of the previously mentioned neighborhoods and neighborhoods having a blend of single-, two- and multi-family development. When asked about the priority of potential City initiatives, respondents reported more retail development in the downtown, and promotion of recreational/open space uses in waterfront areas as “high priority.” These findings are similar to the 1999 Manitowoc Comprehensive Plan Survey which indicated that respondents ranked downtown riverfront/lakefront development as a “high priority.” The following were indicated as “low priority” initiatives: (1) redeveloping and/or relocating the County Expo Grounds to a more rural location outside the City limits; (2) residential development of waterfront areas; and (3) promoting more housing downtown. All respondents, regardless of age, education, or residential status, indicated relocating the County Expo Grounds as a “low priority” (by 70 percent or more).

When the survey is analyzed by respondent length of residence, age, and education level the following differences were found:

- ◆ Respondents between the ages of 18 and 34, and respondents who have resided in Manitowoc for 10 years or less are twice as likely to move in the next three to five years as the average respondent. This is typical of national trends as well.
- ◆ Respondents between the ages of 18 and 54, those who have lived in Manitowoc for less than 10 years, or those who have a bachelors and/or graduate or professional degree, were twice as likely to report job location and amenities as reasons for moving out of Manitowoc.
- ◆ Respondents between the ages of 18 and 54, those who have resided in Manitowoc 10 years or less, or have a bachelors and/or graduate or professional degree, all indicated promoting business development of waterfront areas as a “high priority,” whereas overall survey respondents indicated the initiative as “medium” or “low priority.”

Economic Development

There is strong support for economic development and employment diversification in the City. When asked about economic development in Manitowoc, more than half of the respondents reported being either neutral or unsatisfied with employment opportunities in the City. The majority of respondents “agreed” or “strongly agreed” that the City should focus on maintaining businesses, attracting businesses, attracting higher-paying jobs, encouraging sustainable businesses, developing more manufacturing and skilled professional jobs, and developing more tourism development opportunities. These survey findings echo the key economic development findings from the 1999 City of Manitowoc Comprehensive Plan Survey which stated that 92.8 percent of the respondents believe the City should continue to promote the Manitowoc area for new business and industrial development. More than half of all respondents reported frequenting downtown monthly or almost never. However, if shopping, restaurants/dining, and entertainment/recreation venues were available downtown, they would reportedly be utilized by 65-80 percent of all respondents. When asked what the most important factor is when looking for a job or considering a job change, “pay” was the highest response. Most working respondents felt that their current employment fully utilizes their skills and/or knowledge. Of respondents who do not feel that their current employment fully utilizes their skills and/or knowledge, a lack of jobs matching their skill/knowledge level was indicated as the top reason.

When the survey is analyzed by respondent length of residence, age, and education level, the following differences were found:

- ◆ Respondents between the ages of 18 and 24, who have lived in Manitowoc less than 10 years, and respondents with bachelors and/or graduate or professional degrees reported frequenting downtown daily and weekly 10 percent more often than average respondents.
- ◆ Respondents between the ages of 18 and 24, who have lived in Manitowoc less than 10 years, are twice more likely to live downtown than the average respondent.
- ◆ Respondents between the ages of 18 and 24, who have lived in Manitowoc less than 10 years reported “lack of jobs matching my skill/knowledge level” as the main barrier to elevated employment at a rate five to 15 percent higher than average respondents.

Transportation

When asked about transportation in Manitowoc, most respondents reported “agreeing” or “strongly agreeing” that more bicycling lanes are needed, more off-street walking and bicycling paths are needed, some roads should be widened to reduce traffic congestion, City streets are generally well maintained, they can find adequate parking downtown, and they would use a passenger train service to Milwaukee if it were available. However, most respondents reported “disagreeing” or “strongly disagreeing” that traffic on S. 8th and S. 10th Streets through the downtown should be changed from one-way to two-way. When the survey is analyzed by respondents’ length of residence, age, and education level, no significant differences in responses were found.

Agricultural, Natural, and Cultural Resources

When asked whether the City should acquire more property for parkland from willing sellers, most respondents were “neutral.” When asked about the types of parks and recreational facilities currently needed to serve Manitowoc residents, most respondents indicated neighborhood parks, active community parks, natural areas, and bicycle and pedestrian trails as “medium priority.” This is similar to the findings from the 1999 Manitowoc Comprehensive Plan Survey which indicated that residents ranked recreation programs, neighborhood parks, and large athletic fields as “medium” to “low priority.” More than half of all respondents indicated they “agreed” or “strongly agreed” that the City should institute an active program to manage stormwater and to reduce water pollution and runoff in all new or expanded developments, and that the City should continue to promote the preservation of historic properties. In addition, most respondents “disagree” or “strongly disagree” that the City should encourage new single-family housing to be built on smaller lots in order to use land more efficiently, and that the City should utilize narrower streets with less pavement to reduce stormwater runoff into drainageways and the Manitowoc River.

When the survey is analyzed by respondent length of residence, age, and education level, the following differences were found:

- ◆ Most respondents between the ages of 18 and 34 “agree” or “strongly agree” that the City should acquire more property for parkland from willing sellers in contrast to the overall response of “neutral.” This reflects an expected answer due to the 18- to 34-year-old age group’s being near to child-rearing age.
- ◆ On average, a higher percentage of respondents between the ages of 18 and 54, residences of 20 years or less, and respondents with bachelors and/or graduate or professional degrees indicated neighborhood parks, active community parks, natural areas, and bicycle and pedestrian trails as “high priority” than the average respondent. Their responses are similar to those of respondents from the 1999 Manitowoc Comprehensive Plan Survey who ranked Trails and Pathways as a “high priority.”

Conclusions

The survey responses reflect the internal financial and infrastructure policy challenges the City will face as it evolves and balances the desires of more conservative long-term residents against those of relatively newer, younger residents, and against affluent retiring Baby Boomers. Progressive policies and initiatives that build upon place-based assets, should address maintenance of infrastructure and quality of life if Manitowoc wants to retain and attract young professionals and families. It will also be critical to engage long time residents to develop a broader base of political support for such initiatives.

Key Survey Results

Key survey results will be included throughout the *Plan* – look for these text boxes.

Intergovernmental Cooperation Events

City officials and consultant staff attended the County’s Municipal Official Event on July 16, 2008. The consultant staff began by facilitating a special places exercise in which attendees identified where they take visitors. Top responses included the Wisconsin Maritime Museum, Lake Michigan, Henning Cheese Factory, Pinecrest Historical Village, Rahr-West Art Museum, West of the Lake Gardens, Courthouse Pub, and Point Beach State Forest. Attendees also provided input on what is needed to attract people to the County, and to have young adults stay in the City to raise families and become members of the local labor force. Top responses included good paying jobs, shopping opportunities, outdoor recreation activities/trails, social events and entertainment venues, and dining opportunities. The consultants also presented information on the “Opportunities Analysis” (described below), key public participation results, and opportunities for intergovernmental cooperation in this planning process.

Draft Plan Open House

The City hosted an open house on September 23, 2009 to provide the public an opportunity to review and comment on the draft of the *Comprehensive Plan* prior to its official adoption. Approximately 50 community members attended this open house. In general, residents were supportive of redevelopment in key areas of the City, including the downtown. Residents expressed an interest in encouraging the establishment of more retail in the downtown. Some residents expressed concerns about overdeveloping the lakefront and potentially losing valuable open space areas. There was general support for “greening” of the City. Residents felt that building upon this concept could make Manitowoc an attractive place that would draw “clean” development.

Draft Plan Open House

Per Wisconsin Statutes, following Plan Commission recommendation on this *Plan*, a formal public hearing on the *Plan* was held before the Common Council on December 7, 2009. The Common Council considered public comment prior to adopting the *Plan*.

OPPORTUNITIES ANALYSIS

This project began with “Manitowoc Snapshot of Economic Assets and Opportunities” which takes a look at the City through a broader lens – considering the community’s assets in terms of its regional location, emerging State and regional initiatives, and Manitowoc’s specific assets that are the distinctive and special characteristics of the City. This part of the project produced a separate document. The following sections summarize the key results of that process.

Assets

Manitowoc has a long history as an important port on the western shores of Lake Michigan. It has played a major role in state-to-state and international commerce activities in the Great Lakes. In recent decades, aspects of this role as a Great Lakes port have diminished with the changing regional economy; yet Manitowoc

still boasts an active harbor, a land to water transloading opportunity, vestiges of its shipping past, an auspicious location, and other physical and cultural assets that can be the basis of a new economic vision for the City and region. An assessment of Manitowoc's current assets, viewed through the lens of Wisconsin initiatives and larger regional directions, gives us a snapshot of the City's economic opportunities, and a glimpse into the role this Great Lakes community could play in the future. These assets include:

- ◆ Lake Michigan, working harbor, south-facing underdeveloped coast.
- ◆ Shoreline highway.
- ◆ Fresh water supply.
- ◆ River/watershed.
- ◆ Midpoint between Chicago & Door County.
- ◆ I-43.
- ◆ Business class airport.
- ◆ Historic downtown.
- ◆ Maritime history.
- ◆ Food processing expertise.
- ◆ Globally recognized corporations.
- ◆ "Green" tech talent cluster.
- ◆ Manitowoc Public Utilities (MPU).
- ◆ Well-trained workforce.
- ◆ Wind.

Opportunities

Manitowoc's current assets, viewed through the lens of State and larger economic initiatives, gives us a snapshot of Manitowoc's most exciting economic opportunities in the new economy, and a glimpse into the role Manitowoc could play in the local and greater region's economic futures.

- ◆ Embrace the "Coastal Cities Initiative" and develop a regional thinking mindset towards identifying opportunities and partnerships beyond the City's borders.
- ◆ Expand maritime, tourism and transportation opportunities.
- ◆ Leverage clean water technology.
- ◆ Foster sustainable community and clean business growth.
- ◆ Grow value-added food processing cluster.
- ◆ Engage boomers and zoomers.
- ◆ Leverage education connection and grow new economy businesses.
- ◆ Create momentum for downtown.
- ◆ Reorient the community to the waterfront.

These opportunities are explored further through this *Plan*, "The Port of Manitowoc Downtown and River Corridor Master Plan," and the "Manitowoc Expo Grounds Master Plan."

COMMUNITY SUSTAINABILITY

In June 2007, the City adopted a resolution to become an "eco-municipality." Since then, the City has taken concerted steps to further sustainability through its "Go Green!" initiative, described in the graphic on the right. Initiatives include:



- ◆ Sustainability study circles for City staff and residents.
- ◆ Locally produced bio-fuels in City buses.
- ◆ MPU usage of bi-product from local businesses in power generation.
- ◆ Participation in the State's "Energy Independent Communities Program."
- ◆ No plastic beverage bottles dispensed in City buildings.

As part of its sustainability initiative, the City developed a "Sustainable Community" memorandum which outlined recommendations for the future direction for sustainability in the community. In addition to the "Sustainable Community" memorandum, this *Plan* includes policies and recommendations related to sustainability and the overall health of the City. Look for the graphic to the right throughout this *Plan* for key sustainability recommendations.

MISSION AND VISION STATEMENT

MISSION of the City of Manitowoc: Through innovative and dynamic leadership, the City of Manitowoc will effectively manage public resources to enhance the quality of life for the benefit of the entire community by:

- ◆ Fostering opportunities for economic growth.
- ◆ Protecting the safety and well-being of the community.
- ◆ Serving the needs of the community with respect and dedication.
- ◆ Embracing the arts, humanities, and cultural diversity.
- ◆ Providing a welcome atmosphere for our citizens and visitors.

VISION of the City of Manitowoc: It is the vision of the City of Manitowoc to be a friendly, culturally diverse, and economically vibrant community that embraces the arts and humanities, and that preserves the best of small town life on the lakeshore including health, long-life, beauty, comfort, and safety.

CHAPTER TWO: AGRICULTURAL, NATURAL, AND CULTURAL RESOURCES

The purpose of this chapter is to identify strategies to promote and sustain local agriculture and preserve and enhance Manitowoc's unique cultural and natural resources. This chapter contains an inventory of the City's agricultural, natural, and cultural resources; and goals, policies, programs, and recommendations pertaining to each.

AGRICULTURAL RESOURCE INVENTORY

Character of Farming

While there is little farmland within the City limits, farming nonetheless influences the lifestyle and economy of Manitowoc, and is a dominant land use in the County. The University of Wisconsin-Extension, Manitowoc County ("UW-Extension"), reports that in 2006, the County had approximately 1,400 farms with approximately 260,000-acres of farmland, with an average of 186-acres per farm. Of the 1,400 farms, approximately 320 are dairy farms, with 45,000 cows, or an average of 141 cows per farm. With 594 square miles in the County, there are about 46 cows per square mile. Key crops included alfalfa, corn, soybeans, and wheat. Oats, barley, snap beans, and other vegetables also covered substantial portions of County farmland in 2006.

Farmland is a valuable asset in the County. UW-Extension found that, based on the prevailing selling price of unimproved farmland intended to remain as farmland; the County's 260,000-acres were worth over \$760 million in 2006. These 260,000-acres account for 68 percent of all land in the County. Further, agricultural land prices have doubled in the County over the past 10 years. In 2007, agricultural land was valued at approximately \$3,000 per acre.

Farming contributes significantly to the City and County's economy through related services and industries. According to UW-Extension, agriculture and food processing represent about 40 percent of the County's economy. Farm employment accounts for 15 percent of total employment in the County. Agriculture accounts for \$836 million in economic activity in the County, contributes \$213 million to the County's total income, provides jobs for over 6,000 residents, and accounts for \$18 million in tax revenue.

The County is also an important dairy producer, with the fourth largest annual milk production among Wisconsin counties and ranking in the top 30 counties in the U.S. for annual milk production. In 2007, County dairy farmers produced over one billion pounds of milk; ranking first in Wisconsin for milk production and fourth in the State in the number of dairy cows. Milk production per cow in 2007 was 22,900 pounds (up to approximately nine percent from 2006). UW-Extension reports that for every \$1.00 per hundred weight charge in the price of milk, the County gains between \$9.5 and \$10 million in farm related revenue. The County consistently ranks among the top three counties in the State in the number of cows per square mile. The level of agricultural infrastructure in place in the County (e.g. veterinarians, nutritionists, etc.) drives the County's milk production proficiency. This infrastructure represents about 50 percent of the cost of dairy production—a cost savings for local farmers.

Assessment of Farmland Viability

The Natural Resources Conservation Service ("NRCS") groups soils based on the soil's capability to produce common cultivated crops and pasture plants without deteriorating over a long period of time. These capability classifications are based on numerous criteria that include, but are not limited to—the soil's salinity, capacity to hold moisture, potential for erosion, depth, and texture and structure, as well as local climatic limitations (e.g. temperature and rainfall). Under this system of classification, soils are separated into eight classes. Generally, Class I and Class II soils are the best suited for the cultivation of crops.

Class I soils have few limitations that restrict their use. These soils can sustain a wide variety of plants and are well suited for cultivated crops, pasture plants, range lands, and woodlands. Class II soils have moderate limitations that restrict the types of plants that can be grown, or that require simple conservation practices or soil management techniques to prevent deterioration over time. However, these practices are generally easy to apply, and, therefore, these soils are still able to sustain cultivated crops, pasture plants, range lands, and woodlands.

Class III soils have limitations that, under natural circumstances, restrict the types of plants that can be grown, and/or that alter the timing of planting, tillage, and harvesting. However, with the application and careful management of special conservation practices, these soils may still be used for cultivated crops, pasture plants, woodlands, and range lands.

Soils in Classes IV through VIII present increasingly severe limitations to the cultivation of crops. Soils in Class VIII have limitations that entirely preclude their use for commercial plant production.

Map 2 depicts the locations of Class I, II, III, and IV-VIII soils in the City and the surrounding area. Class II soils dominate the planning area. There are no Class I soils in the planning area. Class III soils are concentrated southwest of the City and along water bodies. Classes IV through VIII soils are located throughout the central part of the City as well as in the Woodland Dunes area between Manitowoc and Two Rivers.

Farmland Preservation Efforts

Within the City, farming activities are considered an interim and accessory land use. Farmers in area communities surrounding Manitowoc can participate in several federal, State, and Countywide programs and initiatives that are intended to preserve long-term farming activities. The 2008 Farm Bill reauthorized several federal programs, including:

- ◆ The **Conservation Reserve Program**, which provides technical and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands in an environmentally beneficial and cost-effective manner.
- ◆ The **Wetland Reserve Program**, which provides technical and financial support to help landowners with their wetland restoration efforts.
- ◆ The **Wildlife Habitat Incentives Program**, which provides both technical assistance and up to 75 percent cost-share assistance to landowners to establish and improve fish and wildlife habitat on their property.
- ◆ The **Grazing Lands Conservation Initiative**, which focuses on providing technical assistance to help new grazers begin using rotational grazing methods. Trained grazing specialists work one-on-one with farmers developing grazing plans including seeding recommendations, fencing and watering plans.
- ◆ The **Environmental Quality Incentives Program**, which provides a voluntary conservation program for farmers and ranchers who promote agricultural production and environmental quality as compatible national goals. EQIP offers financial and technical help to assist eligible participants install or implement structural and management practices on eligible agricultural land.

In addition, the Wisconsin Department of Revenue offers two important farmland preservation programs—the Farmland Preservation Credit Program and the Farmland Tax Relief Credit Program. The Farmland Preservation Credit Program strives to preserve Wisconsin farmland by means of local land use planning and soil conservation practices, and provides property tax relief to farmland owners. To qualify for the credit, farmland must be 35-acres or more, and zoned for exclusive agricultural use, or be subject to a preservation agreement between the farmland owner and the State. All program participants must comply with soil and water conservation standards set by the State Land Conservation Board. It should be noted that claims for both of the Farmland Preservation Credit and the Farmland Tax Relief Credit are documented for the municipality in which the claimant lives, which may not be where the farm is actually located. In 2006, there were 10 claims for the Farmland Preservation credit in the City, totaling \$1,403, or an average of \$104 per claim. Of the surrounding towns, participation in the Town of Newton was the highest with 57 claims totaling

\$27,610, an average of \$484. The Town of Manitowoc Rapids had 32 claims totaling \$19,533, and the Town of Two Rivers had 29 claims totaling \$13,160. The Town of Manitowoc had the lowest participation with nine claims totaling \$5,684.

The Farmland Tax Relief Credit Program provides direct benefits to all farmland owners with 35 or more acres. The credit is computed as a percentage of up to \$10,000 of property taxes, with the maximum credit of \$1,500. In 2006, there were 44 claims for this credit in the City, constituting a total of \$5,704, or an average credit of \$130. Of the surrounding communities, participation in the Town of Newton was highest with 80 claims totaling \$14,507, or an average of \$181. The Town of Manitowoc Rapids had 52 claims totaling \$8,381, an average of \$161. The Town of Two Rivers had 37 claims totaling \$7,363, or an average of \$199. The Town of Manitowoc had the lowest participation with 10 claims totaling \$2,782, or an average of \$278.

AGRICULTURAL RESOURCE GOALS, OBJECTIVES, AND POLICIES

Goals

- a. Preserve agricultural lands in areas in the City's planning area, except in places and timeframes advised by this *Plan* for future urban development.

Objectives

- a. Maintain agriculture as a significant economic activity within Manitowoc's planning area.
- b. Work with surrounding jurisdictions, especially the County and the Towns of Manitowoc Rapids and Newton, to preserve farming as a viable occupation in areas consistent with this *Plan*.
- c. Protect farm operations from incompatible land uses and activities that may adversely affect the capital investment in agricultural land, improvements, and equipment.
- d. Encourage agricultural business opportunities that develop consumer-ready and intermediate agricultural products for trade and export.

Policies

- a. Utilize intergovernmental agreements and ETJ powers in support of this *Plan* to limit intensive development in productive farming areas, generally to a non-farm development density not exceeding one new lot for every 35-acres of ownership. Amend the City's subdivision ordinance to reinforce this standard. Map 5: Future Land Use identifies future "Agriculture" areas where this standard should be exercised.
- b. Maximize the intensity/density of use of lands currently in the City and future annexed lands to minimize the conversion of agricultural land. See Chapter Four: Transportation and Chapter Seven: Economic Development for recommendations regarding redevelopment of lands currently within the City.
- c. Encourage the interim use of open lands for farming within the "Long Range Urban Growth Areas" shown on Map 5: Future Land Use, until the land is ready for planned development per the policies outlined in Chapter Three: Land Use.



- Implementing efficient and well-planned City development will preserve farmland, promote efficient extension of municipal utilities and services, and reduce vehicular travel times.
- Use of local foods promotes community health, supports the local economy, reduces transportation costs, and increases food security.
- Waste-to-energy opportunities can reduce the City's reliance on fossil fuels.

- d. Promote sustainability through a local and regional foods movement – reserving areas for food production and processing.
- e. Encourage agricultural-related industry in the County, such as food product manufacturing, as a means to support the economic health of both the City and agricultural areas.
- f. Continue to support agricultural and marketing efforts to promote the County as “the place” to produce milk in Wisconsin.
- g. Encourage urban gardens as an adaptive re-use strategy for redeveloping vacant lots and lands in the City.

AGRICULTURAL RESOURCE RECOMMENDATIONS, AND PROGRAMS

Beyond the policies outlined above, the City will work on programs designed to help retain the area’s agricultural base. Examples of these types of programs—described further in Chapter Seven: Economic Development—include:

Promote Efficient and Well-Planned City Development to Preserve Farmland

Manitowoc’s established density of nearly six dwelling units per acre is very efficient compared to development in neighboring rural areas. Two-acre density development in a town eats up farmland and open space 10 times faster than development in the City. Five-acre density development eats up farmland and open space 25 times faster than development in the City. This rate of land consumption is very contrary to the protection of farmland. In eastern Wisconsin, the urban sprawl problem is not nearly as problematic as the rural sprawl problem.

To both accommodate County population growth and address the rural sprawl issue, the City intends to employ a multi-faceted strategy of:

- ◆ Stimulating infill and redevelopment.
- ◆ Encouraging higher densities in new developments.
- ◆ Reserving large areas of undeveloped peripheral lands for very long-term City expansion.
- ◆ Working with the County and other municipalities to capture as large a share of County population growth as possible into cities and villages at urban densities.
- ◆ Discouraging rural residential development (development served by private on-site wastewater treatment systems and wells) in the ETJ of the City.

Land Use Policies and Intergovernmental Agreements to help to facilitate this are discussed in Chapter Three: Land Use and Chapter Eight: Intergovernmental Cooperation.

Support Expansion of Food Processing Industries

Given its proximity to major population centers, I-43, and a rich agricultural hinterland, the City has been and will continue to be an attractive home for industries processing agricultural products for food. Helping existing food processing businesses grow and attracting new businesses will benefit the City through jobs and tax base growth, as well as increasing the economic viability of area farmers, who are often their suppliers.

Promote the Use of Local Foods

The emerging interest in local growth and consumption of food, along with the increased concerns over food quality and the economic recession, has caused renewed interest in home grown fruits and vegetables. Promoting the use of locally produced agricultural products is a viable strategy for producers in the Manitowoc area given proximity to raw products, and growing local and regional populations. Manitowoc is well-positioned to take advantage of the local food movement as an economic, farmland preservation and community health initiative. Some ways in which the City can contribute to these efforts include:

- ◆ **Farmers' Markets:** Local farmers markets provide a direct means for farmers to sell their products to the consumer, contribute to the local economy, and encourage members of the community to come together. Manitowoc currently hosts a market downtown at the corner of 8th St. & Quay St. during the summer months. The City should continue to support the future growth and expansion of this event.

- ◆ **Backyard and Community Gardens:** Community gardening and other forms of urban agriculture have been shown to provide a variety of economic, environmental, and public health benefits, as well as reductions in crime. Backyard gardens can be plots around homes or containers and raised beds on balconies, decks, and rooftops. Backyard gardens can supplement diets with seasonal harvests and stretch food budgets. Community gardens provide opportunities for recreation and can improve both the mental and physical health of residents, creating a place for social gatherings.¹



Community garden

- ◆ **Restaurants:** Manitowoc would benefit from more restaurants located in the City to serve residents and employees of City businesses. This provides an opportunity for the establishment of restaurants, bakeries and cafes that purchase, serve, and generally promote locally grown foods. The type of restaurant that offers handmade food from locally grown products would be an asset to a family-oriented, hard-working community like Manitowoc, but this concept could also be used to market the restaurant to people who live outside the City in surrounding communities.
- ◆ **Schools:** Since it is necessary for schools to consistently purchase large quantities of food, local food producers would offer fresh, in-season, healthful products that would promote the health of students. The MPSD and private schools in the area, could become involved in the "Wisconsin Homegrown" lunch program. The goal of this program is to incorporate fresh, nutritious, local, and sustainably grown food to school lunch menus. Involvement in this program benefits the health and wellbeing of students and school faculty, supports the local agricultural economy, and establishes partnerships between school districts and local farms. This creates opportunities for students to learn outside the classroom about agriculture and food production.

Explore Waste to Energy Opportunities

Agriculture is the dominant land use in the County, covering about 260,000-acres or 68 percent of County land. Animal waste from agricultural activities could provide a potential future energy source through the use of anaerobic manure digesters. Anaerobic digesters compost, or "digest," organic waste in a machine that limits access to oxygen, which encourages the generation of methane and carbon dioxide by microbes in the waste. This digester gas can then be burned as fuel to make electricity. Besides energy generation, the benefits of digesters include:

- ◆ Reduced odor levels by as much as 90 percent.
- ◆ Reduced bacteria/pathogens: Heated digesters reduce pathogen populations dramatically in a few days; additional post-digester composting can ensure pathogen-free end products.

¹Urban Agriculture and Community Food Security in the United States: Farming from the City Center to the Urban Fringe, 2003, Prepared by the Community Food Security Coalition's North American Urban Agriculture Committee

- ◆ Nutrient management: In the process of anaerobic digestion, the organic nitrogen in the manure is largely converted to ammonium, the primary constituent of commercial fertilizer, which is readily available and taken up by plants. Much of the phosphorus is removed through the solids in the process, requiring less application to land to balance the nutrients. This technology may allow operators to support more animals on the same acreage.
- ◆ Co-generation and energy cost reduction: Anaerobic digesters produce methane gas which can be captured for generating electricity for on-farm use. If the operation is large enough, potential sales of excess power back to the grid may be possible.
- ◆ Final products: The final products of anaerobic digestion are quite suitable for composting, on the farm as bedding material or as a soil amendment, or sold off the farm as an organic-based fertilizer/soil enhancer.

Despite the many benefits, anaerobic digestion systems are not appropriate for all farm operations in all communities. Establishing a digester should involve careful site planning, design, and consideration of a variety of factors including location, collection and delivery of inputs, how risks will be mitigated, and how outputs will be handled. The City should coordinate with the agricultural community, the County, and other partners to explore this alternative energy resource.

Support Agricultural Diversification in Manitowoc County

Economic instability demands change in local industries and the way they do business. In the current economy, diversification beyond cash crop production is essential in maintaining an economic edge in the agriculture industry—particularly in a region where farmland is suitable for numerous varieties of agricultural products. New markets and opportunities continue to emerge on the agricultural landscape, including the rise of organic and specialty crops, and the production of nutraceuticals (natural, bioactive chemical compounds that have been found to have health promotion, disease prevention, and other medicinal properties). According to the “Northeast Wisconsin Economic Opportunity Study,” organic and specialty crop markets (from mushrooms to organically raised meat and eggs) are growing at a rate of 20 percent per year. Higher premiums paid (in some cases double) for organic and specialty crops have helped farmers maintain economic stability when the prices of commodity crops drop. In addition to specialty and organic markets, the demand for nutraceuticals is climbing as consumer attitudes are shifting towards greater acceptance of holistic and preventative healthcare. According to the “Northeast Wisconsin Economic Opportunity Study,” nutraceuticals are found in products emerging from the food industry, the herbal and dietary supplement market, the pharmaceutical industry, and the newly merged pharmaceutical/agribusiness/nutrition conglomerates. Manitowoc is well-positioned to take advantage of these new markets—particularly when factoring in the County’s proximity to Chicago and Minneapolis metropolitan areas. Potential action steps the City can take to support agricultural diversification in the County include:

- ◆ Support the establishment of organic food products workshops to educate farmers and consumers about the benefits of specialty and organic crops.
- ◆ Promote a County market research cooperative to monitor specialty and organic crop practices and offer support for production practices.
- ◆ Encourage the creation of a center of excellence around nutraceuticals.

Soil Suitability for Agriculture

Map 2

City of Manitowoc
Comprehensive Plan

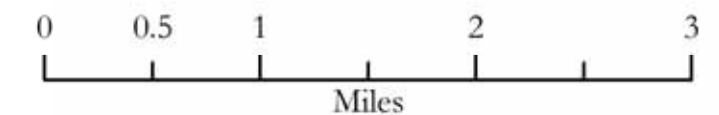


- City of Manitowoc
- Municipal Boundaries
- Interstate Highway
- Major Roads
- Local Roads
- Active Railroads
- Inactive Railroads
- Surface Water

Soil Capability Class (Most Productive to Least)

- Class II
- Class III
- Class IV - VIII
- Not rated or not available

*Note: There are no Class I soils in the planning area.



VANDEWALLE & ASSOCIATES INC.
Shaping places. shaping change



Date: December 21, 2009
Source: City of Manitowoc;
Manitowoc County LIO;
Bay-Lake Regional Planning
Commission; USDA-NRCS;
US-DOT

Note: Not intended for detailed siting. *Soil capability classes derived from the USDA-NRCS (Natural Resources Conservation Service) Land Evaluation System. The system uses three factors to determine a numeric rating from I to VIII: prime farmland, soil productivity for corn & alfalfa, & land capability class. Soils with a capability class of I are generally most productive for cropping, with class VIII soils the least productive. Refer to NRCS documentation for further explanation.

NATURAL RESOURCE INVENTORY

Understanding Manitowoc's natural features sheds light on constraints and opportunities for particular land uses. For instance, while some parts of the City and surrounding area may have locational advantages for development, other areas are environmentally sensitive, where development is not appropriate or desired. Focusing development where infrastructure exists, and where it is most appropriate, will prevent severe developmental or environmental problems that may be difficult or costly to correct in the future. Maintenance of natural features is also important for community appearance, and the functions they perform for natural communities.

Environmentally sensitive areas are land areas which need special protection because of their landscape, wildlife, or historical value. Map 3 depicts environmentally sensitive areas in and around the City, many of which are described in more detail below.

Landscape and Topography

The topography of the City ranges from gently rolling to flat. There are some steeper slopes and bluffs along the Lake Michigan shoreline and along some of the sharp bends in the Manitowoc River. Steeper terrain is also found along the Little Manitowoc River east of MTW, and in the lake district in the southwest portion of the planning area.

The average elevation in the City is 631 feet above sea level. The lowest elevations are approximately 580 feet at Lake Michigan.

Watershed and Drainage Basins

The northern portion of the City lies within the Lower Manitowoc River watershed, which comprises approximately 8,295-acres. The south portion is in the Seven Mile and Silver Creek Basin Watershed, which comprise 3,163-acres. The major drainage basins within the City include:

- ◆ Little Manitowoc River Basin, discharging into Lake Michigan at Maritime Dr. and Cleveland Ave.
- ◆ Manitowoc River Drainage Basin, flowing through the center of Manitowoc and discharging into Lake Michigan east of downtown.
- ◆ Sherman Creek Drainage Basin, almost completely enclosed in storm sewers.
- ◆ Hans Creek Drainage Basin, discharging into Lake Michigan at Red Arrow Park.
- ◆ Silver Creek Drainage Basin, discharging into Lake Michigan at Silver Creek Park.

Metallic and Non-Metallic Minerals

The surface geology of the Manitowoc planning area consists of drift material deposited as a result of the last two sub-stages of the Wisconsin stage of glaciation; the Cary and Valders substages. The Cary drift consists of a gray, stony, limy till. The more recent Valders drift consists of reddish-limy soils, high in clay and iron, with rock and boulders intermixed.

There are several gravel pits on the north and southwest sides of the Manitowoc planning area, where the drift material is excavated and used primarily for road construction.

Water Supply and Quality

Groundwater is comprised of the portion of rainfall that does not run off to streams or rivers, and that does not evaporate or transpire from plants. This water percolates down through the soil until it reaches the saturated zone of an aquifer. While Lake Michigan is the primary source of water for the City's drinking, commercial, and industrial needs, MPU employs two, near shore groundwater wells during periods of high demand or system maintenance to meet the City's water demand.

WisDNR maintains Wisconsin's Source Water Assessment Program ("SWAP"), which indicates that the City's municipal water system has a "moderate level of susceptibility to contamination." In May of 2003, the SWAP found that MPU has reliably provided high quality drinking water to its customers.²

Due to the size and diverse land uses bordering Lake Michigan, the City's surface water intake from Lake Michigan is not significantly impacted by manageable local factors. While activities along Manitowoc's shore impact the overall health of Lake Michigan, they do not significantly impact the City's drinking water quality, because the system's primary intake is far from shore, minimizing the risk of contamination from manageable activities.

The SWAP recommended that the City's watershed protection should focus on preventing nonpoint source pollution. Urban runoff entering the lower five miles of the Manitowoc River is widespread. Contaminated sediments along with inorganic, microbial, and synthetic organic contamination are degrading surface water quality in areas in and around the City. Additionally, agricultural runoff contaminates the Manitowoc River before it reaches the City. As a result, WisDNR considers the Manitowoc River (downstream from its confluence with the North Branch of the Manitowoc River) to be an impaired waterway, defined as a waterway not meeting water quality standards for specific substances or their designated uses.

The SWAP also advised that groundwater protection activities should focus on obtaining additional information on the potential sources of contamination in the area, and implementing wellhead protection plans, as noted in the SWAP.

Stormwater Management

In October of 2007, the City created its "Stormwater Quality Plan." The plan includes a report documenting the findings of a study conducted for purposes of determining the City's compliance with Total Suspended Solids ("TSS") reductions in accordance with Wisconsin Administrative Codes NR216.07(6)(b) and NR151.13, as well as recommendations for better management practices. The standards outlined within these codes require that regulated communities, including Manitowoc, achieve a 20 percent reduction in TSS runoff that enters waters of the State (as compared to no controls) by 2008, and implement management practices to achieve a 40 percent reduction in TSS runoff that enters waters of the State (as compared to no controls) by March 10, 2013.

The report found that the City's current management practices fall short of the 2008 requirement of 20 percent TSS reduction. The report evaluated five alternative street sweeping programs, and 46 potential alternative structural stormwater management practices in order to develop a plan for compliance with both the 20 percent TSS reduction requirement by 2008, and the 40 percent reduction requirement by 2013. Utilizing the report's findings, the plan outlines the minimum cost for the recommended elements needed to achieve compliance with the reduction requirements. The plan calls for the purchase of high efficiency street sweepers (which were purchased in 2009), the implementation of a street sweeping and parking-restriction ordinance and posting of no-parking signs, and constructing 21 recommended stormwater ponds. The combined estimated cost of the elements is approximately \$5,180,000.

Stormwater Management

Sixty-seven percent of community survey respondents either "strongly agreed" or "agreed" the City should institute an active program to manage stormwater and to reduce water pollution and runoff in all new or expanded developments (e.g. ponds, greenbelts, and infiltration areas).

Manitowoc River

The Manitowoc River ("River") originates northwest of the City in a series of vast wetlands in the Killsnake, Brillion, and Collins Marsh State Wildlife Areas. Before reaching the City, the River flows through agricultural and forested areas and its volume is considerably increased by a key tributary, the Branch River. Entering the

² Wisconsin's Source Water Assessment Program; accessed 1/15/2008 <http://www.dnr.state.wi.us/org/water/dwg/swap/surface/manitowoc.pdf>

City from the northwest, the River winds through downtown before reaching Lake Michigan at the Manitowoc Harbor.

The River bottom supports extensive fish spawning habitat and several rare aquatic species and is important to nesting and migrating waterfowl. Acting as a travel corridor, the River connects many species of the vast wetlands upstream to the Lake Michigan shore and protected areas of Woodland Dunes and Point Beach State Forest.

As mentioned above, the River endures nonpoint source pollution—agricultural runoff upstream, and urban runoff in its lower five miles—to the extent that the WisDNR considers the River downstream from the North Branch confluence to be an impaired waterway. The Branch River, for its part, is considered an “Exceptional Water Resource,” indicating it exhibits excellent water quality, high recreational and aesthetic value, and high quality fishing. However, “Exceptional Water Resources” may be impacted by nonpoint-source pollution such as agricultural runoff.

River restoration activities have included the development of stream-side hatcheries to release native fish, such as lake sturgeon, into the River ecosystem.

Lake Michigan

The second largest Great Lake (by volume) and the sixth largest lake in the world, Lake Michigan has a total area of nearly 22,300 square miles, and drains a land area of over 45,000 square miles. Bordered by Wisconsin, Illinois, Indiana, and Michigan, it is the only Great Lake lying entirely within the U.S. Rocky, shallow, and sandy shores dominate, restricting access for large boats to harbors. Sport fishing in the bays yields smallmouth bass, northern pike, and yellow perch, among other species.

The lake’s ecosystem health is of growing governmental and public concern due to invasive species and fluctuating lake levels. Invasive species are understood to enter the lake through the ballast waters of ocean going ships. Fluctuating lake levels result in damage to Lake Michigan’s coast. Episodes of high lake levels associated with flooding increase the rate of erosion, cause property damage, and submerged beaches. Periods of low lake levels increase sedimentation and pollution, which requires extensive dredging of navigation channels and harbors. Commercial navigation has not been seriously impacted by fluctuating water levels, as most deep navigation channels are maintained at authorized elevations and shippers adjust payloads to match the water fluctuations. Recreational boaters, however, may experience difficulties with navigation in marinas and harbors that are not routinely dredged. Ongoing and planned studies attempt to better understand and alleviate these issues.



Manitowoc's South-facing Shoreline

Little Manitowoc River

The Little Manitowoc River is a small tributary of Lake Michigan, discharging into the lake at Maritime Dr. The river flows in a generally southeastwardly direction from headwaters northwest of the City. Unlike the River, with headwaters in Calumet County, the Little Manitowoc River lies solely within the County. The river flows north of MTW and then southward through Lincoln Park. The lower section of the river forms the lagoons and wetlands east of Lincoln Park.

With a bottom of gravel and rubble, smelt and suckers find spawning habitat in the Little Manitowoc, and the WisDNR sees potential for rainbow trout spawning. Despite being somewhat degraded, the Little Manitowoc provides for a variety of native plant and animal species and features relatively intact native landscape

Silver Creek

Silver Creek lies in the far southern portion of the City, discharging into Lake Michigan at Silver Creek Park. The majority of its length, including tributary waters, lays outside City limits, as it extends to the south and west. Silver Creek collects from a number of small lakes in the “lake district” area in the southwestern portion of the planning area, west of I-43. Silver Creek has fair to poor water quality due to nonpoint source impacts on its mainstream.

Steep Slopes and Soil Erosion

As shown on Map 3, steep slopes exceeding a 12 percent grade are mainly located in the western portion of the City along the Manitowoc River. Generally, slopes in excess of 12 percent present challenges for building site development, and slopes that exceed a 20 percent grade are not recommended for any disturbance or development.

Soil erosion is the displacement of soil, usually by wind, water, or down-slope movement. Soil erosion can also be a byproduct of land development, which is increased by poor or unmanaged land use practices such as deforestation, overgrazing, and construction activity including road building. Agricultural land also experiences a greater rate of erosion than land under natural vegetation. Techniques can be used to mitigate soil erosion such as terrace building, conservation tillage practices, and tree planting. Erosion hazard areas in the City include the Lake Michigan shoreline, and certain areas abutting the Manitowoc River west to Schuette Park. Figure 2.1 depicts erosion hazard areas in the City, which are regulated in Chapter 15.37(23) of the City’s Municipal Code.

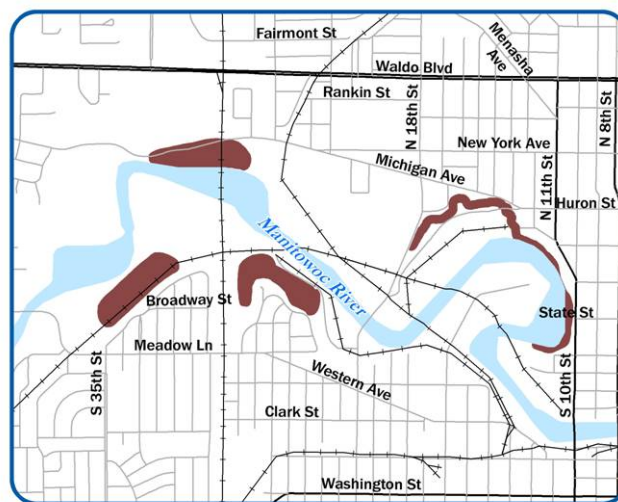


Figure 2.1: Adopted erosion hazard areas

Floodplains

The Federal Emergency Management Agency (“FEMA”) designates floodplains. These are areas predicted to be inundated with flood waters in the 100-year storm event (i.e., a storm that has a one percent chance of happening in any given year). Development within floodplains is strongly discouraged so as to prevent property damage. Map 3 shows 765-acres of land in the City classified as floodplain, comprising approximately 6.6 percent of the City’s total land area. The City’s floodplain/flood insurance rate maps were last updated on September 30, 2005.

Wetlands

According to WisDNR’s “Wetland Inventory Maps,” wetland habitats cover 558-acres and comprise six percent of the City’s total land area, not including small tracts of wetland that are less than five-acres. These ecosystems play significant roles in maintaining the quality of groundwater and surface water, and provide valuable habitats for fish, birds, and other wildlife.

The County also contains six “Significant Coastal Wetlands” as designated by the WisDNR Primary Coastal Wetlands Project. These wetlands are coastal sites along Lake Michigan, rich in species diversity that provides critical habitat for migratory and nesting birds, spawning fish, and rare plants. Closest to the City are the Little

Manitowoc River wetlands, on the City's northern edge. Small and somewhat degraded, they still provide habitat for native plants and animals, and contain some of the more intact features of the local natural landscape. A few miles south of the City, the Silver-Calvin Creeks Wetlands are a small, but relatively undeveloped area in the midst of a heavily developed stretch of shoreline.

Rare Species Occurrences

Under the "Natural Heritage Inventory" program, WisDNR maintains data on the general location and status of threatened or endangered plant and animal species, natural communities and species, and communities of special concern. According to this inventory, there are occurrences of rare aquatic species or natural aquatic communities documented along the Manitowoc River in the City, along the Manitowoc River in the Town of Manitowoc Rapids, at the northern border of the Town of Newton, along the Branch River in the Towns of Kossuth and Manitowoc Rapids, and at the southern border of the Town of Two Rivers along the W. Twin River. Additionally, there are such areas in portions of the western reaches of the Town of Manitowoc Rapids. These sections are illustrated on Map 3. There are occurrences of rare terrestrial species or natural terrestrial communities documented along the Lake Michigan shoreline in the Town and City of Manitowoc, to the east of I-43 just south of the Manitowoc River, in the north-central and south-central areas of the City, and along the City of Two Rivers shoreline. More specific information on location and type of species is available from the WisDNR's Bureau of Endangered Resources.

Invasive Species

Invasive species are non-native plant and animal species that have been introduced to an area where they do not appear naturally. Invasive species are unencumbered by competition and can spread rapidly and aggressively, wiping out native flora and fauna. Ecological damage is the result when invasives replace native species. Invasive species can be spread by humans and animals in a variety of ways—seeds carried on clothing, footwear, or animal fur; watercraft moved from one waterbody to another without first removing invasives; and importing firewood to campgrounds. Invasive species identified by the WisDNR include hydrilla (an invasive water plant), spiny and fishhook water fleas, emerald ash borer (a forest beetle that attacks ash trees), and VHS (a fish disease that is capable of harming a wide range of Wisconsin fish populations).

Places of Ecological Significance

WisDNR developed a "Land Legacy Report" that identifies and provides preservation directives for several unique ecological landscapes in the Manitowoc area.

- ◆ **Manitowoc-Branch River:** The Manitowoc-Branch River connects the vast wetlands of the Killsnake, Brillion, and Collins Marsh State Wildlife Areas, in the northwest corner of the County and bordering counties, to Lake Michigan and the protected shoreline areas of Point Beach State Forest and Woodland Dunes Nature Center. The corridor supports waterfowl and fish, including several rare aquatic species. While the waterways provide excellent opportunities for fishing and canoeing, improved access would increase the public's enjoyment of these waters, and sections of the river system could provide trails for the Ice Age Trail Corridor. Maintaining the agricultural landscape surrounding much of the river will help ensure the waterway meets its ecological and recreational potential.
- ◆ **Twin Rivers:** The East and West Twin Rivers flow through an agricultural landscape interspersed with wooded and wetland areas. Old-growth forests, fish species of special concern, several rare plants, and many restored wetlands are among the ecological assets of these waterways. The scenery provides prime water and land-based trail corridors, including good canoe runs. Currently the Ice Age Trail passes along nearly half the length of the E. Twin, largely without permanent protection.

Other ecologically significant places nearby include Point Beach State Forest, Woodland Dunes Legacy Area, Fisher Creek, Point Creek, and Cleveland Swamp Legacy Area.

State Natural Areas/Wildlife Areas

State natural areas are intended to protect the Wisconsin's natural diversity, provide sites for research and environmental education, and serve as benchmarks for assessing and guiding use of other lands in the State. Natural areas consist of tracts of land or water that have native biotic communities, unique natural features, or significant geological or archeological sites. Two State natural areas are located in the planning area—Woodland Dunes and Point Beach Ridges.

The Woodland Dunes State Natural Area is located in Two Rivers. This 387-acre protected area near Lake Michigan features narrow, parallel sand ridges separated by low-lying swales. The ridges represent former beach lines of Lake Michigan, as water levels fell in the post-glacial period. Forests vary by ridge, including birch, aspen, beech, hemlock, maple, and white pine. The perennially wet swales are dominated by ash, alder, and elm. Other plant species include the threatened sweet colt's-foot. The ecosystem's diversity and its proximity to Lake Michigan make it home to vibrant and diverse bird populations. Woodland Dunes is owned and managed by Woodland Dunes Nature Center and was designated a State natural area in 1992.

Just north of the planning area is the Point Beach Ridges State Natural Area, designated in 1971. This 175-acre area within Point Beach State Forest features topography similar to Woodland Dunes.

State wildlife areas are intended to preserve wild lands for hunters, trappers, hikers, wildlife watchers, and all people interested in the out-of-doors. Furthermore, these areas help protect and manage important habitats for wildlife and help prevent draining, filling, and destruction of wetlands and the private blocking of important waterways, game lands, and lakes. There are no State wildlife areas located in the City's planning area.

Air Quality

The Air Quality Index ("AQI") is a daily report of local air quality (e.g. pollution levels), and the potential health effects that may be associated with the daily air quality score. The AQI assigns a numeric value between zero and 500, which is categorized into one of several air quality condition levels: good, moderate, unhealthy for sensitive groups, unhealthy, very unhealthy, and hazardous. National and local air quality daily reports are available at the AirNow's website.

Five major pollutants are calculated by the EPA for the AQI. These include ground-level ozone, particle pollution (also known as particulate matter), carbon monoxide, sulfur dioxide, and nitrogen dioxide. Of these, ground-level ozone and particulate pollution cause the greatest threat to health.

Climate

East central Wisconsin's climate is characterized by four distinct seasons. Warm summers generally span the months of June through August. The winter months of December, January, and February are cold, with average temperatures below freezing. The region is characterized by temperate conditions in spring and autumn. The first autumn freeze typically occurs around the first week of October, and the last spring freeze is usually sometime during the first week of May.

The climate of the Midwest has changed over time since the beginning of modern records in 1895. The Midwestern Regional Climate Center found that Wisconsin's average annual temperature has increased approximately one degree Fahrenheit between 1895 and 2006. The State's average annual precipitation has increased nearly 2.25 inches during the same period.

Recreational Resources

Manitowoc has a wide variety of parks and recreational facilities. See Chapter Five: Utilities and Community Facilities for a complete description of these resources

NATURAL RESOURCE GOALS, OBJECTIVES, AND POLICIES

Goals

- a. Protect natural resource features in the City and the surrounding area.

Objectives

- a. Preserve streams, drainageways, floodplains, wetlands, steep slopes, wildlife habitat, woodland areas, and other significant natural features.
- b. Direct development away from steep slopes, natural areas, drainageways, critical infiltration areas, and floodplains to prevent future conflicts.
- c. Cooperate with other units of government on the protection of regional natural resources and environmental systems, such as the Manitowoc River and Lake Michigan.
- d. Minimize any potential conflicts between resource extraction and neighboring uses in rural areas.

Policies

- a. Preserve environmental corridors by prohibiting new buildings in wetlands, stream banks, floodplains, and upon slopes greater than 20 percent. Also, strongly discourage placement of new buildings on hydric soils outside of wetlands, and on slopes in excess of 12 percent where other more appropriate sites are available.
- b. Consider expanding adopted “erosion hazard” areas to include all areas with slopes in excess of 12 percent.
- c. Improve public access to underutilized natural resources in the City, such as the Manitowoc River and Lake Michigan.
- d. Protect the water quality of the Manitowoc River and its tributaries by:
 - ◆ Working with the County and surrounding communities to minimize agricultural runoff.
 - ◆ Retaining stormwater through requiring stormwater BMPs.
 - ◆ Encouraging low impact development strategies for stormwater management that include water conservation, rain gardens, and maximizing pervious surfaces.
 - ◆ Maintaining or providing vegetative buffers where development abuts waterways.
 - ◆ Partnering with agencies like the River Alliance on watershed protection initiatives.
- e. Continue to implement the stormwater management system improvements to reduce TSS and advance stormwater BMPs.



