Dodge County
Year 2030 Comprehensive Plan
Inventory and Trends Report

Amended June 21, 2011

Contents

Page

1. Issues and Opportunities 1-1
   1.1 Introduction 1-1
   1.2 Planning Process 1-2
   1.3 Public Participation Efforts 1-4
   1.4 Population Characteristics 1-4
   1.5 Population Forecasts 1-13
   1.6 Housing Characteristics 1-18
   1.7 Household Forecasts 1-19
   1.8 Economic Characteristics 1-19
   1.9 Issues and Opportunities Trends and Outlook 1-21

2. Housing 2-1
   2.1 Introduction 2-1
   2.2 Housing Characteristics 2-1
   2.3 Housing Unit Forecasts 2-8
   2.4 Housing Trends and Outlook 2-12

3. Transportation 3-1
   3.1 Introduction 3-1
   3.2 Existing Road System 3-1
   3.3 Functional Classification of Roads 3-2
   3.4 Traffic Volume Trends 3-4
   3.5 Traffic Accidents 3-5
   3.6 Additional Modes of Transport 3-6
   3.7 Existing Transportation Plans 3-9
   3.8 Transportation Trends and Outlook 3-13

4. Utilities and Community Facilities 4-1
   4.1 Introduction 4-1
   4.2 Administrative Facilities and Services 4-1
   4.3 Police Services 4-2
   4.4 Fire Departments and Emergency Medical Services 4-7

4.5 School Facilities 4-14
4.6 Quasi Public Facilities 4-18
4.7 Parks, Recreation, and Open Space 4-22
4.8 Solid Waste Management and Recycling 4-25
4.9 Communication and Power Facilities 4-25
4.10 Sanitary Sewer Service 4-27
4.11 Private On-site Wastewater Treatment Systems (POWTS) 4-28
4.12 Public Water Supply 4-28
4.13 Stormwater Management 4-35
4.14 Health Care Facilities 4-35
4.15 Day Care Facilities 4-36
4.16 Utilities and Community Facilities Trends and Outlook 4-37

5. Agricultural, Natural, and Cultural Resources 5-1
5.1 Introduction 5-1
5.2 Soils 5-2
5.3 Prime Agricultural Soils 5-2
5.4 Agriculture and Farmland 5-3
5.5 Forests 5-7
5.6 Metallic and Non-Metallic Mineral Resources 5-7
5.7 Wetlands 5-8
5.8 Floodplains 5-10
5.9 Topography 5-12
5.10 Watersheds and Drainage 5-12
5.11 Surface Water Features 5-13
5.12 Groundwater Resources 5-17
5.13 Air Quality 5-20
5.14 Environmental Corridors/Sensitive Areas 5-20
5.15 Threatened and Endangered Species 5-21
5.16 Wildlife Habitat and State Natural Areas 5-21
5.17 Historic Places 5-23
5.18 Cultural Resources 5-26
5.19 Community Design 5-28
5.20 Agricultural, Natural, and Cultural Resources Trends and Outlook 5-29

6. Economic Development 6-1
6.1 Introduction 6-1
6.2 Labor Force and Employment Status 6-3
6.3 Economic Base Analysis 6-7
6.4 Attraction of New Business and Industry 6-17
6.5 Employment Forecast 6-19
6.6 Economic Development Trends and Outlook 6-20

7. Intergovernmental Cooperation 7-1
7.1 Introduction 7-1
7.2 Multi-Jurisdictional Plan Building Process 7-3

7.3 Wisconsin Intergovernmental Agreement Statutes 7-3
7.4 Inventory of Plans for Communities in Dodge County and Neighboring Counties... 7-7
7.5 Inventory of Existing Intergovernmental Agreements 7-8
7.6 Analysis of Dodge County's Relationship with School Districts, Local Governmental Units, Other Jurisdictions, Neighboring Counties, Region, and State 7-9
7.7 Intergovernmental Cooperation Trends and Outlook 7-10

8. Land Use 8-1
8.1 Introduction 8-1
8.2 Existing Land Use 8-1
8.3 Land and Resource Management 8-4
8.4 Supply, Demand, and Price Trends of Land 8-6
8.5 Land Use Trends and Outlook 8-9

9. Implementation 9-1
9.1 Introduction 9-1
9.2 Dodge County Planning Efforts 9-1
9.3 Dodge County Code Administration 9-4

Tables

Table 1-1 Population Trends, Dodge County, 1960-2000 1-6
Table 1-2 Population Change, Dodge County, 1970-2000 1-7
Table 1-3 Population Change, Dodge County Municipal Units, 1970-2000 1-8
Table 1-4 Population Estimates, Dodge County, 2004 1-10
Table 1-5 Population by Age Cohort, Dodge County, 1990-2000 1-12
Table 1-6 Educational Attainment of Persons Age 25 & Over, Dodge County and Wisconsin, 2000 1-12
Table 1-7 Household Income, Dodge County, 1999 1-13
Table 1-8 WDOA Population Projections, Dodge County, 2000-2025 1-14
Table 1-9 Linear Population Forecast, Dodge County, 2000-2030 1-16
Table 1-10 Census/Population Estimate Forecast 1-17
Table 1-11 Housing Occupancy and Tenure, Dodge County, 1990-2000 1-18
Table 1-12 Employment by Industrial Sector, Dodge County and Wisconsin, 2000 1-20
Table 2-1 Housing Supply, Dodge County, 1990-2000 2-3
Table 2-2 Housing Supply, Dodge County Municipal Unit Totals, 1990-2000 2-4
Table 2-3 Housing Occupancy and Tenure, Dodge County, 1990-2000 2-4
Table 2-4 Units in Structure, Dodge County and Wisconsin, 2000 2-5
Table 2-5 Household Size, Dodge County and Wisconsin, 1990-2000 2-6
Table 2-6 Year Structures Built, Dodge County, 2000 2-7
Table 2-7 Housing Value for Specified Owner-Occupied Units, Dodge County, 2000 2-8
Table 2-8 Linear Housing Unit Forecast, Dodge County, 2000-2030 2-10
Table 2-9 WDOA Household Forecast, Dodge County, 2000-2025 2-11
Table 2-10 Census/Estimate & Persons per Household Forecast, Dodge County, 2000-2030 2-13
Table 3-1 Functional Classifications in Miles, Dodge County, 2005 3-4

Table 3-2 Selected State and U.S. AADT Counts, Dodge County, 1995-2001 3-5
Table 4-1 Fire Departments, Dodge County, 2005 4-7
Table 4-2 Emergency Medical Service, Dodge County, 2005 4-8
Table 4-3 School Districts, Dodge County, 2005 4-15
Table 4-4 Public Lands and Parks, Dodge County Towns 4-23
Table 4-5 Telephone Service, Dodge County, 2005 4-25
Table 4-6 Natural Gas Service, Dodge County, 2005 4-26
Table 4-7 Electric Service, Dodge County, 2005 4-26
Table 5-1 Prime Agricultural Soils, Dodge County 5-3
Table 5-2 Agricultural Production, Dodge County, 2003 5-4
Table 5-3 Number of Dairy Cows and Milk Production 2002-2003, Dodge County, Wisconsin 5-4
Table 5-4 Wetlands, Dodge County 5-9
Table 5-5 Floodplains, Dodge County 5-11
Table 5-6 Watersheds, Dodge County, 2005 5-13
Table 5-7 Surface Water, Dodge County 5-14
Table 5-8 Rare, Threatened, and Endangered Species, Dodge County 5-22
Table 5-9 Cultural Resources Protection Laws 5-25
Table: 6-1 Civilian Labor Force Annual Averages, Dodge County and Wisconsin, 2000-2004 6-3
Table 6-2 Household Income, Dodge County, 1999 6-5
Table 6-3 Travel Time to Work, Dodge County, 2000 6-6
Table 6-4 Place of Work for Workers Age 16 and Over, Dodge County and Wisconsin, 2000 6-6
Table 6-5 Employment by Industrial Sector, Dodge County and Wisconsin, 2000 6-7
Table 6-6 Employment by Occupation, Dodge County and Wisconsin, 2000 6-9
Table 6-7 Annual Average Wage by Industry Division, Dodge County and Wisconsin, 2002 6-10
Table 6-8 Principal Employers, Dodge County, 2003 6-11
Table 6-9 Location Quotient Employment Analysis, Dodge County, 1990 and 2000 6-15
Table 6-10 Commuting Patterns, Dodge County, 2000 6-16
Table 8-1 Existing Land Use, Dodge County, 2004 8-3
Table 8-2 Farmland Preservation, Dodge County 8-5
Table 8-3 Agricultural Land Sales, Dodge County, 1999-2003 8-7
Table 8-4 Forest Land Sales, Dodge County, 1998-2001 8-7
Table 8-5 Equalized Values, Dodge County, 1999-2003 8-8

Figures

Figure 1-1 Comparative Percent Population Change, Dodge County and Selected Counties, 1990-2000 1-9
Figure 1-2 Population by Age Cohort, Dodge County, 1990-2000 1-11
Figure 1-3 Comparative Population Forecasts, Dodge County, 2000-2030 1-18
Figure 3-1 Traffic Accidents, Dodge County, 1997-2002 3-6

Figure 4-1 Percentage Change in School District Enrollment, Dodge County, 1999/2000-2003/2004 4-18
Figure 6-1 Monthly Unemployment Rates, Dodge County and Wisconsin, 2004 6-4
Figure 6-2 Employment by Industry, Dodge County, 2000 6-8
Figure 8-1 Existing Land Use, Dodge County, 2004 8-4

Appendix

Map 1-1 Regional Setting
Map 1-2 Multi-jurisdictional Plan Groupings

Map 3-1 Functional Classification of Highways, Railroads and Airports
Map 3-2 Average Annual Daily Traffic Counts

Map 4-1 Emergency Service Areas (Fire)
Map 4-2 Emergency Service Areas (Emergency Medical Service)
Map 4-3 School District Boundaries
Map 4-4 Town, County, State and Federal Recreational Facilities
Map 4-5 Telephone Service Providers
Map 4-6 Electric Utilities and Cooperatives
Map 4-7 Natural Gas Facilities
Map 4-8 Public Sewer and Water Facilities

Map 5-1 Prime Agricultural Soils
Map 5-2 Dairy Farms
Map 5-3 Woodlots
Map 5-4 Wetlands
Map 5-5 Floodplains
Map 5-6 Watersheds, Streams and Surface Water
Map 5-7 Environmental Corridors
Map 5-8 Historical, Cultural and Archaeological Resources

Map 7-1 Extraterritorial Jurisdiction in Dodge County
Map 7-2 Status of Planning in Dodge County

Map 8-1 Existing Land Use
Map 8-2 Farmland Preservation Participants

Map 9-1 Existing County Zoning Jurisdictions
Map 9-2 Existing Zoning

1. Issues and Opportunities

The Issues and Opportunities element of the comprehensive plan provides background information on the county relative to population, housing, and economic development. In addition, this element provides information on the county's history, planning process, public participation efforts, and forecasts for the future.

