

## **CHAPTER 3: REGIONAL INFRASTRUCTURE**

### **INTRODUCTION**

This chapter provides an analysis of transportation, utilities, community facilities and service, and industrial/business parks within the East Central region, as they relate to economic development.

### **TRANSPORTATION INFRASTRUCTURE**

A functional, well maintained transportation infrastructure is critical for an area to succeed economically. In most cases, the East Central region provides a well-developed infrastructure (Map 4). Most of the transportation activity is, as might be expected, focused in the urbanized portions of the region, where population, industry, and commerce are concentrated. By comparison with urban area transportation systems, longer trips and lower volumes of traffic/ridership characterize rural area transportation systems. The region's development of urban-type land uses, away from the urban centers and at lower densities, has blurred this distinction over the past 30 to 40 years. Traffic volumes on rural highways have increased, new highways have been built or expanded, and public transportation programs struggle to meet the increasing travel demand.

Business requires easy access to transportation, to bring in materials and to transport product to the larger hubs for distribution to a global market. Public transportation plays a significant role in the movement of employees to their jobs. A quality transportation infrastructure is also important for attracting and retaining potential and current employees. The absence of routine traffic delays, efficient air service, and the presence of alternative modes of transportation such as walking trails and water navigation provide a quality of life component that can and should be promoted.

### **Metropolitan Planning Organizations**

The East Central Wisconsin Regional Planning Commission serves as the Metropolitan Planning Organization for the Fox Cities (Appleton) Urbanized Area, the Oshkosh Urbanized Area, and as staff for the Fond du Lac Urbanized Area (Map 5). As such, the Commission is responsible for carrying out the urban transportation planning process, including the development of transportation plans and programs. Under federal legislation (TEA-21), the MPOs are required to consider the following seven factors in their long range plan:

1. Support the economic vitality of the metropolitan planning area, especially by enabling global competitiveness, productivity, and efficiency;
2. Increase the safety and security of the transportation system for motorized and non-motorized users.
3. Increase the accessibility and mobility options available to people and for freight;
4. Protect and enhance the environment, promote energy conservation, and improve the quality of life;
5. Enhance integration and connectivity of the transportation system, across and between modes, for people and freight;
6. Promote efficient system management and operation; and
7. Emphasize the efficient preservation of the existing transportation system.

Adopted in 2005, the Fox Cities, Oshkosh, and Fond du Lac Long Range Transportation Plans address all of these issues.

## Roadways

Roadways serve as the backbone of the East Central regional transportation system. Because of this system, people, goods and services can move in and out of the region with minor delay.

The Wisconsin Department of Transportation's *Wisconsin State Highway Plan 2020* (page 4) identifies certain highways within the region as "important for the movement of high volumes of auto and heavy truck traffic." The plan further classifies these highways into "Backbones" and "Connectors", as presented below:

- **Backbones** are defined as multi-lane routes that connect major population and economic centers and provide economic links to national and international markets (e.g. Interstate 39 and Highways 10 (west of Menasha), 29, 41, and 151).
- **Connectors** are defined as highways that connect key communities and regional economic centers to the Backbone routes (e.g. Highways 10 (east of Menasha), 21, 23 (east of Ripon), 26, and 45).

These designations are important to the region as they help ensure increased preservation and improvement efforts from the Department of Transportation, thus helping to maintain viable economic activity. Backbones and connectors within the region are depicted in Map 4.

In addition to backbones and connectors, the plan recognizes that connectivity within smaller areas is necessary to supplement and feed into the Backbone and Connector system. This connectivity is provided by the following subsystems of the highway trunk system:

- **Other Principal Arterials** provide mobility within a specific region (e.g. Highways 22, 23 (west of Ripon), 49, 54, 55, 57, and 76) and serve as main thoroughfares in urban areas (e.g. Highway 96 in the Fox Cities).
- **Minor Arterials** are used primarily for trips within smaller geographic regions, and are generally rural two-lane highways that connect places of more than 1,000 people.
- **Collector and Local Function Roads** are used for short trips within an area and to access adjacent land.

As the region's road infrastructure continues to age, continued maintenance and reconstruction will be necessary to continue providing the level of service the region currently enjoys.

**MAP 4.**

**Regional Transportation Systems**

**MAP 5.**

**Metropolitan Planning Organizations (MPO's)**

## Railroads

Map 4 depicts existing railroads within the region. Currently, these lines are only utilized for carrying freight, as no passenger service is available within the region. The majority of the system is owned and operated by CN (Canadian National). Wisconsin and Southern owns a line that services southern Winnebago, eastern Green Lake, and western Fond du Lac Counties. A Union Pacific Line serves southern Marquette and Green Lake Counties. The region's railroad system connects the region to destinations such as Green Bay, Wausau, Duluth, Milwaukee/Chicago and Minneapolis/St. Paul. Many of the region's railroads have been converted to pedestrian trails through the "rails to trails" program, such as Wild Goose Trail in Fond du Lac County, and the newly developing Newton Blackmore Trail in Outagamie County.

Although no passenger service is available within the region, Amtrak serves the state with stations in Milwaukee, Columbus, Portage, Wisconsin Dells and Tomah. As the route passes through the State, it connects Chicago to the Twin Cities, and heads westward to terminate in the State of Washington.

The *Midwest Regional Rail System Report*, prepared as a cooperative effort between nine Midwestern states, outlines a high speed (up to 110 mph) passenger rail system that utilizes "3,000 miles of existing rail rights-of-way to connect rural, small urban, and major metropolitan areas." The plan calls for a rail corridor connecting Green Bay to Milwaukee and Chicago. This corridor would include stops in Appleton, Neenah and Oshkosh, with a feeder buss connecting Wausau and Steven's Point to Appleton. The system is depicted in Figure 9.

**Figure 9. Proposed Midwest Regional Rail System**



Source: *Midwest Regional Rail System, Executive Report, 2004; Page 6*

## Air Service

At present, the region has nine airports (Table 13), each playing an important role. The airport classification scheme, as depicted on Map 4, is the same classification scheme used in the *Wisconsin State Airport System Plan 2020*. For a detailed description of each classification, please see Appendix B.

**Table 13. Regional Airport Classifications**

Airport	Classification	
Outagamie County Regional Airport	AC/C	Air Carrier/Cargo
Wittman Regional Airport	AC/C	Air Carrier/Cargo
Clintonville Municipal Airport	T/C	Transport/Corporate
Fond du Lac County Airport	T/C	Transport/Corporate
New Holstein Municipal Airport	T/C	Transport/Corporate
Shawano Municipal Airport	GU	General Utility
Waupaca Municipal Airport	GU	General Utility
Wautoma Municipal Airport	BU-B	Basic Utility-A
Wild Rose Idlewild Airport	BU-A	Basic Utility-B

*Source: Wisconsin State Airport System Plan 2020, WisDOT, August 1999.*

The Outagamie County Regional Airport is the only airport currently providing commercial passenger service and freight within the region. At one point, Wittman Regional Airport also offered commercial passenger service. In some instances, Austin Straubel International Airport in Green Bay and Mitchell International Airport in Milwaukee also serve the region in this capacity.