- Stormwater best management practices reduce the amount of impervious surface area and improve water quality.
- Protecting the Manitowoc River corridor and watershed improves groundwater resources, improves wildlife habitat, improves streambank and beach health and aesthetics, and adds to the quality of life in the region.
- “Green” buildings and energy efficiency reduces energy costs, promotes a healthier indoor environment and reduces employee sick time, and decreases waste and energy consumption.

- f. Protect groundwater resources by maximizing infiltration of clean water in known groundwater recharge areas, supporting the clean-up of environmentally contaminated sites, and minimizing potential future sources of contamination, particularly in wellhead protection areas.
- g. Preserve woodlots and other environmental areas that serve to protect wildlife and vegetative resources.
- h. Consider adopting a “Heritage Tree” ordinance to protect outstanding or unique trees in the City.
- i. Discourage the establishment of new mineral extraction operations within the City limits, except where they are associated with a development project on the same site, and are operated according to safe and clean standards.

NATURAL RESOURCE PROGRAMS

The City and surrounding area contain incredible natural resources that will require concerted, ongoing, and coordinated efforts to maintain and enhance, including the following efforts:

Advance Stormwater BMPs

The City will promote progressive stormwater management approaches to mitigate the negative impacts stormwater can have on waterways such as the Manitowoc River and Lake Michigan, as well as downstream properties. At the time this *Plan* was written, the City was in the process of implementing the requirements of Wisconsin’s Pollutant Discharge Elimination System (“WPDES”) to include the recommendations of the 2007 “Stormwater Quality Plan.” The City purchased two high efficiency street sweepers in 2009. The plan calls for the implementation of a parking-restriction ordinance and posting of no-parking signs, and construction of 21 recommended pond structures. Additional stormwater management strategies include:

- ◆ Incorporate progressive construction site erosion control practices. Construction sites generate a significant amount of sediment runoff if not managed properly. Under current State laws, erosion control plans are required for all construction sites that are larger than one-acre. The City should continue to enforce erosion control ordinances and techniques for the protection and continued improvement of water quality. In particular, progressive erosion control systems should be components of new development/redevelopment sites. These techniques include providing silt fencing surrounding the construction project, minimizing the amount of land area that is disturbed throughout the construction process, and quickly reestablishing any disturbed vegetation.
- ◆ Utilize infiltration and retention areas. Where stormwater basins are necessary to effectively manage run-off, such basins and associated conveyance routes should be carefully integrated into the surrounding development pattern and should incorporate native/natural edge vegetation whenever feasible to ensure the aesthetic and functional integrity of the site. The Milwaukee Metropolitan Sewerage District regional stormwater basin as part of the Milwaukee County Grounds project is a good example of this. In addition to managing runoff, the 90-acre basin will also serve as community green space, and will be surrounded by natural vegetation and walking trails.



Example of a rain garden

Other on-site infiltration techniques that the City should continue to promote for use on both residential and non-residential properties include the following:

- Rain gardens: A rain garden is a landscaping feature that is designed, located, and installed for the purposes of capturing stormwater runoff and allowing it to infiltrate back into the ground. The City may consider codifying rain garden design standards as part of its zoning, subdivision, and landscaping ordinances, allowing the construction of rain gardens that meet these standards to apply towards City requirements.
- Rain barrels: A rain barrel collects and stores the water that drains from rooftops to prevent it from running off-site. The collected rain can be used to water a lawn or garden or to wash a car. Barrels can also be set to slowly empty themselves, allowing the water to filter back into the ground.
- Green (vegetated) roofs: Green roofs effectively act like sponges, absorbing water from rain storms that would otherwise run off the roof. Green roofs also function as filters, removing pollutants from rainwater. Other benefits to green roofs include reducing the amount of stormwater entering the sewage system, absorbing air pollution, protecting a building's underlying roof material by eliminating exposure to ultraviolet radiation and temperature fluctuations, providing habitats for birds and other small animals, functioning as a more attractive alternative to traditional rooftops, reducing the amount of outdoor noise entering the building, reducing energy costs by insulating a building from extreme temperatures, and reducing urban heat island effects. The City may explore options to begin offering incentives for green roof installation. This is also an area where the City could take a leadership role by installing green roofs on future municipal buildings or retrofitting existing buildings, such as City Hall, when roof replacements are necessary.
- Phosphorus bans: Phosphorus is a chemical commonly found in household and commercial fertilizers. When applied to lawns and landscaping, the chemical can easily be washed into nearby waterways during rainstorms, or can travel to these waterways via groundwater. Once higher levels of phosphorus build up in rivers and lakes, these nutrients lead to excessive plant growth. As plant material decays, it leads to the overabundant growth of bacteria, which help to break down the plant material. These bacteria consume oxygen, eventually decreasing the level of oxygen in the water enough to suffocate other aquatic life. Excessive algae growth also blocks sunlight from reaching plants and other forms of life that live on the floor of the water body, thus further disrupting the aquatic ecosystem. To combat this issue, other communities throughout the Midwest have banned the use of fertilizers that contain phosphorus. For example, the City of Madison has banned the display, sale, and use of fertilizers containing more than trace amounts of phosphorus. Aspects of Madison's law were legally challenged and upheld in court. As another example, Dane County, Wisconsin, prohibits the application of lawn fertilizer containing phosphorus to established lawns, golf courses, parks, and cemeteries when soil tests indicate that an excessive amount of phosphorus is already present. To help reduce the amount of phosphorus entering Manitowoc's waterways (and eventually Lake Michigan), the City should consider putting in place bans similar to those in effect in Dane County and other areas of the Midwest.

The City shall also work closely with the River Alliance, BLRPC, and WisDNR to institute other programs, as advised, that help reduce the negative impacts of stormwater runoff. For example, the City should consider alternative approaches to de-icing roads in the winter, as excessive amounts of de-icing salt can lead to water quality problems when it is washed into nearby waterways. One alternative being implemented by other communities around the nation is the use of a beet juice mixture. To create the mixture, sugar beet juice is mixed with rock salt. The product is gentler to roads, cars, equipment, and the environment than salt alone, and freezes at a lower temperature than salt, meaning it can still be effective in colder temperatures (i.e., be-

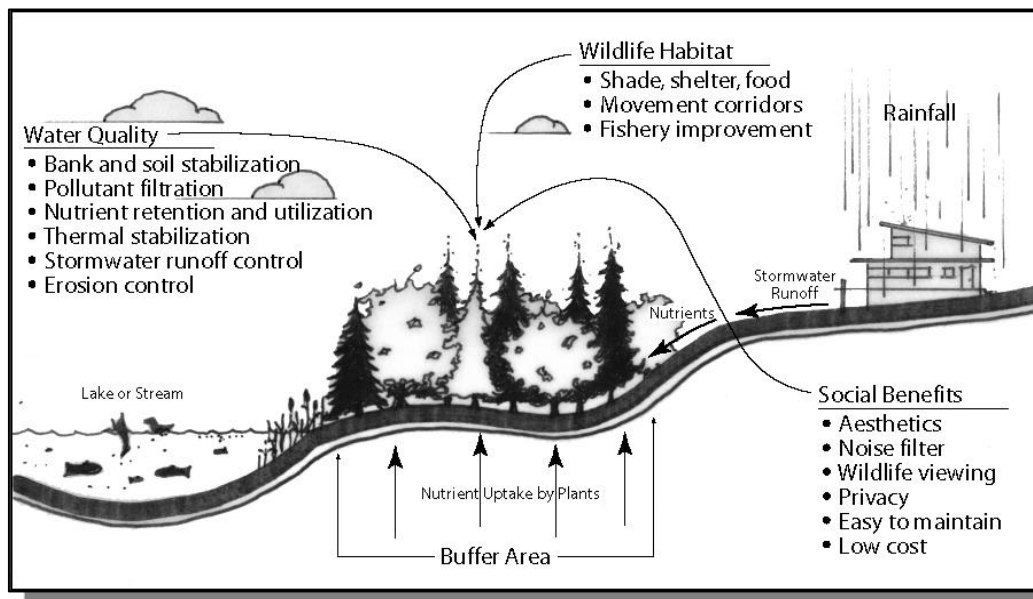
low zero degrees Fahrenheit). The City is currently evaluating the beet juice option, which would require upgrading the municipal fleet.

Protect the Manitowoc River Corridor and Watershed

The Manitowoc River is a defining natural feature of the City and the region. The Manitowoc River provides a central focal point for the City, as well as linking it to other communities in the region. Several sections of this *Plan* address the River, and its importance as a significant economic, recreational, and environmental asset to the community and region. Recommended strategies pertaining to the River are multi-faceted – from promoting the River as a focus of redevelopment and recreation to preserving open spaces along the River to showcase its natural characteristics – these can all be part of a unified successful strategy. Central to all of these efforts is ensuring that the water quality of the River and watershed is protected and improved. The City should consider several initiatives aimed at achieving that, including:

- ◆ Enhanced public access to the water by adding for environmentally friendly infrastructure along the Manitowoc River through acquisition and protection of riverfront property.
- ◆ Coordinate with the MPSD and private schools in the area for water and natural resource-based education programs, focused on raising student awareness about the benefits of enhancing this asset.
- ◆ Use “The Port of Manitowoc Downtown and River Corridor Master Plan” as a platform for educational and awareness efforts, to encourage interpretive exhibits that raise awareness of watershed issues and opportunities, and to increase the public’s physical connection and access to the River.
- ◆ Encourage measures to minimize both point source and nonpoint source pollution. Raise awareness of point source dischargers. Work with the River Alliance, WisDNR, County, and neighboring towns on minimizing nonpoint source pollution, particularly from agricultural sources, through encouraging BMPs.
- ◆ Encourage vegetative buffers between developed areas and water bodies. Vegetative buffers provide many benefits, including the protection of water quality, flood control, stream bank stabilization, water temperature control, and room for lateral movement of stream channels. Trees and shrubs retained in buffer areas provide the benefit of buffering noise from watercraft, providing privacy to residents, and serving as nesting areas for songbirds. The buffering techniques illustrated in Figure 2.2 can maximize water quality protection, habitat, and erosion control benefits in buffer areas around rivers and creeks in the City, particularly in areas that currently have limited development.

Figure 2.2: Example of Vegetative Buffer



Encourage the Construction of “Green” Buildings and Promote Energy Efficiency

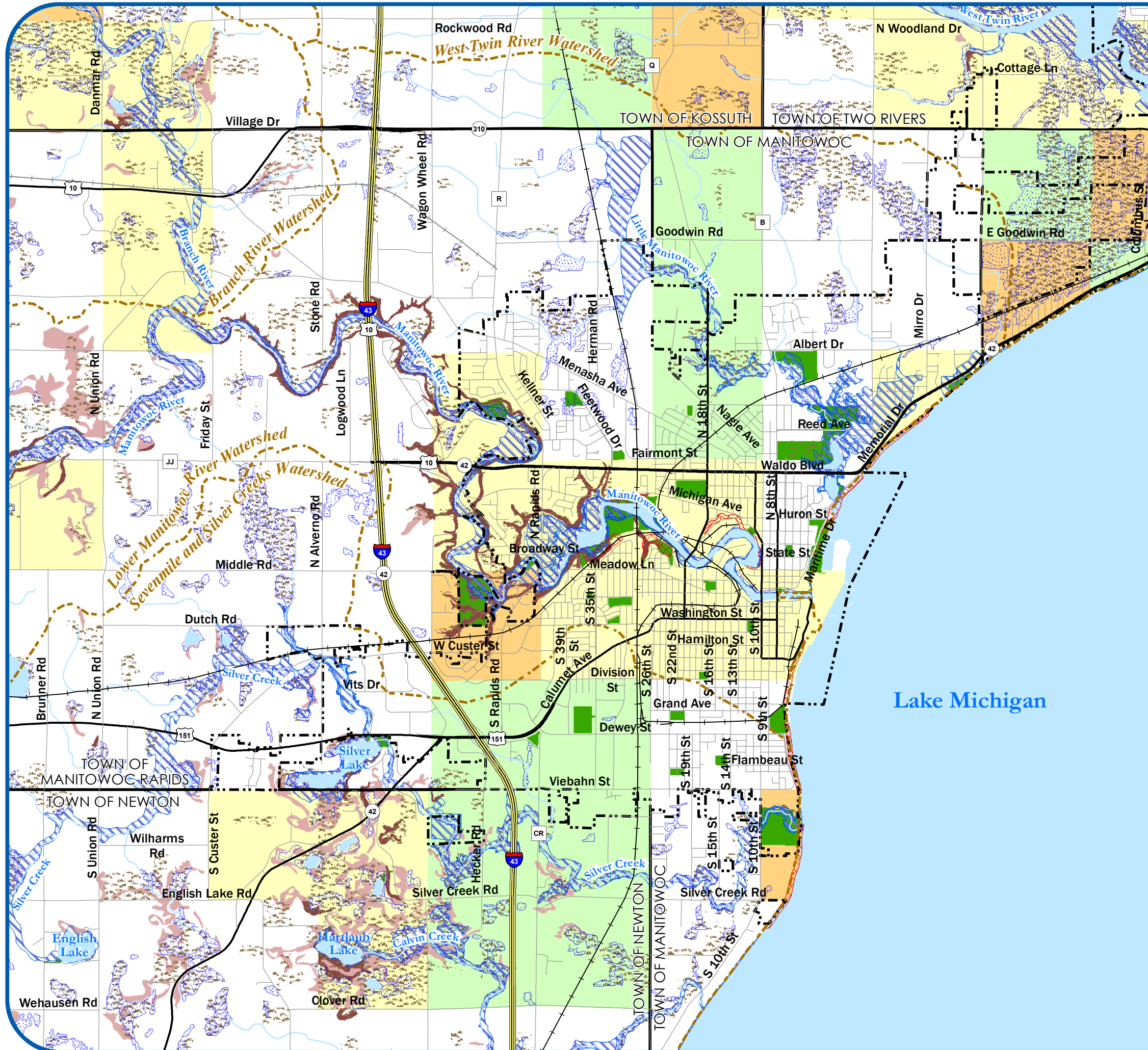
In recent years, cities around the country have begun to encourage more sustainable building practices oriented towards fighting global warming and building a green, low carbon economy. Practices include requiring new municipal or municipally-funded buildings achieve Leadership in Energy and Environmental Design (“LEED”) certification, or by providing incentives for private developers who construct LEED-certified buildings (see call-out box). These strategies center on energy conservation and efficiency, and include retrofitting buildings to improve energy efficiency, wind power, solar power, and next generation biofuels, as used to protect human health and the environment. These strategies are gaining ground towards cost competitiveness as technologies improve and the cost of traditional energy sources rise. The premiere standard in this emerging and evolving industry is LEED. LEED 2009 certification is now available for a diversity of project types, including new construction, existing buildings, schools, retail, healthcare facilities, and homes. Instead of requiring official “LEED” certification, some communities have also codified their own set of “green building” requirements. The City should explore opportunities to promote and encourage the construction of green buildings, and should consider adding green or sustainable standards into its codes and ordinances. The City should also promote insurance industry benefits related to “green” investments in buildings, homes, and vehicles.

In addition, the City continually audits its existing municipal buildings to identify ways to reduce energy consumption and make building operations more sustainable.

Leadership in Energy and Environmental Design (LEED) ©:

A GREEN BUILDING RATING SYSTEM

The LEED rating system is the nationally recognized benchmark for the design and construction of green buildings. The LEED program measures performance in six key areas of human and environmental health: sustainable site selection and design, water efficiency, energy efficiency, materials selection, indoor environmental quality, and innovation in design. For more information about this program, visit the U.S. Green Building Council’s website at www.usgbc.org.



Natural Features

Map 3

City of Manitowoc
Comprehensive Plan

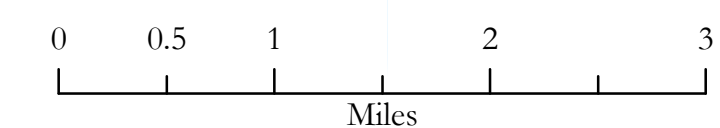
- Cities & Villages
- Town Boundaries
- Interstate Highway
- Major Roads
- Local Roads
- Active Railroads
- Inactive Railroads
- Watershed Boundaries
- Surface Water
- Wetlands
- Floodplain
- Woodlands
- Parks
- Erosion Hazard Areas

Steep Slopes

- 12% and Greater
- 20% and Greater

Sections Containing Rare/Endangered Species

- Aquatic
- Terrestrial
- Both



Date: December 21, 2009
Source: City of Manitowoc;
Manitowoc County LIO;
Bay-Lake Regional Planning
Commission; WI DNR; FEMA;
US-DOT; USDA-NRCS

HISTORIC AND CULTURAL RESOURCES

The history and culture of Manitowoc and the surrounding area has been recorded and celebrated. Today residents can experience the history of the City through published research and essays, images, and recordings, and by touring the City. The many remaining structures tell the story of the City's past. Through historic planning, the City has been successful in preserving many of its historic and cultural resources. This section of the *Plan* provides a brief overview of the history of the City, cross-referencing previous planning efforts, and documentation of the City's historic and cultural resources.

Historical Overview

The first Europeans to reach the area known as Manitowoc, "home of the great spirit," were French trappers around the year 1673. The first settlers began to arrive in 1836, when the area was included in the Wisconsin Territory and a Chicago land speculator, Benjamin Jones, directed the first settlers to the mouth of the Manitowoc River. Manitowoc was officially founded that year, and County government was organized in 1839, with the seat in Manitowoc Rapids. Settlers of Bohemian, French, German, Irish, Norwegian, and Polish descent populated the area, attracted to its rich natural resources. Chartered as a village in 1851, Manitowoc was incorporated as a City in 1870. The original plat of the City was recorded in 1851.

Near the end of the 19th Century, a downtown business district formed, centered on 8th St., on which the first bridge across the Manitowoc River was built in 1851. In 1889, 8th St. became the City's first paved roadway. Predominately German residential neighborhoods grew outwards from the business district.

Shipbuilding played a major role in Manitowoc's growth. The first wooden sailing ship, the "Citizen," was built in 1847. Schooners and clippers were a major industry until the World Wars, when submarines, landing craft, and tankers became the focus of the City's shipbuilding industry. Between 1942 and 1945, 29 submarines were constructed and launched in Manitowoc. Today, fishing and pleasure craft are a small, but thriving industry in and around the County.

The aluminum industry is also notable to Manitowoc's history, the beginning of which can be traced back to the Columbian Exposition of 1893 in Chicago. Aluminum was introduced at this World's Fair as a new durable metal. The industrialization of this new novelty metal spread throughout the Manitowoc region. The Aluminum Goods Manufacturing Company (later to become the MIRRO Aluminum Company) and the Manitowoc Company, became leaders in the City's aluminum industry, producing aluminum cookware, hub caps, and canteens.

Following the move of the County seat from Manitowoc Rapids to the City, a County courthouse was constructed and used from 1857 to 1906, when it was replaced by the larger courthouse that remains today. The current courthouse, an iconic Beaux Arts and Classical revival style structure individually listed in the National Register of Historic Places, was designed by local architect C.H. Tegen, whose other notable designs include the Manitowoc County Insane Asylum, Holy Family Hospital, the Luling School, and the Williams and Dempsey Buildings. Tegen's courthouse, constructed between 1905 and 1908, originally featured a prismatic glass dome, which was replaced with stainless steel following a damaging windstorm in 1950. The Friends of the Manitowoc County Courthouse continue fundraising to replace the stainless steel panels with glass, although the facility is in need of major repairs, upgrade, and renovation. As of March 2008, an engineering study had been completed, and the Friends had raised \$550,000 of the \$1.3 million needed for the historic renovation. The Courthouse is currently undergoing a partial restoration and repair project, including the exterior monumental stairs, Courthouse roof, and to bring the building into full ADA compliance.

During the 1980s, Manitowoc suffered along with many other communities in the upper Midwest as the economy endured stagnation and recession. Several large local industries restructured and downsized, resulting in a loss of more than 4,000 high wage jobs over the decade. However, over the past 20 years, the economy has rebounded, and strategic public investments have fostered growth in the City, centered on diversification and expansion of the economy. The City's investment in industrial parks allowed local industry to expand in a controlled environment, and helped attract new businesses to the area. At the close of the 20th Cen-

ture, diversified manufacturing, representing a substantial cross section of business types and sectors has remained the strongest sector of the economy, and Manitowoc benefited from over 40 independent manufacturing companies with 50 or more employees. Tourism and retail services have also grown, as have health care, professional services, and information-based industries.

Summary of Historic Resources

The City is home to a good number and variety of historic resources. They reflect the character of the historic downtown as well as the City's traditionally strong industries.

The Manitowoc Intensive Resource Survey Final Report

In 1985, the City commissioned Milwaukee-based firm Howard Needles Tammen and Bergendoff ("HNTB") to conduct an intensive historical resource survey. HNTB authored the "Manitowoc Intensive Resource Survey Final Report," completed in 1988, which identified individual buildings and areas within the City that could potentially be placed in the National Register of Historic Places. The report contains 15 chapters in three parts. Part I summarizes the results of the intensive survey, Part II describes the methodology and results of the survey, and Part III covers 14 thematic historical chapters that outline Manitowoc's unique history.

Districts in the National Register of Historic Places

The National Historic Preservation Act of 1966 created the National Register of Historic Places, which recognizes properties of local, State, and national significance. Properties are listed in the National Register because of their associations with particular persons or events, their architectural or engineering significance, or their importance to our history. Designation on the National Register confers certain benefits and protections to private properties, including federal and State investment tax credits for historic preservation projects. Designation also provides limited protection from federally financed or licensed actions that may adversely affect such buildings.

There is one designated National Register Historic District in the City. The "Eight St. Historic District" was placed in the National Register in 1988. The Historic District covers 323-acres roughly bounded by Buffalo St., S. 8th and S. 7th Streets, Hancock St., and S. 10th, S. 9th, and Quay Streets. Significant architectural styles include Beaux Arts, Late Victorian, and Classical Revival. The oldest remaining building in the District dates to 1853. The most significant building within the District is the Manitowoc County Courthouse.



Historic marker of S.S. Kresge Company

Sites on the National Register of Historic Places

In addition to the above District, the following buildings in Manitowoc are individually listed in the National Register of Historic Places because of their outstanding architectural and/or historical characteristics. The historic District and individually listed properties are shown on Maps 7a and 7b: Community Facilities.

- ◆ Manitowoc County Courthouse, 1010 S. 8th St.
- ◆ Sexton's House, 736 Revere Dr.
- ◆ Joseph Vilas Jr. House (Vilas-Rahr House), 610 N. 8th St. The Vilas-Rahr House is a Queen Anne mansion designed by Milwaukee architects Ferry and Clas. The house is currently used as the Rahr-West Art Museum and its attached galleries.

Manitowoc is home to two additional unique properties listed in the National Register of Historic Places. Information on the history of both is available at the Wisconsin Maritime Museum.

- ◆ The Francis Hinton Steamer, a Great Lakes Shipwreck Site. The steamer sunk offshore of Manitowoc in November of 1909.
- ◆ The USS Cobia (SS-245), a submarine engaged in World War II and noted for sinking 13 Japanese ships. While the USS Cobia was not built in the Manitowoc Shipyards, it is emblematic to the City's shipbuilding history, and symbolic of the City's role in WWII. Many of the Cobia's features have been restored, making it a valuable educational and tourism resource for the community.

The Wisconsin State Historical Society's "Architecture and History Inventory" contains data on a wide range of historic properties throughout the State. The inventory identifies over 1,600 documented structures in the City. Documented structures include several landmark properties such as the Manitowoc County Courthouse, St. John's Evangelical Church, St. Mary's Church, as well as many traditional residences and businesses in the City's downtown and other properties.

The Manitowoc County Historical Society ("MCHS") was founded in 1906, and is one of the oldest historical societies in the State. With a small staff, MCHS "collects, interprets, preserves, and promotes the history and heritage of the County in order to educate the public and heighten its understanding and appreciation of the past as it proceeds into the future." In recent years, MCHS has expanded its funding base and volunteer network, helping ensure its future vitality. Each year, MCHS recognizes success in local historic preservation, offering individuals and projects awards in Adaptive Reuse, Restoration, Preservation Service, and the Bob Fay Award for Lifetime Achievement. The MCHS operates Pinecrest Historical Village, a rural interpretive museum covering six-acres; and a Heritage Center, home to the Manitowoc County Museum, research library, and administrative offices. The Heritage Center is located in Manitowoc at 1701 Michigan Ave.

Archeological Resources

There are 62 archeological sites within Manitowoc designated by the Wisconsin State Historical Society. These sites include several farms, cemeteries, campsites, and mounds. All human burial sites, including cemeteries and Indian mounds, are protected under State law. The National Historic Preservation Act of 1966 requires federal agencies to ensure that their actions do not adversely affect archeological sites on, or eligible for, listing in the National Register of Historic Places. Archeological sites can be protected during the course of State agency activities, if the sites have been recorded with the Office of the State Archeologist. Historic districts and properties are shown on Maps 7a and 7b: Community Facilities.

Previous Historic Resource Planning and Preservation Initiatives

Many written, photographic, and oral histories of Manitowoc have been preserved through digitization efforts. The Manitowoc Public Library has digitized some items from its print and audio collections, which are available online via the Library's website. The Library's oral history collection, recorded in 1976, includes about four dozen recordings of residents describing different aspects of life and commerce in Manitowoc. The complete audiocassette collection is also available in the Manitowoc Public Library.

The 1988 "Manitowoc Intensive Resource Survey Final Report" identifies individual buildings and areas within the City that could potentially be placed on the National Register of Historic Places. The report describes the methodology and results of the survey, and covers 14 thematic historical chapters that outline Manitowoc's unique history.

The University of Wisconsin Digital Collections, and State of Wisconsin Collection, also includes a Manitowoc Local History Collection, which has made a variety of digitized images and texts available to the public.

Historic Preservation

Seventy-seven percent of community survey respondents either "strongly agreed" or "agreed" the City should continue to promote the preservation of historic properties.

Manitowoc Cultural Resources

Manitowoc residents have access to a variety of cultural offerings that celebrate the local heritage and quality of life, and attract visitors to the City as well. These offerings include both natural attractions that continue to shape the City's way of life—including the lakeshore, beaches and trails—and manmade attractions celebrating the City and its people. The manmade attraction for which the City is most well known is the Wisconsin Maritime Museum, celebrating the region's rich maritime history. The museum's highlights include the USS Cobia, described above, and a busy calendar of family-friendly events including "submarine sleepovers," slideshows and films, and guest lecturers throughout the year. While an effort was made to identify all events and venues, this list may not be comprehensive.

Festivals and Events

Beer Lovers' Brew Fest – February

Each year, beer lovers from the lakeshore and beyond partake in one of Wisconsin's largest brew fests—Beer Lovers' Brew Fest. More than 20 brewers from around the State bring their finest brews to this event offering samples of three to five beers each. In addition, food is served and music entertainment is provided.

St. Patrick's Day Parade – March

Each year in celebration of St. Patrick's Day, the Manitowoc City Center Association hosts a St. Patrick's Day parade and fireworks display. The parade takes place in downtown Manitowoc during the day and fireworks begin at dusk near the Wisconsin Maritime Museum.

Farmers' Market – May through October

Manitowoc Farmers' Market takes place annually, May through October, in a scenic downtown location at the corner of S. 8th and Quay Streets. The market, one of the largest in Wisconsin, offers a wide variety of products ranging from fresh fruits and vegetables to flowers and crafts.

Metro Jam – June

Metro Jam has been providing the community with a free summer live music event for 30 years. National, regional and local acts appear during a two-day festival and cover a full spectrum of musical styles including jazz, blues, folk, alternative country, Americana, classic and original rock. Metro Jam takes place in downtown Manitowoc at Washington Park.

"Thunder on the Lakeshore" Air Show - June

Each year, the MTW hosts a two-day "Thunder on the Lakeshore" Airshow which has been operating for 16 years. Attendance has exceeded 45,000 people over the weekend event, and it features U.S. and Canadian military aircraft, civilian performers,



Farmers' Market



"Thunder on the Lakeshore" Air Show

parachute jumpers, homebuilt aircraft, hot air balloons, R/C model aircraft, food, entertainment, and a variety of other attractions. The air show includes a downtown evening Balloon Glow event, when the beautiful colors of hot air balloons illuminate the night.

Manitowoc Garden Fair - June

The Manitowoc Garden Fair is an upscale show selling flowers, garden art antiques, birdhouses, fine crafts, shrubs, garden furniture, and more. Food and music also contribute to the success of the event. Garden Fair has been taking place in Manitowoc for nearly two decades and is located at Washington Park.

River Rendezvous – First Annual in 2009

A new event, the River Rendezvous takes place in downtown near the Manitowoc Farmers' Market. The Rendezvous is a celebration of the waterfront with food, refreshments, arts, crafts, and free entertainment for the entire family.

Manitowoc City Picnic and Fireworks – July

In celebration of the birth of our nation, the City hosts a community picnic at Silver Creek Park with live entertainment. At dusk, a fireworks display takes place on the lakefront.

Krazy Daze – July

Krazy Daze takes place in downtown Manitowoc, and has more than four decades of tradition behind it. Krazy Daze is the annual sidewalk sale extravaganza that brings thousands of shoppers to the streets for sidewalk sales.

Acoustic Fest – July

Acoustic Fest was established in 1996 to preserve and promote acoustic music in the Manitowoc area. It is a free concert offering members of the community an afternoon of entertainment. Acoustic Fest showcases diverse and accomplished acoustic musicians, including local artists.

Manitowoc County Fair – August

The County Fair takes place annually at the County Expo Grounds. The Fair includes agricultural and youth exhibits, displays, musical entertainment, food, and carnival rides.

Sputnikfest – September (First Annual in 2008)

Sputnikfest, Manitowoc's annual festival in celebration of a piece of "Sputnik IV" discovered in the middle of N. 8th St., includes a 10K space walk/run and festival, art show, food, drink, and live entertainment. The festival is held around the vicinity of the crash site, with space stations set up throughout the festival area displaying pictures, and first hand accounts of a piece of Sputnik IV landing in Manitowoc.

OktoberFest/Manitowalk – October

OktoberFest, a celebration of German heritage, kicks off with the Manitowalk—a six-mile walk that begins and ends in downtown Manitowoc, and includes a beautiful stretch of scenic Lake Michigan shoreline along the way. During the walk and after, OktoberFest enables everyone to enjoy the many areas of entertainment throughout the downtown, complete with authentic German food and drink. Sidewalk sales, in-store craft projects, and "Art in the Park" are just a few of the many additional activities going on during OktoberFest.



OktoberFest sidewalk sales

Lakeshore Holiday Parade – November

This annual event takes place Thanksgiving evening in historic downtown Manitowoc. The Parade promotes the kick-off of the holiday shopping season, and is the first night the downtown holiday decorations are illuminated. Santa Clause makes his first seasonal appearance at this community event.

Theatre and Performing Arts

Manitowoc Symphony Orchestra

The Manitowoc Symphony Orchestra includes local and nationally renowned musicians performing a variety of music. The Symphony provides one of the area's finest entertainment experiences, and promotes the classical music experience in the community. Performances are held at the Capitol Civic Centre.



The Capitol Civic Centre in Downtown Manitowoc

Capitol Civic Centre

The Capitol Civic Centre is located at 913 S. 8th St. and is often referred to as the “Jewel of the Lakeshore.” It is the cultural mecca and gathering spot for over 70,000 people each year, and is the focal point of the performing arts on Wisconsin’s east coast. The Capitol Civic Centre is home to 10 local performing groups, including the Manitowoc Symphony and Lakeshore Wind Ensemble, as well as the “CCC Student Adventure Series” and the “Lively Art Series.” Annually, the Capitol Civic Centre hosts over 75 performances including theatre performances, orchestras, dance performances, and more.

Lakeshore Wind Ensemble—UW-Manitowoc Lakeshore Big Band

The Lakeshore Wind Ensemble (“LWE”), founded in the fall of 1983, consists of UW-Manitowoc students and community musicians. The LWE has grown to a current membership of over 90, and encompasses a wide age span from students to retired persons, in a blend of youthful exuberance and musical maturity. The LWE presents five concerts annually at the Capitol Civic Centre. The UW-Lakeshore Big Band, founded in 1990, began as an outgrowth of the LWE in response to the immense popularity of big band music.

Clipper City Chordsmen

The Clipper City Chordsmen is an a cappella men’s chorus whose mission is to “preserve and encourage” the Barber Shop style of music. The Clipper City Chordsmen perform each summer for Manitowoc’s Metro Jam, Two River’s “Music Under the Stars,” and Mishicot’s “MAGIC” concerts at the Old School. The Chordsmen have several scheduled annual events which are performed at various locations, and they also arrange performances upon request.

Masquers

Masquers is the oldest continuously running community theater group in Wisconsin. The organization was started in 1931 by a group of young adults from Manitowoc. Since then, the organization has continued to produce three or four plays per year. Performances are held at the Capitol Civic Centre.

Dare to Dream Theatre

Dare to Dream is a children’s theatre group in Manitowoc that produces multiple performances during the year. The Theatre group performs at a former church at 634 N. 10th St.

Peter Quince Performing Company, Ltd.

The Peter Quince Performing Company, Ltd. is a non-profit organization providing an opportunity for young people in the County to produce, on their own, a full scale theatrical production over the summer months. The group consists of approximately 40 members of all age ranges. Performances take place at the Capitol Civic Centre.

University Theatre

University Theatre is UW-Manitowoc's campus/community theater group. The group offers two plays each year - one in the fall and one in the spring. The community is also invited to audition and participate. University Theatre performances generally take place at Lakeside Hall located on the UW-Manitowoc campus.

Attractions and Museums

MCHS and Heritage Center

The MCHS and Heritage Center is located at 1701 Michigan Ave., and houses the Manitowoc County Museum. The Museum includes information, exhibits, and a research library detailing the history of Manitowoc County. The MCHS also boasts the Pinecrest Historical Village, a unique rural museum that interprets village and farm life in Manitowoc County from the 1850's to the early 1900's.

Wisconsin Maritime Museum

The Wisconsin Maritime Museum is located at 75 Maritime Dr. on the shores of Lake Michigan. The Museum offers visitors a unique place to learn about shipbuilders and submariners, and their influence upon the history of Wisconsin and the Great Lakes region. Through exciting and interactive exhibits, visitors can explore unique collections of model ships and boats, an operating steam engine, displays of historic vessels and marine engines, and the World War II submarine, USS Cobia. The Wisconsin Maritime Museum is the largest maritime museum on the Great Lakes, is a member of the Smithsonian Affiliations, and is accredited by the American Association of Museums.

West of the Lake Gardens

At the home of the former founder of the Manitowoc Company, West of the Lake Gardens are located at 915 Memorial Dr. The Gardens are spread across a six-acre estate along Lake Michigan's shoreline with four distinct gardens. The Gardens feature a Rose Garden, Japanese Garden, Sunken Garden, Formal Garden, and more than 900 feet of herbaceous borders filled with colored annuals. The Mariners Trail passes directly in front of West of the Lake Gardens making the gardens easily accessible by bike or foot.

Rahr-West Art Museum

The Rahr-West Art Museum is housed in a Victorian mansion located at 610 N. 8th St. The Rahr-West is a community art museum with a primary focus on American Art. The Museum fosters an appreciation and understanding of the visual arts as well as the cultural history of the area, through sponsorship of educational programs and exhibition of its collections, and other arts for the benefit and enrichment of the community.

Founder's Hall Art Gallery, UW-Manitowoc

The Founder's Hall Art Gallery is located on the UW-Manitowoc campus and displays several art exhibits through the school year. Artists' work involves various mediums and exhibits change throughout the year.



The Rahr-West Art Museum in Manitowoc

Lincoln Park Zoo

The Lincoln Park Zoo is located on the 1200 block of N. 8th St. in a beautiful wooded park setting in Lincoln Park with private and public picnic areas. The Zoo is home to an array of local and non-local animals, and offers various Zoo Camps and educational buildup and programs.

Mariners Trail

Mariners Trail is a six-mile paved recreation trail running along the shore of Lake Michigan between the cities of Manitowoc and Two Rivers. The paved surface accommodates walkers, joggers, bikers, and roller bladders. Parking is available at both ends of the trail, and at several waysides along the trail.

Manitowoc County Ice Center

The Manitowoc County Ice Center is located in the County's Expo Center complex. The Ice Center offers ample public skating hours on weekdays and weekends. Hockey and figure skating programs are also offered.

S.S. Badger Car Ferry

The S.S. Badger carferry was built in 1952, and has been offering daily cross-lake sailings since 1953. Service is provided between Manitowoc and Ludington, Michigan, from mid-May through mid-October. The S.S. Badger offers the largest cross-lake passenger service on the Great Lakes, is the only coal-fired steamship in operation in North America, and is the largest carferry ever to sail Lake Michigan.

Recreation

Manitowoc has a wide variety of parks and recreational facilities. See Chapter Five: Utilities and Community Facilities for a complete description of these resources.

Human Services and Civic Organizations

Other human service organizations that are important to the City and serve a number of clients within the City include Manitowoc County Habitat for Humanity, Salvation Army, St. Vincent de Paul, Red Cross, Manitowoc-Two Rivers Business and Professional Women's Club, Hmong Community Center, Lakeshore Interfaith Hospitality Network of Manitowoc County, Holiday House of Manitowoc County, Manitowoc County United Way, and Lakeshore CAP.

The Manitowoc community is served by a number of national and worldwide fraternal and service organizations including the Manitowoc Noon Rotary Club, Manitowoc Sunrise Rotary Club, First Kiwanis of Manitowoc, Knights of Columbus Council 710, American Legion, VFW, Lions Club, Eagles Club, and the Elks.

CULTURAL RESOURCE GOALS, OBJECTIVES, POLICIES, AND PROGRAMS

Goals

- a. Preserve and enhance the City's historic character and rich culture.

Objectives

- a. Maintain the balance between the City's urban advantages and small town characteristics.
- b. Celebrate the City's maritime history.
- c. Promote the historic downtown area as a central gathering space in the City.
- d. Encourage the growth of civic and neighborhood organizations.



- Expanding maritime tourism opportunities will preserve the character and history of the City and diversify economic opportunities.

- e. Engage residents in the betterment of the community through increased involvement in civic activities.

Policies and Programs

- a. Maintain and enhance the cultural integrity of the City through preservation and enhancement of historic, cultural, and archeological resources.
- b. Help preserve historic homes, structures, and districts that contribute to the cultural heritage of the Manitowoc area, focusing on existing historic districts and buildings.
- c. Update the City's historic preservation ordinance, as necessary, to implement the recommendations in this *Plan*.
- d. Continue to work with Mainly Manitowoc, Inc.; Manitowoc City Center Association; Chamber of Manitowoc County; MCHS; MPSD; and other community organizations to promote cultural facilities and events for local residents and tourism development.
- e. Continue to support and promote community events and programs that celebrate the unique maritime history and culture of the City, attempting to increase attendance from both residents and visitors.
- f. Expand the City's wayfinding signage system. The growing number of visitors to Manitowoc would benefit from expanding the wayfinding signage system to include other destinations and locations. Getting to, and from downtown to, I-43 can be particularly challenging to visitors.

CULTURAL RESOURCE RECOMMENDATIONS

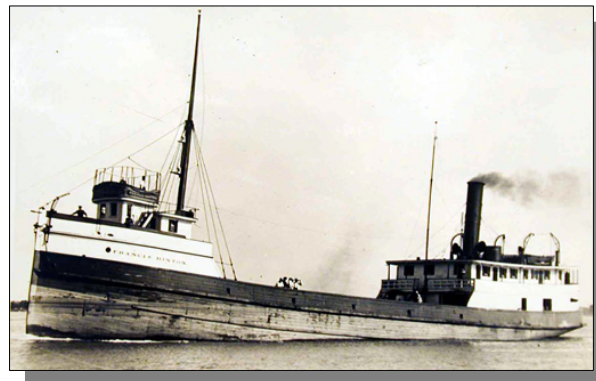
The City intends to capitalize on its rich history and unique identity with the following efforts:

Expand Maritime Tourism Opportunities

From ship and submarine building to Great Lakes shipping and transportation, Manitowoc's maritime culture continues to grow. The Wisconsin Maritime Museum offers visitors an opportunity to explore exhibits of maritime history of Wisconsin and the Great Lakes region. This 60,000 square-foot facility houses an important collection including the USS Cobia: a World War II submarine of the same type once built in Manitowoc. The Museum is the only Smithsonian affiliate in the region, and the largest maritime museum on the Great Lakes. Burger Boat Company, founded in 1863, is the oldest and most respected custom yacht builder in America. Today, the company designs and builds custom luxury motor yachts from 100 to 200 feet. The S.S. Badger carferry was built in 1952, and has been offering daily sailings since 1953. Service is provided between Manitowoc and Ludington, Michigan from mid-May through mid-October. The S.S. Badger offers the largest cross-lake passenger service on the Great Lakes, and is the only coal-fired steamship in operation in North America.

With a strong foundation already in place, a concentrated focus on growing a critical mass of attractions is needed to truly make Manitowoc the "Maritime Capital of Wisconsin." Opportunities for new attractions include:

- ◆ Existing activities: The City intends to continue its support of existing maritime activities and their expansion. The Wisconsin Maritime Museum currently hosts a variety of special events including the 28 Boat Reunion, Model Ships & Boats Contest, and Halloween Party. New events might include sailing demonstrations and classes, "A Day in the Life of a Ship Captain," and educational opportunities with local high schools and UW-Manitowoc. The



The Francis Hinton (Courtesy of the Milwaukee Public Library)

City celebrates the waterfront with the annual Rive Rendezvous Festival. The Rendezvous organizers and the City should explore opportunities to make each year better than the last.

- ◆ Shipwreck tour: There are several Lake Michigan shipwrecks in close proximity to Manitowoc including the Niagara (1856), the Hetty Taylor (1880), and the Francis Hinton (1909). The City could act as a home port for a shipwreck/scuba/drive tour boat, which could include points of interest both above and below the water.
- ◆ Port activities: Celebrating Manitowoc's maritime culture means supporting its working port. Besides promoting maritime-related industries and activities, the City should encourage visitors and residents to experience the port. Opportunities include developing port maps with points of interest and viewing areas, educational brochures, and a port-themed segment of the riverwalk proposed in the "The Port of Manitowoc and Downtown and River Corridor Master Plan."
- ◆ Publicity strategy: Partner with local organizations to develop a publicity strategy to increase awareness of Manitowoc's status as the "Maritime Capital of Wisconsin." Possible projects include a website devoted to all things maritime, and a visitor's center located on Lake Michigan or the Manitowoc River.
- ◆ As of this writing, the National Oceanic and Atmospheric Administration is looking at locating a headquarters for its proposed Marine Sanctuary, and has narrowed its search down to Manitowoc and three other communities. The City will continue to promote Manitowoc as the future headquarters.

CHAPTER THREE: LAND USE

This chapter is intended to provide information on existing land use and trends in the City. Long-range land use planning allows municipalities to phase and guide development in a manner that maintains community character, protects sensitive environmental features, and provides efficient municipal services. Land use planning also enables the City to identify lands well-suited for public purposes such as schools, parks, municipal facilities, major roads, and drainage facilities.

This chapter contains a compilation of background information that will be used to form the goals, policies, and programs to guide the future preservation and development of public and private lands in the City. This chapter includes maps showing existing land uses in the City at three scales, and provides land use data and analysis as required under §66.1001, Wis. Stats.

EXISTING LAND USE

An accurate depiction of the existing land use pattern is the first step in planning for the desired future land use pattern.

Existing Land Use Map Categories

The land use pattern as of January 1, 2008 is shown in Map 4. The set of categories below was used to prepare the Existing Land Use Map for the City and its planning area.

- ◆ **Agriculture:** agricultural and related uses, cropland, farmsteads, operations, and single-family residential development with maximum development densities of one dwelling unit per 35-acres.
- ◆ **Exurban Development:** all development, residential and non-residential, outside the City limits.
- ◆ **Single-Family Residential - Urban:** publicly sewered single-family residential development.
- ◆ **Two-Family/Townhouse Residential:** attached single-family, two-family, and walk-up townhouse residential development.
- ◆ **Multi-Family Residential:** a variety of residential units focused in particular on multiple-family housing (3+ units per building).
- ◆ **Commercial:** indoor commercial, retail, institutional, and service uses with moderate landscaping and signage.
- ◆ **Office:** office, institutional, research, and office-support land uses.
- ◆ **Community Facilities:** large-scale public buildings, airports, hospitals, youth and elderly service facilities, and special-care facilities. Small community facilities uses may be located in lands designated as other land use categories.
- ◆ **Industrial:** industrial, manufacturing, and warehousing land uses.
- ◆ **Gravel Pit/Non-Metallic Mining:** quarries, gravel pits, clay extraction, peat extraction, and related uses.
- ◆ **Vacant:** undeveloped land within the City limits.
- ◆ **Public Open Space and Recreation:** park and public open space facilities devoted to playgrounds, play fields, trails, picnic areas, related recreational activities, and conservation areas.
- ◆ **Woodlands and Natural Areas:** public and privately owned woodlands and natural areas.
- ◆ **Surface Water:** lakes, rivers, creeks, and perennial streams.
- ◆ **Rights-of-Way:** publicly-owned land for roads, highways, and railroads.

Existing Land Use Pattern

The total acreage of lands in the City as of June, 2009 was 18,277 square miles—an increase of 3,419 square miles since 1990. Land uses in the City are classified in each of the land use categories shown on Map 4 and presented in Figure 3.1. These percentages are representative of a normal distribution of land uses.

Figure 3.1: City of Manitowoc Existing Land Use Totals, 2009

Land Use	Acres	Percent
Agriculture	1,254	10.9
Single-Family Residential – Urban	2,394	20.7
Two-Family/Townhouse Residential	182	1.6
Multi-Family Residential	231	2.0
Commercial	579	5.0
Office	21	0.2
Community Facilities	1,256	10.9
Industrial	728	6.3
Public Open Space & Recreation	1,762	15.3
Extraction	43	0.4
Surface Water	211	1.8
Vacant	1013	8.8
Right-of-Way	11,870	16.2
Total	11,544	

Source: GIS Inventory 2009, City of Manitowoc, 2008; Manitowoc County, 2006

Residential Development

Most of the City's older residential neighborhoods are located in the City's Original Plat, including the downtown area. The majority of these neighborhoods are characterized by a traditional linear street design pattern and smaller lot sizes. Much of the City's newer residential development is located north of Waldo Blvd., and is characterized by a more curvilinear design in which streets and lots often follow the natural contours of the land.

Single-family residential development is the City's predominant land use (comprising nearly 21 percent of the overall land area in the City). The City's overall residential density averages roughly 5.6 homes per acre. When combined with "Two-Family Residential" and "Multi-Family Residential," residential accounts for nearly 25 percent of existing land area in the City.

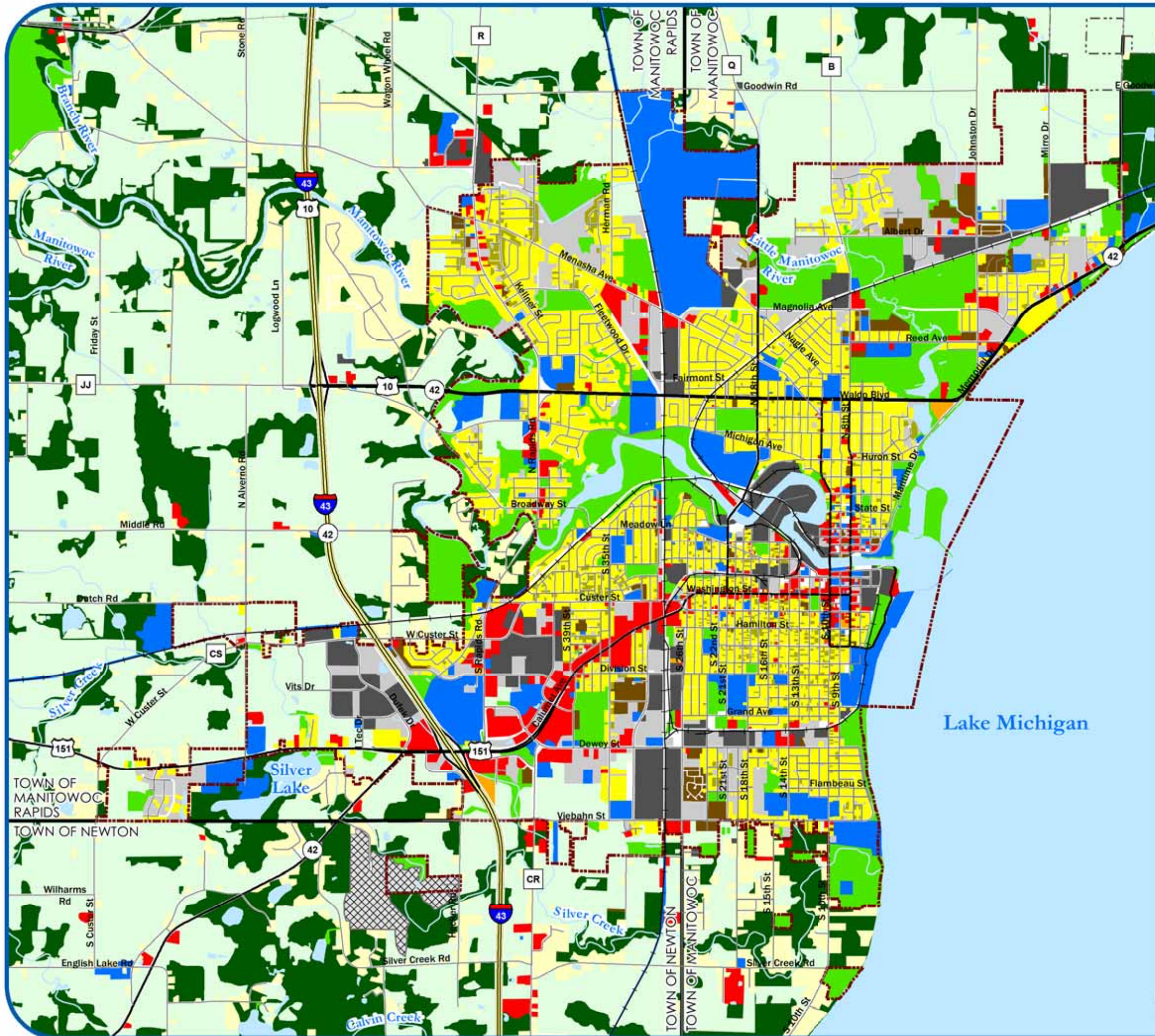
Commercial Development

There are approximately 567-acres in Manitowoc used for commercial development outside of the downtown area, accounting for approximately five percent of the City's land. These land uses are concentrated along the major arterials, the I-43 and Calumet Ave. (USH 151) interchange area, Washington St., and Menasha Ave. The majority of the City's commercial development is located in retail centers or strip malls, surrounded by ample parking. The City also has a historic and vital downtown with a variety of retail, commercial service, governmental, tourism, and industrial uses.