1.1 Introduction

Purpose

In 1999, Dodge County developed a County Plan to address some of the economic and development pressures that were being experienced. This plan was an update to the county's 1968 County Plan. After the passage of Wisconsin's Comprehensive Planning legislation in 1999, Wis. Stats. 66.1001, Dodge County decided that it was in the county's best interest to pursue funding for an update to the 1999 plan to meet the requirements of the new legislation.

The purpose of the Dodge County multi-jurisdictional planning effort is to update the Dodge County Plan and bring it into conformance with Wisconsin's Comprehensive Planning legislation, while also building individual community plans in an efficient and cost-effective process.

Location

The location of Dodge County heavily influences the trends and changes that are expected during the next twenty years. The county is strategically located in the middle of the triangle formed by the metropolitan communities of Madison, Milwaukee, and the Fox Cities. As urbanization within these areas continues to grow, many people will be attracted to Dodge County because of its location and the amenities that can be found there. Counties that border Dodge County include Dane, Columbia, Green Lake, Fond du Lac, Washington, Waukesha, and Jefferson. See the Appendix, Map 1-1 for a regional map showing the location of Dodge County.

Dodge County is home to 24 towns, 11 villages, and nine cities. Portions of five municipalities are located in other counties.

Dodge County History

Dodge County was created in 1836 and named in honor of Henry Dodge, then territorial governor of Wisconsin. The Town of Victory was chosen as the County Seat. The Town of Victory was later renamed City of Juneau after Paul Juneau, the son of Solomon Juneau, founder of Milwaukee. In 1845 iron ore was discovered in Mayville and an iron ore works operated here for several decades until competition from mines in the Lake Superior region closed it. Sawmills and gristmills were widely distributed over Dodge County in the 1870s. In 1875, the first brick cheese factory in the United States opened in Watertown, operating until 1943. Dodge County has a rich heritage that includes a unique blend of natural resources, small town charm, and agricultural history.

The largest community in Dodge County is the City of Beaver Dam which had a 2000 population of just over 15,000.

1.2 Planning Process

The comprehensive planning process used in Dodge County involved two phases, plan for planning and plan making. Detailed within this section is the process used in Dodge County.

Phase I, Plan for Planning

During the spring of 2002, Dodge County contracted with the consulting firm of Foth & Van Dyke to develop a "Plan for Planning." The process was intended to determine:

- The work effort needed to bring the Dodge County Plan into conformance with Wisconsin's Comprehensive Planning legislation;
- In-house and outside resources that could contribute to the planning effort;
- An efficient and coordinated planning process between Dodge County and its communities;
- How the document and maps should be built;
- The committee structure to direct the comprehensive planning process;
- Staff and consultant workloads and responsibilities; and
- Comprehensive Plan development costs and the number of participating communities.

This process resulted in the submittal of a Wisconsin Department of Administration (WDOA) Comprehensive Planning Grant that was submitted November 1, 2002. In February of 2003, the County was informed by the state that Dodge County and its participating communities were awarded $321,000 to develop a comprehensive plan.

Phase II, Plan Making

The Phase II, "Plan-Making" process in Dodge County involves a bottom-up approach whereby 19 local communities meet together in regions (see Appendix, Map 1-2 for regions) to facilitate intergovernmental cooperation and develop local comprehensive plans. Upon completion of local comprehensive plans, Dodge County will consider incorporating the individual plans and recommendations into the Dodge County Comprehensive Plan document.

The Dodge County multi-jurisdictional planning effort included 19 local communities. The communities are as follows:

Towns

- Ashippun
- Burnett
- Elba
- Fox Lake
- Herman
- Hustisford
- Leroy
- Lomira
- Portland
- Rubicon
- Shields
- Trenton

Villages

- Brownsville
- Iron Ridge
- Lomira
- Neosho
- Theresa

Cities

- Juneau
- Mayville

Participating communities met in their planning regions a total of four times to develop individual community plans. Communities also had one public informational meeting, one public hearing, and one additional local meeting held at their respective community. Communities also held a number of meetings locally to help complete their plans.

Organization of the Dodge County Comprehensive Plan Document

Wisconsin's Comprehensive Planning legislation identifies nine elements that must be addressed in order for the plan to be in conformance with the law. The elements include:

- Issues and Opportunities
- Housing
- Transportation
- Utilities and Community Facilities
- Agricultural, Natural, and Cultural Resources
- Economic Development
- Intergovernmental Cooperation
- Land Use
- Implementation

The Dodge County Comprehensive Plan is divided into two separate reports, the Inventory and Trends Report and the Recommendations Report. The Inventory and Trends Report contains background information and maps to address the nine elements required by Wisconsin's Comprehensive Planning legislation. The Inventory and Trends Report also identifies important trends that may impact future planning in the county, as well as forecasts for the future. The Recommendations Report contains goals, objectives, policies, and programs identified in the nine elements to help guide future actions by the county. The combination of the two reports results in a Comprehensive Plan that is compliant with Wisconsin's Comprehensive Planning legislation, commonly referred to as "Smart Growth."

1.3 Public Participation Efforts

Dodge County adopted a Public Participation Plan during Phase I, Plan for Planning. The Public Participation Plan is intended to foster public participation throughout every step of the planning process. Primary activities include County Advisory Committee (CAC) Meetings, public informational meetings, regional planning meetings, e-mail announcements, county newsletter mailings, press releases, postcards, and posting information on the Dodge County website.

Focus Group Meetings

The Dodge County Advisory Committee (CAC) selected three topics they felt needed particular attention and consideration during the comprehensive planning process for which focus group meetings would be held. The following topics were discussed at three separate "Focus Group" meetings:

- Economic Development (June 23, 2004)
- Agriculture and Rural Housing (July 13, 2004)
- Boundary Issues and Intergovernmental Cooperation (July 26, 2004)

A panel of representatives from various state, county, and local agencies, elected officials, and other qualified experts were assembled for each focus group meeting to share and discuss their own thoughts, ideas, and experiences regarding each topic. Members of the public were asked to rank panelist responses for further consideration by the County CAC and other municipalities. Information obtained at these meetings has been incorporated into planning documents and was used to help develop the goals, objectives, and policies found in the county and local planning documents.

1.4 Population Characteristics

Population change is the primary component in tracking a community's past growth as well as predicting future population trends. Population characteristics relate directly to the county's housing, educational, utility, community, and recreational facility needs, as well as its future economic development.

Tables 1-1 and 1-2 display population trends from 1960 to 2000 for all municipalities in Dodge County, Dodge County, and the State of Wisconsin. According to Tables 1-1 and 1-2, Dodge

County had a population of 85,897 persons in 2000, a 12.2% increase from the 1990 population of 76,559. A decade earlier the county experienced a population increase of only 2.0%. The amount of growth the county experienced in the 1990s was 2.6% higher than the growth experienced by the State of Wisconsin.

Table 1-1
Population Trends, Dodge County, 1960-2000

	1960	1970	1980	1990	2000
T. Ashippun	1,376	1,500	1,929	1,783	2,308
T. Beaver Dam	1,509	1,933	3,030	3,097	3,440
T. Burnett	899	875	917	915	919
T. Calamus	908	934	1,077	1,009	1,005
T. Chester	933	1,060	981	797	960
T. Clyman	852	889	815	742	849
T. Elba	928	960	1,028	964	1,086
T. Emmet	969	1,050	1,089	1,014	1,221
T. Fox Lake	793	1,501	1,674	1,928	2,402
T. Herman	1,145	1,215	1,131	1,127	1,207
T. Hubbard	1,079	1,301	1,508	1,390	1,643
T. Hustisford	891	1,034	1,262	1,209	1,379
T. Lebanon	1,212	1,278	1,518	1,630	1,664
T. Leroy	1,086	1,146	1,110	1,025	1,116
T. Lomira	1,242	1,247	1,391	1,280	1,228
T. Lowell	1,205	1,254	1,205	1,134	1,169
T. Oak Grove	1,543	1,326	1,333	1,200	1,126
T. Portland	879	915	976	994	1,106
T. Rubicon	1,355	1,564	1,759	1,709	2,005
T. Shields	625	602	584	500	554
T. Theresa	1,092	1,174	1,152	1,083	1,080
T. Trenton	1,221	1,406	1,319	1,299	1,301
T. Westford	890	1,006	1,203	1,248	1,400
T. Williamstown	659	659	657	692	646
V. Brownsville	276	374	433	415	570
V. Clyman	259	328	317	370	388
V. Hustisford	708	789	874	979	1,135
V. Iron Ridge	419	480	766	887	998
V. Kekoskee	247	233	224	218	169
V. Lomira	807	1,084	1,446	1,542	2,233
V. Lowell	341	322	326	312	366
V. Neosho	345	400	575	658	593
V. Randolph*	978	1,089	1,206	1,227	1,346
V. Reeseville	491	566	649	673	703
V. Theresa	570	611	766	771	1,252
C. Beaver Dam	13,118	14,265	14,149	14,196	15,169
C. Columbus*	0	0	0	10	36
C. Fox Lake	1,181	1,242	1,373	1,279	1,454
C. Hartford*	0	0	0	9	10
C. Horicon	2,996	3,356	3,584	3,873	3,775
C. Juneau	1,718	2,043	2,045	2,157	2,485
C. Mayville	3,607	4,139	4,333	4,374	4,902
C. Watertown*	3,968	4,373	5,911	6,754	8,063
C. Waupun*	5,849	5,481	5,439	6,086	7,436
Dodge County	63,170	69,004	75,064	76,559	85,897
Wisconsin	3,951,777	4,417,731	4,705,642	4,891,769	5,363,675

Source: Wisconsin Department of Administration, 1960, 1970, and 1980. U.S. Bureau of the Census, 1990 and 2000. *Municipality crosses county line, only includes portion in Dodge County.