Annual passenger enplanements are the number of passengers that boarded at each airport (Table 14). All airports serving the region experienced a decline in enplanements between 2000 and 2001, in response to airport shutdowns during and after September 11, 2001. Nevertheless, airports serving the region have experienced increases in enplanements between 2000 and 2007, although the Outagamie County Regional airport has experienced some fluctuations over the time period.

Cargo enplanements are the pounds of cargo that are loaded onto planes for departure at each airport (Table 15). Among airports serving the region, only the Outagamie County Regional Airport experienced an increase in pounds of enplaned cargo, between 2000 and 2007 (0.7 percent). General Mitchell International (-28.6 percent) and Austin Straubel International (-30.7 percent) both experienced noticeable decreases in air freight traffic over the same time period.

**Table 14. Commercial Airport Enplanements, 2000-2007**

	2000	2001	2002	2003	2004	2005	2006	2007	% Change, '00-'07
<b>ECWRPC Airports</b>									
Outagamie County Regional	279,300	261,395	271,535	261,947	304,504	313,478	289,116	295,058	5.6%
Wittman Regional	2,534	2,379	1,609	144	--	--	--	--	n/a
<b>Other Wisconsin Airports</b>									
Austin Straubel International	368,693	348,086	373,696	393,777	413,312	433,183	455,514	450,472	22.2%
General Mitchell International	3,039,962	2,811,954	2,815,984	3,074,422	3,331,255	3,623,106	3,641,503	3,868,098	27.2%

Source: WisDOT, Airport Activity Reports, 2000-2007

**Table 15. Emplaned Cargo (Lbs), 2000-2007**

	2000	2001	2002	2003	2004	2005	2006	2007	% Change, '00-'07
<b>ECWRPC Airports</b>									
Outagamie County Regional	9,458,136	7,005,579	10,109,277	8,592,396	8,588,012	9,845,894	9,268,397	9,520,816	0.7%
<b>Other Wisconsin Airports</b>									
Austin Straubel International	568,138	416,837	617,837	806,211	523,338	434,545	494,552	393,720	-30.7%
General Mitchell International	126,095,651	107,097,313	100,365,740	95,803,611	97,429,150	90,677,945	92,585,706	90,088,838	-28.6%

Source: WisDOT, Airport Activity Reports, 2000-2007

## **Public Transportation**

Public transportation takes many forms throughout the region, striving to meet varied needs with funding sources that are often complicated with differing eligibility, trip purpose, or local match requirements. Programs vary by service area, passenger eligibility, service levels, service type, and even trip purpose. Appleton, Oshkosh and Fond du Lac, all MPO's and urbanized areas with populations over 50,000, receive federal transportation funding and provide fixed route bus services.

Menominee County enjoys Menominee Public Transit which is operated by the Menominee Indian Tribe and provides transportation service to all residents of the Tribe and County with four scheduled vans and two buses. Scheduled routes provide service between Keshena, Neopit, Middle Village, Zoar, Shawano, South Branch and Highway VV.

Small urban areas, such as the cities of Shawano, Berlin, Clintonville, Ripon and Waupaca receive federal funds under the Federal Transit Administration Section 5311 program to provide services for the general public, including the elderly and persons with disabilities, in and around their community. This is accomplished in these particular communities with demand response services, also referred to as shared-ride taxi services. Comparable and complementary van services are provided for persons who are unable, due to their disabilities, to use a traditional taxi service, also referred to as shared-ride taxi services.

The cities of New London, in Outagamie and Waupaca counties, and Kiel, which straddles the Calumet/Manitowoc county line, both provide demand response service within their communities with the use of only local funds.

Greyhound bus service connects residents to areas outside of the region, including Green Bay, Milwaukee, Minneapolis/St. Paul, and Chicago. Within the region, stations are located in Appleton, Fond du Lac, Oshkosh, and Shawano; a stop is located in Waupaca.

## **Water Transportation**

There are no commercial ports within the region. The nearest commercial port is located in Green Bay, approximately 14 miles away from the regional boundary. Passenger ferries are located in Manitowoc and Milwaukee. Both services offer passage across Lake Michigan, providing access to Lower Michigan.

## **UTILITIES & COMMUNITY FACILITIES**

Although economic activities include many varying types of commercial and industrial enterprises, they share a common need for basic services and facilities, such as water, sewer and electricity. Support facilities and services, such as health, education, police and fire are also important to the functioning of economic activities. While the importance of these facilities and services are not typically realized until they don't perform as expected, great expense and planning goes into insuring their reliable function. This section provides background information on the location, use and capacity of existing local, county, and regional public facilities that serve the region.

## **Public Water Supply**

Map 6 illustrates areas where public water is available. There are 73 municipal water systems in the region, which pump and average of 59.7 MGD. These systems serve 64 incorporated communities, seven sanitary districts, one water utility, one private water commission and six settlements in Menominee County.

Collectively, 157,137 customers, comprised of residential, commercial and industrial users, are served by these systems. About 416,111 persons, or 64 percent of the region's population, have municipal water service. With the exception of the cities of Appleton, Menasha, Neenah, Oshkosh and the towns of Grand Chute and Menasha, who utilize surface water (all or part), all of the municipal water systems rely on groundwater as their source of supply.

## **Sanitary Sewer and Wastewater Treatment**

Public and private wastewater treatment facilities (WWTFs) comprise a bulk of the region's development, and are directly linked to the protection of the region's surface and groundwater quality. The provision of, or access to, public sanitary sewer is a major factor in the location and timing of urban growth and, therefore, needs to be recognized as either a constraint or opportunity to accommodate new development. Wastewater treatment is also a major expense for a community, or individual homeowners for that matter, and must be seriously considered at all levels of planning.

As illustrated in Map 7, a total of 79 public and 5 private wastewater treatment facilities (WWTFs) are in operation within the region. Public WWTFs can operate as a single municipality's system, a regional system (i.e. for multiple communities and/or sanitary districts<sup>1</sup>), or as a metropolitan sewerage district (MSD)<sup>2</sup>. The region has 66 separate sanitary districts that are in various stages of activity or management for wastewater collection or treatment. Many of these sanitary districts are located in rural or urban lakeshore areas and may also provide public water. Only one MSD exists within the region, the Heart of the Valley Metropolitan Sewerage District, located in the eastern portion of the Fox Cities.

On a regional basis, WWTF capacity does not seem to pose a significant constraint on economic growth. However, some areas of the region may have temporary or long-term limitations to accommodate growth until such time as conscious decisions regarding growth, development, and municipal expenditures are made to either expand or improve their respective system's capabilities.

## ***Sewer Service Areas***

Sewer Service Areas (SSAs) provide a guide for sewered development and have a significant impact in the protection of water quality. Within the region, areas with SSAs are depicted in Map 7. SSA plans (guided by NR121) serve as a basis for Department of Natural Resources (WDNR) approval of state and federal grants for the planning and construction of wastewater treatment and sewerage facilities. SSA plans are intended to be an important planning and development guide for local communities, by:

---

<sup>1</sup> As formed under Wis. Stats. 60.70.

<sup>2</sup> As formed under Wis. Stats. 66.20.