Waterfront Development

More than 75 percent of community survey respondents indicated that promoting business development of waterfront areas should be a medium to "high" priority initiative for the City.

In addition, more than 75 percent of community survey respondents indicated that the development of waterfront area design guidelines/regulations for the location, type, quality, design, and materials of proposed waterfront development should be a "medium to high" priority initiative for the City.



Existing Land Use

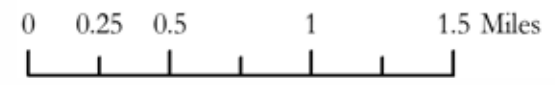
Map
4

City of Manitowoc
Comprehensive Plan

- City of Manitowoc
- Other Cities & Villages
- Town Boundaries
- Interstate Highway
- Major Roads
- Local Roads
- Railroads
- Surface Water

Existing Land Use Categories

- Agriculture
- Exurban Development
- Single Family Residential - Urban
- Two-Family/Townhouse Residential
- Multi-Family Residential
- Commercial
- Office
- Community Facilities
- Industrial
- Gravel Pits/Non-Metallic Mining
- Vacant
- Open Space & Recreation
- Woodlands & Natural Areas
- Right Of Way, Parking, and other Paved Areas



VANDEWALLE & ASSOCIATES INC.
Shaping places, shaping change

Date: December 21, 2009
Source: City of Manitowoc; Manitowoc County LIO; Land Use Inventory (2009 for County, 2008 for City of Manitowoc) Provided by Bay-Lake Regional Planning Commission; US-DOT; V&A

Industrial Development

There are 654-acres of industrial land uses in Manitowoc, accounting for nearly six percent of the City's area. These land uses flank the downtown to the east, and west and are found along the railroads and near I-43. The I-43 Technology & Enterprise Campus (I-TEC), encompassing 400-acres on the far western side of the City, is home to industrial, manufacturing, and technology industries. The City's first industrial park, the "Manitowoc Industrial Park," measures approximately 104-acres in area.

HISTORIC LAND DEVELOPMENT TRENDS

Land Market Trends

Trends in the City land market suggest increasing land values and lot prices, as is the case throughout the County. This reflects the impact of I-43, and the accelerating demand for new development in the area. The Wisconsin Department of Revenue reported an increase of nearly 34 percent in the total equalized values of the City between 2000 and 2007 from \$1,413,887,700 to \$1,894,017,500. Between 2008 and 2009, the City's equalized value increased to \$2,057,147,400 an increase of 5.85 percent.

Raw land values have increased in the Manitowoc area over the past several years. Prices for new residential lots in the City vary widely based on location and amenities, such as water frontage or mature wooded areas, and range from \$15,000 to \$150,000 per acre. Values of non-residential land by location and land use type are listed in Figure 3.2.

Figure 3.2: City of Manitowoc Non-Residential Land Values, 2008

Area and Type	Average Value per Square Foot
Downtown Business	\$5.00
Perimeter Downtown Business	\$4.00
Primary Business Corridor	\$7.00
Secondary Business Corridor	\$3.50
Neighborhood Business	\$2.00
Technology Park	\$0.80
Newer Industrial	\$0.68
Older Industrial	\$0.38

Source: City of Manitowoc, 2008

Residential Development Trends

Figure 3.3 summarizes residential development activity in the City from 1993 to 2008 including single-family, two-family, and multi-family units (apartments and condominiums). During this period, particularly from 1993 to 2001, the City experienced significant residential development, adding 2,072 new housing units to the City's housing stock. Of the 37 housing units constructed in 2008, 68 percent (25 units) were in single-family dwellings, while 32 percent (12 units) were two-family dwellings. The 25 single family dwellings started in 2008 averaged 2,000 square feet in areas, and were constructed at a cost of \$240,000 plus land. These 25 starts are below the 5-year average of 37 new dwellings per year. It should be noted that Figure 3.3 represents the total number of housing units contained in two-family and multi-family dwellings, not the number of buildings constructed in any given year. For example, in 2008, six permits for two-family structures were issued, from which 12 new housing units were created.

The average sale price of homes sold in the City between January 1, 2007 and September 15, 2008 was \$117,200, with a low sale price of \$15,000 and a high of \$438,500. Further information regarding the impacts of increasing foreclosures, housing affordability trends, and the City's housing programs are included in Chapter Six: Housing and Neighborhood Development.

Figure 3.3: City of Manitowoc—Building Permits
New Housing Units by Type of Dwelling: 1993 – 2008

Year	Single-family Units	Two-Family Units	Multi-Family Units	Total Units
1993	94	34	0	128
1994	80	52	0	132
1995	57	34	48	139
1996	51	30	72	153
1997	50	32	150	232
1998	62	36	84	182
1999	72	26	16	114
2000	66	26	93	185
2001	57	24	248	329
2002	40	12	50	102
2003	34	22	24	80
2004	39	20	16	75
2005	49	36	0	85
2006	32	12	0	44
2007	31	16	8	55
2008	25	12	0	37
16-Year Average	52	27	51	130
Total	839	424	809	2,072

Source: City of Manitowoc Building Inspection Department

Non-Residential Development Trends

Figure 3.4 summarizes non-residential development activity in the City from 1997 to 2008, including additions and remodeling to existing commercial and industrial buildings, as well as new development. During this period, the City experienced steady commercial and industrial additions and remodeling. Over the 12-year period, the City experienced the highest number of new commercial developments in 2007, and the highest number of new industrial developments in 2001.

**Figure 3.4: City of Manitowoc—Building Permits
Non-Residential Projects: 1997 – 2008**

Year	Commercial New	Commercial Addition	Commercial Remodel	Industrial New	Industrial Addition	Industrial Remodel
1997	19	17	34	5	4	4
1998	9	5	28	2	7	4
1999	8	8	27	7	3	3
2000	10	3	37	11	8	3
2001	7	5	31	13	5	1
2002	9	5	41	4	2	1
2003	8	5	39	5	5	1
2004	7	4	29	5	0	3
2005	4	4	44	9	7	6
2006	12	6	44	3	5	5
2007	24	6	53	0	3	1
2008	16	4	39	0	7	3
Average	11	6	37	6	4	3
Total	133	72	446	64	56	35

Source: City of Manitowoc Building Inspection Department

Land Supply

Supply of land available for development includes areas of the City that have been planned or approved for development, but not yet built-out; vacant areas within the City that have not been planned for development (illustrated in light gray on Map 4: Existing Land Use); developed land within the City that is appropriate for redevelopment; and land that is not within the corporate limits of the City, but is potentially available for future inclusion in the City's portion of its Urban Service Area ("USA"). The "Manitowoc-Two Rivers Urbanized Area 2015 Areawide Sewer Service Area Plan" (approved by WisDNR on December 16, 2002) delineates the extent of the sewer service area and identifies environmentally sensitive areas for the cities, and establishes the boundary where the City is currently authorized to provide public services, including water and sanitary sewer. There are 835-acres of vacant land within the 2008 City limits.

Existing and Potential Land Use Conflicts

Existing land use conflicts in the City are most significant in the Original Plat—older areas of the City where industrial and heavy commercial uses are in close proximity to residential uses without adequate buffering. Land use conflicts are most significant in areas zoned by the City for heavy industrial usage, and the County Expo speedway race track. In addition, homeowners and businesses have occasional conflicts around the issues of noise (rail, car, and truck traffic), and lighting that are generally associated with life in an urban com-

munity. Proximity near vacant or significantly underutilized buildings can create challenges to property values and enjoyment of adjacent properties as well.

This *Plan* is focused on minimizing potential future land use conflicts through thoughtful placement of possibly conflicting new uses, high quality design, and buffering of possibly conflicting uses. In addition, this *Plan* is focused on the revitalization of older parts of the City, which will help eliminate or reduce use conflicts and increase positive land development activity levels for currently vacant and underutilized properties.

PROJECTED LAND USE DEMAND

Map 5: Future Land Use and detailed policies and programs will suggest how to accommodate future land use demand within the supply of lands potentially available for development. This includes recommendations of which types of land uses, if any, would be most appropriate for given locations within the City and the surrounding areas.

With respect to demand for residential development, it is important to consider that Manitowoc's established density of 5.6 dwelling units per acre is very efficient compared to development in the adjacent townships. Two-acre density development, common in rural areas, consumes farmland and open space 10 times faster than development in the City. Five-acre density development consumes farmland and open space 25 times faster than development in the City. Therefore, in east central Wisconsin, the urban sprawl problem is not nearly as problematic as the rural sprawl problem.

As described in Chapter One: Issues and Opportunities, this *Plan* is based on WisDOA population projections, as shown in the figure below.

Figure 3.5: Population Projections

	2005	2010	2015	2020	2025	2030 ¹
City of Manitowoc Projections	34,727	35,929	36,881	37,856	38,479	38,538

¹ Final WisDOA projections for the year 2030 were not available at the time of writing; this figure is preliminary.

The following land use demand projections, in five-year increments, are also based on the WisDOA population projections. The City is committed to a sustainable development pattern including infill and redevelopment of lands within the existing municipal boundary. To support this direction, the projection methodology assumes that a portion of future land use demand would be met through infill and redevelopment, whereby reducing the amount of “greenfield” development, or development which occurs on previously undeveloped land, that is needed to meet projected demand. The projections suggest a total residential land demand of nearly 779-acres between 2005 and 2030, and 758-acres of non-residential land demand over that same period, accounting for a 50 percent flexibility factor. When accounting for roads and other public uses, this figure suggests that the City should allocate about 1,846-acres for future development to safely accommodate expected land use demand through 2030.

Figure 3.6: City of Manitowoc Land Use Demand in 5-Year Increments

	2005- 2010	2010- 2015	2015- 2020	2020- 2025	2025- 2030	Total
Projected Number of New Residents	682	831	861	794	643	3,811
Projected Household Size	2.32	2.30	2.28	2.26	2.24	
Projected Number of New Housing Units	294	361	378	351	287	1,671
New Residential Acreage Demand (5 dwelling units per acre)	73	90	94	88	72	418
Flexibility Factor	2.0	2.0	2.0	2.0	2.0	
Total Residential Acreage Demand	147	181	189	176	144	836
Percent of Demand Met by Infill and Redevelopment	15%	12%	9%	6%	3%	
"Greenfield" Residential Acreage Demand	125	159	172	165	139	760
Percent Total Land Use Demand in Residential Uses	0.53	0.51	0.49	0.47	0.45	
Percent Total Land Use Demand in Non-Residential Uses	0.47	0.49	0.51	0.53	0.55	
New Non-Residential Acreage Demand*	130	174	197	198	175	874
Percent of Demand Met by Infill and Redevelopment	15%	12%	9%	6%	3%	
"Greenfield" Non-Residential Acreage Demand	111	148	167	168	149	743
Land Needed for Roads, Utilities, Stormwater Management, etc.	48	62	68	67	57	301
Total Non-Residential and Residential Land Use “Greenfield” Demand (including flexibility)	284	368	407	400	346	1,804

*Non-residential land use demand includes commercial, office, and industrial uses.

Projected non-residential demand will be distributed in five-year increments as follows. Land in commercial uses are projected to increase by 61-acres from 2005 to 2010; 82-acres from 2010 to 2015; 92-acres from 2015 to 2020; 93-acres from 2020 to 2025; and 82-acres from 2025 to 2030—a total of roughly 411-acres of addi-

tional commercial land use demand. Land in industrial uses are projected to increase by 69-acres from 2005 to 2010; 92-acres from 2010 to 2015; 104-acres from 2015 to 2020; 105-acres from 2020 to 2025; and 93-acres from 2025 to 2030—a total of roughly 463-acres of industrial land uses. These may include some of those uses described on Map 5: Future Land Use as “Office/Industrial.” This breakdown of projected commercial and industrial land uses reflects the historic balance of commercial and industrial uses in the City, with some additional emphasis on commercial uses.

In general, agricultural land in the City is expected to be an interim use pending development. Agricultural land uses in the City will decline over the planning period, following current trends of agricultural land conversion in the City. The amount of land in agricultural uses in the City is projected to decline by roughly the amount of residential, commercial, and industrial land added to the City every five years. The City intends to work with neighboring towns to ensure that a significant portion of the land base in the City’s ETJ remains rural and in agricultural uses.

Supply and Demand Interaction

The sections that follow bring together the forces of supply and demand. Map 5: Future Land Use, and the policies and programs detailed in this *Plan* suggest how to accommodate future land use demand within the supply of lands potentially available for development. This includes recommendations of which types of land uses, if any, would be most appropriate for given locations within the City and the surrounding areas.

LAND USE GOALS, OBJECTIVES, AND POLICIES

Goal

- a. Continue to transform the City’s economic landscape to promote a future development pattern that contains a sustainable mix of lower carbon emission-based land uses to serve the needs of a diverse City population and business community.

Objectives

- a. Promote compact development and redevelopment as the engines of community growth and to promote energy efficient land use patterns and preserve open space, natural areas, and agricultural land, without undue limitations on economic growth.
- b. Support land uses and development designs with continued public infrastructure investments that help to enhance Manitowoc's manufacturing economy, as well as its identity as a sustainable community.
- c. Protect City long-term growth interests during and well beyond the planning period.
- d. Encourage a mix of housing types in all new neighborhoods, rather than segregating different housing types in different parts of the community, and which address the significant financial, physical, and social changes that will result from



- A range of future land use types will meet the current and emerging needs of the community.
- The “Planned Neighborhood” development concept encourages a well-planned arrangement of diverse housing types and gathering places to encourage social interaction.
- Infill and redevelopment takes advantage of existing utilities and community facilities infrastructure and reduces the need to build on the edges of the City.

the pending retirement of Baby Boomers.

- e. Develop neighborhoods as interconnected places focused around parks, schools, shopping, and other facilities.
- f. Provide sufficient improved business and industrial sites for the City to be competitive in attracting, retaining, and helping to grow high quality businesses and industries.
- g. Manage stable population growth and the local economy without becoming blighted.
- h. Accelerate invention, innovation, and creation to promote the competitive advantage of the City.

General Policies

- a. Actively promote infill development, adaptive reuse, and redevelopment of blighted and/or brown-field sites, where opportunities exist as a means to improve neighborhood conditions, increase local economic and shopping opportunities, and make use of existing infrastructure investments.
 - b. Prioritize development in areas with existing utilities or sewer service area designation.
 - c. Focus neighborhood-oriented commercial uses in areas that will conveniently serve residential areas.
 - d. Ensure logical transitions between potentially incompatible land uses. Whenever possible, avoid locating potentially conflicting or nuisance-producing land uses adjacent to each other. Where necessary, buffer potentially incompatible uses through landscaped buffers, open space uses, or less intensive uses.
 - e. Work to preserve the value of existing City neighborhoods through concerted efforts towards revitalization.
 - f. Cooperate with surrounding towns to identify and maintain productive agricultural lands and open spaces in areas surrounding the City that are not intended for development over the planning period.
 - g. Where City neighborhood plans do not exist, require landowners wishing to develop a portion of their property to prepare a master plan for future use of their entire contiguous ownership parcel for City approval, along with connections to adjacent properties.
 - h. Require developers to coordinate development plans with adjoining property owners so that there will be an efficient system of streets, stormwater facilities, utilities and other public facilities.
 - i. Promote the continued diversification and expansion of the current economic base by identifying areas for non-residential and employment-based land uses consistent with the areas shown for commercial, office, industrial and mixed-use development on Map 5: Future Land Use.
 - j. Provide adequate neighborhood and community parks to meet both the active and passive recreational needs of the residents of the community.
 - k. Consider intergovernmental boundary and land use agreements to achieve mutually beneficial development and preservation patterns of high-quality.
 - l. Work with developers and the public to continually educate them on *Plan* recommendations, and how they affect private development proposals.
 - m. Amend the City's zoning and subdivision ordinances to reflect the recommendations of this *Plan*.
- Chapter Nine: Implementation includes detailed recommendations.

URBAN RESIDENTIAL LAND USE CATEGORIES

Each of the future land use categories shown on Map 5: Future Land Use is described below. Each land use category description includes where that type of land use should be promoted, the appropriate zoning districts to implement that category, policies related to future development in areas designated by that category, and approaches to achieve the City's overall vision for the future.

1. Single-Family and Two-Family Residential – Urban

Description

This future land use category is intended for existing and planned groupings of single-family detached residences, duplexes, and groupings of attached single-family residences with individual entries (e.g., townhouses, rowhouses, and condominiums) that are served by public sanitary sewer and water systems. Small public and institutional uses—such as parks, schools, churches, and stormwater facilities—may also be built on lands within this category.

Recommended Zoning

The City's "R-2," "R-3," and "R-4" districts are most appropriate for areas mapped in this future land use category.

Policies and Programs

- a. Develop new single-family and two-family residential areas in accordance with carefully-considered neighborhood development plans (see discussion later in this chapter).
- b. Pursue residential infill and redevelopment opportunities where feasible, ensuring that new development complements the character and scale of existing homes.
- c. As maintenance and rehabilitation needs arise, work with the County, State, and local lenders to assist with the protection of foreclosed properties, and with homeowners and landlords on rehabilitation projects.
- d. Work to continually improve code enforcement efforts to maintain attractive, well-kept neighborhoods.
- e. Refer to Chapter Six: Housing and Neighborhood Development for detailed housing recommendations.



Single-family home in Manitowoc

2. Urban Neighborhood

Description

This future land use category is intended to stabilize the land uses, densities, and character of existing neighborhoods that are not characterized by a homogenous land use pattern. The "Urban Neighborhood" future land use category has been mapped in established neighborhoods surrounding the downtown which are characterized by a mix of housing-unit types, as well as small public, institutional, and commercial uses.

Recommended Zoning

The City's "R-4" and "R-7" zoning districts are most appropriate for areas mapped in this future land use category.

Policies and Programs

- a. Pursue residential infill and redevelopment opportunities where feasible, ensuring that new development complements the character and scale of existing homes.

- b. Support the conversion of two-flat structures to single-family homes, and do not allow further conversions of single-family homes to two-flats.
- c. Maintain the urban character of areas mapped in this future land use category by supporting existing non-residential uses which do not negatively impact the surrounding neighborhood.
- d. As maintenance and rehabilitation needs arise, including those related to the inspecting and maintenance of abandoned residential properties pending foreclosure, work with the County, State and local lenders to assist homeowners and landlords with rehabilitation projects.
- e. Take actions to discourage and prevent neighborhood blight and promote area stability and residential owner occupancy.
- f. Work to continually improve code enforcement efforts to maintain attractive, well-kept neighborhoods, and to preserve and maintain residential property values and assessments.
- g. Refer to Chapter Six: Housing and Neighborhood Development for detailed housing recommendations.

3. Multi-Family Residential

Description

This future land use category is intended for a variety of residential units focused on multi-family housing (3+ unit buildings), usually developed at densities that exceed six units per acre, and are served by public sanitary sewer and water systems. Single-family detached housing, attached single-family residences with individual entries (e.g., townhouses, rowhouses), and small public and institutional uses—such as parks, schools, churches, and stormwater facilities—may also be within lands mapped in this category.

Recommended Zoning

The City's "R-5" and "R-6" zoning districts are most appropriate for areas mapped in this future land use category.

Policies and Programs

- a. Encourage multiple-family residential building sizes of between eight and 32 units. In any case, the size of the building shall be in scale with the surrounding neighborhood.
- b. Meet minimum site, building, landscape, lighting, and other design standards included in Chapter Six: Housing and Neighborhood Development and the zoning ordinance.
- c. Discourage individual multi-family and duplex/townhouse developments exceeding 10-acres in size, except condominiums.
- d. Discourage distances of less than one-half mile between larger areas of "Multi-Family Residential" development.
- e. Support projects that include a strong program for maintaining the quality, value, and safety of the development over time.
- f. As maintenance and rehabilitation needs arise, including those related to the inspecting and maintenance of abandoned residential properties pending foreclosure, work with the County, State and local lenders to assist homeowners and landlords with rehabilitation projects.
- g. Take actions to discourage and prevent neighborhood blight and promote area stability and residential owner occupancy.



Example of Multi-family Residential

4. Planned Neighborhood

Description

The “Planned Neighborhood” future land use category is intended to provide for a variety of housing choices and a mix of non-residential uses such as parks, schools, religious institutions, and small-scale shopping and service areas. They are really a collection of different land use categories listed in this chapter. “Planned Neighborhoods” should be carefully designed as an integrated, interconnected mix of these use categories. They are by no means intended to justify an “anything goes” land use pattern, but this category supports the idea of retrofitting these areas to allow for more urban choices, and to make it easier to walk to services and amenities. Overall, the composition and pattern of development should promote neighborhoods that instill a sense of community with their design. The “Planned Neighborhood” concept encourages a mix of “Single-Family and Two-Family Residential – Urban,” “Mixed Residential,” “Institutional and Community Services,” “Parks and Open Space,” and neighborhood commercial uses.

Recommended Zoning

The City’s “Planned Unit Development” (“PUD”) and “Traditional Neighborhood Development” (“TND”) overlay zoning districts are very well-suited to implement areas mapped under this future land use category. However, combinations of residential districts and “B-2” zoning may also be appropriate.

Policies and Programs

- a. Maintain overall residential development densities within “Planned Neighborhoods” of between four and eight dwelling units per residential acre.
- b. Accommodate a mixture of housing types, costs, and densities, while maintaining the predominance of single-family housing in the community. A minimum of 60 percent of all new dwelling units in each “Planned Neighborhood” should be single-family detached residential dwellings.
- c. Avoid rezoning any area designated for “Planned Neighborhood” development until public sanitary sewer and water service is available, and a neighborhood development plan and specific development proposal is offered for the site.
- d. Require each “Planned Neighborhood” to be developed following preparation of a detailed neighborhood development plan by a developer or the City, ideally adopted as a component of the City’s *Comprehensive Plan*. Such plans should specify land use mix, density, street layouts, open space, and stormwater management, as described more fully in Chapter Six: Housing and Neighborhood Development.
- e. Where alleys are considered for garage and service access, promote their private ownership and maintenance through a homeowners or condominium association.
- f. Adhere to the following design objectives for “Planned Neighborhood” areas, illustrated on the following page:
 - ◆ Create a distinct sense of place and charming human scale. Strategies include providing public focal points with public plazas, greens and squares; creating visual interest; and designating prominent building sites.
 - ◆ Connect “Planned Neighborhoods” internally and to adjacent areas through a network of paths, sidewalks, and streets that discourage high travel speeds, but still allow access to emergency and maintenance vehicles (e.g. fire trucks and snow plows).



Example of Planned Neighborhood

- ◆ Design neighborhoods with interconnected open space systems for recreation and progressive stormwater management.
- ◆ Integrate a mix of uses and densities within and around the neighborhood commercial centers
- ◆ Preserve and focus attention on environmentally sensitive areas and unique natural features.
- ◆ Lay out streets, buildings, and public open spaces which take advantage of long views created by local topography.

Figure 3.7: Planned Neighborhoods Graphic



NON-RESIDENTIAL LAND USE CATEGORIES

1. General Business

Description

This future land use category is intended for commercial and retail uses at a neighborhood-scale or at a larger community-scale. This future land use category is connected to public sewer, public water, and other urban services and infrastructure.

Recommended Zoning

The City's "B-2," "B-3," and "C-1" zoning districts are most appropriate for areas mapped in this future land use category, depending on scale.

Policies and Programs

- a. For "General Business" uses located in a neighborhood setting, encourage smaller scale occupancies (less than 10,000 square feet), neighborhood-oriented retail and service businesses in areas that will conveniently serve City neighborhoods.
- b. For "General Business" uses in a neighborhood setting, require the use of high-quality building materials and designs that are compatible with residential areas, including residential roof materials such as shingles; generous window placements; and exterior materials such as wood, cement board, vinyl siding, brick, decorative block, stone, and other approved materials.
- c. Require that all proposed business projects submit a detailed site plan including building elevations, proposed location of the building(s), parking, storage, loading, lighting, landscaping, and grading/stormwater management prior to development approval. Recommended design standards for commercial development projects are provided in Chapter Seven: Economic Development.
- d. For "General Business" uses on a larger scale, adhere to site, building, signage, landscaping, and lighting design guidelines outlined in Chapter Seven: Economic Development.
- e. For "General Business" uses on a larger scale, adhere to standards for highway access control, shared driveways, and cross access arrangements that are described in Chapter Four: Transportation.
- f. Delay rezoning any area designated for "General Business" development until public sanitary sewer and water service is available, and a specific development or redevelopment proposal is offered for a site. Existing parcels zoned and/or used for industrial purposes (as of the date of *Plan* adoption) may continue in that zoning or use.
- g. Prohibit the unscreened outdoor storage of equipment or materials, except for automobiles and other passenger vehicles.
- h. Consider the relationship between development in the "General Business" areas, and existing and future development behind these sites. Avoid inhibiting future access to sites behind commercial properties, and creating an unattractive appearance which will inhibit future development of these sites.
- i. Encourage uses that are most appropriate for the City's downtown area to develop or remain in the downtown, rather than in locations designated as "General Business."



Example of General Business at the neighborhood scale

2. Central Business District

Description

This category is intended for a mix of retail, commercial service, entertainment, office, institutional, production, and residential (mainly upper stories) uses arranged in a pedestrian-oriented environment with on-street

parking; minimal building setbacks; and building designs, materials, placement, and scale that are compatible with the character of existing development.

Recommended Zoning

The City's "B-4" zoning district is most appropriate for areas mapped in this future land use category.

Policies and Programs

- a. Follow the recommendations of "The Port of Manitowoc Downtown and River Corridor Master Plan," which provides additional detail on desired future land uses in the downtown area.
- b. Continue to collaborate with the Economic Development Corporation of Manitowoc County, Mainly Manitowoc, the Manitowoc City Center Association, and other partners to implement the recommendations of the downtown master plan.
- c. Preserve the architectural and historic character of the core downtown historic buildings. Require that new development, expansions, and exterior renovations comply with general design standards in Chapter Seven: Economic Development, and more detailed design guidelines adopted by the City.
- d. Encourage commercial developments that are most appropriate for the historic downtown to locate or remain there, rather than in other commercial districts in the City.
- e. Promote the expansion, retention, and upgrading of specialty retail, restaurants, financial services, offices, professional services, and community uses through marketing, investment and incentive strategies.
- f. Promote residential land uses mainly on upper floors.
- g. Take actions to discourage and prevent downtown blight, promote area stability, and reduce building vacancy.

3. Planned Mixed Use

Description

This future land use category is intended to facilitate a carefully controlled mix of commercial and residential uses on public sewer, public water, and other urban services and infrastructure. "Planned Mixed Use" areas are intended as vibrant urban places that should function as community gathering spots. This category advises a carefully designed blend of community business, "Mixed Residential," office, light industrial, and "Institutional and Community Services" land uses.

Recommended Zoning

The best option for future zoning of the lands mapped under the "Planned Mixed Use" future land use category is often a PUD overlay zoning district. This district allows the desired mix in uses and provides flexibility in site planning and layout, in exchange for superior design. The City could create standards unique to mixed use developments.



Downtown Manitowoc



Example Planned Mixed Use development

Policies and Programs

- Actively pursue redevelopment of “Planned Mixed Use” areas over the planning period through public-private initiatives. Chapter Seven: Economic Development includes a description of the desired implementation process.
- Grant development approvals only after submittal, public review, and approval of site, landscaping, building, signage, lighting, stormwater, erosion control, and utility plans.
- Encourage environmentally sustainable site and building design including stormwater BMP, the use of passive solar energy, and the integration of alternative transportation networks and green spaces.
- Emphasize the redevelopment of the Canadian National peninsula to a “Planned Mixed Use” development with a mix of retail, corporate headquarters or office, and residential uses that functions as a complementary extension of downtown, but with its own unique sense of place. See “The Port of Manitowoc Downtown and River Corridor Master Plan.”
- Implement the recommendations of the “Manitowoc Expo Grounds Master Plan” regarding long-term future land uses on that property and timing of potential redevelopment.
- Develop conceptual plans for the other “Planned Mixed Use” areas as a starting point for individual redevelopment plans and actual redevelopment for each these area.

4. Office/Industrial

Description

This future land use category is intended for office, laboratory, research and development, technology, business park, industrial, indoor manufacturing, warehousing, and distribution, and office-support land uses (e.g., day care, hotel, health club, bank, etc.).

Development will include generous landscaping, screened storage areas, modest lighting, and limited signage. Development will be served by public sewer, public water, and other urban services and infrastructure.



Business park development in Manitowoc

Recommended Zoning

The City’s “B-3,” “I-1,” and “I-2” zoning districts are most appropriate for areas mapped in this future land use category, depending on use.

Policies and Programs

- Market office areas for research and development uses, corporate offices, professional offices, and certain private institutional uses like medical centers. Market industrial areas for technology and “green collar” jobs, related to environmentally-friendly “green” developments and renewable energy resources.
- Minimize the presence of warehousing, assembly, and manufacturing uses in the “Office/Industrial” designation, unless the site is specifically designed to blend within an office/research setting.
- Provide improved, pre-zoned sites and incentives to facilitate development recruitment.
- Require that all projects submit and have approved detailed building elevations and site plans, showing the proposed locations of the building(s), parking, storage, loading, signage, landscaping, and lighting prior to development approval. The City may actively facilitate the “pre-approval” of basic site plan submittals.
- Adhere to adopted covenants, building design guidelines, and zoning standards for new and expanded development projects, and ordinances on other aspects of those projects like signage, landscaping, and lighting. Additional detail is provided in Chapter Seven: Economic Development.

- f. As opportunities for reinvestment and redevelopment occur, improve the appearance of building facades exposed to the public view, including loading docks and storage areas.
- g. Encourage the use of high quality building materials, improved window treatments, high-quality loading and storage screening devices, and landscaping.
- h. Ensure that future industrial development is appropriately buffered from existing and planned residential development areas.
- i. Avoid rezoning any area designated for “Office/Industrial” development until public sanitary sewer and water service is available, and a specific development proposal is offered, or the City approves an overall development layout and covenants.

5. Institutional and Community Facilities

Description

This future land use category is designed to facilitate large-scale public buildings, schools, religious institutions, power plants and substations, hospitals, airports, and special care facilities. Future small-scale institutional uses and community facilities may also be located in areas planned for residential, commercial, office, industrial, mixed, or traditional neighborhood uses, while larger-scale institutional uses should generally be avoided in planned residential or “Planned Neighborhood” areas.

Recommended Zoning

Institutional and community facilities are permitted in the City’s non-residential districts, and are allowed as conditional uses in residential zoning districts.

Policies and Programs

- a. Require and review detailed site and operation plans before new or expanded institutional uses are approved.
- b. Consider the impact on neighboring properties before approving any new or expanded institutional use.
- c. Continue to work with the MPSD, private education providers, Silver Lake College, and UW-Manitowoc to coordinate uses and activities on college- and district-owned land, and to collaborate on issues of mutual concern.
- d. Encourage collaboration among various City departments, and other providers of City services, on accommodating future service needs, as described in greater detail in Chapter Five: Utilities and Community Facilities.
- e. Encourage the adaptive reuse of vacant and/or underutilized buildings and properties.



Institutional development in Manitowoc

RURAL/ENVIRONMENTAL LAND USE CATEGORIES

1. Agriculture

Description

This future land use category is intended to preserve productive agricultural lands and protect existing farm operations from encroachment by incompatible uses. This category focuses on lands actively used for farming and/or with productive agricultural soils and topographic conditions suitable for farming. It also includes woodlands and other open space areas not otherwise shown as “Environmental Corridors.” Lands in this category also include farmsteads, cottage industries, agricultural-related businesses, “value-added” farm pro-

duction, and limited residential development at densities at or below one home per 35-acres. There are some areas of existing residential development at densities higher than one home per 35-acres mapped in this category.

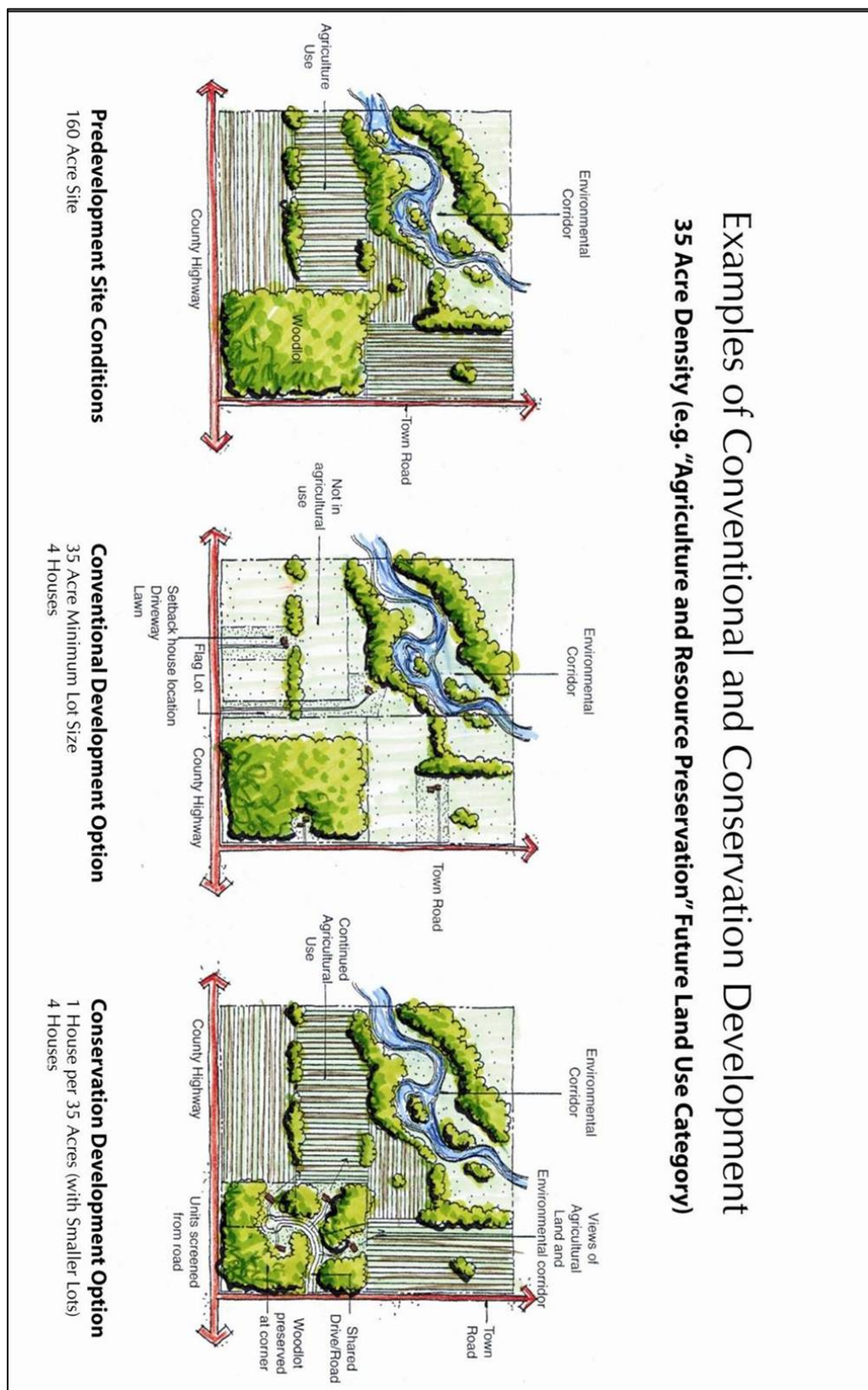
Recommended Zoning

These lands may be subject to Town or County zoning, and should generally be zoned for exclusive agricultural use. The City's "R-1" zoning district may also be appropriate for areas mapped in this future land use category, which is intended to preserve (in agricultural uses) lands suited to future urban development pending proper timing and economical provision of public utilities and community facilities to ensure compact and orderly land use development.

Policies and Programs

- a. Within "Agriculture" category areas, limit new residential development to a maximum density of one residential dwelling unit per 35-acres, and a minimum lot size of two acres to protect productive agricultural land and farms, maintain a viable agricultural base, reduce conflicts between potentially incompatible uses, and reduce costs of service provision. This standard does not require that all new lots be at least 35-acres. See Figure 3.8 for alternative approaches for achieving this maximum density.
- b. Develop a system of tracking and calculation of allowable new dwelling units on parcels in the "Agriculture" category under the "one per 35-acre" policy. The following approach shall be utilized until a substitute or refined approach is adopted as part of the City's subdivision ordinance:
 - ◆ Determine the gross site area of the contiguous lands held in single ownership as of the date of adoption of this *Plan*.
 - ◆ Divide the gross site area of the contiguous lands held in single ownership by 35. This is the total number of new dwelling units that will be allowed on the land.
 - ◆ Subtract from that total, the number of new dwelling units that have already been constructed on the contiguous lands held in single ownership since the date of adoption of this *Plan*. This is the total number of dwelling units that are left to be allowed.
- c. Prohibit the development of subdivision plats within the "Agriculture" category, except where such development will be consistent with the density policy clustering as per paragraphs (a) and (b) above.
- d. Discourage duplexes, multi-family residences, or commercial uses that are not geared toward agriculture in "Agriculture" areas.
- e. Support farmland tax credits, use value assessments, reform in federal farm laws, and other programs that encourage the continued use of land for farming instead of selling to non-farmers and developers.
- f. Encourage preservation of wooded areas. In particular, the City should encourage preservation of wooded areas on slopes of 12 percent or greater through the zoning and subdivision ordinances.
- g. See Chapter Two: Agricultural, Natural and Cultural Resources for additional policies and programs related to agricultural preservation in the Manitowoc area.

Figure 3.8: Examples of Conventional and Conservation Development



2. Environmental Corridor

Description

This overlay future land use category includes generally continuous open space systems based on lands that have sensitive natural resources and limitations for development. This category includes WisDNR identified wetlands, subject to existing State-mandated zoning, FEMA designated floodplains, waterway and drainage-way buffers, and slopes of 20 percent or greater.

Recommended Zoning

The City's "P-1" zoning district is most appropriate for areas mapped in this future land use category. However, the City should consider the use of overlay zoning districts for each environmental corridor component (e.g. wetlands, floodplains, steep slopes, etc).

Policies and Programs

- a. Prohibit new development in mapped "Environmental Corridor" areas.
- b. Where development is proposed in or near mapped "Environmental Corridors," the developer should determine the exact boundaries of the "Environmental Corridor" based on the features that define those areas. These lands may be considered for more intensive uses if: (1) more detailed information or studies reveal that the characteristic(s) that resulted in their designation as an "Environmental Corridor" is not actually present; (2) approvals from appropriate agencies are granted to alter a property so that the characteristic that resulted in its designation will no longer exist; or (3) a mapping error has been identified and confirmed.
- c. Preserve, protect, and enhance open spaces and conservancy areas along the Manitowoc River and Lake Michigan.
- d. Develop stream bank buffer landscaping standards for property owners with river frontage, or an "Environmental Corridor" adjacent to their property.
- e. Preserve woodlots and other environmental areas that serve to protect wildlife and vegetative resources.
- f. Continue to allow existing agricultural uses (cropping, grazing, or other preexisting agricultural uses) within "Environmental Corridors."
- g. Consider developing overlay zoning districts for each "Environmental Corridor" component as an alternative to using the "P-1" zoning district.

3. Public Parks and Open Space

Description

This future land use category includes park and public open space facilities devoted to playgrounds, play fields, trails, picnic areas, and related active and passive recreational activities, and conservation areas.

Recommended Zoning

The City's "P-1" zoning district is most appropriate for areas mapped in this future land use category.

Policies and Programs

- a. Provide parks within safe walking distance of all residential neighborhoods.
- b. See Chapter Five: Utilities and Community Facilities for more recommendations regarding Parks and Open Spaces.



Public Parks and Open Space in Manitowoc

4. Single-family Residential – Exurban

Description

This future land use category is intended for single-family residential development on private well and on-site waste treatment (septic) systems, generally at densities between one dwelling unit per acre, and one dwelling unit per 35-acres.

Recommended Zoning

This category is mapped in areas outside the municipal boundary, and is therefore subject to Town or County zoning.

Policies and Programs

- a. Allow land divisions in these areas where local zoning and City subdivision ordinances allow for them, particularly south of the City.
- b. Require sensitivity towards natural resources and water quality with new development projects, including assurances that concentrations of on-site waste treatment systems will not negatively affect groundwater quality, and that stormwater will be properly managed according to best practices.
- c. Assure that new development in these areas does not impede the logical future extension of municipal utilities or City growth.

5. Long Range Urban Growth Area

Description

This overlay future land use category defines areas that may be appropriate for long-term City development *beyond the present 20-year planning period*. Premature exurban development and premature utility extensions should not be promoted in these areas. The policies of the “Agriculture” future land use category will apply until such time as more intensive development may be appropriate. The “Long Range Urban Growth Area” focuses on lands used for farming, but also includes scattered open lands and woodlots, farmsteads, agricultural-related uses, and strictly limited single-family residential development at densities as described in the “Agriculture” category.

Policies and Programs

- a. Within the Long Range Urban Growth Area, new development should be limited in accordance with all policies applicable to the “Agriculture” designation, until such time when the City identifies that particular mapped area as appropriate for more intensive development through an amendment to this *Plan*.
- b. All non-farm development projects approved within the “Long Range Urban Growth Area” shall be designed and laid out in such a manner to not impede the orderly future development of the surrounding area, at such time when the City identifies that area as appropriate for more intensive development.
- c. The City may, following initial adoption of this *Plan*, identify lands within the “Long Range Urban Growth Area” as appropriate for more intensive development through an amendment to this *Plan* if the following standards are met:
 - ◆ The proposed development is justified by growth forecasts.
 - ◆ The proposed development is likely to have a positive fiscal impact.
 - ◆ The proposed development would be economically and financially feasible.
 - ◆ The proposed development would serve an identified short-term need for additional development in the City, and that need is not being met by other existing developments in the City.
 - ◆ The property owner or developer has met with nearby property owners and made a good faith effort to address their concerns.
 - ◆ The City has conducted a meeting to obtain public input.

- ◆ The proposed development will not have a substantial adverse effect upon adjacent property or the character of the area, including adjacent agricultural or residential uses.
- ◆ The proposed development is in accordance with applicable intergovernmental agreements and laws.

6. Extraction

Description

This category includes lands in current or potential future use for sand, gravel, or rock extraction. These include the operations to the southwest of the City.

Recommended Zoning

The City's "I-2" zoning district is most appropriate for areas mapped in this future land use category inside the municipal boundary. Areas mapped outside the municipal boundary are subject to township or County zoning.

Policies and Programs

- a. Require uses mapped in the "Extraction" future land use category to go through appropriate approval / permitting processes, including the preparation and approval of site operations plans and a site reclamation plan. The following should be addressed:
 - ◆ Compatibility with surrounding uses, or if in an area identified for urban expansion in this *Comprehensive Plan*, compatibility with planned uses likely within the planning period.
 - ◆ Preservation of existing natural features, particularly rare or sensitive habitats, to the extent practical.
 - ◆ Detailed plans for landscape buffering and screening of areas being actively mined.
 - ◆ Location and design of any structures.
 - ◆ Storage of mined materials and machinery should be located to minimize impact on surrounding property.
 - ◆ Road and driveway surfacing that will prevent damage, erosion, and dust; and maintenance of local roads.
 - ◆ Hours of operation should be limited, particularly times for blasting.
 - ◆ Stormwater management and erosion control measures should be carefully managed to prevent excessive harm to adjacent topography, vegetation, and water quality.
 - ◆ Duration of operations, particularly for a short-term or temporary operation.
 - ◆ All additional requirements under Wisconsin NR 135.
- b. Consider non-metallic mining as an appropriate short- or long-term use in the "Agriculture" future land use category. Take into account the geographic extent and location of the operations, and whether it is likely to impede logical future development.
- c. The City should carefully weigh extraction activities within the area indicated as "Long Range Urban Growth Area," ensuring that even short-term operations will not impede logical future development of the City.
- d. Deliberate sites in other future land use categories for non-metallic mining activities, pending those uses meeting standards and being granted approval by the Plan Commission and Common Council. Within these areas:
 - ◆ Non-metallic mineral extraction will be considered on a case-by-case basis.
 - ◆ Mining should be limited to temporary and short-term operations.

- ◆ Impacts to surrounding properties from extraction activities, including drilling, blasting and crushing, should be considered.
- ◆ The City should ensure that it has strong controls over the time/duration and extent of operations, and processing.
- ◆ The City should ensure that the reclamation plan is reflective of, and realistically leading to the future land use indicated by this *Comprehensive Plan* (e.g. future residential, recreational, commercial, or industrial development).
- ◆ When preparing and updating reclamation plans for areas mapped in this future land use category, consider and implement appropriate measures to safely prepare these sites for its long-term re-use (i.e. future residential, recreational, commercial, or industrial development sites).

7. Lake Bed Grant Areas

Description

There are two “Lake Bed Grant Areas” identified on the Future Land Use Map. The northern area extends 2,000 feet from the eastern boundary of the City into Lake Michigan between Waldo Blvd. and the harbor entrance, and the southern area extends approximately 1,700 feet from the eastern boundary of the City into Lake Michigan, between the harbor entrance and Green St. Under Wisconsin law, the State’s title to the lake bed runs to the ordinary high water mark. The State holds title to the lake bed and the water in trust to provide broad public access to and use of navigable waters. On behalf of the State and as an exercise of the public trust, the Legislature may grant a portion of the State’s ownership of the lake bed to a municipality. In Manitowoc’s case, the 1933 (and subsequently revised in 1939 and 1971) grants are a rare opportunity for the City to consider in the future, such uses as public parks facilities, docks, structures and other uses authorized in the specific lakebed grants.

Recommended Zoning

The City’s “P-1” zoning district is most appropriate for areas mapped in this future land use category.

Policies and Programs

- a. Prepare a lake bed area master plan to determine the future development of these areas as permitted by the legislative grant, and that is consistent with the public trust doctrine.
- b. Continue to monitor the legislation authorizing the use of lake bed areas and adjust City policies as necessary.
- c. Continue to monitor applicable grant programs for lake bed area restoration and development funding.

SMART GROWTH AREAS

Wisconsin’s Comprehensive Planning law requires that communities identify “Smart Growth Areas” in their comprehensive plans. Smart Growth Areas are defined as “areas that will enable the development and redevelopment of lands with existing infrastructure and municipal State, and utility services, where practical, or that will encourage efficient development patterns that are contiguous to existing development and at densities which will have relatively low municipal and State governmental utility costs.” The City’s *Plan* designates Smart Growth Areas as the following:

- ◆ Continued revitalization, redevelopment and infill in the downtown area, as further described in the “The Port of Manitowoc Downtown and River Corridor Master Plan.”
- ◆ “Planned Mixed Use” development areas described in this chapter and depicted on Map 5: Future Land Use.
- ◆ Residential, commercial, office and industrial “infill” areas in portions of the City already served by utilities and services.

- ◆ Encourage the assessment, remediation, and redevelopment of brownfield sites.
- ◆ Blight elimination.

Strategies for developing and redeveloping these areas are outlined throughout in this *Comprehensive Plan*.

Shapes on map represent general recommendations for future land use. Actual boundaries between different land use types and associated zoning districts may vary somewhat from representations on this map. Not all lands shown in a future developed land use category are immediately appropriate for development, rezoning, or subdivision. Environmental Corridors depicted on this map use generalized boundaries of environmental features identified by the DNR. Actual Environmental Corridor boundaries are to be refined through detailed on-site investigation.