Table 1-2
Population Change, Dodge County, 1970-2000

	1970-1980		1980-1990		1990-2000	
	Number	Percent	Number	Percent	Number	Percent
T. Ashippun	429	28.6%	-146	-7.6%	525	29.4%
T. Beaver Dam	1,097	56.8%	67	2.2%	343	11.1%
T. Burnett	42	4.8%	-2	-0.2%	4	0.4%
T. Calamus	143	15.3%	-68	-6.3%	-4	-0.4%
T. Chester	-79	-7.5%	-184	-18.8%	163	20.5%
T. Clyman	-74	-8.3%	-73	-9.0%	107	14.4%
T. Elba	68	7.1%	-64	-6.2%	122	12.7%
T. Emmet	39	3.7%	-75	-6.9%	207	20.4%
T. Fox Lake	173	11.5%	254	15.2%	474	24.6%
T. Herman	-84	-6.9%	-4	-0.4%	80	7.1%
T. Hubbard	207	15.9%	-118	-7.8%	253	18.2%
T. Hustisford	228	22.1%	-53	-4.2%	170	14.1%
T. Lebanon	240	18.8%	112	7.4%	34	2.1%
T. Leroy	-36	-3.1%	-85	-7.7%	91	8.9%
T. Lomira	144	11.5%	-111	-8.0%	-52	-4.1%
T. Lowell	-49	-3.9%	-71	-5.9%	35	3.1%
T. Oak Grove	7	0.5%	-133	-10.0%	-74	-6.2%
T. Portland	61	6.7%	18	1.8%	112	11.3%
T. Rubicon	195	12.5%	-50	-2.8%	296	17.3%
T. Shields	-18	-3.0%	-84	-14.4%	54	10.8%
T. Theresa	-22	-1.9%	-69	-6.0%	-3	-0.3%
T. Trenton	-87	-6.2%	-20	-1.5%	2	0.2%
T. Westford	197	19.6%	45	3.7%	152	12.2%
T. Williamstown	-2	-0.3%	35	5.3%	-46	-6.6%
V. Brownsville	59	15.8%	-18	-4.2%	155	37.3%
V. Clyman	-11	-3.4%	53	16.7%	18	4.9%
V. Hustisford	85	10.8%	105	12.0%	156	15.9%
V. Iron Ridge	286	59.6%	121	15.8%	111	12.5%
V. Kekoskee	-9	-3.9%	-6	-2.7%	-49	-22.5%
V. Lomira	362	33.4%	96	6.6%	691	44.8%
V. Lowell	4	1.2%	-14	-4.3%	54	17.3%
V. Neosho	175	43.8%	83	14.4%	-65	-9.9%
V. Randolph*	117	10.7%	21	1.7%	119	9.7%
V. Reeseville	83	14.7%	24	3.7%	30	4.5%
V. Theresa	155	25.4%	5	0.7%	481	62.4%
C. Beaver Dam	-116	-0.8%	47	0.3%	973	6.9%
C. Columbus*	0	0.0%	10	0.0%	26	260.0%
C. Fox Lake	131	10.5%	-94	-6.8%	175	13.7%
C. Hartford*	0	0.0%	9	0.0%	1	11.1%
C. Horicon	228	6.8%	289	8.1%	-98	-2.5%
C. Juneau	2	0.1%	112	5.5%	328	15.2%
C. Mayville	194	4.7%	41	0.9%	528	12.1%
C. Watertown*	1,538	35.2%	843	14.3%	1,309	19.4%
C. Waupun*	-42	-0.8%	647	11.9%	1,350	22.2%
Dodge County	6,060	8.8%	1,495	2.0%	9,338	12.2%
Wisconsin	287,911	6.5%	186,127	4.0%	471,906	9.6%

Source: Wisconsin Department of Administration, 1970 and 1980. U.S. Bureau of the Census, 1990 and 2000. *Municipality crosses county line, only includes portion in Dodge County.

Population change for the communities of Dodge County was highly variable between 1970 and 2000. Table 1-3 displays the population changes experienced by towns, cities, and villages in the county. While highly variable, population change was positive for towns, cities, and villages, except for towns during the 1980s.

Table 1-3
Population Change, Dodge County Municipal Units, 1970-2000

					1970-80		1980-90		1990-00	
	1970	1980	1990	2000	Number Change	Percent Change	Number Change	Percent Change	Number Change	Percent Change
Total in Towns	27,829	30,648	29,769	32,814	2,819	10.1%	-879	-2.9%	3,045	10.2%
Total in Villages	6,276	7,582	8,052	9,753	1,306	20.8%	470	6.2%	1,701	21.1%
Total in Cities	34,899	36,834	38,738	43,330	1,935	5.5%	1,904	5.2%	4,592	11.9%

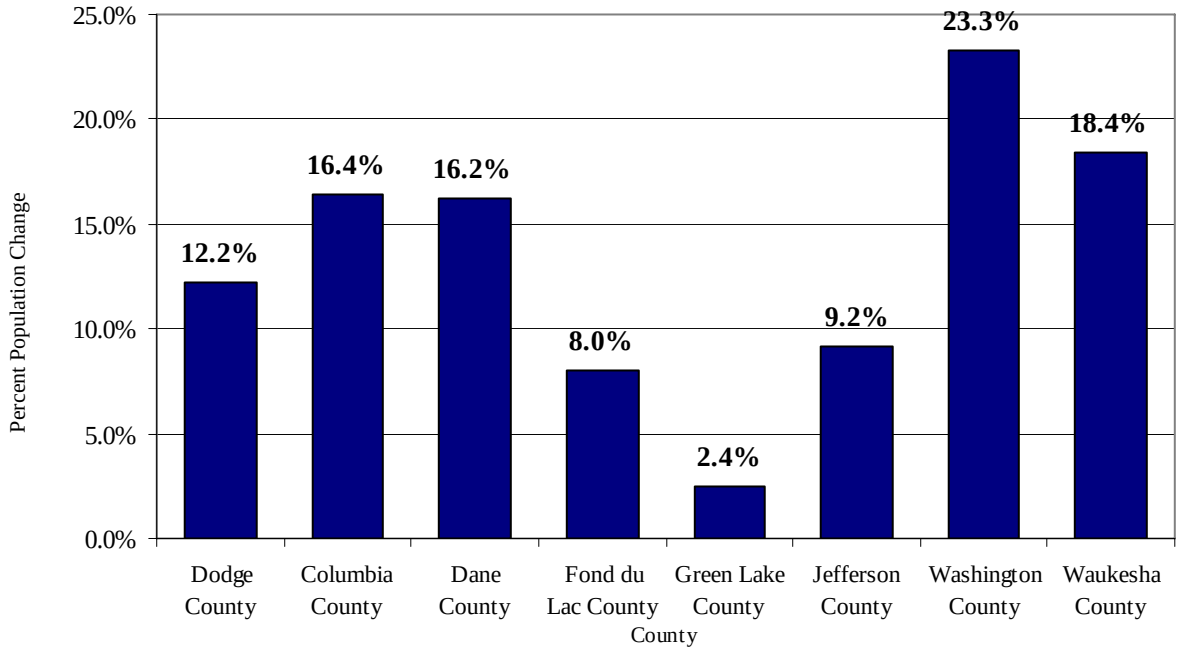
Source: U.S. Bureau of the Census, 1970, 1980, 1990, and 2000.

As shown in Table 1-3, population growth in villages in the county has consistently been greater than cities or towns, based on percentages. However, population growth based on the number of people added to the county population base indicates that towns and cities have contributed more to the overall county population increases than villages. For example, from 1970 to 2000 the population in towns increased by 4,985 persons and the population in cities increased by 8,427 persons. The population increase in villages was only 3,477 persons.

Comparative Population Change

Understanding population change at the local and county level is an important factor in overall planning, however, it is also important to recognize regional population trends. Figure 1-1 displays population changes that have occurred in Dodge County as well as in neighboring counties from 1990 to 2000.

Figure 1-1
Comparative Percent Population Change, Dodge County and Selected Counties, 1990-2000



Source: U.S. Bureau of the Census, 1990 and 2000.

When compared to surrounding counties, Dodge County had a moderate growth rate. Counties located to the north and south of Dodge County experienced less than 10% growth, however counties to the west and east all had growth of greater than 16%.

Population Estimates

Every year the Wisconsin Department of Administration (WDOA), Demographic Services Center develops population estimates for every municipality and county in the state. Table 1-4 displays the 2004 population estimates for Dodge County.

Table 1-4
Population Estimates, Dodge County, 2004

	2000 Census	2004 Estimate	# Change 2000-04	% Change 2000-04
T. Ashippun	2,308	2,383	75	3.2%
T. Beaver Dam	3,440	3,665	225	6.5%
T. Burnett	919	935	16	1.7%
T. Calamus	1,005	1,034	29	2.9%
T. Chester	960	954	-6	-0.6%
T. Clyman	849	865	16	1.9%
T. Elba	1,086	1,110	24	2.2%
T. Emmet	1,221	1,303	82	6.7%
T. Fox Lake	2,402	2,632	230	9.6%
T. Herman	1,207	1,221	14	1.2%
T. Hubbard	1,643	1,737	94	5.7%
T. Hustisford	1,379	1,416	37	2.7%
T. Lebanon	1,664	1,726	62	3.7%
T. Leroy	1,116	1,116	0	0.0%
T. Lomira	1,228	1,250	22	1.8%
T. Lowell	1,169	1,182	13	1.1%
T. Oak Grove	1,126	1,131	5	0.4%
T. Portland	1,106	1,138	32	2.9%
T. Rubicon	2,005	2,187	182	9.1%
T. Shields	554	563	9	1.6%
T. Theresa	1,080	1,110	30	2.8%
T. Trenton	1,301	1,298	-3	-0.2%
T. Westford	1,400	1,433	33	2.4%
T. Williamstown	646	655	9	1.4%
V. Brownsville	570	567	-3	-0.5%
V. Clyman	388	385	-3	-0.8%
V. Hustisford	1,135	1,149	14	1.2%
V. Iron Ridge	998	1,003	5	0.5%
V. Kekoskee	169	171	2	1.2%
V. Lomira	2,233	2,378	145	6.5%
V. Lowell	366	374	8	2.2%
V. Neosho	593	592	-1	-0.2%
V. Randolph*	1,346	1,334	-12	-0.9%
V. Reeseville	703	712	9	1.3%
V. Theresa	1,252	1,300	48	3.8%
C. Beaver Dam	15,169	15,366	197	1.3%
C. Columbus*	36	0	-36	-100.0%
C. Fox Lake	1,454	1,477	23	1.6%
C. Hartford*	10	4	-6	-60.0%
C. Horicon	3,775	3,747	-28	-0.7%
C. Juneau	2,485	2,656	171	6.9%
C. Mayville	4,902	5,164	262	5.3%
C. Watertown*	8,063	8,515	452	5.6%
C. Waupun*	7,436	7,347	-89	-1.2%
Dodge County	85,897	88,285	2,388	2.8%
Wisconsin	5,363,715	5,532,955	169,240	3.2%