1. Identifying wastewater treatment and collection needs for SSAs for a 20 years or more planning period;
2. Forecasting the amount and location of future urban development areas;
3. Identifying environmentally sensitive areas which should be preserved;
4. Containing land use development forecasts and recommendations for implementing wastewater treatment and collection plans for individual SSAs;
5. Informing developers and property owners of community policies and restrictions before development is proposed; and
6. Establishing "holding tank" service areas for isolated and rural special uses.

**MAP 6.**

**Municipal Water Facilities**

**MAP 7.**

**Wastewater Facilities**

## **Telecommunications**

Telecommunications is changing with developments in satellite, cellular, and wireless technologies. Regionally, the availability of these services are most often concentrated in urban areas, with the exception of satellite, which is available anywhere a receiver (dish) is placed. Traditional telephone service is available throughout the region.

Getting a handle on the availability of these services can be daunting, as the industry continues to change. Over the past several years, the Commission has worked on scoping out a study to assess telecommunications infrastructure within the region.

## **Electricity**

### ***Power Service***

Private, municipal and cooperative utility companies provide electric power in the region. Four private utilities provide service to the region: Alliant Energy, Pioneer Power and Light (Westfield Electric), We Energies and Wisconsin Public Service Corporation. These private companies generate most of the power consumed in the region.

Three cooperative utility companies provide electric power in the region: Adams-Columbia Electric Cooperative, Central Wisconsin Electric Cooperative and Oconto Electric Cooperative. These cooperatives serve the more rural areas in the northern and western part of the region. The Central Wisconsin Co-op services part of Shawano and Waupaca counties, while the Adams-Columbia Electric Co-op provides electric power to areas in Waupaca, Waushara, Marquette and Green Lake counties. The Oconto Electric Co-op serves a small portion in eastern Menominee and Shawano counties.

There are 10 municipal utilities in the region: Gresham Municipal Light and Power Utility and Shawano Municipal Utilities in Shawano County; Clintonville Water and Electric Utility and New London Water and Electric Utility in Waupaca County; Kaukauna Electric and Water Utility in Outagamie County; Menasha Electric and Water Utility in Winnebago County; Kiel Utilities and New Holstein Public Utility in Calumet County; Waupun Public Utilities in Fond du Lac County; and Princeton Municipal Water and Electric Utility in Green Lake County. The utilities are members of the Municipal Electric Utilities of Wisconsin.

### ***Power Generation***

As of 2003, there were 29 existing and two approved generating sites in the region. This included seven fossil fuel, 22 hydroelectric and two renewable energy sites. Approximately 77 percent of the power in the region was generated by the five existing fossil fuel (oil, gas and coal) sites, while the 22 hydroelectric sites generate about 21 percent of total generating capacity. In comparison, within the state, 85 percent of the power generated in the state was by fossil fuels. The remaining 1.5 percent of the total power that was generated in the region was from other sources; wind and biomass.

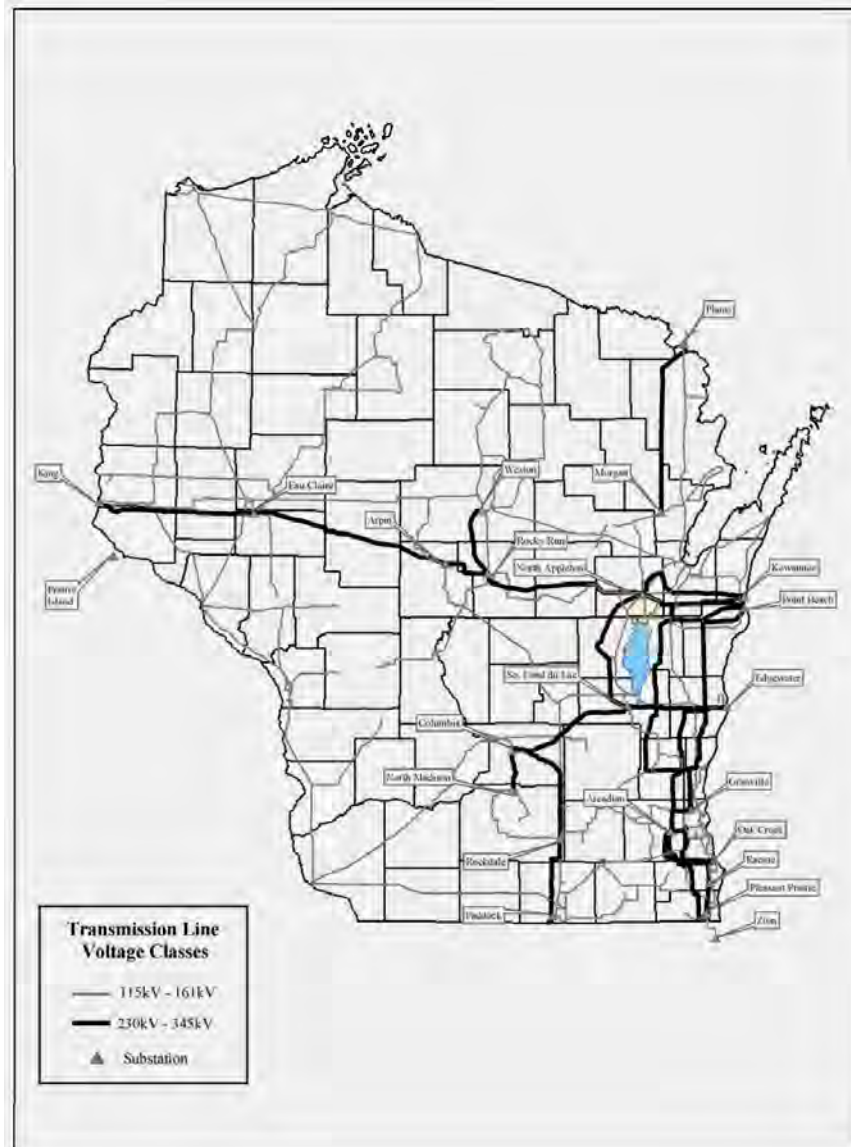
More recently, due to physiographic conditions (e.g. the Niagara Escarpment), eastern portions of the region (Calumet and Fond du Lac counties) have been identified as ideal sites for wind

power generation. Construction of wind farms in Fond du Lac County has led to an increase in the amount of clean energy being returned to the grid.

### ***Transmission***

The region's high voltage electric transmission systems are shown on Figure 10. According to the Public Service Commission of Wisconsin (PSC), the existing "transmission system is currently congested under normal power flow conditions" and the infrastructure is aging, requiring upgrades or replacement. The PSC indicates that "redundant connects are needed to ensure reliable service".<sup>3</sup>

**Figure 10. Wisconsin's High-Voltage Transmission System**



Source: Public Service Commission of Wisconsin "Electric Transmission Lines: Electricity-From Power Plants to Consumers." Page 7.

<sup>3</sup> Public Service Commission of Wisconsin "Electric Transmission Lines: Electricity-From Power Plants to Consumers." Page 8.