Future Land Use

Map
5

City of Manitowoc
Comprehensive Plan

- City of Manitowoc
- Other Cities & Villages
- Town Boundaries
- City of Manitowoc Urban Service Boundary
- Parcels
- Interstate Highway
- Major Roads
- Railroads
- Surface Water

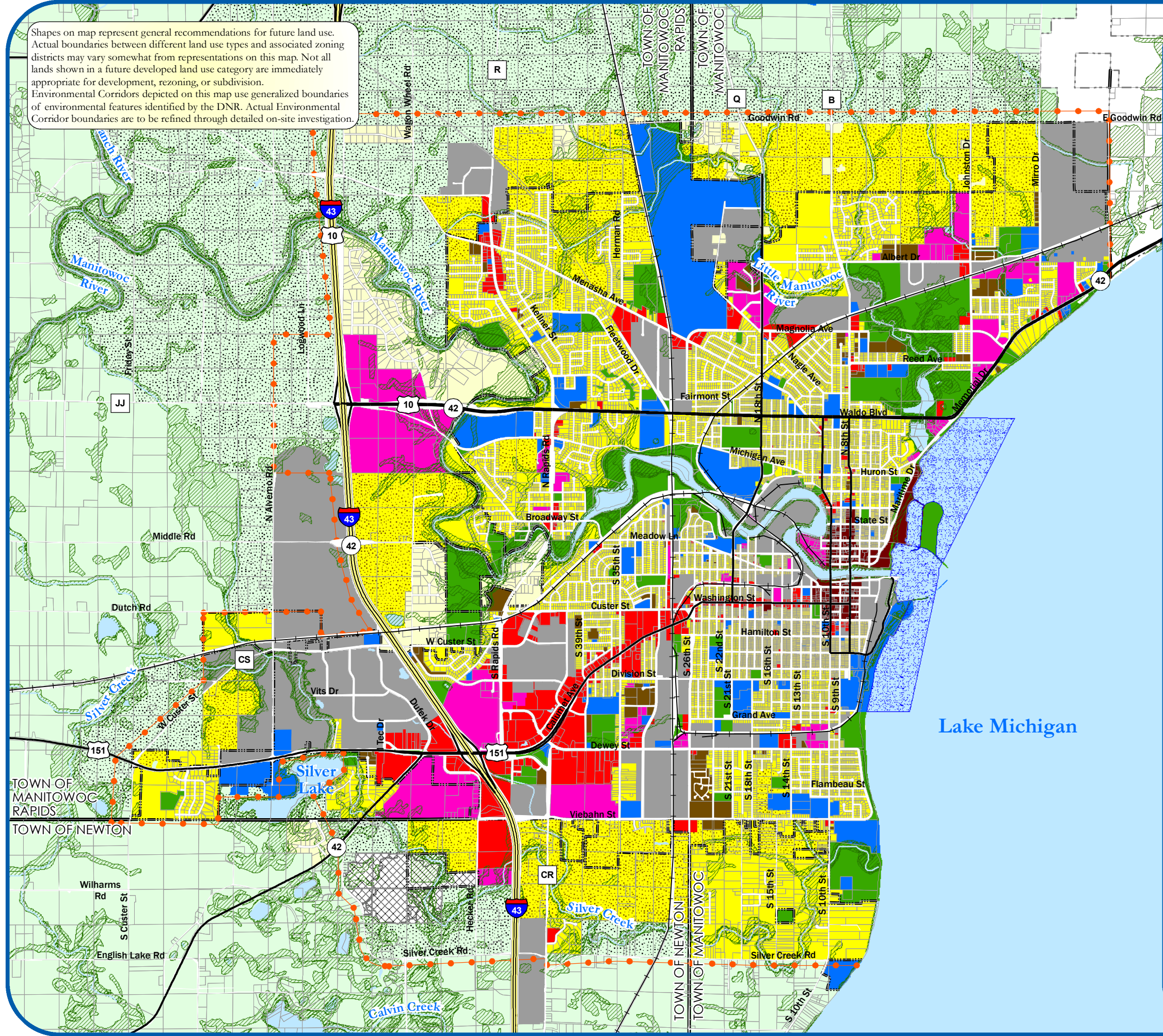
Future Land Use Categories

- Agriculture
- Single Family Residential - Exurban
- Single & Two-Family Residential - Urban
- Urban Neighborhood
- Multi-Family Residential
- Planned Neighborhood
- Planned Mixed Use
- General Business
- Central Business District
- Office/Industrial
- Institutional & Community Facilities
- Extraction
- Public Parks & Open Space
- Lake Bed Grant Area
- Long-Range Urban Growth Area
- Environmental Corridor
- Right Of Way

0 0.25 0.5 1 1.5 Miles



Date: December 21, 2009
Source: City of Manitowoc; Manitowoc County LIO; Bay-Lake Regional Planning Commission; V&A; WI DNR; FEMA; US-DOT



CHAPTER FOUR: TRANSPORTATION

This chapter includes background information to guide goals, policies, and program recommendations toward the future development and maintenance of various modes of transportation in the City over the 20-year planning period. This chapter also includes a review of local, State, and regional transportation plans and studies, which frame the goals, policies, programs, and recommendations at the end of the chapter.

The ease of access within a community is a key component of growth, because it facilitates the flow of goods, services, and people. The City has good transportation connections to the region along I-43 through the existing roadway network. Other travel modes, such as freight and passenger port service, rail, airport service, public transit, and recreational trails are key transportation infrastructure in the City.

EXISTING TRANSPORTATION NETWORK

The City is very well connected to the region and cross-lake through the existing roadway and waterway network. This section describes the City's existing transportation facilities.

Roadways

I-43 runs north-south along the western edge of the City. I-43 is an important regional connector and economic driver in the eastern and southern portions of the State, providing a direct route from Beloit to Green Bay. The route connects major manufacturing, commercial, capital, and population cores along the way, including the Metro-Milwaukee in southeastern Wisconsin, and the shoreline cities and towns along Lake Michigan, including Manitowoc. I-43 connects with I-94 in Milwaukee, linking the region with national east-west transportation routes. WisDOT "Connections 2030" plan identified I-43 and USH 10 as "Backbone" routes, connecting major population and economic centers, and providing economic links to national and international markets. Average Annual Daily Traffic counts (AADT) are measured at eight points along I-43 within the County by WisDOT. From 2002 to 2005, the AADT increased at all eight points within the County. However, the most significant increase by far occurred directly west of the City, at CTH JJ/USH 10 E./STH 42 N. to USH 10 W./STH 310, where the AADT increased by 22.4 percent, to 21,300, from 2002 to 2005.

ROADWAY FUNCTION CLASSIFICATION SYSTEM

Throughout Wisconsin, all local, county, state and federal transportation routes are classified in categories under the "Roadway Functional Classification" system.

As identified by WisDOT, the functional classification system groups roads and highways according to the character of service they offer, ranging from rapid through access to local land access. The purpose of functional classification is to enhance overall travel efficiency and accommodate traffic patterns and land uses by designing streets to the standards suggested by their functional class. The four main urban roadway functional classes include:

- ◆ **Principal Arterials** - Carry the major portion of trips entering and leaving the urban area (e.g. USH 151, STH 42)
- ◆ **Minor Arterials** - Carry provide intra-community continuity, and ideally do not penetrate identifiable neighborhoods (e.g. Dewey Street, Menasha Ave.)
- ◆ **Collectors** - Disperse traffic within an area (e.g. portions of Michigan Ave., 14th Street, Viebahn St.).
- ◆ **Local** - Streets that provide access to individual properties (e.g. Clark St., Magnolia Ave.).

USH 10 begins at the carferry dock in Manitowoc, where the S.S. Badger connects to Ludington, Michigan. After passing through downtown, USH 10 connects with I-43 at an interchange just west of the City. Extending west, USH 10 continues to Appleton, Stevens Point, and Minneapolis-St. Paul. WisDOT counts the AADT at seven spots along USH 10 within Manitowoc. At all locations, traffic on USH 10 decreased between 2002 and 2005, from between nine and 24 percent. As an example, in 2005 the AADT on USH 10 between Menasha Ave and N. 18th St. was 12,200, a drop from 15,900 in 2002.

Beginning in downtown, USH 151 carries southbound traffic through the southwestern portion of the City before connecting with I-43/STH 42. Continuing west, USH 151 heads toward the cities of Fond du Lac and Madison, ultimately traveling into Iowa.

WisDOT counts AADT at over a dozen locations along USH 151 within the City, as well as several locations west of the City to the County line. At all locations within the City (except directly adjacent to I-43), AADT decreased from 2002 to 2005. The drop in traffic along USH 151 was most pronounced between S. 10th St. and S. 26th St., although the decline continued all the way west to S. Rapids Rd. AADT counts increased somewhat beginning where USH 151 meets I-43 and continues west to the County line. The only notable increase in traffic on USH 151 in the City was just west of STH 42. WisDOT has a reconstruction project—including an increase from two to four lanes—planned for USH 151 from a point approximately 1,200 feet west of I-Tec Dr. in I-TECH to STH 42. See the Review of Transportation Plans below for more information.

STH 42 extends both northeast and south from Manitowoc. STH 42 approaches Manitowoc from Sheboygan, providing a scenic alternative to I-43. An interchange at the southwestern edge of the City connects STH 42 with I-43 and USH 151. The highway then travels through the heart of the City to the lakeshore, where it extends out of the City toward Two Rivers, providing a scenic connection to towns and cities along the Lake Michigan shoreline and ultimately into Door County, a popular tourist destination. WisDOT found that AADT counts decreased on STH 42 at each point they measured in the City, which were all between N. 8th St. and Woodland Dr. Traffic decreased between seven and 15 percent along this corridor between 2002 and 2005.

WisDOT plans to reconstruct STH 42 from the Sheboygan County line north to USH 151, just inside Manitowoc. The project includes adding a three-foot paved shoulder along this entire stretch. See the Review of Transportation Plans below for additional information.

Figure 4.1 shows the City's most recent traffic counts. According to the data, pedestrian traffic is greatest at the intersection of S. 8th St. and Quay St., with more than 1,200 pedestrians during a sixteen hour period. Car traffic is greatest at the intersections of Dewey St., S. Rapids Road, and S. 41st St. with Calumet Ave. (USH 151). Truck traffic is focused near I-43 at the intersection of Calumet Ave. (USH 151) and the I-43 off ramp.

Traffic volumes will continue to increase in the future. In accordance with current WisDOT policy, roundabouts should be considered for future improvements to higher traffic count intersections, such as Memorial Dr./Maritime Dr./Waldo Blvd. and the Calumet Ave. (USH 151) and I-43 off ramp. Also, the City should consider developing detailed traffic control plans for high volume intersections that accommodate movements of large vehicles, particularly between I-43 and the I-43 Industrial Park. Additional consideration should be given to streets located in growth areas identified in Map 5: Future Land Use. Finally, the City should consider bike and pedestrian improvements downtown, (S. 8th St. and Quay St., and S. 8th St. and Washington St.) and in waterfront areas (Memorial Dr./Maritime Dr./Waldo Blvd.).

Figure 4.1: City of Manitowoc Traffic Counts, 2007/2008

Intersection	Pedestrians	Cars	Trucks	Total
Fleetwood Dr. and Waldo Blvd.	25	12,302	126	12,453
Memorial Dr./Maritime Dr./Waldo Blvd.	134	16,866	151	17,151
N. Rapids Road and Waldo Blvd.	57	18,820	823	19,700
Calumet Ave. (USH 151) and Dewey St.	23	26,765	669	27,457
Calumet Ave. (USH 151) and Dufek Dr.	4	11,631	634	12,268
Calumet Ave. (USH 151) and I-43 off ramp	5	18,126	1,167	19,298
Calumet Ave. (USH 151) and I-Tech Dr.	1	5,496	354	5,851
Dewey St. and CTH CR	7	15,184	430	15,621
Dewey St. and Harbor Town Lane	31	8,179	51	8,261
S. 8 th St. and Quay St.	1,284	14,513	130	15,927
S. 8 th St. and Washington St.	443	11,546	33	11,989
S. 21 st St. and Washington St.	73	18,242	63	18,315
S. 30 th St. and Dewey St.	40	11,505	433	11,978
S. 35 th St. and Dewey St.	26	10,814	445	11,285
S. 41 st St. and Calumet Ave. (USH 151)	23	24,043	266	24,332
S. Rapids Road and Calumet Ave. (USH 151)	7	25,104	812	25,923

Source: City of Manitowoc Engineering Department

Truck Transportation

Due to its location on I-43, and the industrial and manufacturing economy of the region, Manitowoc experiences heavy semi-truck traffic. While there is an extensive network of designated truck routes throughout the City, semi-truck volumes are heaviest along I-43, USH 10, and USH 151. The City's municipal code dictates that heavy truck routes be marked.

Bridges

There are eleven functional bridges in Manitowoc—eight of which are maintained by the City, two by the County, and one by Canadian National/Wisconsin Central Railroad. All bridges in the City have been reconstructed between 1956 and 1995.

City-maintained:

- ◆ Waldo Blvd. over the Little Manitowoc River.
- ◆ Maritime Dr. over Little Manitowoc River.
- ◆ N. 18th St. over Spring St.
- ◆ Revere Dr. over the Manitowoc River.
- ◆ Broadway St. over the Manitowoc River.
- ◆ USH 10/STH 42/Waldo Blvd. over the Wisconsin Central Railroad.
- ◆ USH 10/10th St. over the Manitowoc River.
- ◆ 8th St. over the Manitowoc River.
- ◆ N. Rapids Road over the Manitowoc River.
- ◆ N. 8th St./CTH B over the Little Manitowoc River.

Railroad-maintained:

- ◆ The CN railroad over Dewey St.



10th Street Bridge

Airports

Manitowoc County Airport

Founded in 1927, the Manitowoc County Airport (“MTW”) is one of 132 public-use airports in Wisconsin. It is classified as a Transport/Corporate (T/C) Airport. According to WisDOT, T/C airports are “intended to serve corporate jets, small passenger and cargo jet aircraft used in regional service, and small airplanes (piston or turboprop) used in commuter air service.” MTW has two asphalt runways roughly 3,300 and 5,000 feet in length and 100 feet in width, and currently covers 482-acres and features 39 hangars. It has ample room for expansion, including sites for an additional 18 private hangars, 11 corporate hangars, and a restaurant. In addition, MTW has two, 28-acre developed parcels approved for industrial aviation-related development and possibilities for a runway extension to the north. The airport reports approximately 40,000 takeoff and landing operations annually. A 2000 WisDOT study estimated the total economic impact of the airport of \$5.5 million, supported by 89 full-time equivalent jobs, and contributed \$3.9 million in personal income to the County. The airport was operated by the City until 1985, at which time title and operations were transferred to the County.

MTW is owned by the County, and fixed-base operations are maintained by Lakeshore Aviation. Under a long-term contract with the County, Lakeshore Aviation provides general aviation services including aviation fuel, aircraft parking, hangars (including hangar leasing and sales), a passenger terminal and lounge, flight weather briefing, flight training, aircraft rental, aircraft maintenance, aerial tours and sightseeing and aircraft charters. They own a variety of single- and multi-engine aircraft and employ 80 people.

Located at 1815 Freedom Way in the northwest quadrant of the City, MTW is easily accessed off County Highway P/Menasha Ave. Parking at the airport is free.

General Mitchell International Airport

Milwaukee County General Mitchell International Airport (“MKE”) is a medium-hub airport owned and operated by Milwaukee County. MKE, located about 90 miles south of Manitowoc, features 13 airlines currently offer 235 departures and receive 235 arrivals daily. About 90 cities are served nonstop or direct from MKE, which has received the nickname “Chicago’s Third Airport.” County residents often utilize shuttle transportation services to and from MKE.

In 2007, the airport's five runways were utilized by a record 7.7 million passengers, an increase of 5.7 percent over the previous year. A recently completed "Airport Master Plan" will guide anticipated growth over the next 20 years. A significant expansion under consideration would add two new concourses and one new runway. The expansion would redevelop adjacent land previously used as the Air Force Reserve 440th Air Refueling Wing Base, which closed in January of 2008.

Austin Straubel International Airport

Austin Straubel International Airport ("GRB") is located in the Village of Ashwaubenon, part of the Green Bay metropolitan area. GRB is owned and operated by Brown County, and is a full service, regional connector providing direct service flights on six airlines to Atlanta, Chicago, Cincinnati, Detroit, Las Vegas, Marquette, Milwaukee, Minneapolis-St. Paul, Phoenix, and Cleveland. The airport handled about 32 departures and 32 arrivals daily in 2006. GRB is the third largest airport in Wisconsin.

Water Transportation and Related Facilities

Manitowoc Harbor

A dredged entrance channel leads from the deep water of Lake Michigan to an outer harbor formed by north and south breakwaters, and into an inner harbor extending from the river's mouth about 1.7 miles upstream, to a point just downstream of the second rail bridge and adjacent to the Burger Boat Company. Projected depth in the inner harbor is 22 feet, in the outer harbor (within the channel) is 23 feet, and in the entrance channel beyond the harbor is 25 feet. A 24-acre confined disposal facility extends 1,700 feet northward.

Major industrial and commercial users of the Manitowoc Harbor include Busch Agricultural Resources, Inc. (Anheuser-Busch In Bev), Burger Boat Company, Manitowoc Company, St. Barbara Cement, Inc., Broadwind Inc, DeepFlex, and the C. Reiss Coal Company.

Harbor Channel

U.S. Army Corps of Engineers surveys from 2003 indicate that the controlling depths ranged from 20.4 feet in the entrance channel, then 20.2 feet to the first railroad bridge, then 16.9 feet at mid-channel to the second railroad bridge, and finally 5.7 feet at the head of the project.

Small-boat Basin

The small-boat basin can be entered through an opening in the north breakwater. The east side of the entrance is protected by a short jetty, marked at its outer end by a navigation light. The ends of the breakwater are marked by a light and a day beacon. In May, 2002, the controlling depth was 6.3 feet (10.4 feet at mid-channel) at the entrance, with depths of eight to 10 feet in the basin and channel east of the docking piers.

Manitowoc River Channel

The winding river channel should be navigated with care. Manitowoc Harbor is not adapted for anchorage, but reduces wave action in the lower section of the river. Currents in the river attain velocities of up to three miles per hour.

Manitowoc Marina

The Manitowoc Marina, located at the mouth of the Manitowoc River, is owned by the City and operated by Sailboats, Inc. Accommodating boats up to 100 feet in length, the marina offers 235 permanent deep-water slips, and 40 guest slips. In 2007, a total of 172 boats were kept at the Marina. The full-service marina opened in 1985, and provides comprehensive maintenance and repairs, indoor heated and outdoor storage, a supply store, fuel, electricity, a free, public fish-cleaning station, and more. *The Chicago Tribune* rated Manitowoc Marina "the finest Marina on Lake Michigan" in the 1990s.

The Marina generates a substantial economic impact to the community—impacts associated with the owners of boats that rent seasonal and annual slips, and the direct spending by transient boaters (tourists) staying at the Marina. Trip spending by boaters at the Marina is estimated to be \$1 million, with a direct impact on the local economy of 25 jobs, \$400,000 in labor income, and \$700,000 in value added. Including secondary impacts, the total impact on the local economy is 30 jobs, \$600,000 in labor income, and \$1,000,000 in value added.

The magazine *Wisconsin Natural Resources* highlighted the marina's environmental controls in an article from 2002. Controls in place include: a stormwater pollution prevention plan; designated areas and processes for cleaning, sanding, painting, refueling, and other potentially-polluting activities; and criteria requiring certain environmentally-friendly products and equipment. The Marina's strict environmental controls, especially regarding waste disposal, raise its operating costs. As a result, dockage and storage rates are subject to a small environmental fee.

The City's five-year capital works program includes marina projects. Key projects include dredging (2010), overlaying the parking lot (2012), and constructing a new dock (unprogrammed).

Lake Michigan Car Ferry

The S.S. Badger operates out of Manitowoc Harbor, ferrying passengers, vehicles, and some cargo between Manitowoc and Ludington, Michigan. In addition to conventional cars, trucks, and walk-on passengers (providing wheelchair-accessibility), the S.S. Badger accommodates trailers, motor homes, RVs, motorcycles, and bicycles. The historic ferry operates between May and October, offering one trip each way per day during spring and fall, with two trips each way per day during the summer months.

Entering service in 1953, the S.S. Badger transported railroad and freight cars year-round between several ports of call in Wisconsin and Michigan. However, railroad freight business declined in subsequent years, and the S.S. Badger stopped service in 1990. The following year, an entrepreneur resumed S.S. Badger ferry service, reinventing the ship as one oriented toward leisure travelers.

The S.S. Badger was officially registered as a State Historic Site by both Michigan and Wisconsin in 1997. Its propulsion system was designated a landmark by the American Society of Mechanical Engineers in 1997. The ferry route is part of the State-designated Lake Michigan Circle Tour program.

The City's five-year capital works program includes carferry projects. The program includes a shore protection project planned for 2011.



S.S. Badger departing from the Manitowoc Harbor

Rail

In the County, the dominant rail line is the CN. One CN line connects Manitowoc to the Appleton/Neenah/Menasha area. Rail connections to the Appleton/Neenah/Menasha area extend to destinations in Wisconsin and adjacent states to the north, west, and south.

A second CN line connects Manitowoc to Rockwood and Cleveland, Wisconsin, with further connections to the south via the Union Pacific Railroad (the UP line between Cleveland and Sheboygan is currently out of service, but could operate again).

There may be a potential for an increase in rail usage due to rising transportation costs, and connection to the S.S. Badger, which transports freight.

Bicycle and Pedestrian Facilities

Bicycle and Pedestrian Trails

Mariners Trail begins in downtown Manitowoc and follows Maritime and Memorial Drives along the lake-shore to Two Rivers, a six-mile span, where it continues north to the Point Beach State Forest. The trail is

Additional Walking/Bicycling Paths

More than half of all survey respondents agreed or strongly agreed Manitowoc needs more off-street walking and bicycling paths.

open to bicyclists, pedestrians, and other non-motorized uses. Mariners Trail, a joint project of the two cities, has become a major recreation attraction for residents and visitors. The trail is said to be the longest continuous scenic view of Lake Michigan in the State.

Rawley Point Trail in Two Rivers, connects Two Rivers to the Point Beach State Forest headquarters four miles to the north. The trail is connected to the Mariners Trail, and provides a direct route for bicyclists from Manitowoc to the State Forest. Mariners Trail is depicted on Map 6: Transportation Facilities.

Named for the diverse geological features found along the trail, the Ice Age Trail is a 1,000-mile pedestrian (and occasionally multi-use) pathway located entirely within the State of Wisconsin. The trail extends from its eastern terminus in Door County to its western terminus on the Wisconsin-Minnesota border. The trail can be broken down into three categories: 467 miles of “traditional” hiking trails; 103 miles of multi-use paths; and 529 of road and sidewalk miles. The proposed route through Manitowoc is depicted on Map 6: Transportation Facilities, and was approved by the City’s Common Council in September 2005.

The Devil’s River State Trail, formerly known as the Denmark-Rockwood State Trail, is currently being constructed to connect the communities of Denmark, Maribel, Francis Creek, and Rockwood via a former rail line. From Rockwood, the trail will connect with Mariners Trail over the existing road network.

Bicycle Routes

There are no publicly defined and signed bicycle routes in the City. The City adopted a “Bicycle Facilities Plan” in 1995, but to date no routes have been developed or signed. An unofficial bicycle route and tour guide map was developed by a local cycling club, the Lakeshore Pedalers, in 1995. The guide provided maps and narrative descriptions of touring rides within the County. These loop routes are unsigned.

Shared Roadways

A bike lane along N. 11th and N. 10th Streets, from Waldo Blvd. south to the Manitowoc River, is used by bicyclists and pedestrians.

Bicycle Facilities in Progress

The County Highway Department received a Congestion Mitigation and Air Quality (“CMAQ”) grant from WisDOT, to design and construct 3.7 miles of five-foot wide bike lanes, and 1.36 miles of off-road shared use path along County Highway Q, from Magnolia Ave. to the Devil’s River State Trail crossing at Shoto Road. This project was scheduled for completion by the end of fiscal year 2008. When complete, it will provide a safer way for bicyclists to travel between Manitowoc and the Devil’s River State Trail.

Public Transportation and Paratransit

Public Transportation

Maritime Metro Transit System (“MMT”), a department of the City, operates a fixed route bus system for the cities of Manitowoc and Two Rivers. Its six lines run from 5:00am to 8:00pm weekdays, and 9:00am to 4:00pm Saturdays. The five Manitowoc routes, each running in a rough loop in a different portion of the City, converge at the downtown Intermodal Transfer Center, 915 S. 11th St. One Manitowoc route connects with the Two Rivers route at a second transfer center, the Meadow Links Transfer Point. All MMT buses are equipped with ramps for wheelchairs and front-mounted racks for bicycles. In 2005, MMT buses provided 239,932 rides. This number increased to 290,953 in 2007 (a substantial 21 percent increase) and to 330,461 in 2008; an increase of nearly 40,000 over 2007 levels.

Elderly and Disabled Transportation

All MMT buses are equipped with liftramps, and can accommodate two wheelchairs or scooters per bus. MMT also offers paratransit service for riders who have been certified as unable to ride the regular routes for some or all trips. MMT has provided the service since 1992, in compliance with the ADA. It currently contracts with a private company to provide this service. Curb-to-curb service is available at the normal MMT single fare price (\$3), and door-to-door service is available for an additional \$5 per way. Paratransit riders

must be approved by MMT, which requires a medical professional's determination of eligibility. Paratransit is provided in a comparable service area as MMT fixed routes and offers similar service hours.

The County Aging and Disability Resource Center ("ADRC") contracts with MMT who manages the County's elderly and disabled transportation program. ADRC works with several transportation providers in coordinating elderly and disabled transportation in the County. Providers include Assist-to-Transport, and volunteer escort services coordinated by the County ADRC. A Transportation Coordinating Committee coordinates elderly and disabled transportation services, and makes recommendations to the Natural Resources and Education Committee of the County Board, which ultimately sets County policy on elderly and disabled transportation matters.

The BLRPC assisted ADRC staff in preparing the "Public Transit – Human Services Transportation Coordination Plan" for Manitowoc County in 2006, and assisted the ADRC in amending the plan in late 2007. The ADRC has received a federal New Freedom grant to hire a mobility manager to develop a plan to better coordinate elderly and disabled transportation services in the County in 2008; this will be a cooperative effort with MMT, with BLRPC staff providing occasional assistance as well.

Regional Transit

In the County, a WisDOT-owned park and ride lots offers free parking and a convenient location to form carpools and vanpools. There are five park and ride lots in the County. One is located within the City, at I-43 and Exit 149 (the Calumet Ave. (USH 151) interchange). The lot, at the southeast quadrant of the interchange, provides parking for 75 vehicles. This parking lot is served by MMT. Several services, such as restaurants and hotels, are located nearby. Two other park and ride lots are located near the City: along I-43 at Exit 152 (the USH 10 and STH 42 interchange); and Exit 154 (the USH 10 E. and STH 310 interchange). Regional park and ride facilities need to be expanded, particularly at Exit 152.

Indian Trails Bus Lines provides coach bus travel options to and from the City. Direct service is available to Green Bay and points further north into Michigan, as well as south to Milwaukee. In Green Bay, service is provided at the Greyhound station; in Milwaukee, service is provided at the Intermodal Station downtown. From these stations, passengers can transfer to Greyhound lines to reach other destinations. The Indian Trails station serving Manitowoc is located at the Shell gas station at Calumet Ave. (USH 151) and S. 41st St. One northbound and one southbound bus serve Manitowoc daily.

Jefferson Lines out of Minneapolis, Minnesota, also provide intercity bus service to and from Manitowoc. The service area includes the corridor from Minneapolis to Green Bay, and from Green Bay to Milwaukee. The Jefferson Lines ticket outlet and bus station is located at the Shell gas station at Calumet Ave. (USH 151) and S. 41st St. One northbound and one southbound bus serve Manitowoc daily.

Additionally, the Sheboygan Parking and Transit Utility (Sheboygan Transit) applied for CMAQ funds to provide more frequent intercity bus service between Green Bay and Milwaukee, including the Manitowoc and Sheboygan areas. If the grant is awarded, Sheboygan Transit will select a private operator to run the service and a service schedule will be made available in the near future.

REVIEW OF LOCAL, STATE, AND REGIONAL TRANSPORTATION PLANS

The following are local, regional, and State transportation plans and studies relevant to this *Plan*. The recommendations from these documents were considered when preparing the recommendations in this *Plan*.

Municipal Capital Works Program

The City maintains a detailed 5-year capital works program. The program identifies several categories of projects including paving, arterial/collector road, Manitowoc-related WisDOT projects, infrastructure, and new sidewalks. Key projects include:

- ◆ Realignment of CTH CR (S. 42nd St.) at Dewey St. (2008).

- ◆ Widening of Calumet Ave. (USH 151), S. 41st St. to I-43 (2014).
- ◆ Widening of Calumet Ave. (USH 151), I-43 to Dufek Dr. (not programmed).
- ◆ Widening of Calumet Ave. (USH 151), 700 feet west of I-TEC Dr. to W. Custer St.
- ◆ Widening of STH 42, Calumet Ave. (USH 151) to 500 feet south of Viebahn St.
- ◆ Construction of Magnolia Ave. and bridge over the Little Manitowoc River (not programmed).
- ◆ Removal of Waldo Blvd. Bridge (Rosemere Overhead) over the CN Railroad corridor (not programmed).

City of Manitowoc Downtown Parking Study

A comprehensive downtown parking study was conducted in 1992 by HNTB, Inc. The following key findings and recommendations of the study are listed as follows:

- ◆ At existing business occupancy rates there were no severe parking problems on a typical weekday in downtown Manitowoc.
- ◆ There were periodic shortages of parking in the vicinity of the Capitol Civic Centre during performance periods. The study recommended leasing additional spaces from Lakeside Foods, Inc., and providing lighted walkways. The study also indicated that at some point in the future, a parking structure may be needed near the Capitol Civic Centre to accommodate parking for peak-attendance events.
- ◆ Fifty additional spaces were needed in the vicinity of the County Courthouse to serve peak activity days. The study indicated that on non-peak days, there was not a severe shortage in the Courthouse vicinity.
- ◆ The study recommended that the City purchase the Pietroske Property in Block 227 to provide parking in the vicinity of City Hall and the Public Safety Building.
- ◆ The study recommended that the City eliminate metered parking spaces and to convert these spaces to two-hour posted spaces.
- ◆ The study recommended increased long-term lease rates for off-street City-owned parking lots.

Since 1993, the City has implemented many of the parking study recommendations. Currently, there is no overall shortage of parking stalls in the downtown area for typical weekday use. However, there is a lack of adjacent or on-site parking which has been cited as one of the problems for marketing several of the downtown properties fronting on 8th St. Also, there continue to be peak-usage shortages in the vicinity of the County Courthouse, Capitol Civic Centre, and Strand Theatre.

Traffic and Parking Study, Manitowoc Central Business District

In 1985, Howard, Needles, Tammen, and Bergendoff conducted a traffic and parking study for the City's downtown in response to the replacement and expansion of the 10th St. Bridge over the Manitowoc River. This study looked at overall traffic circulation patterns and parking systems within the downtown. The study focused on two traffic issues: (1) a bypass route using S. 7th and S. 9th Streets as an alternative to northbound traffic on S. 8th St., and (2) the conversion of S. 8th and S. 10th Streets to a two-way versus one-way traffic pattern. The study also addressed the potential for an S. 8th St. beautification program, reviewed the condition of the S. 8th St. Bridge, and overviewed the condition of the traffic signals downtown.

At the time the study was conducted, the State was expected to fund only two bridge crossings within the downtown: the 10th St. Bridge had already been chosen as a priority, and the 8th St. Bridge was nearing the end of its life expectancy. Once completed, the 10th St. Bridge would be wide enough for four lanes of traffic. The study analyzed a potential bypass that would route traffic around commercial activity within the downtown, and would include construction of a new bridge over the Manitowoc River at either S. 7th or S. 9th St., which would eventually replace the S. 8th St. Bridge. The consultants recommended that the City should not implement a bypass route, but rather continue to use S. 8th St. as the primary arterial for north-bound traffic.

The analysis regarding a two-way versus one-way street configuration included: traffic volume, traffic movement, signal phasing, phase timing, cycle lengths, lane assignments, pedestrian movements, and project cost. The consultants recommended that the City maintain the one-way traffic pattern, concluding that conversion of S. 8th and S. 10th Streets to a two-way system would result in poorer traffic flow through the downtown. It should be noted, however, that at the time the study was conducted, components such as pedestrian and bicycle safety, economic vitality (potential sales as a result of retail business street exposure), and transit routing were not evaluated. Evaluation of these additional components may have resulted in a different recommendation from this study which is now over 20 years old.

Translinks 21: A Multimodal Transportation Plan for Wisconsin's 21st Century

This plan provides a broad planning “umbrella” including an overall vision and goals for transportation systems in the State for the next 25 years. Under Wisconsin’s “Multimodal Plan for the 21st Century,” this 1995 plan recommends complete construction of the Corridors 2020 “backbone” network by 2005, the creation of a new State grant program to help local governments prepare transportation corridor management plans to deal effectively with growth, the provision of State funding to assist small communities in providing transportation services to elderly and disabled persons, and the development of a detailed assessment of local road investment needs. At the time of writing this *Plan*, WisDOT is in the process of updating the Translinks Plan with Connections 2030. So far, Connections 2030 has identified and mapped key corridors in the State critical to successful intrastate multimodal transportation. Three specifically reference Manitowoc: (i) The Tiletown Corridor, a 110-mile corridor stretching between Green Bay and Manitowoc, and as far west as Appleton and east as Manitowoc; (ii) the Lake to Lake Corridor, the 50-mile corridor between the Fox Cities to Manitowoc; and (iii) the Door Peninsula Corridor, which runs primarily from Green Bay to Door County, but has Manitowoc as its southern terminus.

Wisconsin State Highway Plan 2020

This plan, one of a number of “modal” plans stemming from Translinks 21, focuses on the 11,800 miles of STH routes in Wisconsin. The plan does not identify specific projects, but broad strategies and policies to improve the State highway system over the next 20 years. The plan is revised every six years. The plan includes three main areas of emphasis: pavement and bridge preservation, traffic movement, and safety. The plan identifies I-43 as a “backbone” and USH 10, west of I-43 as a “connector.”

The plan shows that traffic congestion in the year 2020 is expected to be extreme on USH 10 east of I-43, on USH 151 east of I-43, and on STH 42 between I-43 and Two Rivers if no capacity expansions are made to alleviate these routes. In the Manitowoc area, there are currently no potential or approved major projects planned.

Six-Year Highway Improvement Program

WisDOT develops a “Six-Year Highway Improvement Program” which addresses the rehabilitation of Wisconsin’s State Highways. Rehabilitation, often referred to as the “3-R” Program, includes resurfacing, reconditioning, and reconstruction.

- ◆ Resurfacing the highway provides a better ride and extended pavement life;
- ◆ Reconditioning the highway entails addition of safety features, such as wider lands, or softening of curves and steep grades; and
- ◆ Reconstruction means complete replacement of worn roads, including the road base, and rebuilding to modern standards.

Staff from WisDOT Northeast Region, which includes Manitowoc, have indicated that within the Six-Year Program 2006-2011, the following projects will occur, or have already occurred, within the City:

STH 42

- ◆ Sheboygan County line to USH 151 (southwestern approach to the City): reconditioning, plus provide a three foot paved shoulder (2009-2011).

USH 10

- ◆ S. 8th St. from Madison St. to Washington St.: urban reconstruction with traffic calming (2008); and,
- ◆ Waldo Blvd. from 10th St. to 8th St.: urban reconstruction (2008).

USH 151

- ◆ I-Tec Dr. to STH 42 (western approach into the City): reconstruction with increase from two to four lanes (2009-2011) to a point 1,200 feet west of I-Tec Dr.

Wisconsin Bicycle Transportation Plan 2020

This plan presents a blueprint for improving conditions for bicycling, clarifies WisDOT's role in bicycle transportation, and establishes policies for further integrating bicycling into the current transportation system. The plan reports that, according to a University of Wisconsin survey conducted in August of 1998, more than one-third of all Wisconsin households included someone who took at least one bike trip in the previous week. There are no recommendations specific to the City.

Wisconsin Pedestrian Plan 2020

This plan outlines statewide and local measures to increase walking, and to promote pedestrian comfort and safety. The plan provides a policy framework addressing pedestrian issues, and clarifies WisDOT's role in meeting pedestrian needs. Pedestrian facilities include sidewalks, walkways, streetscapes, crosswalks, traffic controls signals, overpasses and underpasses, bridges, multi-use paths, curb cuts and ramps, transit stops, and paved shoulders. Many of these types of facilities are found in the City.

Wisconsin State Airport System Plan 2020

This plan includes a general inventory of existing airport facilities in the State, and provides a framework for the preservation and enhancement of a system of public-use airports to meet the current and future aviation needs of the State, determining the number, location, and type of aviation facilities required to adequately serve the State's aviation needs over the planning period. It includes recommendations to upgrade existing facilities through runway extensions and replacements and facility improvements, but does not identify any new locations for airports to meet future needs.

The plan anticipates no future changes in Manitowoc-area airport classifications through 2020; that is, MKE and GRB will retain their current designation as "Air Carrier/Air Cargo" airports, and MTW will retain its "Transport/Corporate" designation. There are no recommendations made specific to the Manitowoc-area airports.

Wisconsin Rail Issues and Opportunities Report

This report summarizes critical rail transportation issues identified during a public outreach effort. The report serves as a point of departure for the rail component of the upcoming Connections 2030, WisDOT's next multimodal transportation plan in progress at the time this *Plan* was written. The report identifies the CN railroad as the only railroad currently entering Manitowoc. One CN line runs north-south through Manitowoc, and one CN line comes from the west (Fox Cities) into Manitowoc, intersecting with the north-south CN line before heading into Manitowoc. The final segment into Manitowoc is noted as presently out of service (as of December, 2002). Both lines are projected to be "light density" lines in 2020, carrying fewer than three million gross tons annually. These "light density" lines could require financial assistance in order to preserve rail service and avoid abandonment of track. Current State rail preservation policy may need to be modified to address the preservation of rail corridors and the continuation of rail service for many Wisconsin communities that rely on rail for freight and/or passenger transportation.

TRANSPORTATION GOALS, OBJECTIVES, AND POLICIES

Goal

- a. Provide a safe and efficient transportation system that meets the needs of multiple users.

Objectives

- a. Provide an overall transportation system that accommodates existing and planned development in the most efficient and effective manner possible.
- b. Schedule transportation improvements that accommodate new development without promoting unplanned or poorly planned development.
- c. Provide a system of arterial and collector streets for safe and efficient access to regional highways.
- d. Include safe and interconnected local streets within neighborhoods and between non-residential developments.
- e. Preserve railroad corridors for freight rail service.
- f. Provide safe and efficient pedestrian and bicycle access.
- g. Ensure an adequate parking supply in the downtown area.
- h. Continue to participate on appropriate State, regional, county, and local transportation planning efforts that may have an impact on the City and its transportation system including initiatives related to air, water, and truck transportation.



- Bus transit service can reduce dependence on the single passenger motor vehicle and expand transportation options for residents and visitors.
- Pedestrian and bicycle improvements promotes alternative forms of transportation, reduces energy consumption, and can lead to improved community health.

Policies

- a. Continue to update and implement the City's Capital Improvement Program to help ensure funding for the upgrading of local roads. This type of planning program can help avoid fluctuations in budgets on a year-to-year basis, and promote responsible borrowing of funds, where necessary.
- b. Require the construction of a limited number of collector streets in neighborhoods to provide safe and efficient access to major arterials, meeting design standards outlined in the City's subdivision ordinance.
- c. Require all new streets in the City to be designed to provide safe and efficient access by City maintenance and public safety vehicles.
- d. Preserve sufficient public street right-of-way to allow for needed street updates and improvements, through subdivision review and Official Mapping.
- e. Control driveway access and maintain minimum sight distances along arterial and collector streets, updating streets and sidewalks or zoning ordinance standards as necessary to accomplish this objective.
- f. Discourage the extensive use of cul-de-sacs that would force local traffic onto a limited number of through streets, as they are difficult to maintain, and break up neighborhood continuity.

- g. Maintain efficiency of arterial and collector streets serving the City—including Calumet Ave. (USH 151), Dewey St., Rapids Road, and Waldo Blvd.—by minimizing and consolidating curb cuts and driveway access points.
- h. Consider conducting a one-way pair conversion study for S. 8th and S. 10th Streets to determine the appropriate traffic flow approach, and to address concerns about conversion and impacts upon business viability.
- i. Continue to participate in discussions on, and planning for, regional transportation facilities in coordination with WisDOT and the County.
- j. Add municipal parking stalls, or expand parking facilities as needed, through the site review process to encourage the continued economic vitality of the downtown area.
- k. Enhance the City's "walkability" by requiring sidewalks or pedestrian pathways in all new residential and commercial developments, designing neighborhoods and developments with the pedestrian in mind, and considering the needs of bicyclists and pedestrians in all road improvement projects.
- l. Continue expansion, promotion, and improvement of a riverwalk corridor along the Manitowoc River, including the development of the Ice Age Trail.
- m. Encourage expanded bicycle facilities for both transportation and recreational purposes, including Mariners Trail.
- n. Construct an additional east/west collector street on the north side of the City.
- o. Support the physical expansion of MTW and increased activity in corporate aviation, freight transportation, and leisure.
- p. Continue to promote the use of the City's bus system and explore new bus routes to serve future development and existing developed areas which are underserved (see Map 6: Transportation Facilities).
- q. Work with Maritime Metro Transit System, the County, and private providers to continue to expand transportation options for those who require them such as the elderly, disabled, and children.
- r. Encourage car-pooling and van-pooling through existing park and ride facilities along I-43 (see Map 6: Transportation Facilities).
- s. Continue investment and improvements in the Manitowoc Harbor and River area including the carferry.

TRANSPORTATION RECOMMENDATIONS, AND PROGRAMS

The following section is a description of the transportation improvements illustrated and recommended through Map 6: Transportation Facilities, as well as recommendations and programs which address non-map transportation issues.

Planned Arterial and Collector Roads

Map 6 identifies proposed locations of arterial and collector roads, based on the City's adopted Official Map. These roads are generally located in areas where future development is proposed (see Map 5: Future Land Use). Key extensions and connections of arterial and collector roads are also identified on Map 6: Transportation Facilities including Goodwin Road, Albert Dr., Magnolia Ave., and S. 26th St.

Intersection Improvements

Over the next 10 to 20 year period, upgraded traffic controls will most likely be warranted at several intersections, particularly in areas of new development. When the time comes to install a traffic control device, the City will work with other agencies to examine traffic signals, modern roundabouts and/or revised intersection geometry, to determine which type of traffic control best fits the need of a particular intersection. Where traffic signals are installed, preemptive devices should be included for public safety purposes. Modern roundabouts have advantages over traffic signals in terms of safety (far fewer head-on or t-bone collisions), flow (less wait time at intersections), cost (initial installation and maintenance), and energy-efficiency.

Rail Service

The City supports the preservation of the existing railroad lines in the City for freight rail service. The City's land use policies support reserving remaining industrial sites along the rail lines for users of that service.

However, the City encourages the removal of the two railroad bridges which are located near the CN Peninsula property in order to improve shipping traffic movement.

Airport

The MTW is an important asset for making Manitowoc globally connected, and retaining businesses and talent. Private hangar spaces range from smaller single-plane hangars to larger corporate operations capable of handling up to 12 aircraft. The airport has ample room for expansion, including sites for an additional 18 private hangars, 11 corporate hangars, and a restaurant. Map 6: Transportation Facilities identifies a potential northern runway expansion and the necessary rerouting of Goodwin Road. This 1,500-foot extension would allow corporate jets capable of long international flights to land in Manitowoc. It also opens the doors to an entirely new caliber of company—those doing international business in the global economy. The Manitowoc Company is the airport's biggest user.

In addition to facility expansion, airport staff, the City, County, and the EDCMC should coordinate marketing efforts, and increase communication in general to take advantage of the airport asset.

Bus Transit Service

Map 6: Transportation Facilities identifies existing and potential future bus routes in the City. Potential new routes will be considered where more intensive new development is proposed, in particular west of I-43 along Alverno Road and through the I-43 Industrial Park. Actual location and establishment of routes will depend on timing and type of development, projected ridership, and funding. The City will continue to work with Two Rivers on bus service between the two cities, and consider collaboration with other cities in the region, such as Sheboygan, on inter-city bus routes.

Maritime Metro Transit is currently undergoing a five-year development plan to guide the system from 2009 to 2013. The plan is expected to be completed by mid 2009. This *Plan* should be updated to incorporate the recommendations of that plan when completed.

Pedestrian and Bicycle Improvements

Overall, the City's network of streets, sidewalks, and multi-use paths provides good pedestrian and bicycle movement through the City. However, there are portions of the City that are not well served with multi-modal facilities. Map 6: Transportation Facilities shows the major existing, and planned bike and pedestrian facilities throughout the City.

The City should develop a system of "spine trails" that would become the major regional trails. Ultimately these trails should extend beyond the City limits and connect to other County and State trails. The key elements of the City's "spine trail" system are listed below. The trail routes will involve a combination of City-owned park and conservancy land, easements through private property, Ice Age Trail routes, and sections on public street right-of-way.

- ◆ S. Lakeshore Trail (Silver Creek Park to 8th St. Bridge).
- ◆ Mariners Trail (8th St. Bridge to Two Rivers).
- ◆ Manitowoc River Trail (downtown to Henry Schuette Park/Manitou Park).
- ◆ Little Manitowoc River Trail (Lincoln Park to N. 18th St.).
- ◆ Upper Silver Creek Trail (I-Tec Park).

The City has also endorsed an Ice Age Trail route through Manitowoc. From the west, the preferred route would extend along the south side of the Manitowoc River, crossing at Revere Dr., then taking Michigan Ave.

to 11th St. From 11th St., the route turns onto Park St., through Union Park, and onto 6th St. The route then connects with the Mariners Trail along Lake Michigan.

In particular, the routes through the downtown, lakefront, and riverfront areas will increase pedestrian and bike access, for both visitors and residents, to key natural amenities.

The City's "Park, Recreation, and Open Space Plan 2005-2010" includes a more thorough presentation of these facilities. The following recommendations apply to the City's treatment of bicycle and pedestrian facilities in general:

- ◆ Direct bike and pedestrian crossings of major roadways to controlled intersections with proper signalization and striping.
- ◆ For "Recommended Intersection Improvements," as illustrated on Map 6: Transportation Facilities, attend also to the needs of bicyclists and pedestrians.
- ◆ For multi-use trails, generally provide 10 feet of paved surface width within a 20-foot wide easement or dedication, ¼ mile markers for longer trails, and pavement bulb outs for emergency access vehicle turn arounds.
- ◆ For "Planned Expansions to Existing Roads" (solid red lines on Map 6) or "Planned Arterial Roads" and "Planned Collector Streets" (dashed red lines on Map 6), install or improve sidewalks on both sides and integrate on-street bike lanes in the design.
- ◆ Prioritize sidewalk installation or improvement along safe walking routes to schools, and between other key walking origins and destinations. In general, sidewalks and/or trails should connect disconnected portions of existing trails and sidewalks, neighborhoods, schools, senior facilities, key industrial and commercial areas, transit centers and park and ride lots, and parks and recreational facilities. Continue to update and implement the five-year sidewalk program.
- ◆ In new developments, require sidewalks along both sides of streets with average daily traffic projections of greater than 2,000 trips per day, and along at least one side of streets with projections of less than 2,000 trips per day.

Downtown One-way Pair Conversion

Between the 1950s and 1960s, many communities converted their downtown streets to one-way pairs to help traffic move more efficiently based on traffic engineering recommendations. While one-way traffic does flow more easily and quickly, there are other considerations that have prompted communities across the U.S. to pursue the conversion of their one-way pairs back to two-way streets.

A 1985 traffic and parking study recommended that the City maintain the one-way traffic pattern, concluding that conversion of S. 8th and S. 10th Streets to a two-way system would result in poorer traffic flow through the downtown. It should be noted, however, that at the time the study was conducted, components such as pedestrian and bicycle safety, economic vitality (potential sales as a result of retail business street exposure), and transit routing were not evaluated. Evaluation of these additional components may have resulted in a different recommendation from this study which is now over 20 years old.



8th Street in Downtown Manitowoc

To increase connectivity for Manitowoc residents and visitors, the community's one-way pair should be considered for conversion to two-way streets following a detailed traffic and economic impact study. The benefits of conversion that have been experienced in other communities include: directness of travel and ease of wayfinding; economic vitality for downtown businesses; increased safety and convenience for pedestrian and bicycle travel; safer speeds; and maintenance of an acceptable level of service. However, there are concerns about conversion including the impact on near-by intersections, impact on traffic flow in other parts of the City, and the cost of conversion. A detailed traffic study could address these concerns and would typically include the following components:

- ◆ Existing conditions.
- ◆ Advantages/disadvantages of the existing one-way traffic flow pattern.
- ◆ Potential issues.
- ◆ Ease of travel for non-residents/accessibility.
- ◆ Transit routing.
- ◆ Pollution.
- ◆ Traffic flow impacts (capacity, speed, and vehicle delay).
- ◆ Traffic signal/sign and intersection modifications.
- ◆ Parking impacts.
- ◆ Pedestrian mobility and safety.
- ◆ Economic vitality – potential sales as a result of retail business street exposure.
- ◆ Alternative scenarios (no conversion, scenario A, scenario B, etc.).
- ◆ Implementation costs.