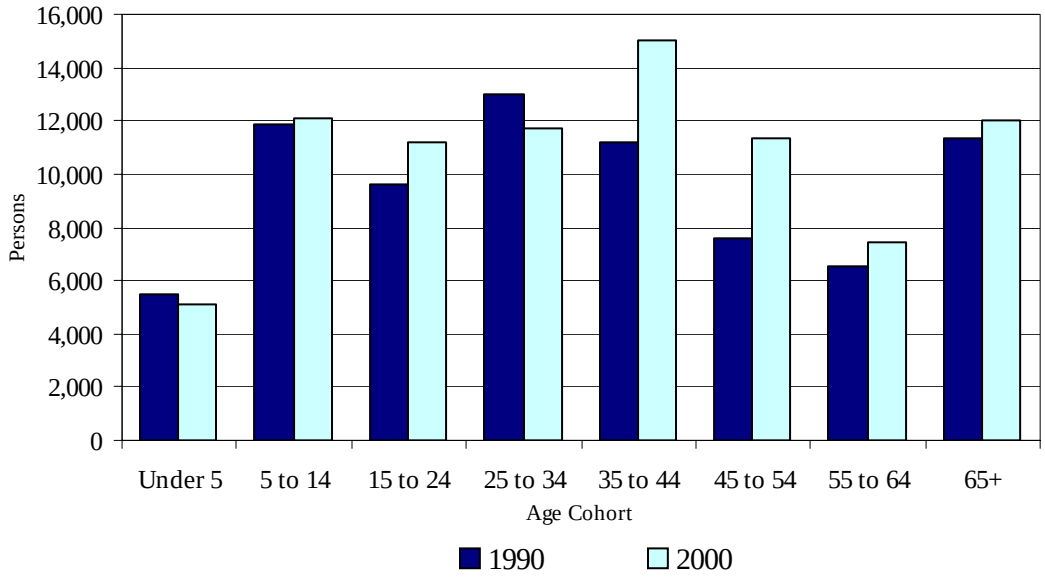
*Municipality crosses county line, only includes portion in Dodge County.
Source: U.S. Bureau of the Census, 2000. Wisconsin Department of Administration, Demographic Services Center, Official Population Estimates, 2004.

The 2004 population estimate reveals that Dodge County and most of its communities will continue to experience moderate to high population increases. There were six communities that experienced rather significant growth, greater than 6%, including the Towns of Beaver Dam, Emmet, Fox Lake, and Rubicon, and the Village of Lomira and the City of Juneau.

Age Distribution

A shifting age structure affects a variety of services and needs within the county. Wisconsin has an aging population, which is consistent with the national trend. The baby-boomer generation, which is the largest segment of the overall population, is nearing retirement age. As this age group gets older, the demand for services such as health care will increase and a younger workforce will need to take the place of retirees. It is important to recognize these trends and determine how to deal with the effects.

Figure 1-2
Population by Age Cohort, Dodge County, 1990-2000



Source: U.S. Bureau of the Census, 1990 and 2000.

As indicated by Figure 1-2, higher population counts within older age cohorts is evident in Dodge County. The greatest increases were in the 35 to 44 age group and the 45 to 54 age group, indicating the age shift of the baby-boomer generation.

Table 1-5 displays the population by age cohort for Dodge County.

Table 1-5
Population by Age Cohort, Dodge County, 1990-2000

	1990	Percent of Total	2000	Percent of Total	# Change 1990-00	% Change 1990-00
Under 5	5,462	7.1%	5,098	5.9%	-364	-6.7%
5 to 14	11,836	15.5%	12,095	14.1%	259	2.2%
15 to 24	9,621	12.6%	11,174	13.0%	1,553	16.1%
25 to 34	13,009	17.0%	11,746	13.7%	-1,263	-9.7%
35 to 44	11,166	14.6%	15,018	17.5%	3,852	34.5%
45 to 54	7,599	9.9%	11,341	13.2%	3,742	49.2%
55 to 64	6,524	8.5%	7,439	8.7%	915	14.0%
65+	11,342	14.8%	11,986	14.0%	644	5.7%
Total	76,559	100.0%	85,897	100.0%	9,338	12.2%

Source: U.S. Bureau of the Census, 1990 and 2000.

Educational Attainment

Table 1-6 displays the education attainment level of Dodge County and Wisconsin residents age 25 and over in 2000. The educational attainment level of persons within a community is often an indicator of the overall income, job availability, and economic well-being of the area.

Table 1-6
Educational Attainment of Persons Age 25 and Over, Dodge County and Wisconsin, 2000

	Dodge County		Wisconsin	
Attainment Level	Number	Percent of Total	Number	Percent of Total
Less than 9th grade	4,025	7.0%	186,125	5.4%
9th grade to 12th grade, no diploma	6,128	10.7%	332,292	9.6%
High school graduate (includes equivalency)	25,031	43.6%	1,201,813	34.6%
Some college, no degree	10,588	18.4%	715,664	20.6%
Associate degree	4,079	7.1%	260,711	7.5%
Bachelor's degree	5,476	9.5%	530,268	15.3%
Graduate or professional degree	2,126	3.7%	249,005	7.2%
Total Persons 25 and over	57,453	100.0%	3,475,878	100.0%

Source: U.S. Bureau of the Census, 2000. Includes persons age 25 and over.

Approximately 82.3% of persons in Dodge County age 25 and older have attained a high school diploma or had some post-secondary education. For Wisconsin, 85.1% of persons age 25 and older have a high school diploma or some post-secondary education. In Dodge County, approximately 9.5% of persons age 25 and over have a Bachelor degree and 3.7% have a graduate or professional degree. For the State of Wisconsin, approximately 15.3% have a Bachelor degree and 7.2% have a graduate or professional degree.

Household Income Levels

Table 1-7 displays the 1999 household incomes and median household income for Wisconsin and Dodge County as reported by the 2000 Census. The median household income for Dodge County was $45,190, slightly higher than the State's reported median income of $43,791.

Table 1-7
Household Income, Dodge County, 1999

	Dodge County		Wisconsin	
	Number	% of Total	Number	% of Total
Less than $10,000	1,659	5.3%	148,964	7.1%
$10,000 to $14,999	1,627	5.2%	121,366	5.8%
$15,000 to $24,999	3,579	11.4%	264,897	12.7%
$25,000 to $34,999	4,434	14.1%	276,033	13.2%
$35,000 to 49,999	6,420	20.4%	377,749	18.1%
$50,000 to $74,999	8,326	26.4%	474,299	22.7%
$75,000 to $99,999	3,305	10.5%	226,374	10.9%
$100,000 to $149,999	1,605	5.1%	133,719	6.4%
$150,000 or More	558	1.8%	62,903	3.0%
Total	31,513	100.0%	2,086,304	100.0%
Median Household Income	$45,190		$43,791	

Source: U.S. Bureau of the Census, 2000.

1.5 Population Forecasts

Population forecasts are based on past and current population trends and are not predictions, rather they extend past growth trends into the future and their reliability depends on the continuation of these past growth trends. Forecasts should be considered as one of many tools used to help anticipate and predict future needs within the county. Population levels are subject to physical conditions, environmental concerns, land use, zoning restrictions, taxation, annexation, and other political policies that influence business and personal location decisions.

The three population forecasts used for Dodge County include:

- Wisconsin Department of Administration (WDOA) forecast.
- Linear population forecast.
- Census/population estimate forecast.

Wisconsin Department of Administration, Population Forecasts

In 2003 the Wisconsin Department of Administration (WDOA) Demographic Services Center prepared baseline population forecasts to the year 2025 for the communities and counties of Wisconsin. The WDOA utilized a projection formula that calculates the annual population change over three varying time spans. From this formula, the average annual numerical

population change is calculated, which was used to give communities preliminary population projections for a future date. Table 1-8 displays the WDOA population projections for Dodge County.