## **Natural Gas**

Historically, ANR Pipelines has transported the natural gas supply to the region through four major pipelines. The first intersects the region in Marquette County and continues on a northeastern route through Waushara, Waupaca, Shawano, Oconto and Marinette counties to Menominee, Michigan. The second pipeline connects Green Bay to Washington County, located on the west-side of Lake Winnebago; it passes through Outagamie, Winnebago and Fond du Lac counties. The third pipeline enters the region in Fond du Lac County and travels north to the Wisconsin-Michigan border. Finally, the fourth pipeline connects to the second pipeline in Appleton and continues northwest through Outagamie, Waupaca and Portage counties.

Recently, Guardian Pipeline began constructing a pipeline to connect Chicago to Green Bay, passing through Fond du Lac, Calumet and Outagamie counties.

Smaller feeder lines from these pipelines supply natural gas to the various natural gas companies. Natural gas companies serving the region include: Wisconsin Public Service, We Energies and Alliant Energy.

## **INDUSTRIAL/BUSINESS PARKS**

In cooperation with the Bay Lake Regional Planning Commission & Economic Development District, the Northeast Wisconsin Regional Economic Partnership (NEWREP), and the Fox Cities Economic Development Partnership (FCEDP) an update of industrial/business parks for an 18-county northeast Wisconsin region was completed in early 2008. Map 8 depicts the location of the region's industrial/business parks, while Table 16 provides more detailed information about industrial/business parks, by county.

There are currently 105 business/industrial parks (in various stages of development) within the region, with the vast majority concentrated within the region's urban counties. In total, these parks provide over 10,800 acres of land for industrial and business uses. Within the region, over 30 percent of land (3,200 acres) within industrial/business parks is still available. Maintaining enough available land, with the necessary infrastructure and transportation access, plays a key role in the ability of firms to locate within the region.

**Table 16. Regional Industrial/Business Parks, 2008**

County	MCD	Park Name	Acreage		Utilities					Access		
			Acres	Available	Water	Sewer	Sanitary Sewer	Storm Sewer	Gas	Electric	Rail	Highway Access
<b>CALUMET</b>												
	C. Appleton	Southpoint Commerce Park	360	(10)	Y	Y	Y	Y	Y	Y	N	STH 441
	C. Brillion	Brillion Business Park	37	37	Y	Y	Y	Y	Y	Y	N	USH 10
	C. Chilton	Chilton Industrial Park	120	18	Y	Y	Y	Y		Y	Y	STH 57,32, 151
	C. Chilton	Unnamed								Y		
	C. New Holstein	City of New Holstein TIF #1	123	88	Y	Y	Y	Y		Y	N	STH 57/32
<b>FOND DU LAC</b>												
	V. Brandon	Upland Meadows		20	Y	Y	Y	Y	Y	Y	Y	STH 26
	V. Campbellsport	Unnamed		0	Y	Y	Y	Y	Y	Y	N	STH 67
	C. Fond du Lac	Fox Ridge Business Park	276	240	(7)	(7)	(7)	(7)	Y	Y	N	USH 41/USH 151 & 175
	C. Fond du Lac	Ledgeview Corporate Center	80	16	Y	Y	Y	Y	Y	Y	N	USH 41 & 151, STH
	C. Fond du Lac	Southwest Industrial Park	202	42	Y	Y	Y	Y	Y	Y	Y	USH 41/USH 151
	T. Fond du Lac	Unnamed	64	52 (tentative)	(7)	(7)	(7)	(7)	(7)	(7)	N	STH 23/STH 41
	C. Fond du Lac	West Industrial Center	70	9	Y	Y	Y	Y	Y	Y	N	USH 41/STH 23
	C. Fond du Lac	Wisconsin American Business Park	50	14	Y	Y	Y	Y	Y	Y	N	STH 23/USH 151
	T. Friendship	Osborn Park		75	Well	N	N	N	Y	Y	N	USH 41
	V. North Fond du Lac	Northgate Business Park	98	56	Y	Y	Y	Y	Y	Y	N	USH 41
	C. Ripon	Kohl Industrial Park	129	69	Y	Y	Y	Y	Y	Y	Y	STH 44/STH 23
	C. Waupun	Waupun Business Park		88	Y	Y	Y	Y	Y	Y	Y	USH 151, STH 26
<b>GREEN LAKE</b>												
	C. Berlin	East Industrial Park	20	14.5	Y	Y	(1)	N		Y	N	STH 24, 49, 91
	C. Berlin	Southeast Industrial Park	55	2.6	Y	Y	Y	N		Y	N	STH 24, 49, 91
	C. Green Lake	Green Lake Industrial Park	56	6	Y	Y	Y	Y		Y	N	STH 49/23
	C. Markesan	Markesan Business Park	50	5	Y	Y	Y	N		Y	N	STH 44, 73 USH 41
<b>MARQUETTE</b>												
	V. Endeavor	Village of Endeavor / Endeavor Industrial Park	40	20	Well	Y	(1)	N		Y	N	I-39
	C. Montella	City of Montello / Montello Industrial Park	32	12	Y	Y	Y	N		Y	Y	STH 22, 23
	V. Westfield	Village of Westfield / Westfield Industrial Park	27	5	Well	Y	Y	N		Y	N	I-39
<b>MENOMINEE</b>												
	Keshena (uninc.)	Keshena / Menominee Business Park	80	80	Y	Y	Y	(1)		Y	Y	STH 47/55

Source: ECWRPC, Bay Lake RPC, and NEWREP 2008, FCEDP, 2007

- (1) Sewer adjacent to property
- (2) Sewer within 50 feet
- (3) Sewer within 1000 feet
- (4) Available, not installed

- (5) Well, not installed
- (6) Not yet determined
- (7) In process
- (8) Municipal to 1/3 of park

- (9) Partial
- (10) 100 improved, 250 unimproved
- (11) 57 improved, 9 unimproved
- (12) 60 improved, 75 unimproved

- <sup>1</sup> More than 5 miles from highway
- <sup>2</sup> Natural gas unavailable
- <sup>3</sup> Propane gas
- <sup>4</sup> Gas avail/not installed