In addition, once an alternative is selected, implementation plan components may include:

- | | |
|----------------------------|--|
| ◆ Communication strategy. | ◆ Traffic calming initiatives. |
| ◆ Publicity campaign. | ◆ Signal timing. |
| ◆ Wayfinding. | ◆ Additional staff in the short term to assist with transition from one-way to two-way. |
| ◆ Lane markings. | ◆ A separate traffic study to assess speeds, volumes, and accident conditions along segment, if converted. |
| ◆ Streetscape features. | |
| ◆ Pedestrian enhancements. | |

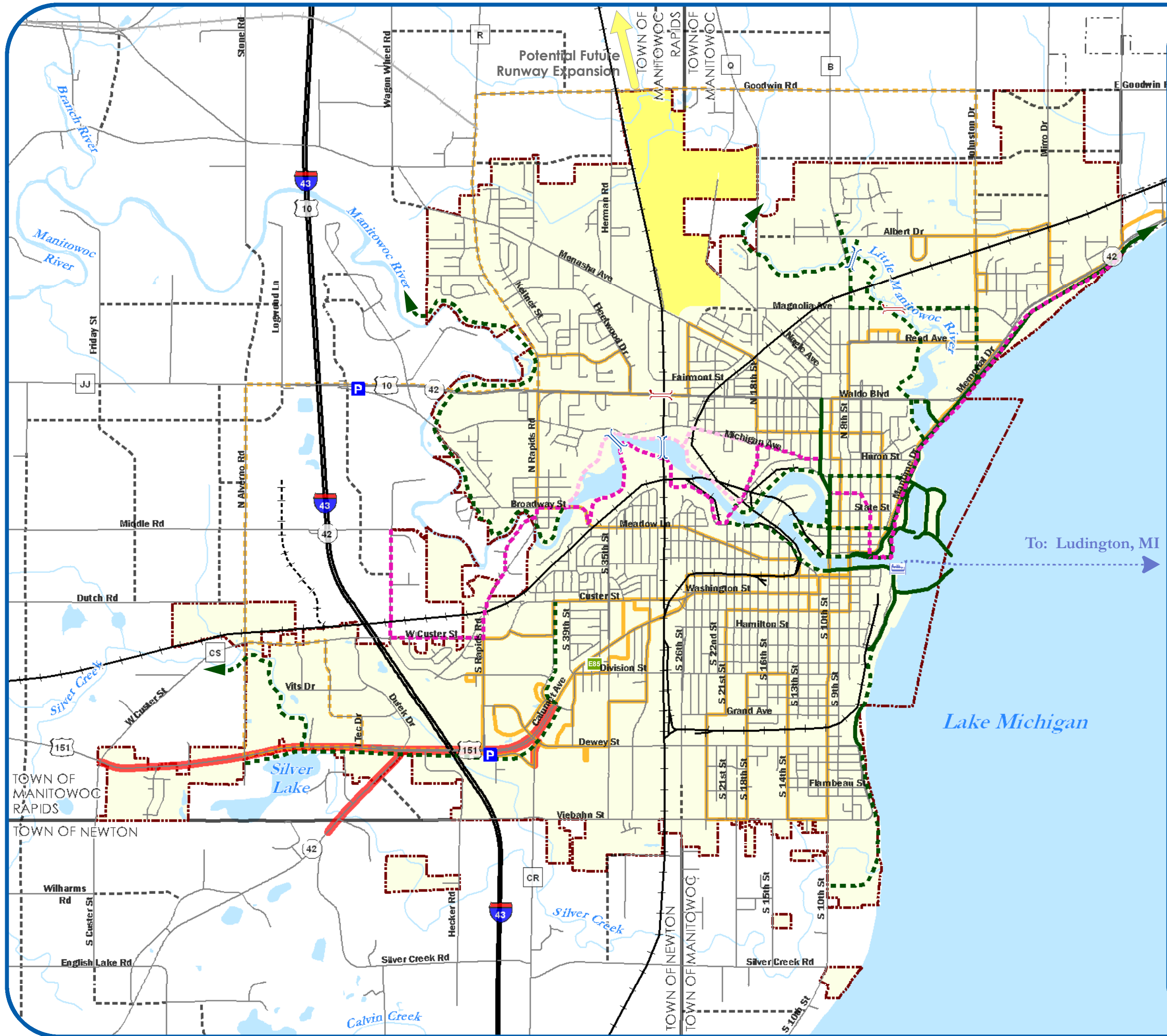
In addition, it will be important to collaborate with Mainly Manitowoc (the Main Street Program), the downtown business community, WisDOT, and others in preparing for, developing, and implementing a study.

Support Other Transportation Options

The City will continue to work with the County and other transportation providers to support alternative transportation options, including commuter facilities, paratransit for the growing elderly and disabled populations, transportation services for lower income workers, and regional bus transit service to other cities. Some programs available at the time this *Plan* was written include:

- ◆ **Specialized Transportation Assistance Program for Counties.** This program provides funding for transportation services, purchasing services from any public or private organization, subsidizing elderly and disabled passengers for their use of services or use of their own personal vehicles, performing or funding management studies on transportation, training, and the purchase of equipment. This program requires a 20 percent local match in funding.

- ◆ **Elderly and Disabled Transportation Capital Assistance Program.** Eligible applicants include private and non-profit organizations, local public bodies that do not have access to private or public transportation, and local public bodies that are approved providers of transportation services for the elderly and disabled. The program covers 80 percent of the cost of eligible equipment.
- ◆ **Wisconsin Employment Transportation Assistance Program (“WETAP”).** This program supports transportation services to link low-income workers with jobs, training centers, and childcare facilities. Applicants must prepare a Regional Job Access Plan that identifies the needs for assistance. Eligible applicants include local governments and non-profit agencies.



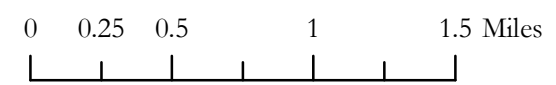
Transportation Facilities

Map 6

City of Manitowoc Comprehensive Plan

- City of Manitowoc
- Other City & Village
- Town Boundary
- Surface Water
- Roads**
 - Interstate Highway
 - Other Road
 - Planned Arterial & Collector Roads
 - Proposed Road Expansion/Improvement
 - Alternative Fuel Station
 - Recommended Bridge Improvement
 - Pedestrian Bridge
- Transit**
 - Existing Lake Michigan Carferry Terminal
 - Existing Bus Routes
 - Potential Future Bus Routes
 - Existing Park & Ride
 - Manitowoc County Airport
 - Existing Active Railroad
 - Existing Inactive Railroad
 - Potential Future Rail Spur
- Bike & Pedestrian Facilities**
 - Existing City Bike/Pedestrian Facilities
 - Proposed City Bike/Pedestrian Facilities
 - Proposed Ice Age Trail - Primary Route
 - Proposed Ice Age Trail - Alternate Route

To: Ludington, MI



VANDEWALLE & ASSOCIATES INC.
Shaping places, shaping change

Date: December 21, 2009
Source: City of Manitowoc, Land Use Inventory (2008); Manitowoc County LIO; US-DOT; V&A

CHAPTER FIVE: UTILITIES AND COMMUNITY FACILITIES

Public utilities and community facilities comprise the framework for servicing existing development and future growth in the Manitowoc area. The purpose of this chapter is to identify the City's long-range utility and community facility needs. This chapter contains information regarding existing utilities and community facilities, including location, use, and system capacity; and provides a timetable for expansion, rehabilitation, and construction of new facilities. This information is used to inform goals, policies, programs, and recommendations at the end of the chapter.

EXISTING UTILITIES AND COMMUNITY FACILITIES

Municipal Facilities

City Hall, located at 900 Quay St., houses most municipal departments, although certain departments have additional offices or facilities as well. The Department of Public Works is located at 2655 S. 35th St. Parks and Recreation's main office is located in Citizen Park, 930 N. 18th St., with a maintenance building at 1105 Fleetwood Dr. The Senior Center is located at 3330 Custer St. Maritime Metro Transit has an office at 2655 S. 35th St., in addition to the Intermodal Transfer Center at 915 S. 11th St. described in Chapter Four: Transportation. The City also operates Evergreen Cemetery, located at 2221 Michigan Ave., and the Rahr-West Art Museum, located at 610 N. 8th St.



Manitowoc City Hall

Law Enforcement and Protection

The Manitowoc Police Department (MTPD) is a 24 hour/seven day a week, fully staffed police department located in the Manitowoc Safety Building at 910 Jay St. In 2008, MTPD was restructured.

The command staff is comprised on a Police Chief, a Deputy Chief, four Captains, and an Office Manager. In addition to the command staff, the department also includes a 14-member first shift, a 15-member second shift, a 14-member third shift, a 9-member Detective Bureau, a 17-member Community Policing Units (including three School Resource Officers and 11 crossing guards), and 10 civilian office or support staff. In 2009, MTPD employed 65 sworn officers, 10 full-time and one part-time non-sworn staff, and 11 part-time crossing guards.

Several long-term projects and improvements were initiated at MTPD in 2007, including deployment of voice recognition software to automatically translate MTPD Officers' dictation into printed reports, in-car video system installation, and completion of the MTPD internet and intranet websites. MTPD received several grants in 2007 and 2008. Most notable is one for \$82,500 to replace the Department's hand held radios, a necessity to comply with new Federal regulations. Through cooperation between private donors, the business sector, and the Manitowoc Department of Public Works, a new training facility and storage building was erected at the outdoor shooting range, 3130 Hecker Road.

Fire Protection and Emergency Medical Services

The City's 59-person Fire Department is headquartered at Fire Station #1 at 911 Franklin St., and is supported by Fire Stations #2, #3, and #4. The Department is led by a Fire Chief, two Deputy Chiefs, and three Battalion Chiefs.

In addition to fire suppression and investigation, the Department offers preventative services including public education, fire code enforcement, smoke detector installation, carbon monoxide investigations, and hazardous materials response.

The Fire Department also responds to non-fire emergencies, providing medical care and transportation. Specific services include paramedic ambulance response, emergency medical first response by EMT-D Engine Companies, local and interfacility and specialty care transports, and specialized rescue provides additional public services as needed and appropriate.

Library

The Manitowoc Public Library is located at 707 Quay St. Manitowoc has enjoyed a community library since 1904, when the first library opened in the City on N. 8th St. In 1904, a grant from Andrew Carnegie allowed for a significantly improved free public library. This library served the community until it was replaced in 1969 by the Hamilton St. Library building. By the 1990s, as the need for more space and updated technology grew, the Hamilton St. building became inadequate. A proposal by the Manitowoc Public Library Board of Trustees around 1997 called for an expansion of approximately 21,700 square feet at Hamilton St., which measured 32,500 square feet. The expansion and renovation cost was estimated at \$6 million. The City Council ultimately denied this request. In 1997, a joint venture between The Library Foundation and the City raised approximately \$5 million toward a downtown library, with the City investment totaling \$3.56 million, plus an additional \$220,000 investment from tax incremental financing. In 1998, following substantial community input regarding site, design, and features, a new downtown library totaling \$6.2 million, opened in its present location. The 52,000-square foot, two-story library is open daily from Labor Day Weekend through Memorial Day Weekend; during summer the library's hours are shortened, and it is closed on Sundays. The library attracted nearly 322,000 library visits in 2008.



Manitowoc Public Library

Manitowoc Public Library is part of the Manitowoc-Calumet Library System ("MCLS"), which includes six libraries in Manitowoc and Calumet counties—Manitowoc, Lester (Two Rivers), Kiel, Brillion, Chilton, and New Holstein Public Libraries. The six MCLS libraries are open to all residents of the two counties. Residents of the six cities maintaining libraries support their library with their city taxes; each county reimburses the city libraries for serving county residents outside taxed areas. The library's collection includes over 210,000 books and serial volumes, over 13,000 electronic books, nearly 17,000 audio materials, and over 17,000 video materials. The library also features 48 computers (27 internet connected) available to the public. These computers were used in over 92,000 visits in 2008.

MCLS services include interlibrary loans, delivery, backup reference, consulting, continuing education for library staff, planning and support for library technology, and other assistance. MCLS has a separate staff from the individual libraries. The MCLS staff is housed in the Manitowoc Public Library, which serves as the system's resource library.

Manitowoc Public Library, like the other libraries in the system, maintains its own plan for services. MCLS assists with County library planning. MCLS also has agreements with other Wisconsin library systems, that open nearly all of Wisconsin's public libraries to Manitowoc and Calumet County residents.

A volunteer organization, Friends of the Library, has served the Library since 1963. There are currently over 200 members governed by a Board of Directors. The organization works to help focus public attention on: library needs and events, programs, services, and resources; supports development and expansion of facilities and services; provides volunteer services; and helps fund special library needs. The Friends are actively involved in many library activities. Recent examples include pledges to the Centennial Endowment Fund, sponsorship of an author series, discussion series, young adult events, and ongoing used-book sales.

The Manitowoc Public Library Foundation established and administers the Centennial Endowment Fund. Investment income from the fund is used to improve the services of the Manitowoc Public Library beyond what tax dollars alone can achieve, specifically in terms of collection, programs, special equipment, facilities, and staff development.

Manitowoc Public Utilities (“MPU”)

Manitowoc owns Wisconsin's largest municipal electric utility—MPU, located at 1303 S. 8th St. MPU is a tremendous asset to the City, providing reliable cost-efficient electricity, water, district heating, and fiber optic services. Municipally owned, though managed separately from City government, MPU has focused on the needs of the community for nearly a century. Today, MPU provides its more than 17,000 customers with some of the lowest utility rates in the nation. MPU's assets make it the City's largest taxpayer. MPU employs 97 people in its operation, has 225 miles of distribution line, and 184 miles of water mains.

MPU Water

The MPU Water Department provides treated water to the City on the order of roughly eight million gallons per day (“MGD”), with summertime peak demands approaching 13 MGD. MPU's primary source of water supply is Lake Michigan. In 1999, MPU installed state of the art Microfiltration Membrane technology to treat Lake Michigan water, which provides an absolute physical barrier to water borne pathogens such as Cryptosporidium and Giardia. In addition to the water treatment plant, MPU also utilizes two Ranney Collector groundwater wells with a capacity of 14 MGD to consistently meet the City's water demand.

In 2004, MPU signed a historic agreement with the Central Brown County Water Authority (“CBCWA”), a joint water authority comprised of six communities near Green Bay, Wisconsin. With this agreement, MPU would provide treated Lake Michigan water to the CBCWA as a wholesale customer to serve a population of approximately 80,000 customers. With this new wholesale water customer, MPU completed a \$26 million dollar water treatment plant expansion, paid for by the CBCWA, to meet the water demands of the City and the CBCWA. This expansion results in several levels of reliability and redundancy to ensure the collective water demands of the MPU (water and electric facilities) will be met, including two lake intakes, two raw water pump stations, and two Microfiltration water treatment plants. The current total water treatment capacity is 35 MGD, with an expected ultimate build-out capacity of 55 MGD.

The water system's intakes are located far off shore to minimize the affect of pollution from shore affecting water quality. However, water quality fluctuations may result due to easterly windstorms in late summer. WisDNR's “SWAP” program found Manitowoc's municipal water system has reliably provided high quality drinking water. It determined that the City's municipal water system has a “moderate level of susceptibility to contamination.” This determination is expected because of the City's primary reliance of Lake Michigan water (all drinking water systems that rely on surface water are considered at least moderately susceptible, if not highly susceptible, to contamination by WisDNR due to the ease with which surface water can be contaminated relative to groundwater). The full report of the MPU Source Water Assessment can be found on the WisDNR's website <http://dnr.wi.gov/org/water/dwg/swap/>. For additional information on the sources of surface water contamination in the City, see Chapter Two: Agricultural, Natural and Cultural Resources.

The MPU water distribution system consists of three pressure zones, two booster pump stations, an underground reservoir, and two elevated water towers. Total distribution system storage equals 7.75 million gallons,

and will soon grow to nine million gallons when the Northwest Water Tower is complete in the fall of 2009, and connected to the City's water system.

The Utility's five-year capital works program includes updating the aging water infrastructure systematically, based on numerous factors including the age, condition, and watermain break history of the assets.

MPU Electric and District Heat

MPU's plant facility houses a range of power generation technology, much of which has been modernized using the latest digital technology available to improve plant efficiency, safety, and pollution control. The plant was originally designed to burn high-grade stoker coal, but MPU has continued to invest in pollution control and new boiler technology to burn lower cost fuels, which include coal, petroleum coke, natural gas, fuel oil, and paper pellets. In 2007, MPU burned over: 75,000 tons of coal; 172,000 tons of petroleum coke; 14,500 tons of paper pellets; 714 tons of charcoal; and 72,000 tons of limestone. Fuel arrives via truck, lake vessel, or rail car. Fuel is stored just east of the power plant, and on the Manitowoc River near the carferry dock. Within the plant, four boilers burn solid fuel to generate steam that powers four turbine generators. Additionally, steam is supplied at a controlled pressure to the Busch Agricultural Resources malting facility and to a district heating system located 3,000 feet north of the power plant. The power plant directly supplies low cost steam heat to eight customers, including the County Courthouse and Lincoln High School. To meet peak demand and provide backup and emergency power, MPU installed two, five-megawatt diesel generators in 1985. Kept warm at all times, these generators can provide power within minutes upon demand.

In 1990, MPU brought on line a first-in-the-State circulating fluidized bed boiler. This boiler technology uses crushed limestone to limit sulfur dioxide emissions and is capable of burning a wide variety of fuels, including petroleum coke, which is a byproduct of the refining industry. Additionally, due to the low firing temperature, these boilers are a low emitter of nitrous oxide. The steam produced by this boiler is utilized in the existing turbine generators and can be used to supply steam to the district heat system.

In addition to the power plant, MPU installed an additional turbine/generator at the Custer St. Energy Center located north of the City's I-TEC. Run on either diesel fuel or natural gas, this turbine/generator is also used to supply peak power to the City, and can be used for emergency power. The Energy Center also includes a distribution substation, allowing MPU to serve rapidly growing industrial loads in I-TEC and other west side developments.

Due to the success of the circulating fluidized bed boiler built in 1990, MPU completed a companion 63.4-megawatt boiler and turbine project in 2005. The new boiler operates at a higher temperature and pressure than the previous boilers, to increase operating efficiency and is again fueled primarily by petroleum coke. The new turbine has become the primary source of steam for MPU's steam customers.

MPU owns and operates six electric distribution substations, each supplied from a highly reliable, looped transmission system that is owned and operated by the American Transmission Company. MPU ranks in the top quartile of U.S. utility companies for electric reliability performance. The utility currently plans to construct a seventh substation to accommodate load growth and maintain reliable performance.

In 2008, the City of Kiel Electric Utilities contracted with MPU for management services and technical support. This strategic alliance helps to ensure that Kiel provides affordable and reliable electric service at reasonable cost. It also provides additional revenue for MPU to reinforce its fiscal responsibility to customers.

MPU Fiber Optics

MPU completed installation of a 33-mile City-wide fiber optic cable network in 2004. The "dark" fiber used was designed to provide a robust, dedicated, and secure communications infrastructure with limitless communications speed between any two locations in the City. Connections to facilities outside of the City limits are provided through MPU partnerships with third party vendors. Businesses can use the dark fiber network to provide dedicated, gigabit ethernet connections between customer buildings. The fibers are assigned and dedicated for the exclusive use of the customer. Customers can upgrade their own electronic equipment on

their own schedule, and budget to provide essentially limitless bandwidth between its buildings. The fiber optic infrastructure is routed through the I-TEC, and is readily available for dark fiber leasing opportunities.

Telecommunications Facilities

In addition to MPU's fiber optic ring, there are numerous telecommunication towers in the City, providing good coverage. Existing telecommunication facilities are depicted on Maps 7a and 7b Community Facilities.

The City recently implemented WiFi access in the downtown which provides free medium speed internet. The areas covered include the Library and riverfront, much of downtown along 8th St., and Washington Park. The signal has limited penetration of buildings and is intended for outside use.

Sanitary Waste Treatment Facilities

All sanitary sewage in the City is treated at the Manitowoc Wastewater Treatment Facility located at 1015 S. Lakeview Dr. The treatment plant processes an average of nine MGD and has a rated capacity to treat up to 15.5 MGD. Manitowoc's industrial base discharges about 40 percent of the plant's daily flow. Manitowoc has a separated sewerage system, meaning that stormwater is not combined with sanitary sewage. The stormwater has its own conveyance system to remove the water to various discharge points around the City.

In 2001, a major upgrade to the facility was completed at a cost of \$20.3 million. Three outdated structures were razed and one new structure was added that incorporated the processes from these buildings. Improvements were made in the digester mixing equipment, stack filter drives, rock filter pumping, and tertiary sand filter operation. Belt presses were added to provide for flexibility in disposal of biosolids. A major component of the plant upgrade was the provision of a Supervisory Control and Data Acquisition ("SCADA") system that allows operators to control the plant via computer.

The City's five-year capital improvement plan includes sanitary interceptor sewers, lift stations, and force mains. Key projects include:

- ◆ Major upgrade to the River Heights lift station.
- ◆ New lift station to serve the Waldo Blvd./I-43 intersection.
- ◆ New interceptor from the N. Rapids Road lift station to Michigan Ave.
- ◆ New interceptor from Michigan Ave. to I-43.
- ◆ New interceptor from CTH LS to S. 26th St. and Silver Creek Road.
- ◆ New sanitary sewer on S. 26th St., S. Alverno Road, Vits Dr., Fessler Dr., Nagle Ave., Evergreen St., Magnolia Ave., and N. 18th St.

Solid Waste Disposal and Recycling

The City's residential solid waste is handled by private waste haulers. The following companies offer subscription services—Veolia Environment, Larry's Hauling, Waste Management, and Pozorski Hauling and Recycling.

Recycling and waste reduction services are provided to residents of the County, including City residents, at the County Recycling Center, also known as the Material Recovery Facility ("MRF"). Residents of Manitowoc may contract with private waste haulers to pick-up recycling, or they may drop off recyclables at the MRF. Recyclable materials accepted for drop-off at the facility include plastic, glass bottles, cans, cardboard, and paper. The facility offers special programs to accept Christmas trees, electronics and light bulbs, hazardous household waste, pharmaceutical drug disposal, waste tires, and mercury. The County also offers a public education and general information program on proper disposal methods, waste reduction, and other solid waste and recycling issues.

Stormwater Management and Erosion Control

The City has both a stormwater management ordinance and a soil erosion control ordinance as separate chapters of its municipal code. Stormwater management regulations and practices are implemented through the City's Public Works Department. Like many cities, Manitowoc is currently addressing new State and Federal rules requiring stricter measures for stormwater management. The City also currently regulates erosion on construction sites through its erosion control ordinance, with the intent of requiring the use of stormwater BMPs to reduce the amount of sediment and other pollutants resulting from land disturbing construction activities.

The City's five-year capital works program includes stormwater management and quality projects. Key projects include an underground detention basin at Wilson Junior High School, Washington Junior High School, and numerous water quality basins.

Elementary and Secondary Schools

Residents of the City are served by the MPSD. The District's service area covers a total of 93 square miles including Manitowoc and portions of the Towns of Manitowoc, Two Rivers, Newton, Manitowoc Rapids, and Kossuth. MPSD is comprised of 11 schools providing pre-kindergarten through grade 12 education for school-aged children. All district students attend Lincoln High School. District students attend one of two junior high (grades 7-9) schools, and one of six elementary (grades 1-6) schools, generally determined by their place of residence. All pre-kindergarten and kindergarten students attend the Early Learning Center. The District also includes McKinley Academy & Manitowoc County Charter School, an alternate high school and charter school for younger students. Map 1: Jurisdictional Boundaries shows the boundaries of the District.

According to the Wisconsin Department of Public Instruction, enrollment in MPSD has been relatively steady in recent years. Figure 5.1 demonstrates that district-wide enrollment dropped during the three school years from 2001 to 2004, then increased during the following three school years, through 2008. This pattern was mirrored at MPSD's most populous school, Lincoln High. In general, the elementary schools have seen slight declines in enrollment, with the notable exception of Stangel Elementary, at which enrollment has increased notably since the 2003-04 school year. Riverview Early Childhood Center's enrollment tends to fluctuate more randomly from year to year, yet the Center's sharp enrollment increase of nearly 20 percent between the 2005-06 and 2006-07 school years is notable nonetheless.

The MPSD public information office supports the information and communication needs of parents, employees, and the community at large. The public information specialist promotes school activities and events, explains school programs and school benefits, works to build long-term support for the District, and, above all, supports the concept of two-way communication by providing avenues for parents and the public to have a voice in school matters.

Special offerings within MPSD include Gifted & Talented ("EXCEL"), International Baccalaureate ("IB"), and School-To-Career ("STC") programs.

The District's Administrative Office is located at 2902 Lindbergh Dr.

Figure 5.1: Manitowoc Public School District Enrollment 2001-2008

Name	Location	2001- 2002	2002- 2003	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008
Lincoln High (10-12)	1433 S. 8 th St.	1,423	1,433	1,360	1,390	1,422	1,459	1,378
Washington Jr. High (7-9)	2101 Division St.	690	676	651	649	673	638	572
Wilson Jr. High (7-9)	1201 N. 11 th St.	659	642	665	647	652	637	597
Franklin Elementary (1-6)	800 S. 35 th St.	420	390	351	347	355	355	348
Jackson Elementary (1-6)	1201 N. 18 th St.	472	471	486	468	443	456	411
Jefferson Elementary (1-6)	1415 Division St.	447	425	426	409	430	410	421
Madison Elementary (1-6)	701 N. 4 th St.	245	250	222	254	275	252	238
Monroe Elementary (1-6)	2502 S. 14 th St.	368	347	364	357	329	342	372
Stangel Elementary (1-6)	1200 E. Cedar Ave.	377	366	341	378	390	418	418
Riverview Early Childhood Center (PreK-K)	4400 Michigan Ave.	417	411	463	446	428	511	775
District Total		5,518	5,411	5,329	5,345	5,397	5,478	5,574

Source: Wisconsin Department of Public Instruction, 2008

Private Schools

In addition to MPSD, a variety of private schools are located in Manitowoc. At the high school level, Manitowoc Lutheran High School, 4045 Lancer Circle, enrolls over 230 students, and Roncalli Catholic High School, 2000 Mirro Dr., enrolls over 320 students. At the junior high level, St. Francis Cabrini Middle School, 2109 Marshall St., enrolls close to 200 6th-8th graders. Junior high students are also served at a number of K-8 schools, including: Bethany Evangelical Lutheran School at 3209 Meadow Lane, with more than 100 K-8th graders; First German Evangelical Lutheran Grade School, 1025 S. 8th St., with nearly 100 PreK-8th graders; Immanuel Evangelical Lutheran Grade School, 916 Pine St., with more than 100 K-8th graders; and St. Johns Evangelical Lutheran School, 7531A English Lake Road, which teaches about 125 students from preschool – 8th grade. Finally, strictly for elementary school students are: St. Francis de Sales Elementary School, 1408 Waldo Blvd.; with about 100 K-5th grade students; and St. Francis Xavier Grade School, 1418 Grand Ave., with about 175 PreK-5th graders.

Higher Education

Post secondary education is offered at several Manitowoc area institutions:

- ◆ Silver Lake College, a private, Roman Catholic institution founded and sponsored by the Franciscan Sisters of Christian Charity, is located at 2406 S. Alverno Road. The College's roughly 1,000 students (69 percent female and nine percent minority), hail from five states and several countries. Silver Lake grants baccalaureate degrees in a variety of fields including education, business, nursing, music, and theology, and grants masters degrees in education, special education, music education, and management and organizational behavior. Silver Lake emphasizes continuing-education programs for working adults through accelerated baccalaureate degree programs and various "outreach" locations in northeast Wisconsin. The College also has a special education clinic in Manitowoc.

- ◆ The University of Wisconsin-Manitowoc, at 705 Viebahn St., is one of thirteen, two-year UW-System colleges that transfer into the traditional four-year UW universities, allowing completion of bachelor's degree. UW-Manitowoc offers first- and second-year undergraduate courses leading to completion of associates of arts and associates of science degrees, as well as various certifications. Other services and community amenities provided by UW-Manitowoc include Continuing Ed, College for Kids, and Upward Bound programs, art-exhibits, and a community-based band, chorus, and theatre. The campus underwent substantial renovation and expansion in 2001, and now enrolls about 640 students.



University of Wisconsin at Manitowoc

- ◆ Headquartered in Cleveland, Wisconsin, Lakeshore Technical College (“LTC”) has facilities in Manitowoc and Sheboygan, including the Manitowoc County Job Center at 3733 Dewey St. LTC offers day, evening, and online courses towards associate and technical degrees and certifications. Fields covered include traditional, as well as newer trades such as renewable energy technology. Locally-oriented, 73 percent of LTC graduates work within the LTC District, which includes all of Manitowoc and Sheboygan Counties, and parts of Calumet and Ozaukee Counties. An emphasis on “Goal-Oriented Adult Learning” includes Basic Education, High School Equivalency, and ESL programs, and outreach centers in area high schools. Additionally, the Center for Entrepreneurship facilitates lakeshore-area small business development, helping firms through one-on-one counseling, seminars, access to a resource network, and on- and off-site training for both large and small employers.

Parks and Recreation Facilities

The “Park, Recreation, and Open Space Plan 2005-2010” includes detailed recommendations for the City’s parks system. The following is a description of existing facilities:

Community Parks

Manitowoc’s large community parks together provide nearly 400-acres of parkland.

- ◆ Lincoln Park & Conservancy Area & Zoo: this 102-acre area, located at 1218 N. 8th St., includes the Lincoln Park Zoo, basketball and tennis courts, a softball diamond, hiking/walking trails, playground, concession stand, permanent grills, open air shelters, restrooms, picnic areas, cabins, and a reservable field house with full kitchen that seats 130.
- ◆ Silver Creek Park: this 79-acre park at 3001 S. 10th St. features a rolling landscape and wooded picnic areas, all complemented by the Lake

Improving Quality of Life

Seventy-eight percent of community survey respondents indicated the following types of park and recreational facilities as medium to high priorities currently needed to serve Manitowoc Residents:

- ◆ Natural areas such as nature trails, wildlife viewing areas, and interpretive centers which focus on natural features such as rivers, streams, ponds, wetlands, woodlands, etc.
- ◆ Bicycle and pedestrian trails which utilize existing public streets, rail lines, and greenbelts.

Michigan shoreline. Amenities include a soccer field, disc golf course, sand volleyball courts, fishing areas, an unguarded beach, cross-country ski trails, walking/hiking trails, over 50 picnic areas, permanent grills and open air shelters, playgrounds, restrooms, a concession stand, and a reservable fieldhouse with full kitchen that seats 100.

- ◆ Henry Schuette Park: this 64-acre park at 3700 Broadway St. features a fitness course, cross-country ski trails, hiking/walking trails, a playground area, fishing and picnicking areas, permanent grills, open air shelters, and restrooms.
- ◆ Camp Vits: a 75-acre undeveloped area on Manitowoc's west side.
- ◆ Indian Creek Park: 50-acres of undeveloped land used as a passive, naturalistic area.



Red Arrow Park

Neighborhood Parks

Manitowoc has eleven neighborhood parks and playgrounds providing over 78-acres of parkland. Examples include Washington Park and Pulaski Park. Common facilities provided at neighborhood parks and playgrounds include softball diamonds, basketball courts, playground equipment, shelters, and restrooms. Neighborhood parks are intended to serve residents within a safe walking distance—generally considered to be one-half mile.

Community Playfields

Manitowoc residents enjoy over 90-acres of community playfields.

- | | |
|--|--|
| ◆ Citizen Park: 28-acres | ◆ Red Arrow Park & Conservancy: 27-acres |
| ◆ Ron Rubick Municipal Athletic Field: 9-acres | ◆ Dewey St. Park: 29-acres |

Mini Parks

The City has four mini parks. Mariners East Landing, Mariners West Landing, and Maritime Dr. Mini-Park are along the Manitowoc River and near Lake Michigan. Dale St. Park is a small neighborhood playlot. Together, these mini parks contribute an additional three acres of recreational land to the community.

Special Use Facilities

Manitowoc's special use facilities provide the community with many additional diverse open spaces and recreational facilities. Additionally, the City is constructing a new \$4.7 million aquatic center. The new center will replace the existing pool at Citizen Park. The aquatic center will open in the spring of 2010.

- | | |
|----------------------------------|----------------------|
| ◆ Manitou Park | |
| ◆ Small Boat Harbor & Marina | ◆ North Lakefront |
| ◆ Manitowoc River Walkway | ◆ S. Lakefront |
| ◆ S. Lakefront Wayside | ◆ River Heights Park |
| ◆ Senior Citizen Center | |
| ◆ Visitor Information Center | |
| ◆ Little Manitowoc River Walkway | |

Other City Facilities

The City operates the Rahr-West Art Museum located at 610 N. 8th St. Exhibits are located in an 1893 Victorian Mansion which is listed in the National Register of Historic Places. A modern gallery was added to the structure in 1975. The Museum features a collection of American Art and additional rotating exhibitions. This is also the site of Sputnikfest; a festival to pay tribute to the crash landing of a piece of Sputnik IV in front of the Mansion in 1962.

Health Care Facilities

Manitowoc is served by several health care facilities including the following:

- ◆ Holy Family Memorial is a local network of health care facilities serving the County. The Medical Center at 2300 Western Ave. is the largest not-for profit hospital in the County. Services include emergency services, cancer care, heart and vascular care, a pain clinic, a wound clinic, OB/maternity unit, and Manitowoc Surgical Associates. Holy Family Memorial has several complementary facilities in Manitowoc, including Lakeshore Pharmacy and Home Medical, at 3310 Calumet Ave. (USH 151), The Wellness Center at 1650 S. 41st St., and the Medical Arts Center at 600 York St.
- ◆ Aurora Hospital, while located in Two Rivers, has multiple facilities located within Manitowoc including the Aurora Walk-in Care Clinic and Pharmacy at 601 Reed Ave., the Aurora Urgent Care Clinic at 4100 Dewey St., and the Aurora Behavioral Health Center at 1425 Memorial Dr.
- ◆ Manitowoc Health and Rehabilitation Center has provided care for county residents since 1885. The facility was recently purchased from the County by the Health Dimensions Group. Services available at the health and rehabilitation facility include short- and long-term care, outpatient rehabilitation, and an Alzheimer's Center. The current facility, which opened at 2021 S. Alverno Road in 2003, provides elderly care in a home-like community. The facility's 150 private beds are arranged into six neighborhoods centered on a commons area of realistic storefronts reminiscent of historic downtown Manitowoc.

Additionally, there are a number of smaller specialty-care clinics and doctor's offices within the City.

Child Care Facilities

A number of child care facilities serve Manitowoc including the Manitowoc-Two Rivers YMCA Preschool at 205 Maritime Dr., the CESA #7 Head Start at 702 State St., the Cooperative Nursery Center Preschool at 502 N. 8th St., Lakeshore Childcare Center at 3400 Division St., and a number of church-run programs.

There are two Montessori Schools—Ashling Montessori School, at 2005 Johnston Dr., enrolling toddlers through kindergarteners, and Children's House of Manitowoc Montessori Preschool and Kindergarten, at 4020 Memorial Dr.

Cemeteries

Evergreen Cemetery, 2221 Michigan Ave., is a City-owned and operated cemetery of 79-acres with approximately 27,217 burials as of June, 2008. The City also owns an additional 27-acres a few blocks to the west, informally known as Evergreen West. No spaces are currently being sold at the newer site, but trees were planted in 2003 to allow the site to beautify in advance of future burials. With approximately 5,000 burial spaces still available for purchase, the City anticipates having spaces available for another 30 years. Evergreen Cemetery also has over 200 niche burials available for human and/or pet remains in its columbariums. The cemetery also features over 20 Civil War veteran burial sites.

There are a number of small cemeteries within the Manitowoc area; some are managed by churches, and not all provide burials today. These cemeteries include: Calvary Catholic Cemetery at 2601 S. 14th St.; St. Mary Catholic Cemetery at S. 18th St. and Division St.; Manitowoc County Hospital Cemetery at Meadow Lane and 35th St.; and Knollwood Memorial Park 1500 Hwy 310 (in the Town of Kossuth).

Civic Organizations

Civic organizations are the backbone of any community. Manitowoc is fortunate to have numerous organizations serving area residents. Chapter Two: Agricultural, Natural, and Cultural Resources includes descriptions of existing organizations.

UTILITIES AND COMMUNITY FACILITIES GOALS, OBJECTIVES, AND POLICIES

Goals

- a. Coordinate utility and community facility systems planning with the land use, transportation, natural resources and recreation needs of the City.
- b. Maintain the City's high quality of life through access to a wide range of sustainable public services and facilities.

Objectives

- a. Provide adequate government services and facilities necessary to maintain a high quality living and working environment.
- b. Supply community services and facilities in a logical, reliable, energy-efficient and cost-effective manner to serve a compact development pattern.
- c. Assure that the costs for new community services, facilities, and utilities are distributed equitably.
- d. Respect natural features and conditions in the design and location of orderly utility extensions.
- e. Work with educational institutions on community facility and service issues of mutual interest.

Policies

- a. Maximize the use of existing publicly-owned utilities (such as public water, sanitary sewer, solid waste disposal, and power lines) and facilities within the City, and plan for an orderly extension of municipal utilities and facilities within the areas identified for future growth on Map 5: Future Land Use such as the I-43/STH 42 interchange area.
- b. Ensure that the City's utility system has adequate capacity to accommodate projected future growth; avoid overbuilding that would require present residents to carry the costs of unutilized capacity.
- c. Ensure the ongoing maintenance of existing on-site wastewater treatment systems in the City and continue to work with property owners to connect to sanitary sewer when appropriate.
- d. Continue to support MPU providing potable water to select areas outside the USA that will not undermine long-term City growth objectives.



- Expanding and improving the park and recreation system promotes the mental and physical health of City residents.
- Developing a municipal Sustainability Plan will expand and promote sustainability initiatives within the City.
- Upgrading and expanding utility infrastructure as needed promotes the quality and efficiency of service delivery.
- Offering quality, affordable childcare facilities provides essential quality of life services and supports economic development in attracting workers and employers.
- Water is rapidly becoming a scarce resource in many parts of the U.S. The City's proximity to the Great Lakes is a major resource for the future.

- e. Ensure that the City's services, including fire/EMS, police, library, and parks, have adequate staffing, facility, and equipment capacity to accommodate projected future growth, and that the City has the ability to capture the value associated with such growth to pay for required City service increases.
- f. Emphasize sustainability, energy-efficiency, and cost effectiveness in the delivery of public facilities and services.
- g. Continue to invest in renewable energy sources and promote sustainability and energy efficiencies.
- h. Expand the use of technology in municipal operations, through tools such as Geographic Information Systems and the internet, as a way to implement the recommendations of this *Plan* and improve the delivery of municipal services.
- i. Work with educational institutions to ensure adequate school facilities and educational services for the Manitowoc area. Work with educational institutions to program joint park and recreational events, and to engage youth in municipal processes and community activities.
- j. Coordinate with MPU to upgrade and expand the fiber optic cable network as necessary to meet future demand.
- k. Update the City's Official Map to reflect the recommendations of this *Plan*, including locations for new public facilities, such as roads, sanitary sewer lines, water lines, storm sewer lines, trail extensions, and parks. This will be particularly important for the growth areas identified on Map 5: Future Land Use.
- l. Follow the City's current "Park, Recreation, and Open Space Plan 2005-2010" when making decisions related to the park system, and update that plan every five years.
- m. Site new parks in areas to enhance neighborhood cohesion and provide common neighborhood gathering places. All new residential development should be within walking distance of an accessible park.
- n. When possible, acquire park and open space lands in advance of, or in coordination with, development to provide for reasonable acquisition costs and facilitate site planning. Parklands in undeveloped areas should be acquired through land developer dedications, where feasible.
- o. Reevaluate park impact fee requirements to reflect the current demand for parkland and conformance with State Statutes.
- p. Make revisions to other ordinances and codes as necessary to implement the recommendations in this *Plan*, including City building codes, mechanical codes, housing codes, and sanitary codes.
- q. Promote water as a key economic development resource, and support MPU's continued investments in Manitowoc.

UTILITIES AND COMMUNITY FACILITIES PROGRAMS, AND RECOMMENDATIONS

The following section is a description of the utilities and community facilities illustrated and recommended through Maps 7a and 7b: Utilities and Community Facilities, as well as recommendations and programs which address non-map issues.

Implement the Recommendations in the City's "Park, Recreation, and Open Space Plan 2005-2010"

The City's "Park, Recreation, and Open Space Plan 2005-2010" provides a comprehensive evaluation and recommendations to address the interest in park space, and should be referred to as the guide for future park system recommendations.

Still, each park and open space plan focuses particularly on the next five-year period, while this *Plan* identifies proposed growth patterns over the next 20 years. General proposed locations for future parks to serve longer-term growth are depicted on Maps 7a and 7b: Utilities and Community Facilities. Some of these future parks are not yet identified in the current "Parks, Recreation, and Open Space Plan 2005-2010." With the

next update of the Plan, ideas regarding the park and recreational needs of future growth areas—as presented in Maps 5 (Future Land Use) and 7 (Utilities and Community Facilities)—should be considered.

One future recreational improvement of particular note is the riverwalk. As described in “The Port of Manitowoc Downtown and River Corridor Master Plan,” the riverwalk and associated recreational facilities along the Manitowoc River are key assets for the City—not only allowing for recreation, but also contributing to aesthetic beauty and economic development. The City is finalizing a riverwalk master plan focused on sustainable design, including a detailed interpretive program for the riverwalk area to create a unique riverwalk experience built upon the history of Manitowoc, and the role of the Manitowoc River in the community. The City recently received a waterfront revitalization planning grant to assist in this effort. In addition, the City should work with neighboring communities and recreation stakeholders to connect the riverwalk and other proposed trails to existing and planned County and State trails.

Promoting Waterfront Recreation

More than 85 percent of community survey respondents agreed or strongly agreed the City should promote recreational/open space uses in waterfront areas.

In an era of diminishing municipal resources, many cities and villages use impact fees on private developments as a way to pay for the off-site costs of community facilities and utilities that result from new development. Impact fees for both park land acquisition and park facility improvements are now standard in many communities across the State. While the City’s subdivision ordinance requires a land dedication, or fee in lieu of parkland dedication, the City should consider instituting impact fees to help fund certain park improvements as allowed under current State Statutes, to assist with implementing the recommendations in this *Plan* and the “Parks, Recreation, and Open Space Plan 2005-2010.”

Enhance Coordination with the MPSD and other Educational Institutions

The health of the City and the health of the various educational providers in Manitowoc are closely intertwined. High quality public and private schools, at all levels of education, enhance the overall quality of life for City residents, increase positive opportunities for the City’s youth, and are a large factor in workforce and economic development. Several initiatives to ensure close collaboration among MPSD, private education facilities, higher educational institutions, and the City are strongly advised. Ideas and advice include the following:

- ◆ To encourage awareness and ongoing communication between the City and MPSD, the City could involve relevant education providers, in review of residential development as well as other issues of mutual concern.
- ◆ The City could establish regular joint Common Council-School Board meetings to identify, discuss, and resolve policy issues of mutual concern, including the impact of new development on schools and on new focuses and vision for curriculum and joint services.
- ◆ The City shall continue to collaborate on a staff/department level to assure that shared facilities and overlapping areas of concern—such as student safety—are addressed in an efficient and effective manner.
- ◆ As the community grows, the location of future school sites will become an important planning issue for the City and the MPSD. School siting decisions will be influenced by the locations of new neighborhoods. The ease of access and availability of safe transportation routes should also influence siting decisions. The City encourages MPSD to prepare a long range facilities plan to forecast facilities needs based on development activity, population growth, neighborhood turnover, and student enrollment trends.
- ◆ The City encourages the public and private educational institutions to work with community leaders and high school students to establish a mentoring program for younger students, and would partner on such an effort.

- ◆ The City supports dialogue and joint educational programming among MPSD, private elementary and secondary institutions, Silver Lake College, Lakeshore Technical College, and UW-Manitowoc to expand educational opportunities for students who are bound for college, and for students who are more directed towards further technical education and the trades.

Other collaborations to strengthen education and career training services in the Manitowoc area are described in Chapter Seven: Economic Development.

Develop a Municipal Sustainability Plan

The City acknowledges the importance and interconnectedness of the economic, social, and environmental health of the community. The environmental and renewable-energy sectors could be the next computer industry—a powerful engine that could lead the Manitowoc economy forward. To support and strengthen the City's current sustainability initiatives, Manitowoc intends to explore the development of a sustainability plan to develop options for improving energy-efficiency and sustainability of municipal operations, including, but not limited to developing guidelines for designing, siting, building, renovating, and operating more energy efficient buildings, and to integrate positive environmental considerations (such as energy efficient products and clean power systems), as well as economic and social impacts into the City's development codes. It is important to emphasize that the sustainability plan should be a means, not an end. The plan would be a tool for future action, identifying shared goals, actions, and objectives to be achieved. Components of such a plan could include:

- ◆ Sustainability vision
- ◆ Summary of existing sustainability efforts
- ◆ Guiding principals
- ◆ Sustainability components:
 - Environmental health
 - Public health
 - Transportation
 - Economic development
 - Housing
 - Air quality
 - Climate
 - Energy
 - Open space and recreation
 - Land use
 - Built environment
 - Food
 - Water and wastewater
 - Culture and heritage
 - Habitats and wildlife
 - Equity
- ◆ Sustainability strategy
 - Short-term and long-term goals, objectives, policies, programs, and action recommendations for each sustainability component
 - Community education and participation plan
- ◆ Implementation plan
 - Implementation steps including identification of a responsible party(s), measures of success, and timeline for each action
- ◆ Matrix for measuring progress

As part of the comprehensive planning process, the City developed a sustainable community memorandum which outlined recommendations for the future direction for sustainability in the community. Please see that document for further details.

Upgrade and Expand Utility Infrastructure as Needed

The USA Boundary depicted on Map 7a: Utilities and Community Facilities delineates the outer boundary of the area that may be served by the City and MPU within the 20-year planning period. Generally, the existing

USA Boundary encompasses sufficient land area needed to meet future demand over the planning period, as mapped on Map 5: Future Land Use. The only areas mapped for future development on Map 5 that are outside the existing USA are west of I-43 north and south of Middle Road, east of S. Alverno Road, and a small area east of I-43 south of Silver Creek Road. While the City establishes an area within which to deliver urban services, requests for annexation and extension of utilities are generally initiated by individual landowners or groups of landowners. Under current State law, annexation is generally driven by the requests of property owners. The City is not able to initiate annexations, except under a few specific circumstances.

Water

MPU' water storage and distribution system is adequate to meet the needs of the City over the next 10 years. When needed, future expansions are not anticipated to require additional facilities.

Sanitary Sewer

The City's 2006 "Sanitary Sewer Master Plan" identifies major long range sanitary sewer improvements. The study was based on the ultimate residential build-out of areas planned for development in the City's 1999 Comprehensive Plan – the extent of the 1999 planning area, and the areas planned for future development in this Plan are very similar. For the purposes of the study, the planning area was divided into five future service areas. Proposed interceptor sewers range in size from eight to 18 inches, and span a total length of approximately 391,000 lineal feet across the existing and future planning area. The proposed system expansion outlined in the study had a total cost of nearly \$1 million dollars. The estimated planning level costs for the various expansions are summarized below. See the Sanitary Sewer Master Plan for proposed locations of future interceptors.