Table 1-8

WDOA Population Projections, Dodge County, 2000-2025

	2000 Census	Projection 2005	2010	2015	2020	2025	# Change 2000-2025	% Change 2000-2025
T. Ashippun	2,308	2,430	2,552	2,669	2,779	2,885	577	25.0%
T. Beaver Dam	3,440	3,597	3,757	3,911	4,054	4,191	751	21.8%
T. Burnett	919	914	910	906	900	894	-25	-2.7%
T. Calamus	1,005	996	988	980	970	959	-46	-4.6%
T. Chester	960	972	985	998	1,008	1,017	57	5.9%
T. Clyman	849	870	891	912	930	947	98	11.5%
T. Elba	1,086	1,104	1,122	1,139	1,154	1,167	81	7.5%
T. Emmet	1,221	1,292	1,363	1,431	1,496	1,557	336	27.5%
T. Fox Lake	2,402	2,736	3,066	3,387	3,694	3,992	1,590	66.2%
T. Herman	1,207	1,221	1,236	1,250	1,261	1,271	64	5.3%
T. Hubbard	1,643	1,709	1,775	1,840	1,898	1,955	312	19.0%
T. Hustisford	1,379	1,424	1,470	1,514	1,554	1,593	214	15.5%
T. Lebanon	1,664	1,716	1,768	1,818	1,864	1,908	244	14.7%
T. Leroy	1,116	1,116	1,116	1,117	1,114	1,112	-4	-0.4%
T. Lomira	1,228	1,211	1,195	1,179	1,162	1,144	-84	-6.8%
T. Lowell	1,169	1,167	1,167	1,166	1,163	1,159	-10	-0.9%
T. Oak Grove	1,126	1,082	1,040	998	955	912	-214	-19.0%
T. Portland	1,106	1,141	1,177	1,211	1,242	1,272	166	15.0%
T. Rubicon	2,005	2,145	2,285	2,421	2,548	2,671	666	33.2%
T. Shields	554	555	557	559	560	560	6	1.1%
T. Theresa	1,080	1,077	1,074	1,072	1,067	1,062	-18	-1.7%
T. Trenton	1,301	1,285	1,271	1,257	1,241	1,224	-77	-5.9%
T. Westford	1,400	1,435	1,470	1,504	1,534	1,563	163	11.6%
T. Williamstown	646	637	629	621	611	602	-44	-6.8%
V. Brownsville	570	594	618	641	662	682	112	19.6%
V. Clyman	388	390	393	396	397	399	11	2.8%
V. Hustisford	1,135	1,170	1,205	1,238	1,269	1,298	163	14.4%
V. Iron Ridge	998	1,030	1,063	1,095	1,123	1,151	153	15.3%
V. Kekoskee	169	157	145	133	121	110	-59	-34.9%
V. Lomira	2,233	2,417	2,599	2,776	2,943	3,105	872	39.1%
V. Lowell	366	371	377	382	387	391	25	6.8%
V. Neosho	593	583	574	565	555	545	-48	-8.1%
V. Randolph*	1,346	1,348	1,352	1,355	1,355	1,355	9	0.7%
V. Reeseville	703	710	718	726	732	737	34	4.8%
V. Theresa	1,252	1,371	1,488	1,603	1,711	1,816	564	45.0%
C. Beaver Dam	15,169	15,306	15,453	15,589	15,691	15,783	614	4.0%
C. Columbus*	36	0	0	0	0	0	-36	-100.0%
C. Fox Lake	1,454	1,494	1,534	1,573	1,608	1,641	187	12.9%
C. Hartford*	10	4	4	4	4	4	-6	-60.0%
C. Horicon	3,775	3,729	3,687	3,644	3,594	3,545	-230	-6.1%
C. Juneau	2,485	2,552	2,620	2,685	2,743	2,798	313	12.6%
C. Mayville	4,902	5,221	5,538	5,846	6,135	6,414	1,512	30.8%
C. Watertown*	8,063	8,630	9,192	9,734	10,250	10,748	2,685	33.3%
C. Waupun*	7,436	7,283	7,141	6,997	6,843	6,689	-747	-10.0%
Dodge County	85,897	88,192	90,565	92,842	94,882	96,828	10,931	12.7%
Wisconsin	5,363,690	5,563,896	5,751,470	5,931,386	6,110,878	6,274,867	911,177	17.0%

Source: Wisconsin Department of Administration, Demographics Services Center, Final Population Projections for Wisconsin Municipalities: 2000-2025, January, 2004.

As indicated by the WDOA population forecast, population growth in the county is varied greatly depending upon location. There are several communities forecasted to experience significant population growth including the Town of Fox Lake, Village of Theresa, and Village of Lomira. In contrast, there are also several communities that are projected to experience declining population.

Population forecasts were completed for Dodge County to the year 2030 by WDOA. According to the forecast, Dodge County is estimated to have a population of 98,215 by 2030, a 14.3% increase from the 2000 population count.

Linear Population Forecasts

Linear forecasts were created by using the 1970, 1980, 1990, and 2000 Census counts and increasing and decreasing population counts by a constant value. Therefore, linear forecasts are based directly on historical population trends. Table 1-9 displays the resulting linear forecasts from the year 2000 to 2030.

Linear projections appear to be fairly similar to projections provided by the WDOA, with some communities estimated to experience significant increases and other decreases. The linear projection estimates that Dodge County's population will reach 100,109 by 2030, a 16.5% increase from the 2000 county population.

Census/Population Estimate Forecast

The following population forecast utilizes the 1990 and 2000 census as well as the population estimate for 2003 as created by the Wisconsin Department of Administration. An average annual population increase was determined and projected to the year 2030 as indicated in Table 1-10.

According to the table, Dodge County is projected to have a population of 115,521 in the year 2030, a 34.5% increase from the 2000 census. This projection estimated the greatest amount of growth for the county when compared to the previous two forecasts.

Table 1-9
Linear Population Forecast, Dodge County, 2000-2030

	2000 Census	Linear Projections 2010	2015	2020	2025	2030	# Change 2000-2030	% Change 2000-2030
T. Ashippun	2,308	2,450	2,563	2,677	2,848	2,905	597	25.9%
T. Beaver Dam	3,440	4,022	4,251	4,481	4,825	4,940	1,500	43.6%
T. Burnett	919	939	946	952	962	965	46	5.0%
T. Calamus	1,005	1,043	1,050	1,057	1,068	1,072	67	6.6%
T. Chester	960	829	804	780	744	732	-228	-23.8%
T. Clyman	849	776	766	756	742	737	-112	-13.2%
T. Elba	1,086	1,088	1,104	1,119	1,143	1,151	65	6.0%
T. Emmet	1,221	1,203	1,225	1,247	1,280	1,291	70	5.7%
T. Fox Lake	2,402	2,616	2,763	2,911	3,133	3,207	805	33.5%
T. Herman	1,207	1,163	1,162	1,160	1,158	1,157	-50	-4.1%
T. Hubbard	1,643	1,688	1,733	1,778	1,846	1,869	226	13.8%
T. Hustisford	1,379	1,467	1,516	1,565	1,638	1,663	284	20.6%
T. Lebanon	1,664	1,840	1,904	1,967	2,062	2,094	430	25.8%
T. Leroy	1,116	1,056	1,047	1,038	1,025	1,021	-96	-8.6%
T. Lomira	1,228	1,245	1,236	1,228	1,215	1,211	-17	-1.4%
T. Lowell	1,169	1,109	1,093	1,076	1,052	1,044	-125	-10.7%
T. Oak Grove	1,126	1,063	1,026	990	935	916	-210	-18.6%
T. Portland	1,106	1,146	1,175	1,205	1,249	1,264	158	14.3%
T. Rubicon	2,005	2,078	2,141	2,205	2,300	2,332	327	16.3%
T. Shields	554	503	492	480	463	457	-97	-17.4%
T. Theresa	1,080	1,035	1,017	999	973	964	-116	-10.7%
T. Trenton	1,301	1,248	1,231	1,214	1,189	1,181	-121	-9.3%
T. Westford	1,400	1,521	1,582	1,644	1,736	1,766	366	26.2%
T. Williamstown	646	663	662	662	662	662	16	2.4%
V. Brownsville	570	591	619	648	690	705	135	23.6%
V. Clyman	388	409	421	432	450	456	68	17.4%
V. Hustisford	1,135	1,230	1,287	1,344	1,430	1,459	324	28.5%
V. Iron Ridge	998	1,202	1,285	1,369	1,495	1,537	539	54.0%
V. Kekoskee	169	162	152	142	127	122	-47	-27.9%
V. Lomira	2,233	2,462	2,639	2,816	3,082	3,171	938	42.0%
V. Lowell	366	361	367	373	382	385	19	5.1%
V. Neosho	593	722	755	788	838	854	261	44.1%
V. Randolph*	1,346	1,415	1,455	1,494	1,554	1,573	227	16.9%
V. Reeseville	703	757	778	800	833	844	141	20.0%
V. Theresa	1,252	1,332	1,428	1,525	1,669	1,718	466	37.2%
C. Beaver Dam	15,169	15,135	15,272	15,410	15,617	15,686	517	3.4%
C. Columbus*	36	41	47	53	62	65	29	79.4%
C. Fox Lake	1,454	1,473	1,500	1,527	1,567	1,581	127	8.7%
C. Hartford*	10	15	16	18	21	22	12	123.0%
C. Horicon	3,775	4,034	4,111	4,188	4,304	4,343	568	15.0%
C. Juneau	2,485	2,542	2,614	2,686	2,794	2,830	345	13.9%
C. Mayville	4,902	5,020	5,136	5,253	5,427	5,486	584	11.9%
C. Watertown*	8,063	9,254	9,849	10,445	11,338	11,636	3,573	44.3%
C. Waupun*	7,436	7,739	8,064	8,390	8,878	9,041	1,605	21.6%
Dodge County	85,897	89,675	92,283	94,892	98,805	100,109	14,212	16.5%
Wisconsin	5,363,675	5,600,694	5,751,892	5,903,090	6,129,887	6,205,486	841,811	15.7%

Source: U.S. Bureau of the Census, 1970-2000. Linear forecasts completed by Foth & Van Dyke. *Municipality crosses county line, only includes portion in Dodge County.