County	MCD	Park Name	Acreage		Utilities						Access	
			Acres	Available	Water	Sewer	Sanitary Sewer	Storm Sewer	Gas	Electric	Rail	Highway Access
<b>OUTAGAMIE</b>												
C. Appleton		City of Appleton Northeast Industrial Park	660	18	Y	Y	Y	Y	Y	Y	Y	USH 41, STH 441
C. Appleton		City of Appleton Southwest Business Park	115	0	Y	Y	Y	Y	Y	Y	Y	USH 41
V. Black Creek		Black Creek Industrial Park	40	30	Y	Y	Y	Y		Y	Y	STH 54
T. Dale		Dale Business Park								Y		
T. Freedom		Freedom Industrial Park										STH 55
T. Grand Chute		Clairmont Park	13.46	6.73	Y	Y	Y	Y	Y	Y	N	USH 41, 10
T. Grand Chute		Grand Market Industrial Park	29.351	23.816	Y	Y	Y	Y	Y	Y	N	USH 41, 10
T. Grand Chute		Greisbach Business Park	29	21	Y	Y	Y	N	Y	Y	N	USH 41, 10
T. Grand Chute		Nordale Commerce Center	100	0	Y	Y	Y	N		Y	N	USH 41, 10 CTH OO
T. Grand Chute		Southwest Business Park	100.97	57.3	Y	Y	Y	Y	Y	Y	N	USH 41, 10
T. Grand Chute		Tri Park	72	0	Y	Y	Y	Y		Y	N	USH 41, 10 CTH OO
T. Grand Chute		West Business Park	31.38	21.59	Y	Y	Y	Y	Y	Y	N	USH 41, STH 15
T. Greenville		Aerotech Campus	30	30	Y	Y	Y	N	Y	Y	N	STH 441
T. Greenville		Greenville Business Park	194	7.09	Y	Y	Y	N	Y	Y	N	STH 96
T. Greenville		Greenville Crossing	56.09	45.36							N	STH 15
T. Greenville		Greenville Industrial Park	194	0	Y	Y	Y	N	Y	Y	N	STH 441
T. Greenville		Greenville Northeast Asphalt	68.648	22.181	Y	Y	(6)	(6)	Y	Y	Y	STH 96
T. Greenville		Greenville South Industrial Park	34.33		Y	Y	Y	N	Y	Y	N	CTH BB
T. Greenville		Outagamie County Air Industrial Park	70	70	Y	Y	Y	N	Y	Y	N	STH 96
V. Hortonville		Hortonville Business Park II	89	89	Y	Y	Y	(9)		Y	N	USH 45, STH 15
V. Hortonville		Hortonville Industrial Park	45	6	Y	Y	Y	(9)		Y	N	USH 45
V. Hortonville		Unnamed	28	28	Y	Y	Y	N		Y	N	USH 45
V. Hortonville		Unnamed								Y		USH 45
C. Kaukauna		City of Kaukauna / Ag. Development Center	30	4	Y	Y	Y	Y	Y	Y	Y	USH 41
C. Kaukauna		City of Kaukauna / Industrial Park Network	384	76	Y	Y	Y	Y		Y	Y	USH 41
C. Kaukauna		City of Kaukauna / Kaukauna Industrial Park North	134	16	Y	Y	Y	Y	Y	Y	N	USH 41 / CTH J
C. Kaukauna		City of Kaukauna / Kaukauna Industrial Park Number 1	212	0	Y	Y	Y	Y	Y	Y	Y	USH 41/STH 55 /CTH OO
C. Kaukauna		City of Kaukauna / NEW Prosperity Center	110	(11)	Y	Y	Y	Y	Y	Y	N	USH 41
V. Kimberly		Kimberly Business Center	100	0	Y	Y	Y	Y	Y	Y	Y	STH 441/CTH CE
V. Kimberly		Opportunity Business Center	28	21	Y	Y	Y	Y	Y	Y	Y	STH 441/CTH CE
V. Little Chute		HJT Business Park	50.5	28.1								USH 41 & CTH N
V. Little Chute		Little Chute Industrial Park	232.2	24.9	Y	Y	Y	Y	Y	Y	Y	USH 41/CTH OO
V. Little Chute		Little Chute Northwest Business Park	247	195								USH 41, STH 441
V. Little Chute		Schumacher Business Center	19.3	19.3								USH 41 & CTH N
C. New London		Beckert Industrial Park <sup>1</sup>	8	?	Y	Y	Y	Y		Y	Y	USH 45
C. New London		Lyons Industrial Park	60	20	Y	Y	Y	Y		Y	Y	USH 45
C. New London		Northeast New London Business Center <sup>1</sup>	150	(12)	Y	Y	Y	Y	Y	Y	N	USH 45
C. Seymour		Seymour Business/Industrial Park	111	20	(4)	Y	Y	Y		Y	N	STH 54, USH 41, 143

County	MCD	Park Name	Acreage		Utilities						Access	
			Acres	Available	Water	Sewer	Sanitary Sewer	Storm Sewer	Gas	Electric	Rail	Highway Access
<b>SHAWANO</b>												
	V. Birnamwood	Lyons Industrial Park	30	20	Y	Y	Y	Y		Y	N	USH 45
	V. Bonduel	Bonduel Business Park	25	12	Y	Y	Y	Y		Y	N	STH 29, 47,55
	V. Gresham	Gresham Industrial Park <sup>2</sup>	10	8	Y	Y	Y	Y		Y	Y	
	C. Marion	Marion Industrial Park <sup>3</sup>	70	20	Y	Y	Y	Y		Y	N	USH 45
	Middle Village (uninc.)	Menominee Business Park	15	15	Y	Y	(1)	N		Y	Y	STH 47
	C. Shawano	Bay Lake Business Park	184	184	Y	Y	Y	Y		Y	Y	STH 29, 47,55
	C. Shawano	Raasch Business Park	120	50	Y	Y			Y	Y	Y	STH 29, CTH B
	C. Shawano	Shawano Industrial/Business Park								Y		
	V. Tigerton	Tigerton Industrial Park	40	40	Y	Y	(3)	N		Y	N	USH 45
	V. Wittenberg	Wittenberg Business Park	72	unknown	Y	Y	(7)	(7)		Y	N	STH 29 / USH 45
	C. Clintonville	Clintonville Industrial Center	145	100	Y	Y	Y	Y		Y	N	STH 156
	C. Manawa	Manawa Industrial Park	60	0	Y	Y	Y	Y		Y	N	STH 22,110
	C. New London	Handscke Park <sup>1</sup>	200	70	Y	Y	Y	Y		Y	N	USH 45
	V. Scandinavia	Scandinavia Industrial Park <sup>1</sup>	35	7	N	Y	(1)	N		Y	N	STH 49
	C. Waupaca	Waupaca Industrial Park	340	180	Y	Y	(8)	Y		Y	Y	USH 10, STH 22/54
	C. Weyauwega	Industrial Park East	55	32	Y	Y	Y	N		Y	Y	USH 10
	C. Weyauwega	Industrial Park West	55	40	Y	Y	Y	N		Y	Y	USH 10
<b>WAUSHARA</b>												
	C. Berlin	Berlin North Business Park	186	80	Y	Y	Y	N		Y	N	STH 49,21,91
	V. Coloma	Coloma Business Park	42	25	Y	Y	Y	N		Y	N	I-39, STH 21
	V. Redgranite	Redgranite Industrial Park <sup>4</sup>	22	22	Y	Y	(1)	N		Y	N	I-39, STH 21
	C. Wautoma	South Industrial Park	19	0	Y	Y	(1)	N		Y	N	STH 21,22,73
	C. Wautoma	Southeast Industrial Park	45	8	Y	Y	(1)	N		Y	N	STH 21,22,73
	V. Wild Rose	Roberts Industrial Park	23	18	Well	Y	(2)	N		Y	N	STH 22
	V. Wild Rose	South Industrial Park	9	2	Well	Y	(2)	N		Y	N	STH 22
<b>WINNEBAGO</b>												
	T. Clayton	Community Center	200		N	N	N	N		Y	N	CTH II / USH 10
	T. Clayton	Enterprise Park	144			Y				Y		STH 150, USH 41 & 45
	T. Clayton	Proposed Park	1200-1600						Y	Y		
	T. Menasha	All American Business Park	77.94	5.71	Y	Y	Y	N	Y	Y	Y	USH 41. CTH II & CB
	C. Menasha	J.O. Johnson Industrial Park	24.3	10.3	Y	Y	Y	Y		Y	N	STH 441
	T. Menasha	McMahon Business Park	57.15	29.83	Y	Y	Y	Y	Y	Y	N	USH 41/10
	C. Menasha	Midway Business Park	37	9.76	Y	Y	Y	Y	Y	Y	N	STH 441/STH 47
	T. Menasha	North-West Industrial Park	512.38	0	(7)	(7)	(7)		(7)	Y	N	CTH BB & CB, USH 41
	T. Menasha	Parkside West	25.33	6.38	Y	Y	Y	Y	Y	Y	N	USH 41. CTH II & CB
	T. Menasha	Valley Gateway Development	137.08	70.48	Y	Y	Y	Y	Y	Y	N	USH 10, CTH CB
	C. Neenah	Southpark Industrial Center	291.1	7.2	Y	Y	Y	Y	Y	Y	Y	USH 41
	C. Omro	Omro Industrial Park	88	38	Y	Y	Y	N		Y	N	STH 21
	C. Oshkosh	Aviation Industrial Park	280	0	Y	Y	-1	Y		Y	N	USH 41/45
	C. Oshkosh	North Industrial Park	221	0	Y	Y	(1)	Y		Y	Y	USH 41/45/76
	C. Oshkosh	Northwest Industrial Park	204	4.09	Y	Y	(1)	Y		Y	N	USH 41/45
	C. Oshkosh	Southwest Industrial Park	810	300	Y	Y	(1)	Y		Y	Y	USH 41/91/44
	C. Oshkosh	Universal Business Park	51	11	Y	Y	Y	Y	Y	Y	N	USH 41, STH 44 & 91
	V. Winneconne	Winneconne Industrial Park	43	28	Y	Y	Y	N		Y	N	STH 116,21