Figure 5.2: City of Manitowoc Sanitary Sewer Master Plan Cost and Lengths by Service Area, 2006

Future Service Area	Total Lineal Footage	Estimated Cost
Northeast	23,000	\$1,765,000
North Central	85,175	\$6,430,000
Manitowoc Rapids	141,400	\$25,915,000
Silver Creek West	110,150	\$14,605,000
Silver Creek East	31,200	\$1,997,000
Total	390,925	\$50,712,000

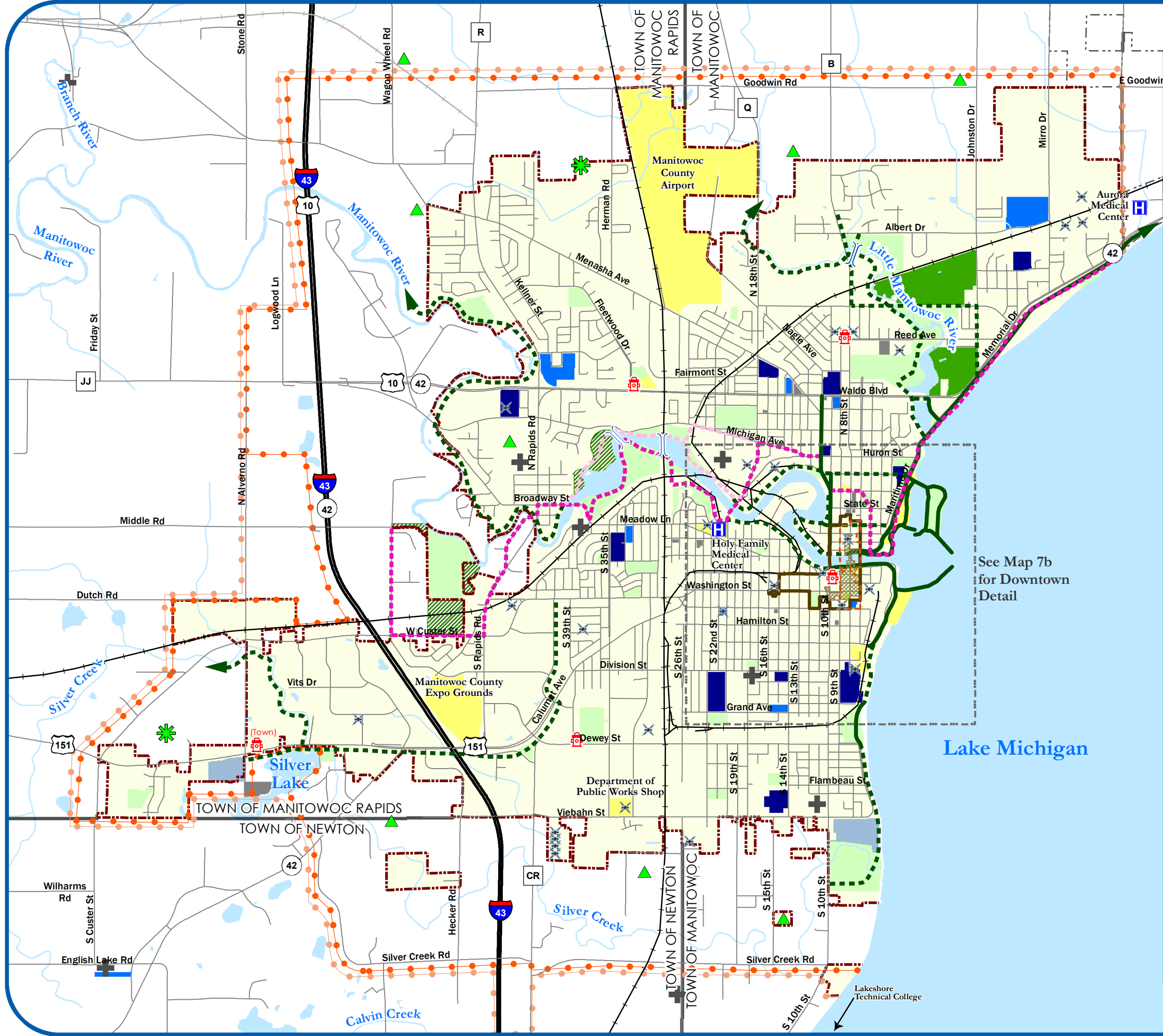
Support Quality, Affordable Childcare Facilities

Quality, affordable childcare is an important ingredient to attracting and retaining a quality workforce, as well as creating a healthy and stable community. The non-traditional schedules for today's high-tech workforce, the number of employers with after hour shifts, more commuters, and the growing number of households with two working parents and single parents, will require flexible childcare facilities with hours of operation that complement employee shifts, and a wide range of childcare options (infant care, day care centers, family day care). The City encourages local businesses to offer childcare services as part of the benefits package for their employees, and will support the creation of child care centers in and near places of employment.

Generally Follow the Timetable Shown in Figure 5.3 to Create, Expand, or Rehabilitate Community Facilities and Utilities

Figure 5.3: Timetable to Expand, Rehabilitate, or Create New Community Utilities or Facilities

Utility or Facility	Timeframe for Improvements	Description
Water Supply	Ongoing	Improve water storage capacity and the distribution system as necessary to serve development.
Sanitary Sewer	Ongoing	Extend infrastructure as necessary and cost feasible to serve development.
On-site Wastewater Treatment Systems	Ongoing	Continue to work with property owners to connect to sanitary sewer when appropriate.
Solid Waste Disposal & Recycling	Ongoing	Continue to contract with private waste haulers for collection service.
Stormwater Management	Ongoing	Continue to require compliance with quantity and quality components for all developments.
	Ongoing	Update stormwater management plan, ordinance, and/or utility as needed.
Police Protection	Ongoing	Expand facilities, equipment, and personnel to meet future needs.
Fire Protection and EMS Services	Ongoing	Expand facilities, equipment, and personnel to meet future needs.
Library	Ongoing	Facilities are adequate to meet future needs.
Municipal Building and Operations	Ongoing	Facilities are adequate to meet future needs.
	2009-2014	Explore developing a municipal sustainability plan.
	Ongoing	Update and expand the use of technology in municipal processes.
Medical Facilities	Ongoing	Encourage improvements to existing facilities as needed.
Schools	Ongoing	Continue to coordinate and communicate with educational institutions on issues of mutual concern.
Parks & Recreation	2009-2010	Implement recommendations of Parks, Recreation, and Open Space Plan.
	2010, 2015	Update Parks and Open Space Plan, considering the recommendations in this <i>Plan</i> , including establishing a park improvement impact fee.
Telecommunication Facilities	Ongoing	Upgrade and expand the fiber optic cable network as necessary to meet future needs.
Power Plants /Transmission Lines	Ongoing	Continue to work with ATC on issues related to the location or upgrade of transmission lines or power substations in the City.
Cemeteries	Ongoing	Facilities are adequate to meet future needs.
Child Care	Ongoing	Area childcare facilities are projected to expand to meet needs. Recommend expanded opportunities in and near employment centers.



Utilities & Community Facilities

Map 7a

City of Manitowoc
Comprehensive Plan



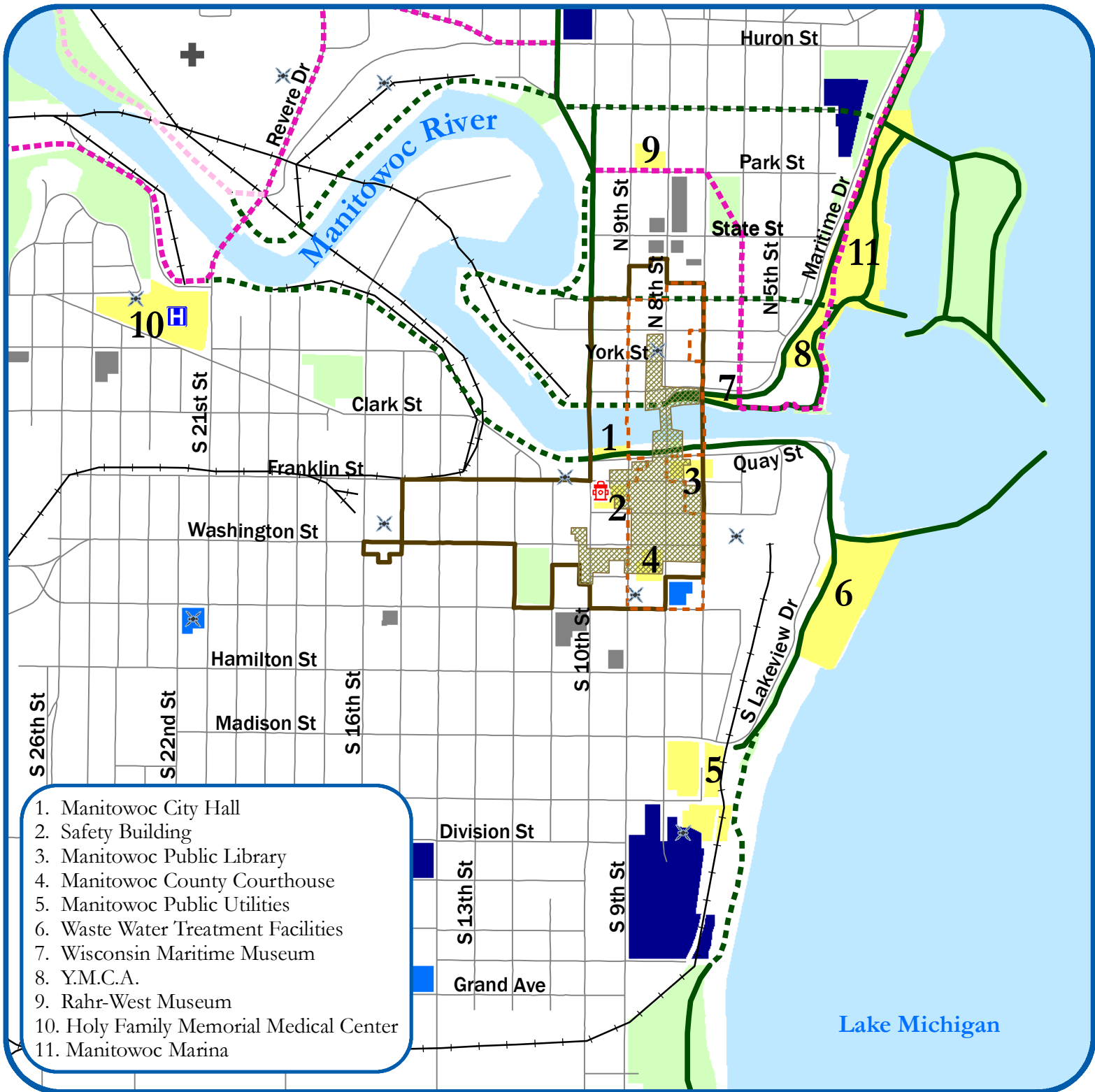
- City of Manitowoc
 - Other City & Village
 - Town Boundary
 - Interstate Highway
 - Other Road
 - Active Railroad
 - Inactive Railroad
 - Surface Water
- Parks & Bike/Pedestrian Facilities**
- Existing Parks & Open Space
 - Proposed Park Land Acquisition
 - Existing Golf Course
 - Planned Neighborhood Park
 - Planned Community Park
 - Pedestrian Bridge
 - Existing City Bike/Pedestrian Facility
 - Proposed City Bike/Pedestrian Facility
 - Proposed Ice Age Trail - Primary Route
 - Proposed Ice Age Trail - Alternate Route
- Special Districts**
- 8th Street Historic District
 - Design Review Area
 - Main Street Program Area
 - Existing Urban Service Area Boundary
 - Potential Future Urban Service Area Boundary

- Other Community Facilities**
- Cemetery
 - Hospital
 - Fire Station
 - Existing Telecommunications Facilities
 - Community Facility
 - Religious Institution
 - Public School
 - Private School
 - Higher Education Facility

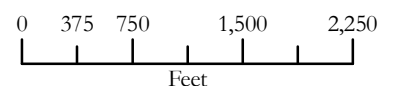


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Shaping places, shaping change

Date: December 21, 2009
Source: City of Manitowoc, Land Use Inventory (2008); Manitowoc County LIO; US-DOT; V&A



Date: December 21, 2009
Source: City of Manitowoc, Land Use Inventory (2008); Manitowoc County LIO; US-DOT; V&A



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CHAPTER SIX: HOUSING & NEIGHBORHOOD DEVELOPMENT

Housing/real estate is a local game. In this regard, Manitowoc's experience may be much different than other regions in Wisconsin. A community's housing stock is its most significant long-term capital asset. As is typical in most communities, housing is the largest single land use in Manitowoc. Housing not only provides shelter, but neighborhoods also help to establish a community's "sense of place."

The purpose of this chapter is to develop strategies to promote a variety of housing types to fit the needs of all residents, and develop quality neighborhoods within the City. This chapter contains information regarding local and State housing assistance programs. The analysis of housing trends and existing conditions shape the goals, policies, programs, and recommendations at the end of this chapter. Additionally, this chapter addresses the adequacy of the City's housing mix to serve Baby Boomers.

2009 ECONOMIC CLIMATE

As noted in Chapter Seven: Economic Development, at the time this *Plan* was written, the world was experiencing an economic recession – housing sales slowed, new single-family residential construction virtually stopped, new non-residential construction slowed considerably, foreclosures increased to record levels, and access to financing became more difficult for citizens and businesses alike. While the causes of this economic downturn are complex, its impact on the housing market has been severe in some communities across the country. As a slow-growing, conservative community, Manitowoc did not experience the housing boom in the early 2000s, and has not seen a significant increase in the number of foreclosures in recent years or a significant decline in home values.

Challenges. Foreclosures and "underwriter homeowners" (those who owe more on their mortgage than their home is worth) can drag down a neighborhood, imposing significant costs not only on borrowers and lenders, but also on municipalities, neighboring homeowners, and others with a financial interest in nearby properties. These impacted properties could become vacant, abandoned, and targets for crime and violence, which can be a burden on local law enforcement officials. A new trend known as "walkaways" is emerging wherein a lender sues for foreclosure, but never takes the title. Surrounding property owners can be affected if their homes experience devaluation. Municipalities then see increasing health and safety problems, a decline in neighborhood stability, and a decline in tax base associated with the decreasing home prices.

Opportunities. Foreclosed and underwriter properties can present an opportunity for investors, and more importantly, first-time homebuyers. These new, young people will positively affect the local labor market. Attracting and retaining young professionals is a key component of the City's continued economic success.

By implementing the recommendations in this *Plan* and taking advantage of available federal grants, the City can strengthen its housing stock and neighborhoods. Opportunities associated with the housing crisis and current recession are explored in more detail later in this Chapter and Chapter Seven: Economic Development.

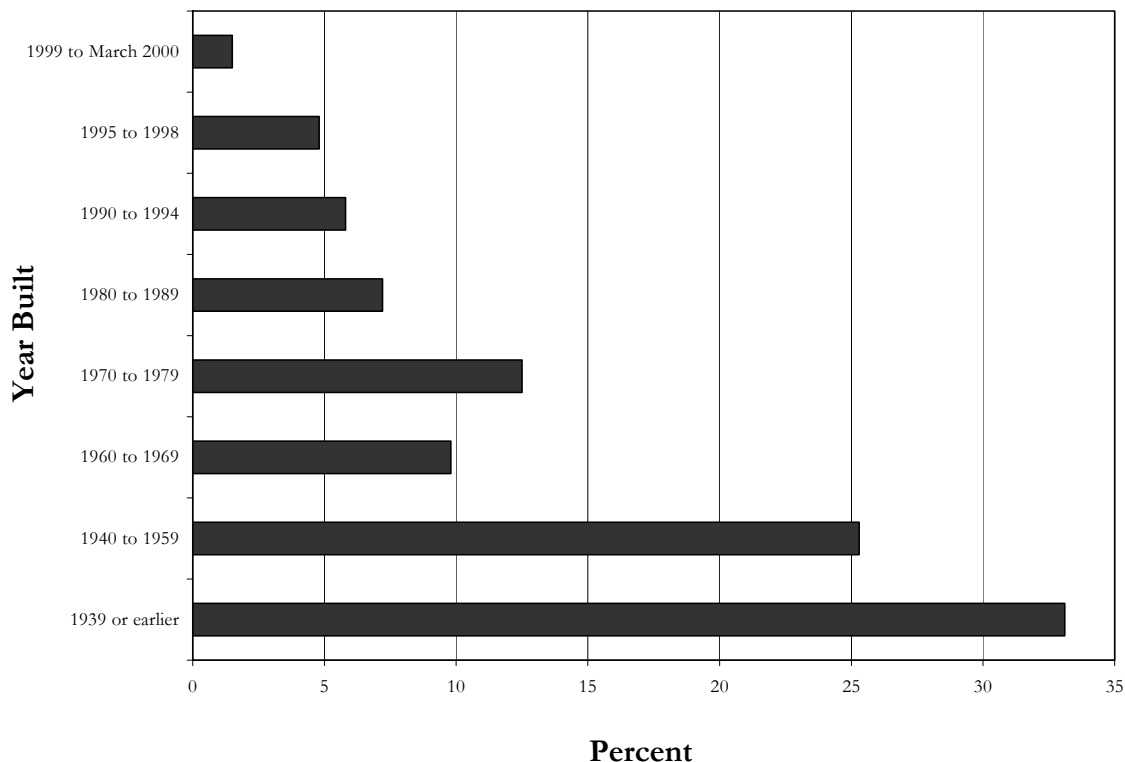
EXISTING HOUSING FRAMEWORK

This section describes the characteristics of the City's housing stock including type, value, occupancy status, age, and structural condition. This section also provides projected housing demand in the City, and describes housing development and rehabilitation programs available to City residents. Chapter Three: Land Use also provides extensive information on the City's residential building activity.

Housing Condition and Age

The age of a community's housing stock is one measure of the general condition of the community's housing supply. An informal survey of the housing stock conducted by the consultant in spring of 2008, revealed that the housing is in generally good condition, regardless of age. Given the long history and moderate growth of the City in recent years, it is not surprising that the majority of the housing stock was constructed before 1940. Only six percent of the City's current housing stock was constructed between 1995 and 2000.

Figure 6.1: City of Manitowoc Percent of Manitowoc Housing Stock by Age, 2000

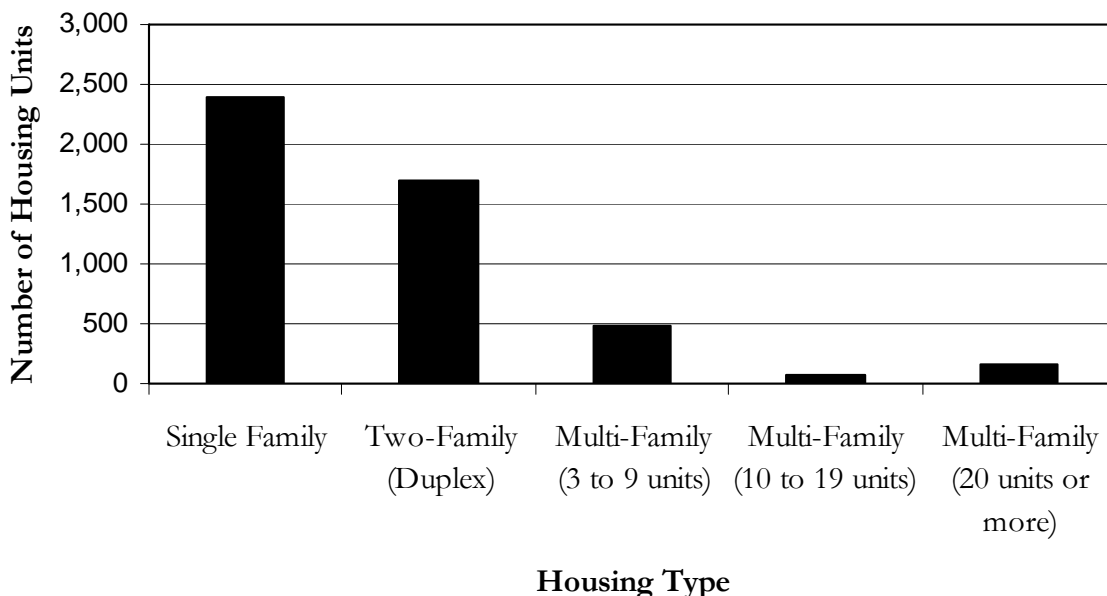


Source: U.S. Census, 2000

Figure 6.2 compares the housing types in Manitowoc in 1999 and 2000. Overall, the number of housing units increased by just over nine percent, with some change in the composition of the City's housing types. However, the 2000 data shows a noticeable increase in the number of single-family detached housing types, and a decrease in the number of two-family housing types from 1990. The 2000 data also shows that the number of units in larger multi-family structures, those with at least five housing units, increased in Manitowoc from 1990 to 2000.

Quality of Housing Stock

Seventy-four percent of community survey respondents either agreed or strongly agreed that housing in Manitowoc is generally well maintained.

Figure 6.2: City of Manitowoc Housing Types – 2006

Source: City of Manitowoc Assessor, 2006

Figure 6.3 compares the City's housing characteristics with the surrounding area, County, State, and the U.S. The City's owner occupancy rate was significantly lower than all of the neighboring towns. It was somewhat lower than the City of Two Rivers, the County, and the State, yet just slightly higher than the U.S. The City enjoyed a lower vacancy rate than the U.S., State, County, and the City of Two Rivers.

Housing Needs

More than half of community survey respondents either agreed or strongly agreed that Manitowoc needs more housing which specifically meets the needs of elderly people, as well as more affordable owner-occupied housing.

Manitowoc's median home value in 2000 was approximately 20 to 40 percent less than the surrounding towns, the State, and the U.S. However, it was greater than the City of Two Rivers. Median rent throughout the planning area was in general (with the exceptions of the Towns of Manitowoc and Two Rivers) somewhat lower than the median rent in Wisconsin and the U.S. The median selling price of homes in the City in 2008 was \$100,000, a slight increase from 2007 (\$99,900).

Similar to most other medium-sized cities, Manitowoc captures a wider range of housing types and values versus the more selective and less diverse townships. At the same time, the City is not capturing its fair share of the high end housing market – almost all of which is going to large lot development in the neighboring towns. This is reflected most visibly in the substantially higher median home values of the Towns of Manitowoc Rapids (\$133,000) and Liberty (\$122,500), in comparison to the Cities of Manitowoc and Two Rivers (\$86,000 and \$77,900, respectively). Due to the County population in the two cities, the County's median home value is similarly low.

Figure 6.3: City of Manitowoc Housing Characteristics, 2000

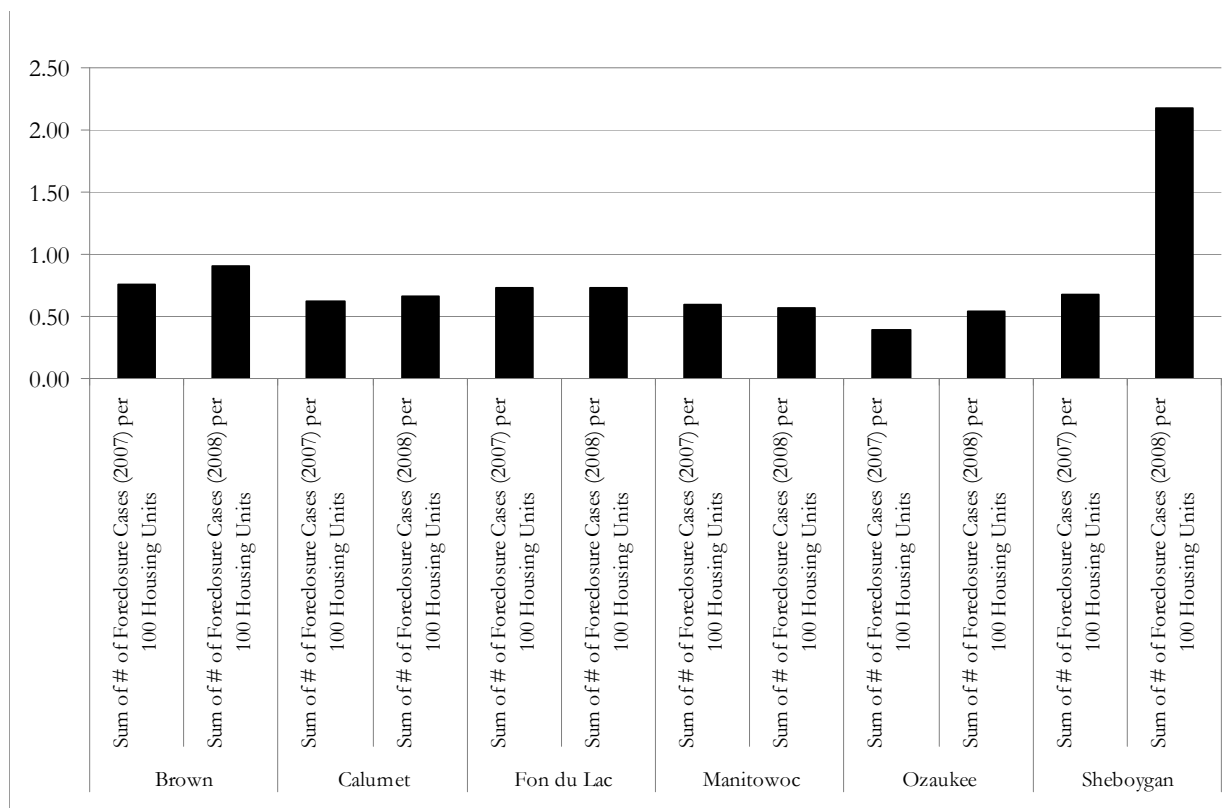
	Total Housing Units	Percent Vacant	Percent Owner Occupied	Median Home Value in 2000	Median Contract Rent in 2000
City of Manitowoc	15,007	5.1	67.6	\$86,000	\$430
Town of Manitowoc	446	5.0	85.2	\$118,200	\$642
Town of Two Rivers	766	4.2	93.1	\$103,800	\$558
Town of Manitowoc Rapids	822	1.6	94.3	\$133,000	\$385
Town of Newton	850	6.5	90.4	\$111,500	\$525
Town of Liberty	498	8.4	90.4	\$122,500	\$475
Town of Cato	571	4.0	89.4	\$115,600	\$484
Town of Kossuth	795	5.4	90.8	\$110,900	\$419
City of Two Rivers	5,547	5.9	73.0	\$77,900	\$424
Manitowoc County	34,651	5.6	76.0	\$90,900	\$433
Wisconsin	2,321,144	10.2	68.4	\$112,200	\$540
United States	115,904,641	9.0	66.2	\$119,600	\$602

Source: U.S. Census, 2000

See Chapter Three: Land Use for a summary of residential development activity in the City from 1993 to 2008 including single-family, two-family, and multi-family units.

Figure 6.4 compares the County's foreclosure rates with surrounding counties in 2007 and 2008. The County's foreclosure rate was lower than all neighboring counties except Ozaukee County. Similarly, a recent study by the Wisconsin Association of Assessing Officers found that foreclosures in the County had actually decreased slightly from 2007 to 2008. The fact that the City and surrounding area did not experience the housing bubble of the early 2000s, the County's conservative housing values, and lack of a significant loss of local jobs, have all contributed to escaping from recent substantial housing devaluation problems affecting other communities. Unemployment is one of the highest causes of foreclosure. According to a 2008 report from the University of Wisconsin Extension – Fiscal and Economic Research Center, a one percent increase in county-wide unemployment would cause a three to nine percent increase in foreclosures.

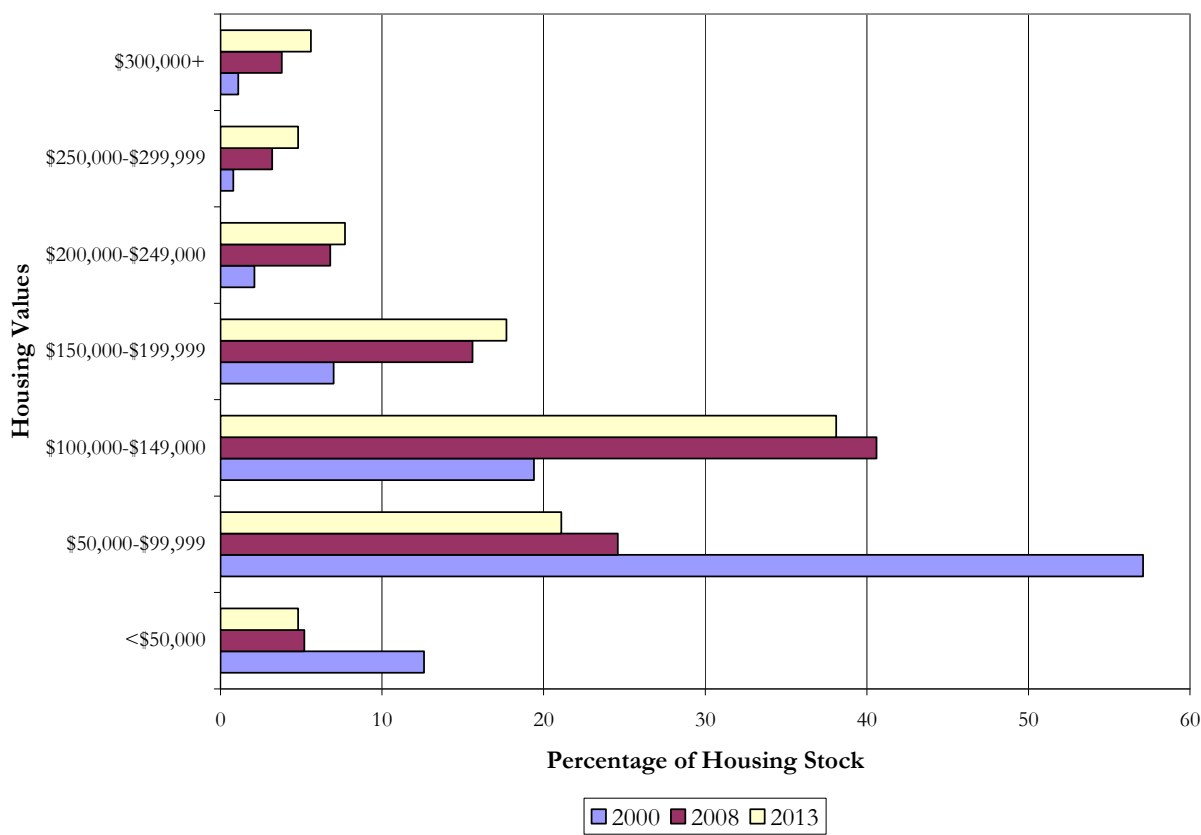
Figure 6.4 County Foreclosure Cases per 100 Housing Units (2007 & 2008)



Source: UW-Extension Center for Community Economic Development; Realtytrac.com

Figure 6.5 displays City housing values data for 2000 and forecasts for 2008 and 2013. The forecasted data indicates an increase in the City's percentage of housing stock valued at \$150,000+ through 2013. The housing stock valued between \$100,000-\$149,000 is forecasted to double as of 2008, and then decrease slightly by 2013. The housing stock valued at \$50,000 and below is forecasted to decrease by more than half by 2013. This may indicate a future shortage of affordable housing in Manitowoc.

Figure 6.5: City of Manitowoc Housing Values Trends



Source: US Bureau of the Census, 2000 Census of Population and Housing. ESRI forecasts for 2008 and 2013.

Chapter One: Issues and Opportunities includes additional information on housing characteristic trends for the City through 2013.

HOUSING PROGRAMS

The City provides assistance to meet the needs of individuals who lack adequate housing due to financial difficulties or disabilities. The following housing providers and programs are available to qualified low-to-moderate income City residents.

Homestead Opportunity Program Loan

The City's Homestead Opportunity Program Loan is designed to assist qualified low and moderate income first-time homebuyers with the purchase of a home in Manitowoc. Loans ranging from \$10,000 to \$15,000 are available through this program for home improvements only.

Downpayment/Closing Cost Assistance

The City's downpayment/closing cost program provides loans up to \$2,500 to qualified first-time homebuyers for downpayment, closing costs, and buy-down of interest rates on home mortgages on properties in Manitowoc.

Owner Occupant Rehabilitation Loans

The City's Owner Occupant Rehab Loans are available in an amount up to \$10,000 for major home system repair or replacement projects. Loans are provided in the form of a 0% deferred payment loan for 100% of project costs. Loans are repaid when the borrower sells, transfers, or conveys any interest in the property.

Housing Rehabilitation Assistance

Sixty-five percent of community survey respondents either agreed or strongly agreed that programs are needed to help low and moderate income people own, repair, or remodel homes.

Handicap Accessibility Rehab Loans

The City's Handicap Accessibility Rehab Loan program assists homeowners in the City with various improvements to make homes barrier-free, and more functional to meet the special needs of handicapped occupants. Borrowers may receive up to \$10,000 in handicap improvements which can be repaid when the borrower sells, transfers, or conveys any interest in the property.

Other agencies providing housing services in the City include Manitowoc County, Habitat for Humanity, Lakeshore CAP, religious institutions, and social service agencies that provide housing services to seniors, persons with disabilities, and persons with HIV/AIDS.

HOUSING AND NEIGHBORHOOD DEVELOPMENT GOALS, OBJECTIVES, AND POLICIES

Goal

- a. Support a variety of housing types and costs, and quality neighborhoods to promote a desirable living environment for all residents.

Objectives

- a. Support a range of housing options (i.e. apartments, assisted living to full care environments) to accommodate various household types, income levels, and age groups, particularly the growing Baby Boomer demographic.
- b. Promote high quality, safe housing, and living environments that enhance existing neighborhoods, maintaining reasonable densities and promoting a sustainable owner-renter ratio.
- c. Require City neighborhoods to be served by a full range of urban services close to key destinations for residents.
- d. Promote residential infill in currently developed areas of the City.
- e. Encourage well-designed neighborhoods, with a mix of housing types oriented towards pedestrians,



- Quality new housing at all levels encourages diversity and equity in the housing market and contributes to economic vitality.
- Improving Manitowoc's urban neighborhoods will complement investment in the downtown; increase safety, homeownership, and property values; and spur redevelopment of the nearby aging strip commercial areas.
- Design standards for multi-family housing protect urban form and character, and provide quality housing options for the elderly, younger residents, and Manitowoc's workforce.

and well served by sidewalks and bicycle routes.

- f. Encourage “green” technologies in housing developments such as energy efficiency and solar energy.
- g. Encourage additional housing units in the downtown area, with a particular emphasis on utilization of upper floors.
- h. Promote traditional residential development principles including compactness, a range of housing types, and mixed land uses.
- i. Continue to monitor housing affordability and foreclosure trends in the City, including changes in home ownership rates.

Policies

- a. Guide new housing and neighborhoods to areas with convenient access to commercial and recreational facilities, transportation systems, schools, shopping, services, and jobs.
- b. Encourage a housing tenure mix in all neighborhoods that focuses on owner-occupied housing, yet provides opportunities for rental housing. In general, neighborhood stability and health are strongest when the ratio of owners to renters is at least 50/50, with greater percentages of owners leading to healthier neighborhoods. The City will strive to achieve these ratios in new and existing neighborhoods.
- c. Require that the development of new neighborhoods comply with the City’s historic housing mix, in order to maintain the character of the community while allowing for housing choice. Within each continuous area designated as a “Planned Neighborhood” on Map 5: Future Land Use, seek a housing mix where not less than 65 percent of all housing units are in single-family detached residences, within a desired maximum of 15 percent of units in two-family dwellings, and 20 percent of units in multi-family dwellings (3+ units per building, regardless of occupancy). For two-family and multi-family units, seek to maximize the percentage of such units that will be available for owner-occupancy. For single-family units, seek a mix of lot sizes.
- d. Accommodate and promote the upper-end housing market to help with business recruitment and boost the City’s residential tax base.
- e. Limit housing development in rural areas at and beyond the City’s fringe. Do not approve development of unsewered residential subdivisions, with the exception of areas designated on the Future Land Use Map as “Single-Family Residential-Exurban.”
- f. Promote urban living and workforce housing infill opportunities in the downtown area as described more thoroughly in “The Port of Manitowoc Downtown and River Corridor Master Plan.”
- g. Plan for multi-family developments in those parts of the City where streets and sidewalks can handle increased volumes of traffic; there are adequate parks, open space, and shopping facilities existing or planned; and utility systems and schools in the area have sufficient capacity. Disperse such developments throughout the City, rather than planning for large multi-family housing developments in clustered or isolated areas.
- h. Support ongoing maintenance and reinvestment in residential areas, particularly historic neighborhoods surrounding downtown.
- i. Design neighborhoods to protect environmental resources, encourage resident interaction, promote “walkability,” and



Manitowoc’s Single Family Residential Neighborhoods

create a sense of place, following the “Planned Neighborhood” design guidelines presented in Chapter Three: Land Use.

- j. Require residential developers and builders to complete development and provide infrastructure improvements, including parks and streets, in partially developed existing subdivisions prior to platting new development areas or additions.
- k. Require developers to help fund safe and efficient pedestrian and bicycle access connections between residential neighborhoods and nearby community facilities (e.g. bus routes, parks, and schools).
- l. Require sensitive design of infill residential development in existing neighborhoods to complement the surrounding neighborhood, with particular attention to setbacks, height and massing, patterns, and materials.
- m. Promote upper story housing in downtown Manitowoc as described more thoroughly in “The Port of Manitowoc Downtown and River Corridor Plan.”
- n. Establish multi-family design standards to promote quality design for market rate and affordable housing projects.
- o. Continue to run housing assistance programs, and develop programs to address the reuse of foreclosure-impacted properties.

HOUSING AND NEIGHBORHOOD DEVELOPMENT PROGRAMS, AND RECOMMENDATIONS

Building upon some of the policies listed above, the following are programs and recommendations to promote high-quality and affordable housing and neighborhoods in Manitowoc.

Support Provision of Quality New Housing at all Levels

Housing is not simply part of the framework of the City; it also contributes to its economic vitality. In order for Manitowoc to grow economically, housing is needed that mirrors diverse job opportunities. Businesses need access to workers, and workers need quality housing they can afford. A range of housing types, from workforce housing to executive housing, is an asset to the City. It promotes attachment to the community by providing housing for all stages of life, and lends richness to community life through variety and balance. To this end, the City should continue to promote a range of housing choices in new neighborhoods, consistent with the policies laid out earlier in this chapter, with a particular focus on urban living and senior housing opportunities.

Urban Living and Workforce Housing

Manitowoc’s downtown and major areas of activity such as S. 8th and S. 10th Streets, are prime for infill development to provide additional urban living and workforce housing opportunities. The development of diverse housing—the conversion of upper floor, mixed use commercial buildings, apartments, condominiums, attached townhomes, and detached single-family homes throughout downtown and adjacent neighborhoods – will provide urban living opportunities for students, young professionals, families, and empty-nesters who prefer to live in an urban environment, close to work and downtown activities. See “The Port of Manitowoc Downtown and River Corridor Master Plan” for further recommendations on issues and opportunities related to urban living and workforce housing.

Senior Housing

Another component of the City’s housing stock is senior housing. In less than a decade, all of the Baby Boomers will be between the ages of 51 and 70. As the population ages, the demand for senior housing will increase. Population projections (Chapter One: Issues and Opportunities) and housing projections (Chapter Three: Land Use) combined with assumptions of the percentage of 65+ persons over the next 20 to 25 years, suggest that 10 to 15 percent of new housing units should be senior-related (assisted living, age restricted, etc.). See the “Strategies to Engage Manitowoc’s Baby Boomer Population to Maintain a Thriving Residential and Business Community” for further recommendations related to the Baby Boomer generation.

Young Professionals Housing

In recent years, many communities throughout the nation have discussed strategic approaches to attract and retain “young professionals.” Through this *Plan*, the City should enhance its openness to talent, and prioritize the attraction and retention of young people to the community, as the City’s diversity and social structure are *true* engines of growth. Young professionals contribute to a healthy age balance, local economic development through innovation and human capital, and vitality in the community. Young people who live in the community are likely to establish roots here, remain to start and raise their families, and provide impetus towards the formation of ideas-driven, creative industries. It can be a particular struggle for mid-sized cities to attract and retain this cohort. Even larger cities have grappled with the out-migration of young college graduates, reporting a loss of a large percentage of their post-college age cohorts to larger metro areas.

Communities that have the ability to attract and retain young people have a broad range of characteristics. Housing is one component of the formula. Other aspects are discussed in Chapter Seven: Economic Development including community amenities, jobs, and entertainment. With respect to housing strategies to attract and retain young professionals, there are several that the City will explore:

- ◆ **Continue to provide affordable entry level/starter homes.** With a median housing value that is competitive with other communities throughout the region, the City will maintain the ability to draw young people who may be effectively priced out of other higher priced markets. Consideration of the location, quality and amenities of housing will be important considerations. Many of the City’s older, middle-aged, and new neighborhoods provide housing that is affordable to first-time home buyers.
- ◆ **Support housing rehabilitation efforts.** The City has a substantial concentration of older housing stock. Much of this older housing, located in the Original Plat, offers attractive potential housing for young professionals – affordable to first-time home buyers, close to downtown and the growing number of amenities located there, and full of potential for sweat-equity. Contributing to the improvement of this downtown housing stock provides attractive options for residents, and can substantially improve the neighborhoods. The City should continue to support housing rehabilitation efforts, particularly in the Jefferson School and Union Park areas, through existing funding sources described in the Housing Programs section of this chapter.
- ◆ **Accommodate the desires of young professionals in “Planned Neighborhoods.”** Properly executed, “Planned Neighborhoods” provide many of the elements that young professionals seek – a range of housing types (including high quality starter homes/condos/apartments and opportunities to “move-up” within the same neighborhood), quality construction to assure a return on investment, greenbelt and recreational facilities, and accessibility to neighborhood-scale shopping and services. The City should encourage the development of most new residential neighborhoods as “Planned Neighborhoods,” following the guidelines presented in Chapter Three: Land Use.
- ◆ **Consider student housing.** Given the close proximity to the UW-Manitowoc campus and the recent annexation of Silver Lake College, there may also be opportunities downtown for student housing. Student housing opportunities should be developed around transit and commuter service to facilitate students taking advantage of opportunities in Manitowoc, as well as other communities throughout the region. Additionally, a student population could contribute to increased economic activity and a sense of vitality in downtown. A greater variety of “third places” (informal gathering places) in downtown would help attract students and residents alike. These places might include restaurants/pubs and coffee shops/cafes with evening hours, wireless internet access, and an atmosphere that promotes lingering, studying, and live entertainment. The City’s recent implementation of a WiFi network in downtown supports this effort.

Improve Manitowoc’s Urban Neighborhoods

As in many cities, as Manitowoc has grown outward, some of its older, urban neighborhoods have declined in quality and safety. The neighborhoods surrounding downtown—the Jefferson School and Union Park neighborhoods in particular—provide classic examples of the issues these types of neighborhoods can face.

These issues include an aging housing stock, mixed housing types and incomes, declining property value and rates of home ownership, an increased number of vacant homes, and higher crime rates.

The continued revitalization of neighborhoods like Jefferson School and Union Park are essential to provide a decent living environment for their residents. Further, their revitalization will enhance the City as a whole. For example, neighborhood revitalization will complement and enhance the community's investment in downtown, perhaps by providing the type of residency options that are attractive to young professionals, empty nesters, and young families.

The key to revitalization is targeting public services, initiatives, and investment in specific areas within these neighborhoods, with the goal of encouraging and leveraging private investment by both for profit and non-profit builders and property owners. Concentrating resources in a particular area or section of a neighborhood increases the likelihood for successful revitalization of the area, plus spin off impacts to adjacent areas. As the targeted part of the neighborhood improves, the benefits reverberate through the surrounding neighborhood. Through the strategic implementation of this investment approach over time, entire neighborhoods can be transformed.

The crucial components to the long-term successful implementation of this targeted strategy include public-private (for profit and non-profit) partnerships, proactive code enforcement, comprehensive public safety initiatives, incentives for housing rehabilitation and new development, ongoing resident participation and buy-in, and, most importantly, political will and leadership.

The following are specific programs and recommendations to promote the revitalization and continued attention to Manitowoc's existing neighborhoods:

Improve Connections to Neighborhood Groups and Residents

The City should explore creating a targeted neighborhood revitalization committee to guide the establishment of priorities for implementing targeted investment in Manitowoc's existing neighborhoods. The committee may include representation from neighborhood associations, the Common Council, non-profit housing developers, economic development corporations, for profit housing developers, local banks, and City staff. This group could also develop and implement a participation process to solicit input into a targeted investment strategy and endorsement of the targeted area selection process and priorities.

The City should also consider working with neighborhood groups to explore options for supporting local public improvement projects by area groups and associations, such as neighborhood signs, public art, banners, and other streetscape improvements.

Continue Housing Improvement Initiatives

The City should continue to focus on improving the conditions of existing housing within its central city neighborhoods, including but not limited to the following ongoing efforts:

- ◆ Providing incentives for housing upgrades and homeownership increases through the use of local funding and partnerships with other organizations.
- ◆ Continuing proactive code enforcement and inspection policy with strict consequences for continued violations.
- ◆ Ensuring that central city neighborhoods are properly zoned to encourage reinvestment and renovation. The City's "R-7" "Central Residence" district provides greater flexibility than other residential districts to encourage redevelopment projects, and the reuse of smaller vacant parcels.
- ◆ Consider coordinating a mentoring/apprentice program with area educational institutions for housing rehabilitation projects.
- ◆ Encourage more flexible zoning regulations to enhance mixed-use housing opportunities in the downtown.

Maintain Other Partnerships for Lasting Success

In an era of scarce public resources, the importance of coordinating efforts across City departments, and partnering with other civic organizations to improve housing and neighborhoods cannot be underestimated.

To this end, the City should coordinate among the Departments of Planning, Police, Public Works, Building Inspection, and the County's Health Department to include neighborhood safety, public improvements, and code enforcement in its neighborhood improvement initiatives. Targeted investments into specific areas should be in conjunction with other major capital or private sector initiatives.

In addition to the City, many organizations in the Manitowoc area are working to meet the housing needs of local residents. These organizations include Lakeshore CAP, Manitowoc County Habitat for Humanity, and United Way Manitowoc County. Housing issues in the City should be addressed through the concerted effort of all these groups and the City in targeted neighborhoods.

Prepare Revitalization Plans for Urban Neighborhoods

Many recommendations in this *Plan* relate to improving the City's urban neighborhoods. The complexity of the issues facing these areas suggests the preparation of detailed revitalization plans to further guide the future of these important areas. A neighborhood revitalization plan could be prepared by the City, with involvement from residents and other stakeholders (e.g. local businesses, the development community, service providers). The plan could include: a description of the history of the area; a summary of existing conditions, vision and goals, priorities and critical issues; and a framework for implementation. These neighborhood revitalization plans could ideally be adopted as a detailed component of the City's *Plan* once completed.

Enact Design Standards for Multi-family Housing

Multi-family housing provides options for the elderly, younger residents, and employees for Manitowoc businesses. However, such projects often cause community opposition. In some cases, this is because such projects have been poorly and cheaply designed. The City should include detailed design guidelines for all new or expanded multi-family residential developments within the zoning ordinance, and enforce them during the development review processes. The following guidelines provide a foundation:

1. Incorporate architectural design that fits the context of the surrounding neighborhood, and Manitowoc's overall character.
2. Encourage layouts where buildings appear as a grouping of smaller residences. Within and near downtown, promote the usage of building materials, designs, and setbacks that are compatible with the surrounding historic character.
3. Use brick and other natural materials on building facades. Avoid monotonous facades and box-like buildings. Incorporate balconies, porches, garden walls, varied building and facade setbacks, varied roof designs, and bay windows.
4. Orient buildings to the street with modest front yard setbacks, bringing street-oriented entries closer to public sidewalks to increase pedestrian activity. Include private sidewalk connections.
5. Locate parking, dumpsters, and other unattractive uses behind buildings.
6. For parking lots and garages: locate garage doors and parking lots so they are not the dominant visual element; screen parking areas from public view; break up large parking lots with landscaped islands and similar features; provide direct links to building entrances by pedestrian walkways physically separated



Example of high quality multi-family development

from vehicular movement areas; and generally avoid large parking garages. Where necessary, break up facades with foundation landscaping, varied facade setbacks, and recessed garage doors.

7. Provide generous landscaping of sufficient size at the time of planting. Emphasize landscaping along all public and private street frontages; along the perimeter of all paved areas and in islands in larger parking lots; along all building foundations; along yards separating land uses which differ in intensity, density, or character; around all outdoor storage areas such as trash receptacles and recycling bins (also include screening walls in these areas); and around all utility structures or mechanical structures visible from public streets or less intensive land uses.
8. Provide on-site recreational and open space areas to serve the needs of residents. Whenever possible, develop contiguous rear yards as a unit to encourage use by building residents and guests.

Require Neighborhood Development Plans in Advance of Development

Chapter Three: Land Use includes a description of the “Planned Neighborhood” future land use category, which is intended to provide for a variety of housing choices, and a mix of non-residential uses such as parks, schools, religious institutions, and small-scale shopping and service areas. These areas are mapped on Map 5: Future Land Use for future development in different parts of the City.

The complexity of “Planned Neighborhood” areas suggests the preparation of detailed neighborhood development plans to further guide development of these areas. A neighborhood development plan would be prepared by a developer, a group of property owners, or the City, in advance of the approval of individual subdivision plats within the area it covers. Neighborhood development plans specify in greater detail land use mix, density, street layouts, open space, and stormwater management than are possible within this *Plan*. These neighborhood development plans would ideally be adopted as a detailed component of the *Plan* once completed.

Additionally, given the challenges at Viebahn St. (e.g. lack of infrastructure and uneven development pattern), the City may consider developing a detailed plan to set a clear vision for this area.

PREPARING NEIGHBORHOOD DEVELOPMENT PLANS – A RECOMMENDED PROCESS

- I. Analysis: A wide variety of site specific information must be collected about both existing and emerging conditions:
 - A. Establish and confirm the full neighborhood design process, including the creation of an ad-hoc or blended oversight committee including and/or reporting to the Plan Commission and Common Council.
 - B. Collect existing map and plan data for the area and its surroundings, related to parcels, topography, soils, land cover and uses, utilities, transportation, recreation, public services, plan recommendations, zoning, and property ownership.
 - C. Evaluate the existing and emerging real estate market trends.
 - D. Employ meaningful public participation to help identify opportunities and constraints, and to help create a vision for the area.
 - E. Conduct property owner, agency, and stakeholder interviews.
- II. Plan: Based on the results of the analysis phase, prepare a detailed neighborhood development plan as derived from the consideration of a preliminary concept plan, alternative concept plans where options are many, and a refined draft neighborhood plan:
 - A. Refine and confirm the neighborhood vision.
 - B. Draft and confirm a preliminary concept plan depicting the general arrangement of land uses, development character, main roads, stormwater management facilities, pedestrian and bicycle networks, and the open space system. For more complex neighborhoods with a variety of options, produce and confirm one or more alternative concept plans.
 - C. Present preliminary concept plan or alternative concept plans for review by the public, stakeholders, agencies, and the committee. An alternatives open house with rating sheets, is an excellent method to receive general public input.
 - D. Produce and confirm a draft neighborhood development plan, based on the responses to the various concept plans.
 - E. Refine and adopt the neighborhood development plan, and ultimately integrate it into the *Comprehensive Plan* as an amendment.
- III. Implementation: Following neighborhood development plan adoption, establish and apply the appropriate regulatory and procedural foundation to ensure full implementation:
 - A. Facilitate developments consistent with that plan.
 - B. Establish zoning districts and boundaries in compliance with the plan.
 - C. Review proposed land divisions, conditional use permits, and planned developments based on conformance with the plan including consideration of land use pattern, density/intensity, community character, and infrastructure recommendations.