Table 1-10
Census/Population Estimate Forecast

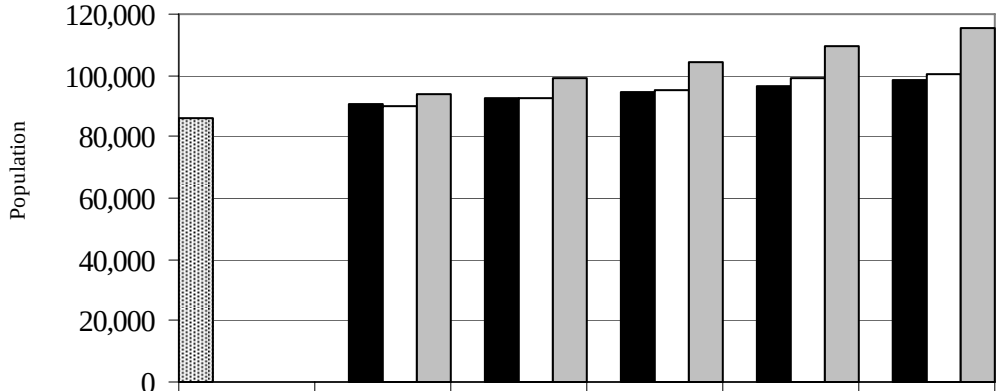
	1990 Census	2000 Census	Projection 2010	2015	2020	2025	2030	# Change 2000-2030	% Change 2000-2030
T. Ashippun	1,783	2,308	2,767	3,102	3,477	3,897	4,367	2,059	89.2%
T. Beaver Dam	3,097	3,440	3,884	4,109	4,348	4,600	4,867	1,427	41.5%
T. Burnett	915	919	939	945	951	957	963	44	4.8%
T. Calamus	1,009	1,005	1,020	1,022	1,025	1,027	1,030	25	2.5%
T. Chester	797	960	1,054	1,131	1,213	1,301	1,396	436	45.4%
T. Clyman	742	849	934	989	1,048	1,110	1,175	326	38.4%
T. Elba	964	1,086	1,185	1,247	1,313	1,382	1,455	369	33.9%
T. Emmet	1,014	1,221	1,434	1,566	1,711	1,869	2,041	820	67.2%
T. Fox Lake	1,928	2,402	3,082	3,484	3,938	4,450	5,030	2,628	109.4%
T. Herman	1,127	1,207	1,268	1,305	1,343	1,382	1,423	216	17.9%
T. Hubbard	1,390	1,643	1,902	2,060	2,230	2,415	2,615	972	59.2%
T. Hustisford	1,209	1,379	1,521	1,611	1,706	1,806	1,913	534	38.7%
T. Lebanon	1,630	1,664	1,760	1,793	1,827	1,861	1,896	232	13.9%
T. Leroy	1,025	1,116	1,160	1,196	1,232	1,270	1,309	193	17.3%
T. Lomira	1,280	1,228	1,213	1,198	1,183	1,169	1,154	-74	-6.0%
T. Lowell	1,134	1,169	1,206	1,224	1,242	1,260	1,279	110	9.4%
T. Oak Grove	1,200	1,126	1,075	1,047	1,021	995	970	-156	-13.9%
T. Portland	994	1,106	1,213	1,274	1,339	1,406	1,478	372	33.6%
T. Rubicon	1,709	2,005	2,447	2,682	2,940	3,222	3,532	1,527	76.1%
T. Shields	500	554	594	620	647	676	705	151	27.3%
T. Theresa	1,083	1,080	1,103	1,107	1,112	1,117	1,122	42	3.9%
T. Trenton	1,299	1,301	1,296	1,295	1,295	1,294	1,293	-8	-0.6%
T. Westford	1,248	1,400	1,519	1,595	1,675	1,758	1,846	446	31.8%
T. Williamstown	692	646	632	619	606	593	581	-65	-10.1%
V. Brownsville	415	570	689	788	900	1,028	1,175	605	106.1%
V. Clyman	370	388	393	399	404	410	416	28	7.3%
V. Hustisford	979	1,135	1,235	1,309	1,387	1,470	1,558	423	37.3%
V. Iron Ridge	887	998	1,077	1,130	1,186	1,244	1,306	308	30.8%
V. Kekoskee	218	169	155	143	133	123	114	-55	-32.5%
V. Lomira	1,542	2,233	3,001	3,593	4,301	5,149	6,164	3,931	176.1%
V. Lowell	312	366	406	433	463	495	528	162	44.3%
V. Neosho	658	593	563	543	524	505	488	-105	-17.8%
V. Randolph*	1,227	1,346	1,382	1,423	1,465	1,508	1,552	206	15.3%
V. Reeseville	673	703	730	744	759	774	789	86	12.3%
V. Theresa	771	1,252	1,795	2,271	2,873	3,635	4,599	3,347	267.3%
C. Beaver Dam	14,196	15,169	15,911	16,360	16,821	17,295	17,783	2,614	17.2%
C. Columbus*	10	36	0	0	0	0	0	-36	-100.0%
C. Fox Lake	1,279	1,454	1,590	1,679	1,772	1,871	1,975	521	35.8%
C. Hartford*	9	10	3	2	2	2	1	-9	-86.6%
C. Horicon	3,873	3,775	3,703	3,663	3,625	3,587	3,549	-226	-6.0%
C. Juneau	2,157	2,485	2,934	3,172	3,429	3,706	4,006	1,521	61.2%
C. Mayville	4,374	4,902	5,561	5,905	6,270	6,657	7,069	2,167	44.2%
C. Watertown*	6,754	8,063	9,553	10,436	11,401	12,455	13,607	5,544	68.8%
C. Waupun*	6,086	7,436	8,076	8,672	9,313	10,001	10,739	3,303	44.4%
Dodge County	76,559	85,897	94,114	99,061	104,269	109,751	115,521	29,624	34.5%
Wisconsin	4,891,769	5,363,675	5,834,622	6,093,947	6,364,798	6,647,688	6,943,151	1,579,476	29.4%

Source: U.S. Bureau of the Census, 1990-2000. Wisconsin Department of Administration, Demographics Services Center, Population Estimate, 2003.

Comparative Population Forecasts

Figure 1-3 details the three population forecasts that have been completed for Dodge County.

Figure 1-3
Comparative Population Forecasts, Dodge County, 2000-2030



	2000	2010	2015	2020	2025	2030
Census	85,897					
WDOA Forecast		90,565	92,842	94,882	96,828	98,215
Linear Forecast		89,675	92,283	94,892	98,805	100,109
Census/Estimate Forecast		94,114	99,061	104,269	109,751	115,521

Source: U.S. Bureau of the Census, 1990-2000. Wisconsin Department of Administration, Demographics Services Center, Population Projections for Wisconsin Communities: 2000-2010 and 2003 population estimate, 2003. Foth & Van Dyke. Dodge County Planning, Development and Parks Department.

It is anticipated that Dodge County's future population will fall within the range of the projections provided. Growth is expected to be moderate to strong over the planning period.

1.6 Housing Characteristics

Table 1-11 displays occupancy and tenure characteristics of housing units for Dodge County in 1990 and 2000. As indicated by the table, there were 33,672 housing units in Dodge County in 2000, a 17.2% increase from 1990.

Table 1-11
Housing Occupancy and Tenure, Dodge County, 1990-2000

	1990	Percent of Total	2000	Percent of Total	# Change 1990-00	% Change 1990-00
Total housing units	28,720	100.0%	33,672	100.0%	4,952	17.2%
Occupied housing units	26,853	93.5%	31,417	93.3%	4,564	17.0%
Owner-occupied	19,632	68.4%	23,067	68.5%	3,435	17.5%
Renter-occupied	7,221	25.1%	8,350	24.8%	1,129	15.6%
Vacant housing units	1,867	6.5%	2,255	6.7%	388	20.8%
Seasonal units	950	3.3%	815	2.4%	-135	-14.2%

Source: U.S. Bureau of the Census, 2000.

In 2000, approximately 93% of the county's housing units were occupied. Of the total housing units, approximately 68% were occupied by owners and 25% were occupied by individuals renting the housing unit. Vacant units accounted for 6.7% of the total housing supply. Only 2.4% of housing units within the county were for seasonal, recreational, or occasional use.

1.7 Household Forecasts

Three housing forecasts were completed for Dodge County as follows:

- Linear forecast.
- WDOA household forecast.
- Census/Estimate forecast utilizing persons per household.

The results of each forecast are detailed in Chapter 2, the Housing element.

1.8 Economic Characteristics

Economic Base

Employment by industrial sector illustrates the structure of the economy. Historically, the State of Wisconsin has had a high concentration of employment in the manufacturing and agricultural sectors of the economy. Recent state and national trends indicate a decreasing concentration of employment in the manufacturing sector while employment within the services sector is increasing. This trend is partly attributed to the aging of the population.

Table 1-12 displays the number and percent of employed persons by industry group in Dodge County and the State of Wisconsin for 2000.

Table 1-12
Employment by Industrial Sector, Dodge County and Wisconsin, 2000

Industry	Dodge County Number	Dodge County Percent of Total	Wisconsin Number	Wisconsin Percent of Total
Agriculture, forestry, fishing and hunting, and mining	2,148	5.0%	75,418	2.8%
Construction	2,840	6.6%	161,625	5.9%
Manufacturing	14,359	33.2%	606,845	22.2%
Wholesale trade	1,142	2.6%	87,979	3.2%
Retail trade	4,668	10.8%	317,881	11.6%
Transportation and warehousing, and utilities	1,584	3.7%	123,657	4.5%
Information	792	1.8%	60,142	2.2%
Finance, insurance, real estate, and rental and leasing	1,523	3.5%	168,060	6.1%
Professional, scientific, management, administrative, and waste management services	1,691	3.9%	179,503	6.6%
Educational, health and social services	6,929	16.0%	548,111	20.0%
Arts, entertainment, recreation, accommodation and food services	2,235	5.2%	198,528	7.3%
Other services (except public administration)	1,555	3.6%	111,028	4.1%
Public administration	1,731	4.0%	96,148	3.5%
Total	43,197	100.0%	2,734,925	100.0%

Source: U.S. Bureau of the Census, 2000.

The greatest percentage of employment for the county was in the manufacturing sector (33.2%), followed by educational, health, and social services (16.0%). Employment by industry for Dodge County is very similar to the state as a whole. However, Dodge County does have a significantly stronger concentration of employment in manufacturing.

Employment Forecasts

During January 2001, the Wisconsin Department of Workforce Development (WDWD) released a publication titled *Wisconsin Projections, 1998-2008*. This publication makes economic projections for the state regarding the labor force, industries, and occupations.

Wisconsin's population is projected to grow slower and older than the nation as a whole, leading to lower participation rates in the workforce. Wisconsin is also having difficulty attracting international immigrants, domestic migrants, and retaining its own citizens. Wisconsin will continue to face the challenge of filling job openings. The five industries that are projected to add the most jobs from 1998 to 2008 are business services, health services, educational services, social services, and miscellaneous retail stores. The top five occupations in Wisconsin with the greatest expected job openings for 1998 to 2008 are cashiers, retail salespersons, waiters and waitresses, general office clerks, and general managers/top executives. The five fastest growing occupations for 1998 to 2008 include desktop publishing specialists, computer support specialists, systems analysts, paralegals and legal assistants, and geologists/geophysicists.

1.9 Issues and Opportunities Trends and Outlook

Population Trends and Outlook

WDOA population projections for the State of Wisconsin to the year 2030 reveal several trends. Many of these trends will also be experienced in Dodge County. Identified below are some of the more notable state population and demographic trends that can be anticipated over the next 30 years.

- Wisconsin's population in 2030 is projected to be 6.35 million, nearly one million more than the 2000 census count of 5.36 million.

- The preschool and school-aged populations together, ages 0 through 17, will decrease slightly from 1.37 million in 2000 to 1.32 million in 2010, and then increase steadily to 1.43 million in 2030.

- The working age population, ages 18 through 64, will peak in 2015 at 3.67 million and then decline slightly by 2030 to 3.60 million (still 300,000 above the 2000 census count).

- The number of births in Wisconsin will show an increase from under 350,000 in the 2000-2005 period to approximately 385,000 in the three five-year periods after 2015. The volume of deaths, however, will increase substantially due to the aging population.

- The 65-plus population will increase slowly up to 2010, and then grow dramatically as the Baby Boomers join the ranks of the elderly. Wisconsin's elderly population will expand by more than 600,000 over the 30-year period from 703,000 in 2000 to 1,327,000 in 2030. Senior citizens formed 13% of the state's total population in 2000. Their proportion will rise to 21% in 2030.