**MAP 8.**

**Industrial & Business Sites**

## **EDUCATIONAL INFRASTRUCTURE**

Because of the state's long-standing concern for investment in education, educational facilities throughout Wisconsin are well above the national average. Industries considering expansion or relocation in the state are generally assured that a wide range of quality educational opportunities will be available. On the primary and secondary levels, school consolidation, state aids and shared school services have broadened the resources of all school districts. Historically strong state support for a system of higher education, continuing expansion of community colleges, and establishment of statewide districts for vocational education have also contributed to increasing general educational opportunities throughout the state.

### **Primary and Secondary Education**

Table 17 depicts public and private school enrollment trends within the region. Enrollment numbers include schools and districts that the Wisconsin Department of Public Instruction classifies as being within one of the region's ten counties.

Regionally, total public and private school enrollment in the 2007-2008 school year was 114,410, a decline of 4 percent from the 2000-2001 school year. The share of private school enrollment has gradually declined over time, from 15 percent in the 2000-2001 school year, to 13 percent in the 2007-2008 school year. In fact, all counties within the region experienced a decline in private school enrollments over the time period. Regionally, enrollment at public schools has remained relatively constant since 2000. However, enrollments within the counties have fluctuated from an increase of 10 percent in Outagamie County to a decrease of about 13 percent in Menominee County.

Despite recent declines, the school-aged population (5 to 19 years) is expected to increase by approximately 4 percent, from 136,450 in 2000 to 141,735 in 2030.<sup>4</sup> The recent decline can be attributed to the Echo-Boomers (the Baby-Boomer's children) aging out of the k-12 system.

---

<sup>4</sup> According to the Wisconsin DOA, Population Projections, 2008

Table 17. K-12 Public and Private School Enrollments, 2000-2008

	'00-'01	'01-'02	'02-'03	'03-'04	'04-'05	'05-'06	'06-'07	'07-'08	% Change '00-'07	'07-'08, % of Enrollment
State	1,027,812	1,025,506	1,023,850	1,017,883	1,001,549	1,010,207	1,010,119	1,008,239	-2%	
Public	879,476	879,361	881,231	880,031	864,757	875,174	876,700	874,633	-1%	87%
Private	148,336	146,145	142,619	137,852	136,792	135,033	133,419	133,606	-10%	13%
Region	119,603	118,924	118,288	116,952	115,613	116,563	116,112	115,410	-4%	
Public	101,239	101,298	101,384	100,916	99,793	101,107	101,038	100,803	0%	87%
Private	18,364	17,626	16,904	16,036	15,820	15,456	15,074	14,607	-20%	13%
Urban Counties	89,622	89,416	88,894	88,183	87,520	88,689	88,693	88,458	-1%	
Public	74,376	74,691	74,940	75,025	74,394	75,871	76,153	76,244	3%	86%
Private	15,246	14,725	13,954	13,158	13,126	12,818	12,540	12,214	-20%	14%
Rural Counties	29,981	29,508	29,394	28,769	28,093	27,874	27,419	26,952	-10%	
Public	26,863	26,607	26,444	25,891	25,399	25,236	24,885	24,559	-9%	91%
Private	3,118	2,901	2,950	2,878	2,694	2,638	2,534	2,393	-23%	9%
Calumet	5,492	5,387	5,226	5,079	4,974	4,957	4,916	4,912	-11%	
Public	4,307	4,195	4,141	4,079	4,041	4,089	4,032	4,024	-7%	82%
Private	1,185	1,192	1,085	1,000	933	868	884	888	-25%	18%
Fond du Lac	18,858	18,783	18,496	18,295	17,656	18,439	18,311	18,279	-3%	
Public	15,733	15,758	15,707	15,634	15,043	15,854	15,771	15,772	0%	86%
Private	3,125	3,025	2,789	2,661	2,613	2,585	2,540	2,507	-20%	14%
Green Lake	4,125	4,069	3,911	3,888	3,747	3,762	3,693	3,624	-12%	
Public	3,618	3,581	3,410	3,395	3,277	3,288	3,230	3,171	-12%	88%
Private	507	488	501	493	470	474	463	453	-11%	13%
Marquette	2,330	2,248	2,313	2,264	2,208	2,139	2,108	2,114	-9%	
Public	2,251	2,168	2,206	2,192	2,128	2,061	2,037	2,042	-9%	97%
Private	79	80	107	72	80	78	71	72	-9%	3%
Menominee	1,268	1,261	1,253	1,169	1,152	1,117	1,076	1,054	-17%	
Public	991	993	1,016	936	934	919	881	859	-13%	81%
Private	277	268	237	233	218	198	195	195	-30%	19%
Outagamie	37,638	37,893	38,359	38,471	38,659	39,011	39,126	39,104	4%	
Public	30,452	30,958	31,617	32,140	32,249	32,765	33,156	33,359	10%	85%
Private	7,186	6,935	6,742	6,331	6,410	6,246	5,970	5,745	-20%	15%
Shawano	7,118	7,051	6,974	6,820	6,732	6,679	6,670	6,522	-8%	
Public	6,295	6,248	6,190	6,077	5,987	5,948	5,942	5,839	-7%	90%
Private	823	803	784	743	745	731	728	683	-17%	10%
Waupaca	11,802	11,565	11,632	11,316	11,196	11,072	10,841	10,623	-10%	
Public	10,416	10,356	10,397	10,107	10,054	9,961	9,811	9,682	-7%	91%
Private	1,386	1,209	1,235	1,209	1,142	1,111	1,030	941	-32%	9%
Waushara	3,338	3,314	3,311	3,312	3,058	3,105	3,031	3,015	-10%	
Public	3,292	3,261	3,225	3,184	3,019	3,059	2,984	2,966	-10%	98%
Private	46	53	86	128	39	46	47	49	7%	2%
Winnebago	27,634	27,353	26,813	26,338	26,231	26,282	26,340	26,163	-5%	
Public	23,884	23,780	23,475	23,172	23,061	23,163	23,194	23,089	-3%	88%
Private	3,750	3,573	3,338	3,166	3,170	3,119	3,146	3,074	-18%	12%