CHAPTER SEVEN: ECONOMIC DEVELOPMENT

The purpose of this chapter is to identify strategies to promote the retention, stabilization, and expansion of the economic base in Manitowoc, based on the City's existing economic development framework and newly identified opportunities. This chapter contains a compilation of background information, a summary of existing agencies and programs, an inventory of environmentally contaminated sites, and an assessment of the City's strengths and weaknesses with respect to attracting and retaining businesses and industries. All of this information is used to craft goals, policies, programs, and recommendations at the end of the chapter, designed to motivate the City to control and direct its own destiny.

EXISTING ECONOMIC DEVELOPMENT FRAMEWORK

This section details labor force trends, educational attainment, employment forecasts, income data, and other economic development characteristics of the City. The City has a strong manufacturing base; however, it continues to endeavor to diversify itself to include a wider variety of industries and services. As the County seat, the City is also a hub of governmental activities in the County.

Labor Force Trends

The City's labor force is the portion of the population employed or available for work, and includes people who are employed, unemployed, or actively seeking employment. According to the Wisconsin Department of Workforce Development ("WisDWD"), Manitowoc's labor force included 17,854 people in August, 2005. Of this population group, 900 people, or 5.0 percent, were unemployed. The percentage of unemployed workforce in Manitowoc was slightly higher than both the County (4.3 percent) and the State (4.6 percent) during this same time period. According to 2006 Census ("ACS") data, the County had an estimated unemployment rate of 4.9 percent in 2006. This rate is low compared to neighboring Sheboygan County (5.1 percent), Brown County (6.1 percent), and the State (5.5 percent).

Figure 7.1 displays the most recent rates of unemployment (not seasonally adjusted) in the City, County, Wisconsin, and the U.S. Wisconsin's unemployment rate was typically close to the U.S. average. The County's unemployment rate was consistently higher than both the U.S. and Wisconsin's averages, however, it dropped below both in July, 2008. The City's unemployment rate has been consistently higher than the County, State, and U.S. averages, with the exception of July, 2008 when the U.S. average spiked to 5.7 percent. However, the City's relatively stable unemployment rate reflects positive efforts to diversify the local economic base over the past 20 years. Although the City's rate has increased recently, it is still lower than the national trend. At the same time, the City should be concerned with current industry trends that have resulted in the under utili-

2009 ECONOMIC CLIMATE

While every effort has been made to use the most current data, some information in this and other chapters of the *Plan* may no longer accurately portray the economic and social environment. At the time this *Plan* was written, the world was experiencing an economic recession. While the causes of this economic downturn are complex, its impact on has not been as severe (to date) in Manitowoc as other communities in the U.S. See Chapter Six: Housing and Neighborhood Development for further information.

It is important to remember that this is a long-range *Plan* intended to guide the development, redevelopment, and preservation of the City over the next 20 years. When compared to the planning period, the recession will likely be a short-term event. While the recession may delay the implementation of some recommendations in this and other Chapters that are driven by private development, the continued and in certain cases, increasing availability of State and Federal grants may allow other recommendations to move forward more quickly. With the adoption of this *Plan*, the City is well-positioned to be very competitive in receiving and using these grants effectively, and to advance its broader community vision, especially when the economic environment improves.

zation of workers. The concern is that this erosion of human capital, and a decline in labor productivity could negatively impact the growth of the local manufacturing economy.

Chapter One: Issue and Opportunities includes employment projections for the County. These data predict the County's total employment to grow approximately 17 percent by the year 2030. See that Chapter for further information.

Figure 7.1: Unemployment Rates, 2007-2008

Date	City of Manitowoc	Manitowoc County	Wisconsin	United States ¹
December, 2008	6.8%	6.0%	5.8%	7.2%
November, 2008	6.1%	5.3%	5.3%	6.8%
October, 2008	4.7%	4.2%	4.4%	6.6%
September, 2008	4.7%	4.1%	4.4%	6.2%
August, 2008	5.0%	4.4%	4.7%	6.2%
July, 2008	5.3%	4.6%	4.8%	5.7%
June, 2008	5.5%	4.8%	4.9%	5.6%
May, 2008	4.8%	4.2%	4.2%	5.5%
April, 2008	5.2%	4.4%	4.4%	5.0%
March, 2008	6.7%	5.9%	5.6%	5.1%
February, 2008	6.7%	6.1%	5.8%	4.8%
January, 2008	6.4%	5.8%	5.5%	4.9%
December, 2007	5.4%	5.0%	4.6%	5.0%
November, 2007	5.9%	5.3%	4.8%	4.7%
October, 2007	5.5%	5.0%	4.5%	4.8%
September, 2007	5.4%	5.0%	4.6%	4.7%
August, 2007	6.1%	5.2%	4.9%	4.7%
July, 2007	5.7%	5.0%	4.8%	4.7%
June, 2007	6.3%	5.5%	5.3%	4.6%
May, 2007	6.0%	5.1%	4.7%	4.5%
April, 2007	6.5%	5.6%	5.3%	4.5%
March, 2007	7.1%	6.3%	5.6%	4.4%
February, 2007	7.4%	6.6%	5.9%	4.5%
January, 2007	6.9%	6.0%	5.5%	4.6%

Source: Department of Workforce Development; ¹U.S. Dept. of Labor, Bureau of Labor Statistics, 2008

The percentage of the City's labor force employed by sector in 2000, and 2005-2007 is shown in Figure 7.2. Manufacturing is the dominant sector, encompassing 33 percent of the labor force; a decrease from 34.1 percent from 2000. Another 21.8 percent is in the educational, health, and social services sector. The retail trade group decreased while transportation, warehousing, and utilities increased between 2000 and 2005-2007.

More recent employment data is available for the County. According to WisDWD data from 2006, the manufacturing sector accounts for 31.5 percent of total employment in the County. Education and health care account for approximately 19 percent of the County's job base. The trade, transportation, and utility sector is the third largest occupational sector in the County, providing another 18 percent of the County's jobs.

Figure 7.2: City of Manitowoc Labor Force Characteristics, 2000 & 2005-2007

Occupational Group	% of Labor Force (2000)	% of Labor Force (2005-07)
Manufacturing	34.1	33.0
Educational, health, and social services	19.4	21.8
Retail trade	11.4	9.7
Arts, entertainment, recreation, accommodation, and food services	7.7	7.8
Professional, scientific, administrative, and waste management services	3.8	3.9
Construction	5.0	3.8
Transportation, warehousing, and utilities	3.7	5.0
Wholesale trade	2.1	1.6
Finance, insurance, real estate, rental, and leasing	3.3	4.9
Other services (except public administration)	3.5	3.0
Public administration	3.1	2.9
Information	2.0	1.0
Agriculture, forestry, fishing, hunting, and mining	0.8	1.6

Source: U.S. Census Bureau, 2000; 2005-2007 American Community Survey

Figure 7.3 presents 2007 average annual wages by industry for the County. Professional and business services had the highest average annual wages, while hospitality and other services jobs had the lowest average annual wages. Manufacturing had the second highest wages at \$40,857.

Figure 7.3: Manitowoc County Industry Wages Comparison, 2007

Industry	Average Number of Employees	Average Annual Wages
Leisure & Hospitality	3001	\$9,632
Other Services	957	\$17,469
Natural Resources & Mining	833	\$23,847
Information	395	\$28,995
Financial Activities	966	\$29,472
Trade, Transportation, Utilities	6,257	\$34,294
Education & Health Services	6,729	\$36,003
Public Administration	1,654	\$37,264
Construction	1,308	\$38,221
Manufacturing	11,134	\$40,857
Professional & Business Services	1,871	\$47,412
Total (all industries)	35,106	\$34,680

Source: Wisconsin Department of Workforce Development - Bureau of Workforce Training - Labor Market Information

Refer to Chapter One: Issues and Opportunities for forecasted 2008 labor force characteristics comparison between the City, County, and the State.

Workforce Flow

According to 2000 Census data, 20.2 percent of County workers were employed outside of the County. Of City residents, 9.5 percent of workers were employed outside of the County.

According to the U.S. Census, 81.2 percent of workers in Manitowoc commute to work alone in a personal vehicle. About 11 percent carpooled to work, 3.8 percent walked to work, 0.8 percent commuted by bicycle, and 0.7 percent utilized public transportation. The remainder either worked at home, or used other means of transportation to arrive at their workplace. The average travel time to work for Manitowoc residents was 15.3 minutes, although over 35 percent of Manitowoc residents traveled less than 10 minutes to work.

Educational Attainment

Educational attainment is another component of a community's labor force. The City follows the State's trend in educational attainment, with a rate of high school graduates well above the national average, but with a rate of college graduates notably below the national average. In fact, within the planning area, the only exception to this trend is the Town of Manitowoc Rapids, with exceptionally high attainment at both levels, perhaps due to the presence of newer, higher priced housing which typically attracts those with higher incomes and levels of education.

According to the 2005-2007 ACS, more than 86 percent of the City's population age 25 and older had attained a high school level education or higher, an increase of about three percent from 2000. Approximately 17 percent of this same population had attained a college level education (bachelor's degree or higher). Compared to all other municipalities in the County, the City had the lowest rate of high school graduates, while remaining above the U.S. average. In contrast, compared to all other municipalities in the County, the City had a higher rate of college level education than most, with the exception of the Towns of Manitowoc and Manitowoc Rapids.

Figure 7.4: Education Characteristics, 2000 (2005-07)

	High School Graduates or Higher (%)	Bachelor's Degree or Higher (%)
City of Manitowoc	83.6 (86.7)	17.1 (17.9)
Town of Manitowoc	88.1	17.4
Town of Two Rivers	85.6	13.8
Town of Manitowoc Rapids	87.6	29.1
Town of Newton	85.7	14.2
Town of Liberty	89.1	13.4
Town of Cato	87.0	15.7
Town of Kossuth	87.2	14.1
City of Two Rivers	85.0	13.7
Manitowoc County	84.6 (88.4)	15.5 (17.7)
Wisconsin	85.1 (88.5)	22.4 (25.1)
United States	80.4 (84.0)	24.4 (27.0)

Source: U.S. Census Bureau, 2000

Figure 7.5 provides 2008 forecasted data pertaining to educational characteristics in the City, surrounding communities, and the County. The forecasted data shows that in 2008, the City has a higher percentage of its population with Bachelor's degrees or higher, than the City of Two Rivers, Town of Manitowoc, and the County. However, Manitowoc has a lower percentage of high school graduates than the aforementioned communities. In addition, Manitowoc is forecasted as having a slightly higher percentage of its population with no high school degree than the surrounding communities and County.

Figure 7.5: Education Characteristics Trends, 2008

	No High School Degree (%)	High School Graduates (%)	Bachelor's Degree or Higher (%)
City of Manitowoc	14	67	19
Town of Manitowoc	10	73	17
Town of Manitowoc Rapids	10	67	24
Town of Newton	10	64	26
City of Two Rivers	13	72	15
Manitowoc County	13	70	17

Source: U.S. Census Bureau, 2000 Census of Population and Housing, ESRI forecasts for 2008.

BABY BOOMER INFLUENCE

Another factor influencing the future labor force is the aging Baby Boomer population, those born between 1946 and 1964. In today's economy, where knowledge and experience are roots of success, engaging this segment of the population in the City's business and civic life can also help drive economic prosperity. The oldest Baby Boomers, turning 62 in 2009, may have contemplated retirement some years back, but are probably considering "reirement" instead. A movement back to non-metro areas, and quality of life considerations which are beginning to replace employment-related factors in decisions regarding when to move and where to live, make this a planning issue for the future. As part of this planning process, issues and opportunities related to the Baby Boomer generation were explored in greater detail. See "Strategies to Engage Manitowoc's Baby Boomer Population to Maintain a Thriving Residential and Business Community" for a more detailed analysis of the economic impacts of the Baby Boomer generation on the City.

Income Data

Figure 7.6 presents income characteristics for the City and the surrounding communities. According to the 2005-2007 ACS, the City's median household income was \$40,433, an increase of nearly six percent from 2000 (\$38,203). However, this was consistently lower than the median household income for 2000 in the surrounding towns, the City of Two Rivers, Wisconsin, and the U.S. Similarly, the City's per capita income in 2000 (\$19,954) was also consistently lower than the surrounding communities, Wisconsin, and the U.S. The exception was the City of Two Rivers, which had a lower per capita income, though higher median household income, than Manitowoc, indicating that Two Rivers has a slightly higher than average household size, which the ACS confirms (2.40 for Two Rivers compared to 2.32 for Manitowoc). Per capita income is defined as total personal income divided by total population. This is used as a measure of the wealth of a population. While it indicates that residents of Manitowoc are less wealthy than those of neighboring communities, it does not take into account additional factors affecting individual wealth and economic security, including home equity or property ownership and housing costs.

Key Job Search Factors

When asked what the most important factor is when looking for a job, or considering a job change, respondents indicated pay and growth/stability of the company as key determining factors.

Figure 7.6: Income Characteristics, 2000 and 2007

	Median Household Income (2000)	Median Household Income (2007)	Percent Change	Per Capita Income (2000)	Per Capita Income (2007)	Percent Change
City of Manitowoc	\$38,203	\$40,433	5.8	\$19,954	\$21,875	9.6
Town of Manitowoc	\$54,265	NA	NA	\$23,583	NA	NA
Town of Two Rivers	\$55,759	NA	NA	\$25,319	NA	NA
Town of Manitowoc Rapids	\$56,548	NA	NA	\$21,323	NA	NA
Town of Newton	\$54,359	NA	NA	\$22,467	NA	NA
Town of Liberty	\$56,169	NA	NA	\$21,498	NA	NA
Town of Cato	\$53,462	NA	NA	\$21,434	NA	NA
Town of Kossuth	\$55,114	NA	NA	\$21,126	NA	NA
City of Two Rivers	\$39,701	NA	NA	\$18,908	NA	NA
Manitowoc County	\$43,286	\$47,075	8.8	\$20,285	\$23,592	16.3
Wisconsin	\$43,791	\$50,007	14.2	\$21,271	\$25,742	21.0
United States	\$41,994	\$50,309	19.8	\$21,587	\$26,178	21.3

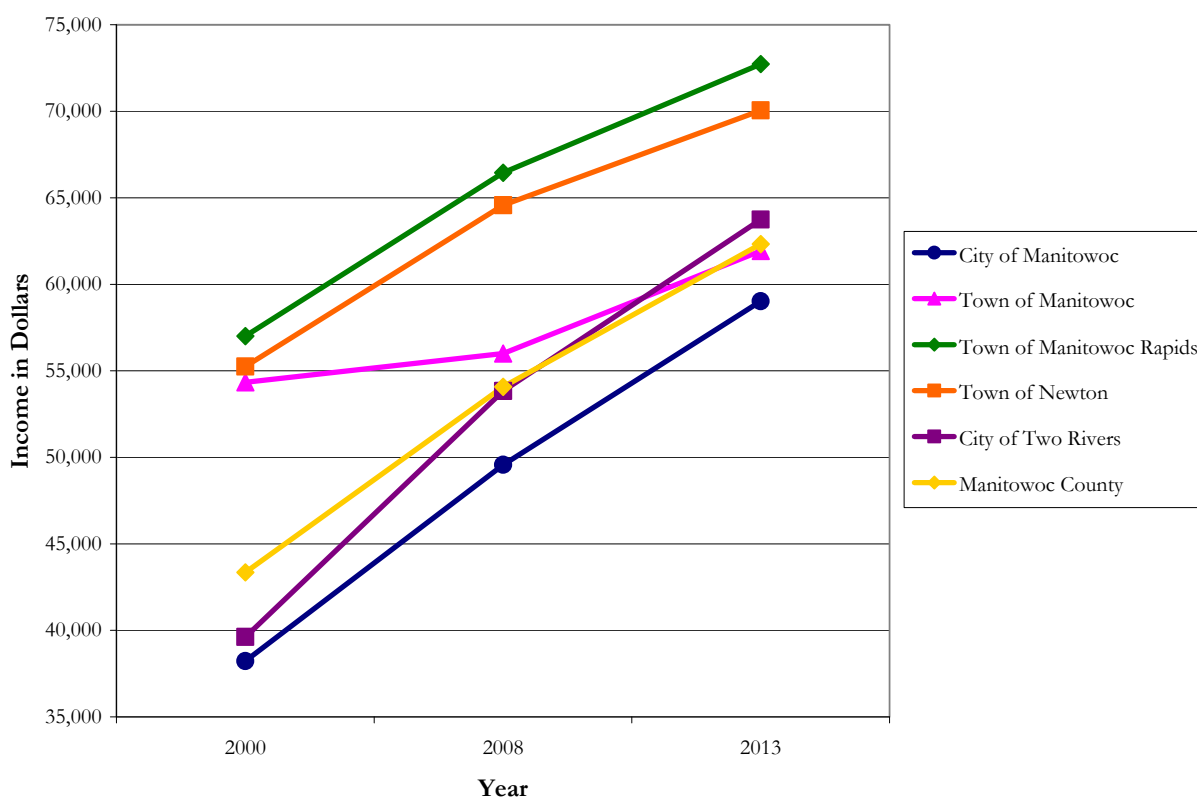
Source: U.S. Census Bureau, 2000 and 2005-2007 American Community Survey

The income data for the City compared to surrounding towns varies for several reasons. More affordable housing is located in the two main urban centers of the County, which directly relates to the income of residents. This data reflects the fact that Manitowoc and Two Rivers have older housing stocks on average, new housing (as a percentage of the overall housing stock) is smaller and lower priced, have a higher ratio of rental versus owner-occupied housing, and have a higher proportion of multi-family housing, which tend to accommodate low and moderate income individuals and families.

Figure 7.7 depicts the median household income in the City, surrounding communities, and the County projected through 2013. The forecasted 2008 and 2013 data show an overall increase in median household income for all communities. The data also suggests that the Town of Manitowoc Rapids and the Town of Newton will continue to have the highest median household incomes, and the City will continue to have the lowest median household income throughout the projected timeframe. The disparity between the City and surrounding towns are projected to decrease over time.

The City can address these disparities through encouraging higher wage employers to the area, and promoting a wider range of housing options. In particular, the City should encourage larger lot “estate” development, as well as high quality housing near downtown and other high-amenity locations, while continuing to provide for affordable housing in existing neighborhoods. If incomes rise, households could better reduce debt burdens, increase their home equity levels, continue to consume, and increase/re-build savings.

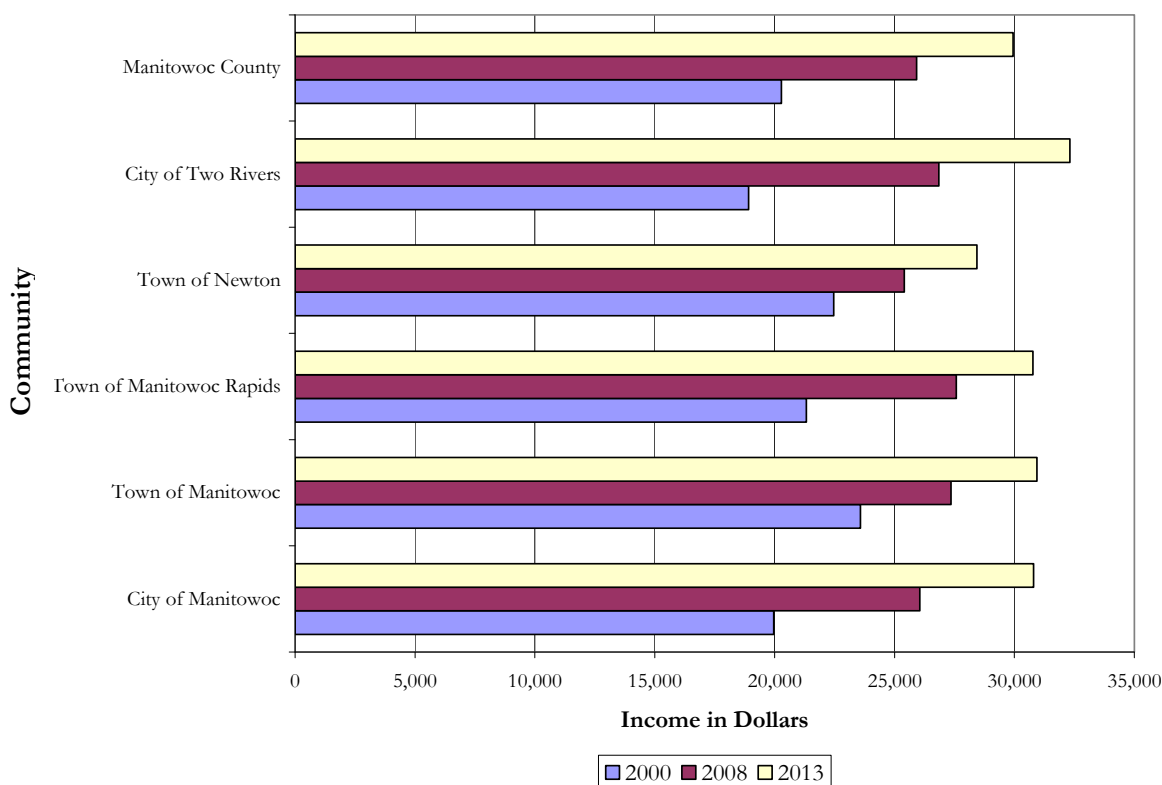
Figure 7.7: Median Household Income Trends



Source: US Bureau of the Census, 2000 Census of Population and Housing. ESRI forecasts for 2008 and 2013.

Figure 7.8 illustrates per capita income trends in the City, surrounding communities, and the County through 2013. The forecasted data shows the cities of Manitowoc and of Two Rivers transitioning from being the communities with the two lowest per capita incomes in 2000, to the communities with the highest per capita incomes in 2013. So while the City's projected median household income is lowest compared to surrounding communities, per capita income is higher due to larger household sizes, higher incomes, and higher value housing in the towns.

Figure 7.8: Per Capita Income Trends



Source: US Bureau of the Census, 2000 Census of Population and Housing. ESRI forecasts for 2008 and 2013.

SUMMARY OF ECONOMIC TRENDS

Efforts by the City, non-profit groups, economic development organizations, and local employers over the past 20 years have produced results that have bucked state and national trends in making the main urban center of the County competitive with suburban and ex-urban areas for employment, housing, and quality of life. These trends are evident in stable employment rates, secure housing values, and increasing incomes. Even facing difficult national trends including an aging Baby Boomer work force, higher transportation costs, and retention of new young professionals, the City has an excellent opportunity to continue making progress on long-term economic objectives.

Continued success will require a concentrated, collaborative effort pursuing a variety of strategies specific to the City. See the recommendations at the end of the Chapter, "The Port of Manitowoc Downtown and River Corridor Master Plan," and "Strategies to Engage Manitowoc's Baby Boomer Population" for more detailed information.

Location of Economic Development Activity

Map 4: Existing Land Use shows the location of the current and most significant economic development activity in the City. These areas are labeled under office, commercial, and industrial land use categories on the map. Areas of economic development are concentrated at the I-43/Calumet Ave. (USH 151) interchange, downtown, and along major thoroughfares including Calumet Ave. (USH 151), Washington St., and Dewey St.

Primary Employers

Figure 7.9 shows the largest employers in Manitowoc in 2008. Private companies employing the largest numbers of workers in City included Holy Family Memorial, Manitowoc Cranes, and Aurora Medical Group. In addition to private sector employers, MPSD, the County, and the City are key public sector employers within the community.

Despite historic losses in manufacturing jobs in the region, manufacturing remains an integral part of Manitowoc's economy, and in fact has stabilized with slight increases in recent years. Manufacturing is the economic base of the City. Manufacturing tends to generate more local jobs, because it outsources work to area suppliers. Transshipment is also often done with local companies, and salaries and benefits tend to be higher than other occupational groups such as retail.

Figure 7.9: City of Manitowoc Major Employers, 2008

Employer	Industry Sector	Number of Jobs
Holy Family Memorial	Education and Health Services	1,294 ¹
Manitowoc Cranes, Inc	Manufacturing	1,006
Aurora Medical Group	Education and Health Services	865 ²
Manitowoc Public School District	Education and Health Services	742 ³
Federal-Mogul Piston Rings	Manufacturing	551 ⁴
Manitowoc County	Public Administration	458
Lakeside Foods, Inc.	Retail and Wholesale	437 ⁵
City of Manitowoc	Public Administration	429
Parker Hannifin Corp	Manufacturing	418 ⁶
Manitowoc Food Service	Retail and Wholesale	383
Wisconsin Aluminum Foundry Co, Inc.	Manufacturing	349 ⁷
Shipbuilders of Wisconsin	Manufacturing	333
Wal-Mart Associates Inc	Trade, Transportation, and Utilities	304

Source: City of Manitowoc

Notes: ¹City of Manitowoc network sites only.

²Includes on facilities located in Manitowoc.

³Excludes substitute teachers.

⁴Excludes employment in joint venture. For joint venture, 59 belong to Federal-Mogul but are invoiced to the joint venture.

⁵Total excludes 103 seasonal workers in Manitowoc.

⁶Parflex Division at Dufek Dr. – 61 employees. Parker Hannifin at 24th St. – 357 employees.

⁷Total includes 44 on layoff.

Environmentally Contaminated Sites

Environmentally contaminated sites are discussed in the economic development component of this *Plan*, because these areas present both challenges and opportunities for redevelopment and revitalization. Brownfields translate into extra costs related to accessing and remediation of sites. The WisDNR's Environmental Remediation and Redevelopment Program maintains a list of reported contaminated, or "brownfield," sites in the State. The WisDNR defines brownfields as "abandoned or under-utilized commercial or industrial properties where expansion or redevelopment is hindered by real or perceived contamination." Examples of brownfields might include a large abandoned industrial site or a small corner gas station. Properties listed in the WisDNR database are self-reported, and do not necessarily represent a comprehensive listing of possible brownfields in a community. As of March, 2008, there were 26 documented sites in the City listed in WisDNR's system. Ten of these sites are classified as LUSTs, or leaking underground storage tanks. These tanks are, or were known in the past to be, contaminating the soil and/or groundwater with petroleum. Sixteen sites in the Manitowoc area are classified as in need of environmental repair, or ERP. These sites are often times older, and have been releasing contaminants to the soil, groundwater, or air over a long period of time. Figure 7.9 lists the location and classification of documented brownfield sites in Manitowoc.

Brownfield redevelopment programs seek to return abandoned or underused industrial and/or commercial sites to active use through cleaning up environmental contamination, and encouraging redevelopment of the sites.

Successful remediation projects show certain characteristics: the redevelopment plan incorporates a large enough site so that negative neighborhood externalities are minimized; government subsidies are substantial; there is a long-term public commitment to the project; the location offers amenities such as proximity to water or transportation; and the project is connected with community revitalization priorities.

The WisCOM, WisDNR, and the U.S. EPA work together to administer grant programs that fund brownfields assessment and cleanup. These programs provide funds for environmental assessment studies that determine the nature and extent of contamination, as well as for the actual remediation of contaminated sites. More information on the requirements a community must meet to receive these grants is available through WisCOM and WisDNR at the State level, and the EPA at the Federal level.

Figure 7.10: City of Manitowoc Brownfield Sites, 2008

Site Location	Brownfield Classification	Status
Medusa Cement Co. LF, Old Claypit Road (Revere Dr.)	ERP	Active
WPSC Manitowoc MGP, 402 N. 10 th St.	ERP	Active
Manitowoc Cty/Newton Tn, Hecker Road	ERP	Active
Federal Mogul—2318 Waldo Blvd.	ERP	Active
Susies Restaurant – LGU – WisDOT, 1020 S. 26 th St.	ERP	Active
Mirro Co. Plt #1, 1616 Wollmer St.	ERP	Active
Manitowoc Ice (Equip. Works), 2110 S. 26 th St.	ERP	Active
Park Plaza Mall, 1100 S. 30 th St.	ERP	Cond. Closed
Parker Dayco Eastman—Connectors Plt, 1440 N. 24 th St.	ERP	Active
Alfred Muchin Co/Sadoff (South Tank), 1600 S. 26 th St.	ERP	Active
United Laundries & Dry Cleaners, 623 Reed Ave.	ERP	Active
Koenig & Vits (SUMPS), 2015 Mirro Dr.	ERP	Active
Mirro-Spirtas, 1512 Washington	ERP	Active
Alfred Muchin Co (East Tank), 1600 S. 26 th St.	ERP	Active
Alfred Muchin Co. (North Tank), 1600 S. 26 th St.	ERP	Active
Koenig & Vits (Lead Settling Pond & Mixing), 2015 Mirro Dr.	ERP	Active
Bills Oil Co., 2717 N. Rapids Road	LUST	Active
Hildebrandt Prop—former Wallander Construction, 1417 S. CTH S	LUST	Active
Clark Oil, 2016 Washington St.	LUST	Active
Kwik Trip #627, 910 Hamilton St.	LUST	Active
Vogel Auto Body, 2324 N. Rapids Road	LUST	Cond. Closed
Susies Restaurant—LGU—WisDOT, 1020 S. 26 th St.	LUST	Active
Manitowoc Health Care Center – Gas UST	LUST	Active
Cher-Make Sausage Co., 2915 Calumet Ave. (USH 151)	LUST	Active
Kwik Trip #637 – Pump #314, 401 N. 8 th St.	LUST	Active
Schaus Brothers Property, 825 S. 21 st St.	LUST	Active

Source: WisDNR Environmental Remediation and Redevelopment Program, 2008

ECONOMIC DEVELOPMENT AGENCIES AND PROGRAMS

The City's Planning Department, the Community Development Authority, and Industrial Development Corporation are the largest economic development agencies operating within the City. The City offers numerous financing options for businesses ranging from start up to mature businesses. Business assistance and financing options offered by the City include:

- ◆ Industrial Revenue Bonds – Tax exempt bonds issued by a municipality, the benefits of which are passed through to a manufacturing company. The net effect of the bonds is to provide the company with lower interest, fixed-rate financing; typically 1.5 to 2.5 percent below corporate bonds. The City may issue IRB bonds up to one year after the completion of a project.
- ◆ Revolving Loan Fund – The City offers business financing programs for all areas of the City. These monies provide long-term, fixed asset, fixed rate financing below market interest rates. The purpose of these programs is to encourage the revitalization of businesses in Manitowoc.
- ◆ Economic Development Tax Credit – This WisCOM program replaces five former Wisconsin tax credit programs - the Airport Development Zone, Agricultural Development Zone, Community Development Zone, Enterprise Development Zone and Technology Zone programs. The new tax credit program eliminates all former zone boundaries, as well as creates new ways in which existing Wisconsin businesses, or businesses relocating to Wisconsin can earn tax credits. The program is intended to reward job creation and capital investment, as well as help to offset job training costs. The tax credits, which are nonrefundable and nontransferable, must be applied against a certified business's Wisconsin income tax liability.
- ◆ Tax Increment Financing (“TIF”) – Tax increment financing is the City's most important economic development tool, and is used mostly to leverage private investments. Manitowoc has created 17 districts since the creation of TIF in Wisconsin in 1975. Today, the City has 11 active TIF districts, concentrated in the downtown and near the I-43/Calumet Ave. (USH 151) interchange. TIF is used as a funding tool to facilitate desired development and redevelopment that would not happen “but for” the use of TIF. Incremental tax dollars collected from rising property values within a TIF district are used to finance public improvements and/or to narrow an evident funding gap for a private development investment. According to the Wisconsin Department of Revenue, Manitowoc had the largest increase in equalized property valuation among selected larger cities in the State in 2008; most of this growth has been realized in the City's TIF Districts.

In addition to the City's economic development program opportunities, several local agencies provide assistance to area businesses. The following list provides information on programs designed to stimulate economic development:

Local Agencies, Programs, and Studies

- ◆ The Manitowoc City Center Association (MCCA) is a volunteer-based downtown organization that was organized “for the purpose of advancing the economic, professional, cultural, and civic welfare of the City; to encourage the growth of new and existing businesses; to support all those activities believed to be beneficial to the community and area; to oppose those which might be detrimental; and, in general, to promote the welfare of all area citizens.” Members include representatives from a diverse group of retail and service businesses and government entities within the community.
- ◆ Mainly Manitowoc, Inc. is responsible for organizing, developing, and implementing the City's (2008) Wisconsin Main Street Program in the downtown. The Wisconsin Main Street Program, established in 1987, is a four point approach to a comprehensive revitalization of historic commercial districts in Wisconsin, which is mirrored upon that national Main Street Program which began in the 1970s. The Main

Sustainable Businesses

More than 92 percent of community survey respondents either agreed or strongly agreed it is important for the City to encourage entrepreneurs and new businesses that focus on sustainability.

Street Program offers technical assistance from the State's Main Street Program in the WisCOM staff to select downtowns in Wisconsin.

- ◆ Economic Development Corporation of Manitowoc County ("EDCMC") was established in 2005. EDCMC's mission is to lead diversified economic and community development efforts in order to improve the long-term prosperity of the business community and residents of Manitowoc County through existing business development, community initiatives, workforce initiatives, business attraction and recruitment, and entrepreneurial assistance. The City provides direct financial support to this non-profit entity. EDCMC adopted a five-year strategic plan in March, 2009. Components of the plan overlap with some of the recommendations of this *Plan*. Key five-year tactics include:
 - Improve the EDCMC target service areas and resources to foster great economic development.
 - Ensure the expansion and retention of existing businesses located in Manitowoc County.
 - Collaborate with public and private workforce development organizations to recruit, increase and improve the County skilled and professional workforce.
 - Foster entrepreneurial development in Manitowoc County.
 - Enhance new business attraction and recruitment in Manitowoc County.
- ◆ The Chamber of Manitowoc County is an organization that provides resources and services to its members to promote and maintain a strong business environment. The Manitowoc Chamber, organized in 1916, and the Two Rivers Chamber (organized some time later) were merged to form the current organization in 1970. The Chamber is affiliated with a number of similar organizations including the USCOC, and was initially accredited by that group in 1967.
- ◆ The Manitowoc Area Visitors & Convention Bureau ("MAVCB") is a private non-profit corporation that promotes, supports, and pursues the growth of tourism in the greater Manitowoc area. MAVCB's 2008 Annual Report notes that spending by travelers in the County increased slightly from 2007, with a total economic impact of \$132.2 million and 3,115 jobs.
- ◆ The Market Analysis component of the 1993 Mary Means & Associates "Downtown Manitowoc Revitalization Strategy" provides some insight into the path the downtown has taken as a retail center over the last decade. Based on an analysis of the total sales within the downtown, in comparison to the total quantity of retail space, this report estimated that total square footage of retail in the downtown exceeded the square footage that would be justifiable given total sales. The oversupply of retail space given sales volumes that was seen in 1993 likely contributed to low per-store sales volumes, and a lack of new stores entering the market. With few new stores opening and creating freshness and new shopping opportunities, the downtown retail market softened in the intervening years. The challenge going forward is to reignite downtown Manitowoc's retail position by attracting new retail activity that will draw additional consumers into the area, supporting both new and existing stores and restaurants. This study should be updated.

Regional and State Agencies and Programs

The following is a sample of the many regional and State agencies and programs related to economic development. While an effort was made to identify all agencies and programs relevant to Manitowoc, this list may not be comprehensive.

- ◆ New North, Inc. is a consortium working within an 18-county region of northeast Wisconsin which pursues multiple strategies for improving the region's economy. The primary emphasis is promotion of the region's products, economic assets, and quality of life. Promotional efforts are aimed at encouraging local businesses and consumers to buy locally, in addition to promoting the regions products to outside customers. The consortium also encourages networking between businesses, institutions, employers, and employees to maximize retention and growth of existing businesses, and foster the creation of new ones. This is done by providing links to sources of financial assistance such as grants, loans, bonds, and tax credits for labor training, start ups, research, and capital improvements. The consortium attempts to

match businesses with suitable, available properties and facilities within the region. The consortium also attempts to assess and address work force training needs by encouraging educational institutions to train people with suitable skills matching industry demand

- ◆ The Northeast Wisconsin Regional Economic Partnership (“NEWREP”) was one of eight, multi-county zones created in 2002 to administer Wisconsin’s Technology Zone Tax Credit Program. In addition to this core function, NEWREP is a network of economic development professionals drawn from and working with the sixteen counties (including Manitowoc County) and the Menomonee tribe that comprise its membership to provide “hands on” support for existing and prospective ‘New North, Inc.’ businesses.
- ◆ The U.S. Small Business Administration’s 504 and 7(a) loan programs. The 504 loan program provides growing businesses with long-term, fixed-rate financing for major fixed assets, such as land and buildings. 504 loans can be used to fund land purchases and improvements, grading, street improvements, utilities, parking lots and landscaping, and construction of new facilities; or modernizing, renovating, or converting existing facilities. The 7(a) program provides working capital for businesses.
- ◆ WisCOM administers several financial assistance programs to communities to promote economic development.
 - Community Based Economic Development program (“CBED”) provides funding assistance to local governments and community-based organizations that undertake planning, development and technical assistance projects that support business development. Any Wisconsin municipality or community-based organization is eligible to apply for funding. Funds are available on an annual basis through a competitive application process. Application materials are available from WisCOM.
 - Manitowoc has been one of Wisconsin’s Development Zones since 1989. This program offers capital and employment-related tax credits to companies locating and investing in a zone. Today, the Development Zone has been consolidated by the WisCOM into the Economic Development Tax Credit program.
 - Wisconsin Enterprise Development Zones provide tax credits to specific employers based on significant job creation; location in a specific development zone is not required.
As noted above, this tax credit program has been consolidated by the WisCOM into a new Economic Development Tax Credit program.
 - Customized Labor Training grants provide State funding for training unavailable to Wisconsin vocational schools employees on new technologies.
- ◆ The State Infrastructure Bank (“SIB”) program is administered through WisDOT to provide revolving loans used by communities for transportation infrastructure improvements to preserve, promote, and encourage economic development and transportation efficiency, safety, and mobility.

Economic Development

Survey respondents indicated the following regarding the future of economic development initiatives in Manitowoc:

- ◆ More than 80 percent agreed or strongly agreed the City should offer incentives to attract new businesses and industries.
- ◆ More than 86 percent agreed or strongly agreed the City should focus on attracting higher paying jobs.
- ◆ Seventy-eight percent agreed or strongly agreed the City should develop and encourage more skilled professional jobs.
- ◆ Eighty-four percent agreed or strongly agreed the City should develop more manufacturing jobs and businesses.

Assessment of Desired Economic Development Focus

Following the State's comprehensive planning law, this *Plan* assesses categories or particular types of new businesses and industries that the City desires. In order to do this, the City must understand first and foremost, that growth is not an accounting practice, but a creative process; and secondly, it must understand its economic development assets, and how to capitalize on those assets through identifying strengths and weaknesses. The City must revitalize not only its industrial base, but also its technical knowledge base. Businesses, in turn, must be far sighted enough to view their companies and facilities, supply chains, logistics, procurement program, inventory cycles, and labor management as strategic assets.

Strengths and Assets

Manitowoc has a long history as an important port. It has played a major role in state-to-state and international commerce activities in the Great Lakes and Great Lakes Waterway. In recent decades, aspects of this role have diminished with the changing regional economy; yet Manitowoc still boasts an active harbor, vestiges of its shipping past, an auspicious location, and other physical and cultural assets that can be the basis of a new economic vision for the City.

The City has numerous assets on which to direct future economic development initiatives, many of which are place-based and unique to Manitowoc. This planning process began with the "Manitowoc Snapshot of Economic Assets and Opportunities" analysis which takes a look at the City through a broader lens. This part of the project produced a separate document, which describes the City's place-based, transportation/regional connection, and economic assets. An assessment of these assets, viewed through current State initiatives and larger regional directions, gives us a snapshot of how the City's economic opportunities might fit into the role of a regional and Great Lakes city. Many of the opportunities identified in the "Manitowoc Snapshot of Economic Assets and Opportunities" analysis are included and expanded upon in this *Comprehensive Plan*.

Challenges and Weaknesses

Like every community, Manitowoc faces economic development challenges. Weaknesses/challenges that will need to be considered and addressed include redeveloping blighted and brownfield impacted sites, increased vacancies in the downtown and other community shopping areas, an aging workforce (possessing generally better education, and special knowledge of that work place), modest population growth, and internal policy challenges that the City will face as it evolves and balances the desires of more conservative, long-term residents against those of newer and younger residents, as well as the needs and demands of retiring Baby Boomers. The City should position itself to capture these empty nesters as they contemplate downsizing their housing or right sizing their lives. They will need a host of services and service providers. They will also be searching for a new sense of community and connectedness to others. This is an opportunity.

ECONOMIC DEVELOPMENT GOALS, OBJECTIVES, AND POLICIES

This *Plan* details Economic Development Goals, Objectives, Policies, and Programs for the City. The most effective strategies are those that capitalize on the assets and strengths of the City, while accounting for and overcoming the City's weaknesses and challenges. Economic development occurs when local leaders choose to identify, invest in, and develop their own set of comparative advantages to enable workers and businesses to better compete in regional, national, and international markets.

Goal

- a. Attract and retain businesses that capitalize on Manitowoc's regional position, enhance the City's character and appearance, and strengthen and diversify the non-residential tax base and employment opportunities.
- b. Continue to evolve the City into a world-class community with a continued emphasis and investment into infrastructure and lifestyle amenities and economic opportunities.

Objectives

- a. Continue to proactively provide strong utility and technology infrastructure for business.
- b. Promote commercial development that will meet the shopping, service, and entertainment needs of the residents of the Manitowoc trade area.
- c. Encourage "universal space" in downtown buildings, as part of site-specific redevelopment efforts, with an emphasis on "green" improvements that add value to these properties, and that help downtown property owners differentiate themselves from their competition. These space improvements should focus on moveable and modular systems, rather than typical construction techniques.
- d. Recruit businesses and industries that provide higher paying jobs in a variety of fields for Manitowoc residents.
- e. Continue to grow and enhance cluster-based economic development in Manitowoc, such as food processing, "green" businesses, and energy and water technology.
- f. Support the retention and growth of existing businesses.
- g. Promote regional economic development through cooperative efforts that focus on innovation, entrepreneurship, education, and energy.



- Growing the economy by creating a better Manitowoc improves the image of the community.
- Increasing "green" business reflects the City's progressive economic development approach, advances environmental goals, and can act as a marketing tool for the City.
- Engaging boomers and zoomers can help clarify future directions for the City, and enhance the community's overall quality of life.
- Advancing clean water technology promotes stewardship of the ecological health of the Great Lakes.
- Retaining and expanding existing businesses stimulates the local economy.
- Strengthening the link between people and jobs strengthens the City's workforce by providing accessible, quality education and training opportunities.
- Redeveloping and infilling underutilized lands maximizes the value of existing infrastructure, improves community image, and increases tax base and proximity and access to water.

- h. Actively support the continued revitalization of downtown Manitowoc and surrounding neighborhood and commercial districts, and shopping centers.
- i. Balance economic growth with other community goals, such as neighborhood preservation and environmental protection.
- j. Support creativity, culture, and innovation in all facets of the local economy, with a focus on building a community attractive to creative people, as well as to innovative business and industry.
- k. Encourage the redevelopment and adaptive reuse of older, underutilized and vacant industrial and commercial structures for uses ranging from municipal police/fire training, to multi-purpose private/public facilities, to LEED-oriented projects, to urban gardening opportunities.
- l. Encourage owners of commercial, industrial, and rental housing to continue to invest and upgrade their properties and facilities to add value during the current recession; in other words, support businesses that are improving their competitive positioning.
- m. Support the redevelopment of vacant auto and other vehicle dealership properties, and obsolete shopping centers.

Policies

- a. Provide sufficient development sites for the community to be competitive in attracting high quality enterprises, and in helping existing businesses grow if relocation is necessary.
- b. Continue to revitalize downtown Manitowoc as a specialty retail, service, residential, and event district that complements its existing scale and character, draws customers from a broader trade area, and enhances downtown's character and charm. Support efforts to establish a stronger mix of businesses downtown.
- c. Encourage neighborhood-serving commercial opportunities in existing developed areas of the City, particularly aging commercial corridors and neighborhood retail centers.
- d. Capitalize on Manitowoc's unique location on Lake Michigan and excellent access, by encouraging regional retail and commercial service development in the vicinity of I-43 as well as lakefront commercial opportunities.
- e. Continue to enhance and beautify the streetscapes along major corridors and community gateways, particularly Calumet Ave. (USH 151), Washington St., and Waldo Blvd.
- f. Encourage the redevelopment or rehabilitation of underutilized and deteriorated properties (brown-field and otherwise) and districts. Aggressively pursue opportunities for blight elimination, and the adaptive reuse of these properties.
- g. Allow neighborhood-scale retail businesses and services in predominantly residential neighborhoods, provided such uses and structures are compatible with adjoining residential properties, and serve primarily the needs of the surrounding neighborhood.
- h. Require that new developments provide adequate separation and buffering between facilities and nearby existing or planned residential neighborhoods, while still encouraging the concept of live-work neighborhoods where neighborhood and site planning is high.
- i. Continue the marketing, development, and expansion of I-TEC as the premier industrial, research, and technology area of the City.
- j. Support the creation of small-business incubators in both formal and more ad hoc locations, and for a variety of business types, including industrial, retail and service, and the arts.

Retaining Existing Businesses

More than 96 percent of community survey respondents either agreed or strongly agreed it is important for the City to keep the businesses already in the City.

- k. Preserve long-term economic opportunities beyond the City limits—particularly at the I-43/Waldo Blvd. interchange—through intergovernmental cooperation and ETJ to prevent premature development there.
- l. Create and communicate clear expectations and standards for areas planned for industrial, office, and commercial development, and review projects against these standards, to eliminate uncertainty in the development review process.
- m. Over time, and as budgets allow, develop and implement a Calumet Ave. (USH 151) beautification program, including burying overhead utilities, widening terrace areas, renovating curbs and sidewalks, installing new overhead light fixtures, and landscaping and planting of street trees.
- n. Continue the appropriate use of TIF and other financial incentives and implementation tools, to promote desirable new and expansion business development, and redevelopment of underutilized and blighted areas.
- o. Work with local organizations to address the concerns and issues of area businesses to promote a healthy and vibrant business community.
- p. Formalize relationships with education providers to nurture technology, talent, and tolerance, and to help grow and support local entrepreneurs, and to better match local workforce skills with industry needs.
- q. Support a variety of housing options to meet the needs of the Manitowoc business community, from workforce to executive housing.
- r. Continue to promote “quality of life” improvements and developments which make Manitowoc a more desirable community for existing and future residents and businesses.
- s. To address potential talent shortages caused by retiring Baby Boomers, encourage local businesses to provide more flexible work arrangements such as job training, flexible work schedules, more comprehensive benefits to attract and retain workers, retirement planning, post-retirement employment and benefit arrangements, and elder care assistance as tools to retain workers possessing crucial industrial knowledge and skill sets.
- t. Modify the City’s zoning ordinance to ensure that regulations will support, and not impede, the development of downtown in terms of residential and business development.
- u. Support the efforts of MPU as an active economic development change agent in the community.

ECONOMIC DEVELOPMENT PROGRAMS, AND RECOMMENDATIONS

Grow the Economy by Creating a Better Manitowoc

A lot has been written about the nation’s and world’s transition to the “new economy.” One key aspect to economic growth and health in the new economy is providing physical and cultural amenities that employers and workers want. Community features like quality, amenity-rich housing and neighborhoods, a diverse and vibrant downtown, parks and trails, the arts and theater, and education really do matter. To this end, the City will continue to work with others in providing an amenity-rich environment for residents—to serve the intertwined goals of economic prosperity and high quality of life. Already, projects are started that have made a significant shift in the way Manitowoc thinks of itself. Community garden projects have brought more small-scale specialty agriculture growers together, and the highly successful Farmers’ Market has increased activity downtown. The City is also interested in initiatives and efforts that meet the needs of the “next generation,” preparing the City as a home for future residents, families, and employment opportunities.

One of the key themes underlying this *Plan* is that a well-designed lakefront and river corridor will create a vitality that will ripple throughout the community. Detailed recommendations for downtown and the riverfront are outlined in “The Port of Manitowoc Downtown and Riverfront Master Plan.”

In addition to sound infrastructure investments, appropriate public improvements can improve the overall appearance of a community, and present a more attractive face to potential companies and industries. In-

vestments in neighborhoods and parks are key components. The City should continue to capitalize on Lake Michigan and the Manitowoc River as its most important natural features. The City should also pursue development of the riverwalk through downtown on both sides of the River, as well as other downtown enhancements. Additionally, as City streets are reconstructed, upgrades such as wayfinding signs, decorative lighting, bicycle lanes, and new sidewalks should be considered.