- The population aged 85 and over is projected at 157,000 in 2030, an increase of 61,000, or nearly 65%.

Housing Trends and Outlook

- Increased pressure to convert farmland to subdivisions.

- Increased need to remodel and rehabilitate the older housing stock in the county.

- Increased demand to build housing outside of villages and cities (in towns).

- Demographic trends and an aging population will increase the need for more choices relative to elderly housing, rental units, and starter homes.

- Highway improvements will make commuting easier and increase rural development pressures.

Economic Trends and Outlook

- The composition of the labor force will change due to continued decreases in family size and the aging of the population.

- Dodge County will likely continue to depend heavily on the manufacturing sector of the economy. International and national economic trends will continue to affect the manufacturers found in Dodge County.

- Population disbursement in the county will continue to limit economic development in some areas.

- Increases in automation and technology in manufacturing will change the existing manufacturing base and affect the labor force.

- Tourism will likely increase as a factor in the county economy.

- Dodge County will continue to be a desirable place to live, and transportation improvements will increase the ability of individuals to work outside the county resulting in increased population.

- The service based sector of the economy will continue to grow, particularly health related services, as the population ages.

2. Housing

2.1 Introduction

Housing costs are the single largest expenditure for most Wisconsin residents. For most people, their home represents their most valuable asset and largest investment. Housing plays a critical role in state and local economies. Companies are reluctant to locate in communities without affordable housing for their workers. Communities in which wages are incompatible with the cost of housing find that they are unable to attract an adequate labor force. The construction industry and other occupations that support housing are a major portion of the state and county economy. Housing is also a major source of revenue for local communities in the form of property taxes. Beyond the financial aspects of housing, there are also social effects that are not so easily measured. People develop a sense a pride in their homes, which creates a sense of community and a likely increase of participation in community activities.

Housing is a critical part of the planning process and there are a number of benefits the county and communities within the county can realize by developing a housing element, including:

- The process of planning encourages citizens to start thinking and talking about local housing concerns;
- Data collection and analysis can increase understanding of the local housing situation;
- An increased chance that housing decisions are coordinated with decisions regarding other plan elements, such as the land use, transportation, economic development, utilities and community facilities, and agriculture, natural and cultural resources elements.
- Bringing together a diverse range of groups, agencies, and citizens that otherwise may not work together.
- Providing the chance to consider the community's housing concerns in relation to those of adjacent communities.

This chapter details the housing characteristics and trends that are found in Dodge County.

2.2 Housing Characteristics

Housing Supply

Data contained in the housing element reflect two methodologies of data collection employed by the U.S. Census Bureau. The source of data collected for Tables 2-1 through 2-3 and Table 2-5 is STF-1 data, which were collected through a household-by-household census. To get more detailed information, the U.S. Census also randomly distributes a long-form questionnaire to one out of every six households throughout the nation. The remaining tables in this element utilize

STF-3 data. It should be noted that STF-1 and STF-3 data may differ for similar statistics, due to survey limitations, non-response, or other attributes unique to each form of data collection.

Table 2-1 displays the number of housing units found in Dodge County for 1990 and 2000.

The U.S. Census Bureau classifies housing units as a house, apartment, mobile home or trailer, group of rooms, single room occupied as separate living quarters, or vacant (intended for occupancy as separate living quarters). Separate living quarters are those in which the occupants live separately from any other individuals in the building with direct access from outside the building or through a common hall.

According to Table 2-1, Dodge County had 33,672 housing units in 2000, a 17.2% increase from 1990. This increase was greater than Wisconsin, which had a housing unit increase of only 12.9%. The majority of municipalities in the county had housing unit increases of greater than 10% for the period shown.

Housing Growth Versus Population Growth

Housing growth does not always correspond with population growth. The communities with the most population growth are not always the communities with the most housing growth. The reason for this is that the number of persons per household is on the decline. On average, fewer people live in one housing unit than did 10 years ago. More homes are being used to house fewer people, so housing often grows faster than the population in some communities. Refer to *Household Size* for more details.

Table 2-1
Housing Supply, Dodge County, 1990-2000

	1990	2000	# Change 1990-00	% Change 1990-00
T. Ashippun	622	880	258	41.5%
T. Beaver Dam	1,231	1,375	144	11.7%
T. Burnett	333	353	20	6.0%
T. Calamus	370	396	26	7.0%
T. Chester	306	291	-15	-4.9%
T. Clyman	243	309	66	27.2%
T. Elba	338	397	59	17.5%
T. Emmet	329	427	98	29.8%
T. Fox Lake	876	897	21	2.4%
T. Herman	352	401	49	13.9%
T. Hubbard	662	745	83	12.5%
T. Hustisford	457	546	89	19.5%
T. Lebanon	562	631	69	12.3%
T. Leroy	347	396	49	14.1%
T. Lomira	428	430	2	0.5%
T. Lowell	426	456	30	7.0%
T. Oak Grove	468	448	-20	-4.3%
T. Portland	371	421	50	13.5%
T. Rubicon	534	680	146	27.3%
T. Shields	179	203	24	13.4%
T. Theresa	336	374	38	11.3%
T. Trenton	427	471	44	10.3%
T. Westford	606	709	103	17.0%
T. Williamstown	237	242	5	2.1%
V. Brownsville	158	213	55	34.8%
V. Clyman	146	163	17	11.6%
V. Hustisford	386	498	112	29.0%
V. Iron Ridge	317	383	66	20.8%
V. Kekoskee	68	66	-2	-2.9%
V. Lomira	563	899	336	59.7%
V. Lowell	122	153	31	25.4%
V. Neosho	226	223	-3	-1.3%
V. Randolph*	484	539	55	11.4%
V. Reeseville	267	315	48	18.0%
V. Theresa	291	528	237	81.4%
C. Beaver Dam	5,997	6,685	688	11.5%
C. Columbus*	5	13	8	160.0%
C. Fox Lake	549	695	146	26.6%
C. Hartford*	4	3	-1	-25.0%
C. Horicon	1,478	1,584	106	7.2%
C. Juneau	699	863	164	23.5%
C. Mayville	1,690	2,081	391	23.1%
C. Watertown*	2,459	3,169	710	28.9%
C. Waupun*	1,771	2,121	350	19.8%
Dodge County	28,720	33,672	4,952	17.2%
Wisconsin	2,055,774	2,321,144	265,370	12.9%

*Municipality crosses county line, only includes portion in Dodge County.
Source: U.S. Bureau of the Census, 1990 and 2000.

Table 2-2 shows housing unit growth from 1990 to 2000 by municipal type.

Table 2-2
Housing Supply, Dodge County Municipal Unit Totals, 1990-2000

	1990	2000	# Change 1990-000	% Change 1990-00
Total in Towns	11,040	12,478	1,438	13.0%
Total in Villages	3,028	3,980	952	31.4%
Total in Cities	14,652	17,214	2,562	17.5%

Source: U.S. Bureau of the Census, 1990 and 2000.

As indicated by Table 2-2, cities in Dodge County experienced the greatest increase in housing units from 1990 to 2000. According to Table 2-1, the City of Watertown had the greatest increase with 710 units, or a 28.9% increase. Other than the Cities of Columbus and Hartford, which are only partially located in the county, all cities had a housing unit increase of at least 100 units.

Table 2-2 also indicates that the villages in Dodge County increased their total number of housing units by 952, or 31.4%. Two villages, Neosho and Kekoskee, experienced a minimal housing unit decline from 1990 to 2000. The remaining villages experienced housing unit growth of 11% or greater. The Village of Lomira had the greatest overall increase in units with 336, followed by the Village of Theresa with 237 units.

Housing unit change for towns in the county ranged from a loss of 20 units in the Town of Oak Grove to an increase of 258 units in the Town of Ashippun (Table 2-1). Overall, 1,438 housing units were added to the town housing supply in the county between 1990 and 2000 (Table 2-2).

Occupancy Characteristics

Table 2-3 displays occupancy and tenure characteristics of housing units for Dodge County in 1990 and 2000.

Table 2-3
Housing Occupancy and Tenure, Dodge County, 1990-2000

	1990	Percent of Total	2000	Percent of Total	# Change 1990-00	% Change 1990-00
Total housing units	28,720	100.0%	33,672	100.0%	4,952	17.2%
Occupied housing units	26,853	93.5%	31,417	93.3%	4,564	17.0%
Owner-occupied	19,632	68.4%	23,067	68.5%	3,435	17.5%
Renter-occupied	7,221	25.1%	8,350	24.8%	1,129	15.6%
Vacant housing units	1,867	6.5%	2,255	6.7%	388	20.8%
Seasonal units	950	3.3%	815	2.4%	-135	-14.2%

Source: U.S. Bureau of the Census, 2000.

In 2000, approximately 93% of the county's housing units were occupied. Of the total housing units, approximately 68% were occupied by owners and 25% were occupied by individuals renting the housing unit. Vacant units accounted for 6.7% of the total housing supply. Only 2.4% of all housing units within the county were for seasonal, recreational, or occasional use.

Units in Structure

Table 2-4 displays the number of units within each structure for Dodge County in 2000. The majority of housing units within Dodge County were one-unit detached structures. Detached housing units are defined as one-unit structures detached from any other house, with open space on four sides. Structures are considered detached even if they have an attached garage or contain a business unit.

The greatest percentage of units in Dodge County is one-unit detached structures. Cities and villages have a large number of two unit and multi-family housing structures. Towns and villages have a large number of units identified as mobile homes. The trends found in Dodge County are very similar to the State of Wisconsin as a whole.

Table 2-4
Units in Structure, Dodge County and Wisconsin, 2000

	Total in Towns		Total in Villages		Total in Cities		Dodge County		Wisconsin	
	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total	Number	% of Total
1-Unit, detached	10,663	85.2%	2,304	58.2%	11,016	64.1%	23,983	71.2%	1,531,612	66.0%
1-Unit, attached	179	1.4%	78	2.0%	419	2.4%	676	2.0%	77,795	3.4%
2 units	376	3.0%	337	8.5%	1,885	11.0%	2,598	7.7%	190,889	8.2%
3 or 4 units	119	1.0%	173	4.4%	638	3.7%	930	2.8%	91,047	3.9%
5 to 9 units	106	0.8%	259	6.5%	1,174	6.8%	1,539	4.6%	106,680	4.6%
10 to 19 units	42	0.3%	244	6.2%	959	5.6%	1,245	3.7%	75,456	3.3%
20 to 49 units	4	0.0%	69	1.7%	525	3.1%	598	1.8%	80,528	3.5%
50 or more units	14	0.1%	4	0.1%	486	2.8%	504	1.5%	62,969	2.7%
Mobile home	993	7.9%	483	12.2%	91	0.5%	1,567	4.7%	101,465	4.4%
Boat, RV, van, etc.	23	0.2%	9	0.2%	0	0.0%	32	0.1%	2,703	0.1%
Total	12,519	100.0%	3,960	100.0%	17,193	100.0%	33,672	100.0%	2,321,144	100.0%

Source: U.S. Bureau of the Census, 2000.