Source: Wisconsin DPI, 2008

## Vocational Technical Colleges

The state is covered by 16 multi-county vocational technical and adult education districts, which are organized on a regional basis and financed primarily by local property taxes. These districts tend to follow school district boundaries rather than county lines.

Counties in the region are divided among seven districts, as depicted in Map 9. Two of these districts, Fox Valley and Moraine Park, have their main campuses located in the region. The Fox Valley District is almost wholly contained in the region and includes portions of Calumet, Outagamie, Shawano, Waupaca, Waushara and Winnebago counties. The Moraine Park District includes Green Lake and Fond du Lac counties as well as small portions of Calumet, Marquette, Waushara and Winnebago counties.

Technical college enrollment typically follows economic conditions, be it at the local, region, state, or national level (Table 18). For instance, technical college enrollment spiked in the 2001-2002 school year, immediately following a downturn in the national economy following 9/11. Shortly thereafter, the economy improved, and enrollment decreased. Beginning in 2005, enrollment levels increased once again. Although final data is not available for the 2007-2008 and the beginning of the 2008-2009 school years, recent reports have indicated that enrollments are up in response to a wave of layoffs from manufacturing facilities.

Curriculums in the region's technical schools are usually geared toward an area's particular needs. Typically, a student may choose from among a two-year highly technical associate degree program, a two-year vocational program, a one-year vocational program and a short-term program.

In response to current economic conditions and opportunities, the *Next General Workforce* initiative, a joint effort between Northeast, Lakeshore, Fox Valley, and Moraine Park technical colleges, as well as regional economic development organizations, aims to advance training opportunities in manufacturing, healthcare, and energy.

**Table 18. Technical College Enrollment, 2000-2007**

	'00-'01	'01-'02	'02-'03	'03-'04	'04-'05	'05-'06	'06-'07	% Change '00-'07	<i>Pre Close</i> '07-'08
Statewide	439,934	451,273	429,355	416,857	406,323	409,380	400,057	-9%	390,272
Region	213,399	221,718	210,355	202,455	194,798	204,367	200,704	-6%	198,070
Madison Area	50,775	51,682	48,626	46,398	44,330	43,333	44,301	-13%	41,848
Moraine Park	23,496	23,953	23,184	22,756	21,500	22,305	20,516	-13%	20,020
Lakeshore	17,734	18,851	16,118	15,723	13,943	14,989	15,501	-13%	15,204
Fox Valley	48,862	53,773	50,227	46,888	46,857	51,539	47,417	-3%	47,100
Northeast	41,432	40,783	39,223	39,917	39,315	43,255	42,734	3%	41,527
Mid-State	13,232	14,347	13,696	13,247	11,657	11,218	10,383	-22%	10,053
North Central	17,868	18,329	19,281	17,526	17,196	17,728	19,852	11%	22,318

Source: WTCS, 2008

## Institutions of Higher Education

As depicted on Map 7, seven institutions of higher education are located within the region: one public university (UW-Oshkosh); two public 2-year campuses (UW-Fond du Lac and UW-Fox Valley), three private, liberal arts institutions (Lawrence University, Marian University, and Ripon College), and one tribal college (College of Menominee Nation). The region's institutions of higher education had a total enrollment of 21,033 students during the 2006-07 school year (Table 19). Overall this indicated a slight increase (8.7 percent) since 2002-03.

The region's institutions excel in providing a plethora of associate's and bachelor's degrees; although higher level degrees (e.g. masters, doctorate, professional certifications) are available, they are typically limited to fields such as business, nursing, and education. The expansion of distance learning opportunities from institutions located outside of the region have opened up additional opportunities for those seeking education not found through traditional means.

**Table 19. College and University Enrollment, 2002-2007**

	2002-03	2003-04	2004-05	2005-06	2006-07	% Change '02-'07
Wisconsin	207,642	209,105	210,438	213,159	218,339	5.2%
Region	19,345	19,124	19,154	19,515	21,033	8.7%
UW-Oshkosh	11,245	11,013	11,059	11,070	12,530	11.4%
UW Fond du Lac	735	698	672	769	763	3.8%
UW Fox Valley	1,787	1,732	1,689	1,740	1,730	-3.2%
Lawrence University	1,389	1,407	1,380	1,450	1,480	6.6%
Marian College/University	2,672	2,777	2,918	2,975	3,040	13.8%
Ripon College	987	998	929	979	977	-1.0%
College of the Menominee Nation	530	499	507	532	513	-3.2%

Source: WI Blue Book 2007 - 2008

**MAP 9.**

**Vocational, Technical, and Adult Education Districts**

## COMMUNITY SERVICES

The availability and quality of community services, such as police and fire (e.g. safety), health services, and libraries play a role in determining quality of life within the region. Newer theories on economic development suggest that quality of life plays a role in attracting a highly trained, highly educated workforce and/or businesses seeking this workforce. Some quality of life factors, such as natural resources, are addressed in other parts of this plan; with that said, this plan recognizes that many “quality of life” factors not addressed in this document, such as arts and entertainment, are important aspects of economic development.

### Police and Fire Protection

The region has 59 communities with police departments, in addition to a sheriff’s office in each county. The Menominee Tribal Council and the University of Wisconsin-Oshkosh also have their own police departments. In 2006, there were more than 1,100 sworn officers employed in the region (Table 20). Despite having fewer full-time officers per 1,000 population (1.7) than the state (2.3), the region experienced fewer crimes (violent, property, and total) than the state. At the county level, Menominee County has the highest crime rate (47.1 per 1,000 population), despite having the highest ratio of full-time officers per 1,000 persons (6.7). Marquette County experienced the lowest crime rate (10 per 1,000 population), and had the second highest rate of full-time officers per 1,000 persons (2.8).

In addition to local police and county sheriff departments, the State Patrol also provides law enforcement in the region. Outagamie, Winnebago, Calumet and Fond du Lac counties are part of the Northeast Region of the Wisconsin Division of State Patrol, while the remaining counties are part of the North Central Region. The headquarters of the Northeast Region is located in Fond du Lac near USH 41.