Foster “Green” Business Growth

Already a budding eco-municipality taking active steps to advance community sustainability, the City could extend this focus to the business sector—not just to reinvent processes and make them greener, but to provide support throughout the community for “green” practices and increase the potential of “green” jobs. This is an attractive feature for new “green” businesses, or existing companies looking for a new location to nurture its pro-green products and services. In particular, the City should explore establishing a “Green Business Program” which could offer recognition, hands-on support, training, and technical assistance to qualifying businesses, and identify BMPs that could be integrated into development projects, including, but not limited to:

- ◆ Construction activity pollution prevention.
- ◆ Open space maximization in site development.
- ◆ Quality control in stormwater design.
- ◆ Light pollution reduction.
- ◆ Water use reduction and recycled material increase in projects.

Another strategy for attracting “green” business is encouraging the co-location of businesses that could share energy sources or reuse of by-products. Some of the elements already present in Manitowoc that can be the basis of a potential “green energy” cluster include:

- ◆ Wind – Broadwind Energy, Inc. (formerly Tower Tech) manufactures, installs, and maintains components for the wind energy sector.
- ◆ Energy Efficiency and Innovation – Orion Energy Systems, Inc. produces green products including the innovative Illuminator, a patented lighting fixture that doubles the light using half the energy of a fluorescent bulb.
- ◆ Nuclear Plants – The Kewaunee and Point Beach nuclear plants are both located near the City. The plants are co-managed; all energy generated goes into the grid.
- ◆ MPU – The municipally-owned power plant generates excess steam and heat energy, which is being utilized by various businesses.

Grow Food Processing Cluster

Manitowoc has the ability to grow very much in demand areas of food safety, organic farming, sustainable agriculture, and value-added food processing. In particular, Manitowoc will continue to grow its “food processing cluster.” A cluster is a group of companies that produces similar products and share infrastructure, suppliers, and distribution networks—all of which provide additional business opportunities in an area. Informal cluster organizations can also help identify careers in related industries, guide local schools and colleges in providing appropriate training, and help policy makers understand industry requirements for success. The City should continue to encourage formation of such working groups and collaborations.

Leading companies such as Lakeside Foods and Natural Ovens are already strong regional food processors. Recently, the Manitowoc Company purchased a food processing equipment company, adding additional state-of-the-art food processing technologies to its roster. Advances in this type of technology can be applied to other related and spin-off businesses.

Engage Boomers & Zoomers

“Baby Boomer” is the name given to the record-breaking 76 million Americans born between 1946 and 1964. “Zoomers” is the term used for a subset of the Boomers who are characteristically active—active in their communities, in their cultural and social endeavors, and active in their profession or fields of interest. Manitowoc, like most communities across the U.S., faces the impending retirement of this prominent segment of their population—a group that accounts for a large percentage of consumer spending, as well as a disproportionate share of growth and consumption. This presents an economic challenge for the community and the region, such as a talent shortage for many businesses and industries, and the potential loss of institutional knowledge in the workplace. Coping with this significant financial, physical, and social change also presents an opportunity; in an economy where knowledge and experience are roots of success. A community’s ability to become a talent magnet, and to engage and facilitate the economic potential of its Boomers/Zoomers could greatly enhance its economic prosperity.

Understanding this demographic and social shift in the region, Manitowoc could consider the needs and interests of this diverse generation. Public strategies could be employed to create additional housing in the community, enhance and develop cultural amenities, and advance retirement friendly employment and mentoring opportunities. Private efforts would require re-thinking traditional workplace policies to ensure open and flexible arrangements. These efforts would decrease the drain of intellectual property and human capital in Manitowoc.

As part of this planning process, issues and opportunities related to the Baby Boomer generation were explored in greater detail. See “Strategies to Engage Manitowoc’s Baby Boomer Population to Maintain a Thriving Residential and Business Community” for further recommendations.

Leverage Clean Water Technology

Manitowoc leads the State with the largest municipally owned utility (“MPU”), state-of-the-art water technology, and the entrepreneurial spirit to capitalize on water as a commodity. Pairing the existing assets of infrastructure, technology, and leadership, Manitowoc could capitalize on Wisconsin’s emerging role as the centerpoint for clean water technologies. A recently formed consortium comprised of leadership from the water technology industry, economic development and educational institutions, has converged to further explore and develop the field of clean water technology. Moving forward, the City, MPU, Lakeshore Technical College, Silver Lake College, and UW-Manitowoc could team up to explore their potential role in the newly formed consortium, as well as continue to have cutting edge technology for filtrating and cleaning drinking water—acting as stewards of the ecologic health of the Great Lakes. Focus should be on addressing such issues as decreasing lake water levels, invasive species, watershed water quality, and coastal impacts. Finally, UW-Manitowoc could specialize in water technology and water clean-up courses. The watershed is a perfect living laboratory.

Retain and Expand Existing Local Businesses

Manitowoc has a variety of locally-owned businesses that represent a strong commitment and personal relationship with the community, and provide unique goods and services. These businesses contribute strongly to the community’s urban identity. Since the owners of such businesses usually live within the community, there is a strong likelihood that the profits from such enterprises will be spent locally, and recycled through the local economy.

Local business retention and development, the origin of the majority of the jobs in Manitowoc, is emphasized as an important component of the City’s economic development strategy. It is far easier to retain the City’s existing businesses and industries than recruit new businesses (which accounts for about one percent of local jobs), as most employment growth in any community occurs through existing business expansion. Support through development approval assistance, business mentoring, development incentives, and small business loans are important ways that the City can continue to promote locally grown businesses.

Strengthen the Link between People and Jobs

Good employees are a vital part of the economic development equation. The accessibility and quality of education, job training, transportation, and housing affect the ability of a community's workforce to access and prosper at today's jobs. The City intends to carry out the following efforts to strengthen the link between area residents and local jobs:

- ◆ *Education and training opportunities.* The City intends to work with the MPSD, private schools, UW-Manitowoc, Silver Lake College, Lakeshore Technical College, and local businesses and organizations, to ensure that local curriculums and training opportunities are meeting employer needs. The City, local businesses, and local educational institutions, may also collaborate on education and training initiatives such as job shadowing and mentoring. The City should also encourage local businesses to support life-long learning opportunities for employees.
- ◆ *Transportation options.* Manitowoc is fortunate to have a variety of transportation options. MMT provides bus service throughout the City as well as to Two Rivers. Map 6: Transportation Facilities depicts potential new routes where more intensive new development is proposed, in particular north and west of the City. Manitowoc should consider cooperating with the City of Sheboygan on an inter-city bus route to increase connectivity between the two cities. Developing a more complete regional bicycle and pedestrian system also increases transportation choices for workers—particularly in good weather, and where jobs are close to housing. All this being said, maintaining the existing road network cannot be overlooked in getting people to jobs.
- ◆ *Variety of housing options.* Housing is not simply part of the fabric of the City; it also contributes to its economic vitality. In order for the Manitowoc area to grow economically, local housing development and continued improvements to the housing stock are critical. Businesses need to access and retain workers, and workers need quality housing they can afford. A range of housing types, from workforce to executive housing, is an asset that the City should endeavor to encourage. See Chapter Six: Housing and Neighborhood Development for detailed recommendations.

Pursue Redevelopment and Infill of Underutilized Lands

The City, along with local partners, has generated momentum in the downtown area in recent years. The City should continue to promote downtown Manitowoc as a social, civic, business, and residential center, but should do so in partnership with downtown businesses and property owners. “The Port of Manitowoc Downtown and River Corridor Master Plan” contains detailed recommendations for redevelopment and infill in the downtown.

Additional redevelopment opportunities are present outside of downtown, including several aging industrial corridors, the north side malls, and potentially the County Expo Grounds (see the 2009 “Manitowoc Expo Grounds Master Plan”). Sites like these typically demand proactive redevelopment planning and coordination. Careful planning, site assessment, public-private partnerships, redevelopment incentives, and persistence over a number of years are required. Figure 7.10 illustrates a recommended approach to redevelopment planning and implementation that will have a lasting, positive economic effect on each area and the community. Typically, this type of detailed planning and implementation process includes:

- ◆ Evaluating the planning area's condition.
- ◆ Conducting a regional and local economic opportunities analysis.
- ◆ Identifying goals and objectives for the redevelopment area.
- ◆ Prioritizing individual redevelopment sites within the area.
- ◆ Conducting a market assessment for each redevelopment site.
- ◆ Preparing a redevelopment strategy and detailed plan map, and attracting capital to the project, with attention to priority sites.

- ◆ Aggressively pursuing implementation through techniques like the adoption of a statutory redevelopment plan, establishment of TIF districts, blight elimination, possible brownfield remediation, possible site acquisition, consolidation, and demolition, and developer recruitment.

Where brownfields are identified in the redevelopment planning process, the following list of additional or special steps is advised for successful brownfield remediation and reuse.

- ◆ *Resource Procurement.* In order to ensure the successful redevelopment of these sites, considerable capital must also be raised for remediation and redevelopment. Funding assistance from State, Federal, and other public agencies, as well as from non-profit and foundation sources should be sought.
- ◆ *Environmental Assessment.* Successful redevelopment of brownfields is not possible without a thorough understanding of the environmental conditions present on a site. These would include Phase I Environmental Site Assessments (which entail an analysis of potential environmental concerns at the site), and Phase II assessments, which include soil and groundwater sampling to determine the existence and extent of the perceived potential contamination.
- ◆ *Site Control.* Successful brownfield assessment, cleanup, and redevelopment hinges on authorized access to the site. This can be achieved either through a cooperative relationship with the property owner, or through purchase of the property by the municipality. Consequently, working with property owners to negotiate access or acquisition, and to determine a relocation strategy, when necessary, is critical.
- ◆ *Developer Recruitment and Enrollment in the State's Voluntary Party Liability Exemption and Cleanup Program.* It is important to seek out developers whose skills and portfolios best meet the end use and site specific requirements of each brownfield redevelopment project. A determination of a developer's desire to secure a "No Further Action" letter from WisDNR should be made, and enrollment in the program occur early to facilitate WisDNR buy-in to the project.
- ◆ *Environmental Remediation and Construction.* Once issues of site control and assessment have been adequately dealt with, environmental remediation, if necessary, should occur. Remedial action plans are often developed most efficiently when a developer has been secured for a site, so that new construction can be used as a remedial method.

Continue to Collaborate with Local and Regional Partners on Economic Development Initiatives

As described earlier in this chapter, Manitowoc has a wealth of local and regional economic development partners and a track record of productive collaboration. Key partners for the City include local organizations like the Chamber of Manitowoc County, MCCA, Mainly Manitowoc, the EDCMC, education providers such as UW-Manitowoc, Silver Lake College, Lakeshore Technical College, the MPSD, and private education providers, as well as regional organizations like New North.

To further capitalize on Manitowoc's key economic assets and place-based opportunities, and to embrace change as an opportunity for progress, a City-focused, private leadership group should be formed in Manitowoc as a key component of strategic economic development and *Plan* implementation. Comprised of local corporate leaders with diverse expertise, a local private leadership group could facilitate additional interest and investment in Manitowoc, and increase the rate of implementation.

Adopt Design Standards for Commercial and Industrial Development

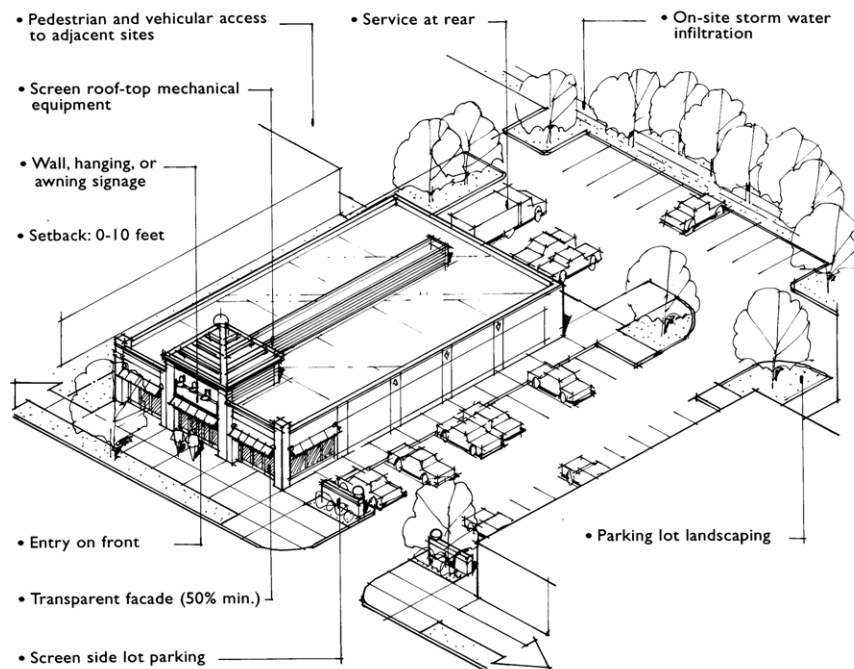
The City should strengthen and enforce design standards for commercial and industrial development projects to ensure high-quality, lasting projects that are compatible with the City's desired character. These standards should apply to all new development and redevelopment projects in the City, and should serve as a means of encouraging projects to implement sustainable design features such as protecting and conserving water, using environmentally sensitive products, and optimizing energy use. However, somewhat less stringent standards for building design and building materials, and landscaping should be considered for some areas/uses with the "Office/Industrial" designation on Map 5: Future Land Use. In addition, a different set of high-quality standards will be needed for "neighborhood scale" business and office development. Within these areas, design standards should emphasize adhering to residential type site layouts, building designs, building materials, and landscaping and lighting approaches.

All of these new standards should be incorporated into the City's Zoning Ordinance, and strictly adhered to during site plan and/or land division review processes. For new and expanded commercial uses, the standards listed below and illustrated in the following Figure 7.11 are advised:

1. New driveways with adequate throat depths to allow for proper vehicle stacking.
2. Limited number of access drives along arterial and collector streets.
3. Common driveways serving more than one commercial use in congested corridors, wherever possible.
4. High quality landscaping treatment of bufferyards, street frontages, paved areas, and building foundations.
5. Street trees along all public street frontages.
6. Intensive activity areas such as building entrances, service and loading areas, parking lots, and trash receptacle storage areas, oriented away from less intensive land uses.
7. Parking lots heavily landscaped with perimeter landscaping and/or landscaped islands, along with screening to block views from streets and residential uses.
8. Parking to the sides and rear of buildings, rather than having all parking in the front.
9. Signage that is high quality, and not excessive in height or total square footage.
10. Location of loading docks, dumpsters, mechanical equipment, and outdoor storage areas behind buildings and away from less intensive land uses.
11. Complete screening of loading docks, dumpsters, mechanical equipment, and outdoor storage areas through use of landscaping, walls, and architectural features.

12. Safe, convenient, and separated pedestrian and bicycle access to a site from parking areas to the buildings, and to adjacent commercial developments.
13. Illumination from lighting kept on-site through use of cut-off luminaries.
14. High quality building materials, such as brick, architectural metal, stone, and tinted masonry.
15. Canopies, awnings, trellises, bays, and windows to add visual interest to facades.
16. Variations in building height and roof lines, including parapets, multi-planed and pitched roofs, and staggered building facades (variations in wall depth and/or direction).
17. All building façades containing architectural details of similar quality as the front building façade.
18. Central features that add to community character, such as patios and benches.

Figure 7.11: Desired New Commercial Project Layout

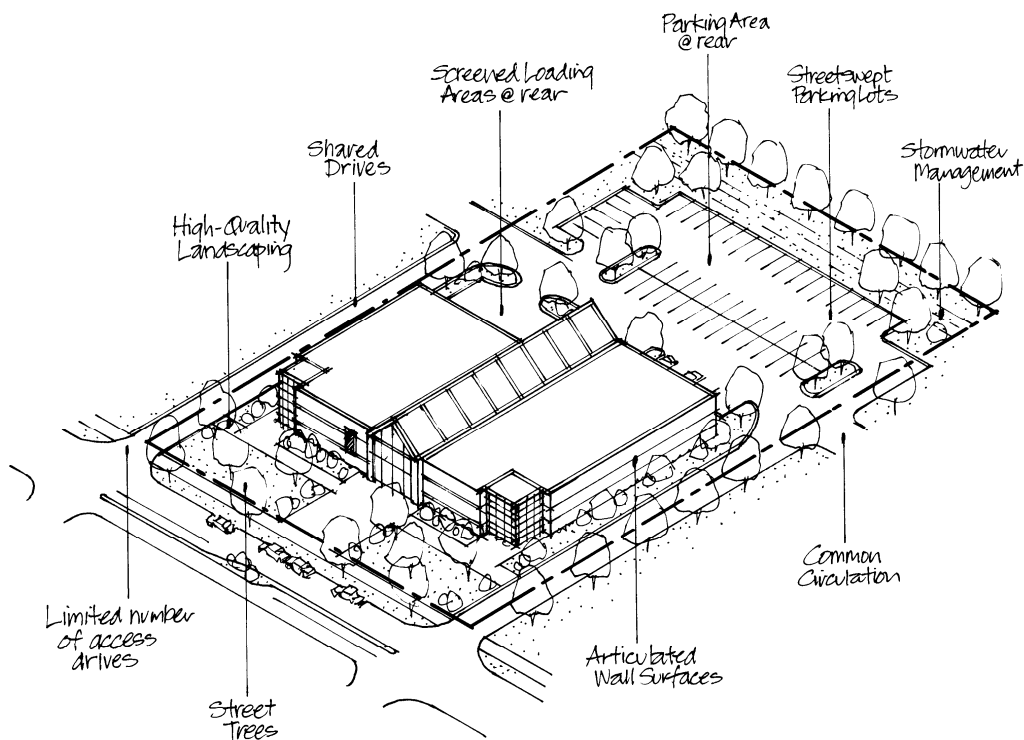


For new and expanded industrial uses, the standards listed below and illustrated in Figure 7.12 are advised:

1. New driveways with adequate throat depths to allow for proper vehicle stacking.
2. Limited number of access drives along arterial and collector streets.
3. High quality landscaping treatment of bufferyards, street frontages, paved areas, and building foundations.
4. Screening where industrial uses abut non-industrial uses, in the form of hedges, evergreen trees, berms, decorative fences, or a combination thereof.
5. Screening of parking lots from public rights-of-way and non-industrial uses.
6. Complete screening of all loading areas, outdoor storage areas, mechanical equipment, and dumpsters using berms, hedges, or decorative walls or fences.
7. Street trees along all public road frontages.

8. High quality building materials, such as brick, wood, stone, tinted masonry, pre-cast concrete, and architectural metal.
9. Location of loading areas at the rear of buildings.
10. Separation of pedestrian walkways from vehicular traffic and loading areas.
11. Design of parking and circulation areas so that vehicles are able to move from one area of the site to another, without re-entering a street.
12. Variable building setbacks and vegetation in strategic locations along foundations.

Figure 7.12: Desired New Industrial Project Layout



CHAPTER EIGHT: INTERGOVERNMENTAL COOPERATION

In a State with over 2,500 units of government, and in an era of diminished local government resources, it is increasingly important to coordinate decisions that affect neighboring communities. The purpose of this chapter is to outline strategies for cooperation and collaboration between the City and neighboring jurisdictions, and to minimize potential conflicts. This chapter describes the existing regional framework, analyzes the plans of neighboring and overlapping jurisdictions, and outlines strategies for cooperation, collaboration, and minimizing potential and existing conflicts.

EXISTING REGIONAL FRAMEWORK

Map 1: Jurisdictional Boundaries, presented earlier in this *Plan*, shows the boundaries of Manitowoc's neighboring and overlapping jurisdictions. All play an important part in the area's future. Relationships among those jurisdictions are analyzed to identify future opportunities and potential planning conflicts below. The following is a summary of existing relationships and planning context:

Town of Manitowoc

The Town of Manitowoc surrounds the City to the north and south, such that the City divides the Town into two noncontiguous sections. The Town's population was estimated to be 1,158 in 2008, an increase of 23.6 percent from 1990, which helped offset somewhat the significant population decline the Town experienced from 1970 to 1990.

Town of Manitowoc Rapids

The Town of Manitowoc Rapids is located directly west of the City, and the northern portion of the Town of Manitowoc. The Town's population was estimated to be 2,543 in 2008, a 1.4 percent decrease from 1990. The Town's population has steadily decreased since 1970. A comprehensive plan for the Town was adopted in 2002.

Town of Two Rivers

The Town of Two Rivers is located northeast of the City. The Town's population was estimated to be 1,914 in 2008, a 10.9 percent decrease since 1990. The Town's population has decreased nearly 47 percent since 1970, the steepest decline of any community within Manitowoc's ETJ. This primarily reflects ongoing reductions in average household size.

Town of Newton

The Town of Newton is located southwest of the City. The Town's population was estimated to be 2,358 in 2008, reflecting a steady population since 1990. An updated comprehensive plan for the Town was adopted in 2009.

Town of Kossuth

The Town of Kossuth is located to the north of Manitowoc, bordering the Towns of Manitowoc and Manitowoc Rapids. The Town's population was estimated to be 2,115 in 2008, an increase of 8.4 percent from 1990, which offsets the slight population decline between 1970 and 1990.

City of Two Rivers

Two Rivers is located northeast and adjacent to Manitowoc along the Lake Michigan shoreline. The City's population was estimated to be 12,540 in 2008; a 3.8 percent decrease since 1990 and 7.5 percent decrease since 1970. The City shares historic and economic connections with Manitowoc. Today, the two cities collaborate on a myriad of issues, as both recognize that they are part of a single, economic unit. They also benefit from shared tourism initiatives through the MAVCB, which provides visitors with information for both

cities through an office in Manitowoc and an online website. The cities also benefit from shared branding of Manitowoc-Two Rivers as “Wisconsin’s Maritime Capitol.” Additionally, Manitowoc’s MMT provides local bus connections between the two cities. The ETJs of Manitowoc and Two Rivers abut one another.

Manitowoc County

The County’s population was estimated to be 82,830 in 2008 – reflecting growth of 3.0 percent from 1990. Between 1990 and 2008, the City contributed substantially to this growth, contributing 2,150 new residents to a County-wide increase of 2,409 residents.

City of Sheboygan

Sheboygan is located approximately 25 miles south of Manitowoc. Sheboygan’s population was estimated to be 50,580 in 2008, a 1.8 percent increase since 1990. The city adopted a comprehensive plan in 2000.

Bay-Lake Regional Planning Commission

The BLRPC is a public agency providing planning services on area-wide issues, representation to local interests in State and Federal planning activities, and planning assistance to local communities. The Commission was established by the Governor’s Executive Order in 1972. In addition to the County, the Commission serves Brown, Door, Florence, Kewaunee, Marinette, Oconto and Sheboygan Counties, and their communities.

The Commission is currently drafting a Multi-Jurisdictional Comprehensive Plan for Manitowoc County, and which includes plans for the cities of Manitowoc and Two Rivers; the villages of Francis Creek, Kellnersville, Maribel, Reedsville, St. Nazianz, and Whitelaw; and the towns of Cato, Eaton, Gibson, Kossuth, Liberty, Manitowoc, Maple Grove, Meeme, Newton, Rockland, Schleswig, and Two Rivers. Other recent and ongoing activities in the County include an All-Hazards Mitigation Plan, a Maritime Metro Transit Development Program, Manitowoc/Two Rivers Sewer Service Administration, and Lake Michigan Ice Age National Scenic Trail Trailway Plan.

School Districts

Residents of Manitowoc are served by the MPSD, and private education institutions described in detail in Chapter Five: Utilities and Community Facilities.

Important State Agency Jurisdictions

WisDOT’s Northeast Region office in Green Bay serves all of Manitowoc County. WisDNR’s Northeast Region, headquartered in Green Bay, includes the Manitowoc area. The closest WisDNR Service Centers are in Oshkosh and Sturgeon Bay.

INTERGOVERNMENTAL COOPERATION GOALS, OBJECTIVES, AND POLICIES

Goal

- a. Develop and maintain mutually beneficial relations with adjacent and overlapping governments.

Objectives

- a. Continue to work with neighboring communities to encourage an orderly, efficient land use pattern and transportation network in and around the City.
- b. Work collaboratively to strengthen the education system in Manitowoc, including public and private institutions.
- c. Continue to develop and maintain mechanisms for ongoing communication between Manitowoc, and surrounding and overlapping units of government.
- d. Grow relationships with nearby communities and counties for an enhanced regional economic presence.
- e. Ensure the City's long-term ability to grow and expand its jurisdictional boundaries.



- Fostering positive intergovernmental relationships can create win-win results related to shared services and facilities, increase predictability, and improve the attainment of shared community goals, objectives, and values.

Policies

- a. Provide a copy of this *Plan* to all surrounding local governments and districts, and continue to involve and update them on future changes to the *Plan*.
- b. Collaborate on implementation of this *Plan* when possible.
- c. Work to resolve differences between the City's *Plan*, and the plans, policies, and ordinances of adjacent communities.
- d. Actively monitor, participate in, and review and comment on pending and future comprehensive plans and municipal incorporation proposals from nearby communities.
- e. Continue to cooperate with other units of government on issues related to land use, natural resources, places of recreation, transportation facilities, economic development, and other systems that are under shared authority or that cross governmental boundaries.
- f. Consider boundary agreements with adjacent towns as mechanisms to create a more predictable future near the City's edges, and reduce the need for the City to exercise its ETJ abilities and avoid costly future conflict.
- g. Continue to consider regionalization of public services and facilities where consolidating, coordinating, or sharing services or facilities will result in better services, cost savings, or both.
- h. Partner with applicable institutions in the Manitowoc area to improve educational achievement, help grow the economy through worker and entrepreneur training, pursue recreational programming, and enhance the economic health of the City and surrounding area (see also Chapter Five: Utilities and Community Facilities).
- i. Continue and grow partnerships with public-private organizations and with the City of Two Rivers and the County, on regional economic initiatives that capture the area's future potential, given its unique assets and position (see also Chapter Seven: Economic Development).

INTERGOVERNMENTAL COOPERATION RECOMMENDATIONS, AND PROGRAMS

Intergovernmental communication, coordination, and cooperation are critical in implementing many of the recommendations in this *Plan*. This section builds off some of the key policies listed above, setting forth recommendations for enhanced relations with adjacent and overlapping jurisdictions. It focuses in particular in areas and relationships that are not described extensively in other chapters of this *Plan*, and where potential future conflicts may be the greatest without concerted future action.

State Issues

WisDOT and WisDNR are actively involved in programs and policies which directly influence, and are influenced by, local land use decisions. The promotion of the policies of these agencies by this *Plan* is an imperative coordination tool. Specifically, this coordination is accomplished by reflecting the recommendations of the adopted land use and transportation plans for eastern Wisconsin. State policies are also implemented through the aggressive promotion of BMPs for the mitigation of land use impacts on transportation facilities and environmental resources. Finally, and most importantly, the benefits of controlled growth and compact development served by sanitary sewer facilities which are promoted and implemented through the City's *Plan*, are unquestionably the most effective way of accommodating population pressures in a manner which minimizes adverse impacts.

Regional Issues

Because many of the City's goals and objectives relate to issues that transcend municipal boundaries (e.g., transportation, natural resource, farmland preservation, land use), the City intends to maintain an active and open dialogue with surrounding communities and counties. A few specific opportunities include improving water quality in the Manitowoc River watershed (see Chapter Two: Agricultural, Natural, and Cultural Resources), re-energizing the riverfront and lakefront areas, expanding and strengthening economic development opportunities (see Chapter Seven: Economic Development), and developing recreational facilities that connect to existing facilities (see Chapter Five: Utilities and Community Facilities).

County Issues

At the time of writing, the County was in the process of preparing a comprehensive plan meeting the State's comprehensive planning legislation. There are no known conflicts between the City's *Plan* and the County's planning efforts. However, the City intends to advocate for full inclusion of the City's *Plan* in the County comprehensive plan, and collaborate on other initiatives. Additionally, the City will continue to participate in the annual County municipal officials event to encourage communication with community leaders throughout the County.

City of Two Rivers

At the time of writing, BLRPC staff was assisting the City of Two Rivers to prepare a comprehensive plan that would meet the State's comprehensive planning legislation. Manitowoc and Two Rivers met in April, 2008 to discuss issues of mutual concern including coordinating municipal boundaries,

INTERGOVERNMENTAL AGREEMENTS UNDER WISCONSIN LAW

There are two main formats for inter-governmental agreements under Wis. Stats.

The first is available under §66.0301 Wis. Stats., which allows any two or more communities to agree to cooperate for the purpose of furnishing services or the joint exercise of any power or duty authorized under State law. While this is the most commonly used approach, a "66.0301" agreement is limited by the restriction that the municipalities must be able to exercise co-equal powers. So, for example, attorneys sometimes do not recommend this agreement format when future municipal boundary changes are involved, because cities and towns do not have co-equal powers with respect to annexation.

Another format for an intergovernmental agreement is a "cooperative (boundary) plan" under §66.0307 Wis. Stats. This approach is more labor intensive and ultimately requires State approval of the agreement, but the "66.0307" approach does not have some of the limitations of the "66.0301" agreement format.

An increasingly common approach is for communities to first enter into a "66.0301" intergovernmental agreement, which in part directs the communities to then prepare a "66.0307" cooperative plan covering issues such as boundary changes.

identifying extraterritorial jurisdictions, providing utilities in the area between the two cities, and determining long-term growth areas. There are no known conflicts between this *City Plan* and the City of Two Rivers' planning efforts. Manitowoc supports establishing an ETJ agreement with Two Rivers to determine co-terminus areas of jurisdiction.

Neighboring Towns

While the City's ETJ encompasses six towns, Manitowoc shares a common border with three separate townships – the towns of Manitowoc, Manitowoc Rapids, and Newton. Given different influences within each of these towns, Manitowoc's intergovernmental efforts cannot be a "one size fits all" approach. Instead, the City must consider the particular influences and issues with each of the neighboring towns in developing these intergovernmental recommendations.

One common element to the City's relationship with its neighboring towns is the powers and authorities that the City has within its ETJ. The City's ETJ extends in a three-mile radius from the boundaries of the City, except as defined by other agreements with these communities. Manitowoc's current ETJ is shown on many of the maps in this *Plan*, but will shift with annexation.

Four distinct ETJ powers are available to cities and villages. This area of the law is evolving continuously – particularly in regard to the application of land division review authority. The ETJ of villages and cities under 10,000 persons is 1.5 miles. For cities over 10,000 in a decennial census, the ETJ is three miles, which applies to Manitowoc. The four ETJ powers available to cities and villages include:

- ◆ **ETJ Planning:** Cities and villages have the right to include and make recommendations for the lands in their ETJ in their planning documents adopted under Wis. Stats. Typical plans include comprehensive plans, master plans, land use plans, transportation plans, park plans, utility plans, community facility plans, and peripheral area plans.
- ◆ **ETJ Official Mapping:** Cities and villages have the right to include their ETJ on their Official Map. The Official Map is a tool used to identify the location of current and planned public facilities, and can be used to prevent structures from being erected on identified sites, and to assure that subdivisions provide for planned facilities. Typical use of the Official Map includes identifying expanded road rights-of-way; future road alignments; and sites for public buildings, parks, and drainageways.
- ◆ **ETJ Land Division Review:** Cities and villages have the ability to adopt subdivision ordinance provisions to approve or deny land divisions within their ETJs. This area of the law is evolving rapidly through court decisions. ETJ land division review authority may be used to require consistency with the City's *Comprehensive Plan* and Official Map, ensure the proper design of the land division, and establish lot size or density standards. Public improvement construction and design standards can generally not be imposed through this power.
- ◆ **ETJ Zoning:** Cities and villages have the ability to enact ETJ zoning authority within all or part of their ETJs. This authority temporarily freezes town or county zoning in the selected area for a period of two to three years. This provides an opportunity for a joint town and city/village ETJ Committee (three members from each jurisdiction) to develop and adopt a permanent ETJ zoning ordinance and zoning map to apply to the selected area. This authority dissolves after two years, unless extended for another year by joint agreement of the communities, or unless the ETJ zoning ordinance and map are adopted. If adopted, the town and city/village are then jointly responsible for making future zoning decisions in the selected ETJ area.

Through the negotiation and execution of intergovernmental boundary agreements with adjacent towns, cities and villages may agree to provisions that may modify these extraterritorial rights within statutory limitations.

At the time of writing, BLRPC staff was assisting the Town of Manitowoc and the Town of Two Rivers to prepare comprehensive plans that would meet the State's comprehensive planning legislation. However, no official policies or recommendations were available for comparison against this *Plan*.

The Town of Manitowoc Rapids adopted their comprehensive plan in 2002. The plan identifies areas of future development surrounding the City, mainly east of I-43 and south of Goodwin Road. The plan generally supports these areas developing in the City where public utilities are available or planned. Additionally, the Town desires cooperation and coordination with the City, with respect to long-range planning, land use regulations, and intergovernmental agreements for services.

The Town of Newton adopted an update to their comprehensive plan in 2009. The plan identifies the lands south of the City, but within the City's existing USA as an "Agricultural Transition Area." This designation allows for residential development at significantly lower densities (one unit per 10-acres) than proposed by the City (at least five units per acre). The plan also identifies areas along CTH CR for "Highway Interchange Commercial" development. Additionally, the Town desires to establish a framework for boundary negotiations and joint planning efforts with the City.

The City welcomes establishing a dialogue with adjoining towns on issues of mutual concern such as joint development criteria, agreements for right-of-way dedications, Official Mapping considerations, and limitations on lot sizes.

CHAPTER NINE: IMPLEMENTATION

Few of the recommendations of this *Plan* will be automatically implemented. Specific follow-up action will be required for the *Plan* to become reality. This final chapter is intended to provide the City with a roadmap for these implementation actions. This chapter describes the *Plan* adoption process; recommendations for monitoring, advancement, and administration of the *Plan*; and the process to amend the *Plan*. It includes a compilation of programs and specific actions to be completed in a stated sequence, as required under Wis. Stats.

Plan Adoption

A first step in implementing the City's *Plan* is making sure that it is adopted in a manner which supports its future use for more detailed decision making. The City has included all necessary elements for this *Plan* to be adopted under the State's comprehensive planning legislation. §66.1001(4) Wis. Stats. establishes the procedures for the adoption of a comprehensive plan. The City followed this process in adopting this *Plan*.

Plan Monitoring and Advancement

This *Plan* is intended to be used by government officials, developers, residents, and others interested in the future of the City to guide growth, development, redevelopment, and preservation. The City intends to constantly evaluate its decisions on private development proposals, public investments, regulations, incentives, and other actions against the recommendations of this *Plan*. In fact, on January 1, 2010, zoning, subdivision, and Official Map ordinances and decisions will have to be consistent with the *Plan*. This will require adjustments to these regulations as described in Figure 9.1.

This *Plan* will only have value if it is used, understood, and supported by the community. It is critical that the City make concerted efforts to increase community awareness and education on this *Plan*. To this end, efforts may include:

- ◆ Prominently displaying *Plan* materials in City offices and gathering places.
- ◆ Ensuring that attractive and up-to-date materials are easily accessible on the City's website.
- ◆ Speaking to community organizations about the *Plan*.
- ◆ Regularly presenting implementation progress reports to the Common Council, Plan Commission, and other municipal bodies.
- ◆ Incorporating *Plan* implementation steps in the annual budget process.
- ◆ Encouraging all City staff to become familiar with and use the *Plan* in their decision-making.

Plan Administration

This *Plan* will largely be implemented through an ongoing series of individual decisions about annexation, zoning, land division, Official Mapping, public investments, and intergovernmental relations. The City intends to use this *Plan* to inform such decisions under the following guidelines:

Annexations

Proposed annexations should be guided by the recommendations of this *Plan*. Specifically, Map 5: Future Land Use, Map 6: Transportation Facilities, and Maps 7a and 7b: Utilities and Community Facilities of this *Plan* will be among the factors considered when evaluating a request for annexation. Annexation proposals on lands that are designated for urban development, as locations for future transportation facilities, and/or as locations for future community facilities should be more strongly considered for annexation approval. However, in their consideration of annexation proposals, the Plan Commission and Common Council should also evaluate the specific timing of the annexation request, its relationship to the overall regularity of the corporate boundary, the ability to and cost to provide utilities and public services to the site, the overall costs associated

with the proposed annexation, the effect on intergovernmental relations, as well as other pertinent statutory and non-statutory factors.

Zoning

Proposed zoning map amendments should be consistent with the recommendations of this *Plan*. Specifically, Map 5: Future Land Use should be used to guide the application of the general pattern of permanent zoning. However, the precise location of zoning district boundaries may vary, as judged appropriate by the Plan Commission and Common Council. Departures from the exact land use boundaries depicted on Map 5: Future Land Use may be particularly appropriate for adaptive reuse projects, Planned Unit Development projects, projects involving a mix of land uses and/or residential development types, properties split by zoning districts and/or properties located at the edges of future land use areas. However, in their consideration of zoning map issues, the Plan Commission and Common Council will also evaluate the specific timing of the zoning map amendment request, its relationship to the nature of both existing and planned land uses, and the details of the proposed development. Therefore, this *Plan* allows for the timing of zoning actions and the refinement of the precise recommended land use boundaries through the zoning, conditional use, planned development and land division processes.

Land Division

Proposed land divisions should be generally consistent, but not necessarily precisely consistent, with the recommendations of this *Plan*. Specifically, Map 5: Future Land Use, Map 6: Transportation Facilities, and Maps 7a and 7b: Utilities and Community Facilities (and the policies behind these maps) should be used to guide the general pattern of development, and the general location and design of public streets, parks, and utilities. However, in their consideration of land divisions, the Plan Commission and Common Council will also evaluate the specific timing of the land division request, its relationship to the nature of both existing and future land uses, and the details of the proposed development. Departures from the exact locations depicted on these maps shall be resolved through the land division process for CSMs, preliminary plats, and final plats both within the City limits and the ETJ. This *Plan* allows for the timing and the refinement of the precise recommended development pattern and public facilities through the land division process, as deemed appropriate by the Plan Commission and Common Council.

Official Mapping

Map 6: Transportation Facilities and Maps 7a and 7b: Utilities and Community Facilities will be used to guide the general location and design of both existing and new public streets, public parks, and utilities, as depicted on the City's Official Map. However, in their consideration of Official Mapping amendments, the Plan Commission and Common Council will also evaluate the specific timing of the development request, its relationship to the nature of both existing and future land uses, and the details of the proposed amendment and its relationships to a proposed development. Departures from the exact locations depicted on these maps will be resolved through the Official Map and platting processes, both within the City limits and the ETJ.

Public Investments

Proposed public investment decisions will be guided by the recommendations of this *Plan*. However, the timing and precise location of public investments may vary, as judged appropriate by the Plan Commission and Common Council. This *Plan* allows for the timing and the refinement of the precise recommended public facilities and other public investments, as deemed appropriate by the Plan Commission and Common Council.

Intergovernmental Relations

Proposed intergovernmental relations decisions, including intergovernmental agreements, will be guided by the recommendations of this *Plan*, as deemed appropriate by the Plan Commission and Common Council. However, in their consideration of intergovernmental decisions and agreements, the Plan Commission and Common Council will also evaluate a wide variety of other factors, including specific provisions of the recommended agreements. Departures from the recommendations of this *Plan* shall be resolved by the Common Council through the intergovernmental process.

Consistency Requirement

The comprehensive planning statute does not define, nor does it provide guidance about how to determine whether or not land use ordinance decisions are “consistent” with the *Plan*. As such, this concept shall evolve along with the *Plan* over time. Amendments to the *Plan* may further address the “consistency” measure.

For purposes of determining whether or not an action is “consistent” as the term is used in §66.1001(3), Wis. Stats., the City shall frame its actions and decisions upon the following guidance:

1. Consider if aspects of actions, programs, or projects will further the overarching objectives and policies of the *Plan*, and not obstruct or contradict their attainment.
2. Determine if the proposed action, program, or project is compatible with the proposed future land uses and densities contained in the *Plan*.

Plan Amendments

This *Plan* can be amended and changed. Amendments may be appropriate in the years following initial plan adoption as the City continues to evolve, particularly in instances where all, or portions of the *Plan* become irrelevant or contradictory to emerging policy or trends, or does not provide specific advice or guidance on an emerging issue. “Amendments” are generally defined as minor changes to the *Plan* maps or text (as opposed to an “update” described later). The *Plan* should be evaluated for potential amendments regularly. However, frequent amendments only to accommodate specific development proposals should be avoided, or else the *Plan* will become meaningless.

As a dynamic community facing a myriad of growth issues, the City is likely to receive requests for *Plan* amendments over the planning period. To provide a more manageable, predictable, and cost effective process, the City should establish a single plan amendment consideration cycle every year. Several Wisconsin communities use an annual plan review and amendment process cycle to ensure these evaluations and adjustments are handled in a predictable and efficient manner. This approach would require that all proposed plan amendment requests be officially submitted to the City by a designated date of each year. A full draft of the amendments would then be presented to the Plan Commission for its evaluation and recommendation to the Common Council. The Council could then act to approve the amendment(s), following a public hearing.

The City may bypass the annual amendment process described above, if there are no proposed amendments, or if an amendment to this *Plan* is determined necessary to capture a unique economic opportunity that is both consistent with or related to achieving the vision of this *Plan*, and which may be lost if required to wait for the regular *Plan* amendment cycle. However, the City is still required to use the procedures outlined below.

It is important to emphasize that Zoning Map or Official Map amendment requests that are consistent with the *Plan* do not require an amendment to this *Plan*. Conversely, Zoning Map or Official Map amendment requests that are not consistent with the *Plan* would require an amendment to this *Plan* prior to or concurrent with consideration of said Zoning Map or Official Map amendment. Finally, no Zoning Map or Official Map amendment, nor the adoption of any other plan, is considered an amendment to this *Plan*, unless said amendments are taken through the formal procedures defined below as required by State Statutes.

The procedures defined under §66.1001(4), Wis. Stats., need to be followed for all *Plan* amendments. Specifically, the City will use the following procedure to amend, add to, or update the *Plan*:

1. Either the Common Council or the Plan Commission initiates the proposed *Plan* amendment(s). This may occur as a result of a regular Plan Commission review of the *Plan*, or may be initiated at the request of a property owner or developer.
2. The Common Council adopts a resolution outlining the procedures that will be undertaken to ensure public participation during the *Plan* amendment process (see §66.1001(4)(a) Wis. Stats.). If appropriately drafted, the City may need to only have to take this step for the first of several amendment cycles.

3. The Plan Commission prepares or directs the preparation of the specific text or map amendment(s) to the *Plan*.
4. The Plan Commission holds one or more public meetings on the proposed *Plan* amendments. Following the public meeting(s), the Plan Commission makes a recommendation (by resolution) to the Common Council, by majority vote of the entire Commission (see §66.1001(4)(b) Wis. Stats.).
5. The City Clerk sends a copy of the recommended *Plan* amendment (not the entire *Plan*) to all adjacent and surrounding government jurisdictions and the County, as required under §66.1001(4)(b), Wis. Stats. These governments should have not less than 10 days to review and comment on the recommended *Plan* amendment(s). Nonmetallic mine operators, any person who has registered a marketable nonmetallic mineral deposit with the local government, and any other property owner or leaseholder who has requested notification in writing must be informed through this notice procedure. These governments and individuals should have not less than 10 days to review and comment on the recommended *Plan* amendments.
6. The City Clerk directs the publishing of a Class “1” notice, with such notice published at least 30 days before a public hearing, and containing information required under §66.1001(4)(d) Wis. Stats.
7. The Common Council holds the formal public hearing on an ordinance that would incorporate the proposed amendment(s) into the *Plan*.
8. Following the public hearing, the Common Council adopts or denies the ordinance adopting the proposed *Plan* amendment(s). Adoption must be by a majority vote of all members. The Common Council may require changes from the Plan Commission recommended version of the proposed amendment(s).
9. The City Clerk sends a copy of the adopted ordinance and the amendment(s) (not the entire *Plan*) to all adjacent and surrounding government jurisdictions, mine operators, any person who has registered a marketable nonmetallic mineral deposit with the City, and any other property owner or leaseholder who has requested notification in writing as required under §66.1001(4)b and c, Wis. Stats.

Plan Updates

Wisconsin comprehensive planning law requires that this *Plan* be updated at least once every 10 years (§66.1001(2)(i), Wis. Stats.). As opposed to an amendment, an update is often a substantial re-write of the plan document and maps. Based on this deadline, the City will update this *Plan* before the year 2019 (i.e., 10 years after 2009), at the latest. The City should continue to monitor any changes to the language or interpretations of the State law over the next few years.

Consistency Among Plan Elements

The State comprehensive planning statute requires that the implementation element “describe how each of the elements of the comprehensive plan shall be integrated and made consistent with the other elements of the comprehensive plan.” Because the various elements of this *Plan* were prepared simultaneously, there are no known internal inconsistencies between the different elements or chapters of this *Plan*.

Implementation Programs and Recommendations

Figure 9.1 provides a detailed list and timeline of the major actions that the City should endeavor to complete to implement this *Plan*. Often, such actions will require substantial cooperation with others, including County and surrounding local governments and local property owners. The table has three different columns of information, described as follows:

- ◆ **Category:** The list of recommendations is divided into different categories—based on different implementation tools or plan elements.
- ◆ **Recommendation:** The second column lists the actual steps, strategies, and actions recommended to implement key aspects of the *Plan*. The recommendations are for City actions, recognizing that many of

these actions may not occur without cooperation from others, and may be delayed or adjusted based on other City priorities.

- ◆ **Reference:** The third column identifies the chapter of this *Plan*, or other current planning documents, where additional information regarding the recommendation may be found.
- ◆ **Implementation Timeframe:** The fourth column responds to the comprehensive planning statute, which requires implementation actions to be listed in a “stated sequence.” The suggested timeframe for the completion of each recommendation reflects the priority attached to the recommendation. Suggested implementation timeframes span the next 10 years, because the *Plan* will have to be updated by 2019.

Figure 9.1: Implementation Programs and Recommendations

Category	Recommendation	Reference	Implementation Timeframe
Agricultural, Natural, and Cultural Resources	Enhance ETJ land division review authority to preserve farmland.	Chapter 2	2009-2010
	Review the Zoning Ordinance and consider options for removing obstacles to local foods, including allowing backyard and community gardens.	Chapter 2	2009-2010
	Consider adopting a Heritage Tree Ordinance.	Chapter 2	2009-2014
	Consider incorporating low impact development standards and BMPs into City Ordinances.	Chapter 2	2009-2014
Land Use	Over time and as projects present themselves, update the zoning map to correspond with the Future Land Use Map.	Chapter 3	Ongoing
Transportation	Conduct a detailed traffic study to explore the possibility of converting the downtown one-way pair to a two-way system.	Chapter 4	2009-2014
	Implement the transportation improvements identified on Map 6 and in Chapter Four: Transportation.	Chapter 4	2009-2018
	Update the Official Map to reflect the recommendations in this <i>Plan</i> and the City’s “Park, Recreation, and Open Space Plan 2005-2010.”	Chapters 4 and 5	2009-2014
	Implement the non-highway transportation improvements identified in Chapter Four: Transportation, such as the transit system and bike and pedestrian improvements.	Chapters 4, 5 and the Parks and Open Space Plan	2009-2018
Utilities, Community Facilities, and Civic Organizations	Recommendations exist in Figure 5.2: Timetable to Expand, Rehabilitate, or Create New Community Utilities or Facilities	Chapter 5	See Chapter 5, Figure 5.2

Category	Recommendation	Reference	Implementation Timeframe
Housing and Neighborhood Development	Prepared detailed revitalization plans for the City's urban neighborhoods.	Chapter 6	2009-2018
	Update detailed site plan and design standards from this <i>Plan</i> for multi-family developments.	Chapter 6	2009-2014
Economic Development	Explore establishing a "green" business program.	Chapter 7	2009-2018
	Support existing local businesses through development approval assistance, business mentoring, and small business loans.	Chapter 7	2008-2018
	Work with education providers and local development organizations to help grow and support local entrepreneurs, and to better match local workforce skills with industry needs.	Chapter 7	2008-2018
	Update detailed site plan and design standards from this <i>Plan</i> for commercial, office, and industrial developments.	Chapter 7	2009-2014
	Work with partners to implement the recommendations of "The Port of Manitowoc Downtown and River Corridor Master Plan."	Chapter 7	2009-2018
	Consider forming a private leadership group to facilitate economic development efforts and assist with <i>Plan</i> implementation.	Chapter 7	2009-2012
Intergovernmental Cooperation	Work with the MPSD and other education providers on efforts identified in this <i>Plan</i> to enhance and advance the community.	Chapters 5 and 8	2009-2018
	Support establishing communication with neighboring communities in development of mutually beneficial intergovernmental agreements.	Chapter 9	2009-2018
Plan Monitoring and Advancement	Monitor development activity and future implementation strategies against the recommendations in this <i>Plan</i> .	Chapter 10	2009-2018
	Institute an annual <i>Plan</i> amendment process.	Chapter 10	2009-2010
	Update this <i>Plan</i> as required by State Statute.	Chapter 10	2016-2018
	Increase community awareness and education of the <i>Plan</i> through various initiatives described earlier in this Chapter.	Chapter 10	2009-2018