**Table 20. Ratio of Law Enforcement Officers to Population and Crime Rates, 2006**

	Jurisdictional Population	Full-Time Officers	Per 1,000 Jurisdictional Population			
			Full-Time Officers	Violent Crimes	Property Crimes	Total Crimes
Wisconsin	5,617,744	12,962	2.3	2.9	28.3	31.1
Region	639,353	1,112	1.7	1.5	21.6	23.1
Calumet*	32,725	77	2.4	0.5	10.9	11.4
Fond du Lac	97,388	152	1.6	2.2	18.9	21.1
Green Lake	19,437	38	2.0	0.6	17.8	18.4
Marquette	15,252	42	2.8	0.3	9.6	10.0
Menominee	4,633	31	6.7	6.9	40.2	47.1
Outagamie*	183,254	285	1.6	1.4	25.4	26.8
Shawano	42,176	58	1.4	0.9	22.7	23.5
Waupaca	55,084	75	1.4	0.8	21.1	21.9
Waushara	24,999	29	1.2	0.7	18.0	18.6
Winnebago*	164,405	325	2.0	2.0	22.7	24.7

\*Data for the City of Appleton Police Department is only included in Outagamie County

Source: 2006 Crime and Arrests in Wisconsin, Office of Justice Assistance, Statistical Center

Fire protection in Wisconsin is a major responsibility of local governments. There are 118 fire departments or districts within the region, the majority of which are volunteer based (Table 21). Municipal and rural fire departments are classified according to their relative quality of protection by the Insurance Services Office (ISO), a private rating company. The ratings are used to determine fire insurance premiums on residential, commercial and other non-residential property.

**Table 21. Fire Departments, 2008**

Fire Departments	
State	860
Region	118
Urban Counties	64
Rural Counties	54
Calumet	9
Fond du Lac	19
Green Lake	2
Marquette	10
Menominee	5
Outagamie	23
Shawano	14
Waupaca	13
Waushara	10
Winnebago	13

*Source: Wisconsin Department of Commerce, Safety and Buildings Division, May 29, 2008*

There are 10 classifications ranging from Class 1, the best, to Class 10, unprotected. The ratings are based on among other things, the distance from the fire station, distance from a hydrant, if municipal water is available, what type of equipment is available and if the station is manned full-time. Therefore, the ISO rating can vary greatly within a community.

According to the National Fire and Police Association, fire protection should meet the standards in Table 22. High density residential development is defined as residential development with 3 or more units per acre, medium density development with 1 to 2.99 units per acre and low density development having less than one unit per acre.

**Table 22. Fire Protection Standards**

High Density	Medium Density	Low Density
Full time staff and chief Ave. response time: 4min.	Partly on call staff Ave. response time: 6 min.	All on call staff/no full time Ave. response time: 8 min.

*Source: NFPA*

## Hospitals

The availability of adequate health care facilities and services is becoming an increasingly important yardstick for measuring the attractiveness of a community in which to live and work. Today, health services are seen by most as a right, similar to the right to education, and

residents want to be assured that most of their health needs can be taken care of within a reasonable distance.

Fourteen general hospitals are located in the region ranging in size from 15 beds at Calumet Medical Center in Chilton to 192 beds at St. Elizabeth Hospital in Appleton. In general, hospitals in rural communities have less than 100 beds each, while those in the urbanized are have more than 100 (Table 23).

The number of hospital beds in the region totals 1,126, of which 100 are in the rural counties. The region has one bed for every 574 persons. This is a better ratio than the state as a whole, which has one bed for every 675 persons. Within the region, there is a sharp distinction in the ratio of beds to population between the four urban counties and the six rural counties. The urban counties have one bed per 417 persons, while the rural counties have one bed per 1,607 persons.

In 2006, the region's occupancy rate was almost 48 percent, less than the state's occupancy rate of 57 percent. Overall the occupancy rates in rural and urban counties where comparable, both at approximately 48 percent.

There is one county-owned psychiatric hospital in the region. The Fond du Lac County Health Center, located in the City of Fond du Lac, has a total of 25 beds and an occupancy rate of 57 percent. In addition, there is one state-owned mental health hospital in Winnebago County. The Winnebago Mental Health Institute is located in Winnebago and has a total of 262 beds with an occupancy rate of 96.6 percent.

**Table 23. General Hospitals, Occupancy Rate, 2006**

	Hospital	Beds	Occupancy Rate
State	n/a	8,362	57.0%
Region	n/a	1,126	47.9%
Urban Counties	n/a	1,026	48.0%
Rural Counties	n/a	100	47.5%
Calumet	Calumet Medical Center	15	25.2%
Fond du Lac	St Agnes Hospital	177	48.3%
Fond du Lac	Ripon Medical Center	23	28.4%
Green Lake	Berlin Memorial Hospital	25	60.6%
Outagamie	Appleton Medical Center	142	64.4%
Outagamie	St. Elizabeth Hospital	192	50.0%
Outagamie	New London Family Medical Center	25	23.0%
Shawano	Shawano Medical Center	25	64.0%
Waupaca	Riverside Medical Center	25	54.9%
Waushara	Wild Rose Community Memorial Hospital Inc	25	10.3%
Winnebago	Children's Hospital of Wisconsin - Fox Valley	41	45.1%
Winnebago	Theda Clark Medical Center	168	51.5%
Winnebago	Aurora Medical Center of Oshkosh	71	42.8%
Winnebago	Mercy Medical Center of Oshkosh	172	41.5%

Source: WHA Guide to Wisconsin Hospitals, FY 2006

## Libraries

There are 51 public (including 7 branches), 9 academic and 23 special libraries within the region. The public libraries are distributed throughout the entire region, while academic and special libraries are more likely to be located in the urban counties of Fond du Lac, Outagamie and Winnebago.

All counties participate in the federated library system, which is designed to provide expanded library services to more people without making additional large expenditures. Calumet County is part of the Manitowoc-Calumet Library System. Fond du Lac, Waushara, Marquette and Green Lake counties are part of the Winnefox Library System. Shawano and Menominee counties are part of the Nicolet Federated Library System. Finally, Outagamie and Waupaca counties are part of the Outagamie-Waupaca Library System.

Library holdings generally serve as an indicator of library services. The region as a whole compares favorably with the state, with about 3.52 volumes per service population in the region compared to 3.49 in the state (Table 24). However counties with a volume/service population lower than the state include Menominee (1.82), Fond du Lac (2.91), Outagamie (3.17) and Shawano (3.22) counties. Green Lake (5.46) and Waupaca (5.04) maintained the highest volumes/service population ratio amongst counties within the region.

**Table 24. Library Volumes per Service Population, 2007**

	<b>Total Service Population</b>	<b>Book and Serial Volumes</b>	<b>Volumes/Service Population</b>
State	5,648,124	19,712,042	3.49
Region	640,699	2,254,646	3.52
Calumet	32,970	117,948	3.58
Fond du Lac	97,825	284,952	2.91
Green Lake	19,525	106,629	5.46
Marquette	15,319	55,711	3.64
Menominee	4,606	8,370	1.82
Outagamie	182,451	578,280	3.17
Shawano	42,284	136,348	3.22
Waupaca	55,269	278,670	5.04
Waushara	25,136	103,269	4.11
Winnebago	165,314	584,469	3.54