Household Size

Table 2-5 displays the household size for communities in Dodge County, the county, and Wisconsin for 1990 and 2000. Household sizes throughout the nation and Wisconsin have been experiencing decreases for many years. In general, families are not having as many children as in the past, and the aging of the "baby boom" population is contributing to this trend. In Dodge County, only the Village of Randolph, and the Cities of Columbus and Hartford experienced an increase in household size from 1990 to 2000.

Table 2-5
Household Size, Dodge County and Wisconsin, 1990-2000

	1990	2000
T. Ashippun	2.97	2.73
T. Beaver Dam	2.71	2.64
T. Burnett	2.81	2.78
T. Calamus	2.87	2.65
T. Chester	2.87	2.62
T. Clyman	3.28	2.93
T. Elba	2.90	2.82
T. Emmet	3.20	2.95
T. Fox Lake	2.49	2.40
T. Herman	3.25	3.06
T. Hubbard	2.76	2.65
T. Hustisford	3.15	2.80
T. Lebanon	3.02	2.73
T. Leroy	3.05	2.87
T. Lomira	3.05	2.90
T. Lowell	2.88	2.70
T. Oak Grove	2.91	2.63
T. Portland	3.06	2.79
T. Rubicon	3.30	3.03
T. Shields	3.09	2.80
T. Theresa	3.29	2.97
T. Trenton	3.18	2.85
T. Westford	2.83	2.54
T. Williamstown	3.10	2.75
V. Brownsville	2.79	2.73
V. Clyman	2.66	2.54
V. Hustisford	2.60	2.40
V. Iron Ridge	2.89	2.77
V. Kekoskee	2.81	2.56
V. Lomira	2.74	2.58
V. Lowell	2.73	2.58
V. Neosho	2.99	2.78
V. Randolph	2.49	2.51
V. Reeseville	2.65	2.45
V. Theresa	2.71	2.53
C. Beaver Dam	2.42	2.35
C. Columbus	2.50	2.77
C. Fox Lake	2.51	2.34
C. Hartford	2.25	3.33
C. Horicon	2.70	2.56
C. Juneau	2.47	2.46
C. Mayville	2.66	2.42
C. Watertown	2.70	2.52
C. Waupun	2.44	2.35
Dodge County	2.71	2.56
Wisconsin	2.61	2.50

Source: U.S. Bureau of the Census, 1990 and 2000.

Age of Housing Units

Examining the age of the county's housing stock provides an indication of its overall condition. If the housing supply contains a significant amount of older housing units, they may need to be replaced, rehabilitated, or abandoned for new development within the planning period. Planning for new housing requires consideration to be given to such issues as infrastructure, land availability, utilities, transportation, and parks.

Table 2-6 details the year that structures were built in Dodge County according to the 2000 Census.

Table 2-6
Year Structures Built, Dodge County, 2000

	Dodge County		Wisconsin	
	Number	% of Total	Number	% of Total
Built 1995 to March 2000	3,587	10.7%	220,954	9.5%
Built 1990 to 1994	2,289	6.8%	168,838	7.3%
Built 1980 to 1989	2,707	8.0%	249,789	10.8%
Built 1970 to 1979	5,023	14.9%	391,349	16.9%
Built 1960 to 1969	3,129	9.3%	276,188	11.9%
Built 1950 to 1959	3,123	9.3%	291,948	12.6%
Built 1940 to 1949	2,126	6.3%	178,914	7.7%
Built 1939 or earlier	11,688	34.7%	543,164	23.4%
Total	33,672	100.0%	2,321,144	100.0%
Median year	1960		1965	

Source: U.S. Bureau of the Census, 2000.

The highest percentage of housing units in Dodge County, 34.7%, was built in 1939 or earlier. Due to the number of historical areas and the settlement history of the area, these trends are somewhat expected. The median year that structures were built in Dodge County is not significantly older than that found in Wisconsin.

Housing Value

Housing costs are typically the single largest expenditure for individuals. According to the State of Wisconsin's *2000 Consolidated Plan: For the State's Housing and Community Development Needs*, households in the low-income range have great difficulty finding adequate housing within their means that can also accommodate their needs. A lack of affordable housing not only affects these individuals, but also has effects on population and migration patterns, economic development, and the local tax base.

Table 2-7 provides housing values of specified owner-occupied units for 2000. A housing unit is owner-occupied if the owner or co-owner lives in the unit even if it is mortgaged or not fully paid for. The U.S. Bureau of the Census determines value by the respondent's estimate of how

much the property (house and lot, mobile home and lot, or condominium unit) would sell for if it were for sale.

Table 2-7
Housing Value for Specified Owner-Occupied Units, Dodge County, 2000

	Dodge County		Wisconsin	
	Number	% of Total	Number	% of Total
Less than $49,999	519	2.9%	73,450	6.5%
$50,000 to $69,999	1528	8.6%	110,736	9.9%
$70,000 to $89,999	3,760	21.2%	184,561	16.4%
$90,000 to $99,999	2,250	12.7%	101,596	9.1%
$100,000 to $124,999	3,566	20.1%	185,960	16.6%
$125,000 to $149,999	2,664	15.0%	158,033	14.1%
$150,000 to $199,999	2,308	13.0%	173,519	15.5%
$200,000 to $299,999	988	5.6%	95,163	8.5%
$300,000 or more	174	1.0%	39,449	3.5%
Total	17,757	100.0%	1,122,467	100.0%
Median value	$105,800		$112,200	

Source: U.S. Bureau of the Census, 2000.

The highest percentage of housing units in Dodge County, 21.2%, was valued between $70,000 and $89,999. The second highest percentage of units, 20.1%, was valued between $100,000 and $124,999. The median housing value for Dodge County, $105,800, was less than the State's median value of $112,200.

Gross Monthly Rent

The 2000 Census also provides information on mortgage and rental costs. For example, the median monthly owner costs for a mortgaged housing unit within the county was $984. The median amount paid for rent was $528.

According to the U.S. Department of Housing and Urban Development, paying more than 30% of total household income for housing is considered unaffordable. Approximately 18.5% of households in the county paid 30% or more of their 1999 income for monthly housing costs. For the State of Wisconsin, approximately 17.8% of households paid 30% or more of their income in monthly housing costs. Approximately 34% of households paid less than 15% of their 1999 household income to monthly housing costs in Dodge County. Approximately 23.5% of renters paid 30% or more of their household income in gross rent.

2.3 Housing Unit Forecasts

Housing unit forecasts are an important part of preparing comprehensive plans for each community and the county as a whole. They can be used as a guide to estimate required acreage to accommodate future residential development and to prepare for the demands growth may have

on public facilities and services throughout the planning period. Similar to population forecasts, housing forecasts are based on past and current trends, and therefore should only be used as a guide for planning.

Linear Trend Housing Forecast

Linear forecasts were created by using the 1990 and 2000 Census, and increasing and decreasing housing unit counts by a constant value that is based on the selected Census counts. Table 2-8 displays the resulting linear forecasts from the 2000 Census count to the estimated 2030 forecast.

Due to the significant growth that some communities experienced in housing units between 1990 and 2000, the provided linear trend projection indicates that many communities will continue to experience significant growth. Dodge County is estimated to increase by nearly 15,000 new housing units (44.1%) by 2030.

WDOA Household Forecast

Similar to population forecasts, the Demographics Services Center of the Wisconsin Department of Administration (WDOA) also develops household forecasts. A household is defined as an occupied housing unit. For example, in 2000 the county had 33,672 housing units and 2,255 vacant housing units resulting in a total of 31,417 households for the county in 2000. While this forecast is not in the same unit of measurement as the Linear Housing Unit Forecast (Table 2-8), it does provide another measure to indicate the amount of anticipated housing growth the county can expect in the future. Table 2-9 details the WDOA household forecast for Dodge County.

Table 2-8
Linear Housing Unit Forecast, Dodge County, 2000-2030

	2000	Linear Projections						# Change	% Change
	Census	2005	2010	2015	2020	2025	2030	2000-2030	2000-2030
T. Ashippun	880	1,009	1,138	1,267	1,396	1,525	1,654	774	88.0%
T. Beaver Dam	1,375	1,447	1,519	1,591	1,663	1,735	1,807	432	31.4%
T. Burnett	353	363	373	383	393	403	413	60	17.0%
T. Calamus	396	409	422	435	448	461	474	78	19.7%
T. Chester	291	284	276	269	261	254	246	-45	-15.5%
T. Clyman	309	342	375	408	441	474	507	198	64.1%
T. Elba	397	427	456	486	515	545	574	177	44.6%
T. Emmet	427	476	525	574	623	672	721	294	68.9%
T. Fox Lake	897	908	918	929	939	950	960	63	7.0%
T. Herman	401	426	450	474	499	523	548	147	36.7%
T. Hubbard	745	787	828	869	911	952	994	249	33.4%
T. Hustisford	546	591	635	679	724	768	813	267	48.9%
T. Lebanon	631	666	700	735	769	804	838	207	32.8%
T. Leroy	396	421	445	469	494	518	543	147	37.1%
T. Lomira	430	431	432	433	434	435	436	6	1.4%
T. Lowell	456	471	486	501	516	531	546	90	19.7%
T. Oak Grove	448	438	428	418	408	398	388	-60	-13.4%
T. Portland	421	446	471	496	521	546	571	150	35.6%
T. Rubicon	680	753	826	899	972	1,045	1,118	438	64.4%
T. Shields	203	215	227	239	251	263	275	72	35.5%
T. Theresa	374	393	412	431	450	469	488	114	30.5%
T. Trenton	471	493	515	537	559	581	603	132	28.0%
T. Westford	709	761	812	864	915	967	1,018	309	43.6%
T. Williamstown	242	245	247	250	252	255	257	15	6.2%
V. Brownsville	213	241	268	296	323	351	378	165	77.5%
V. Clyman	163	172	180	189	197	206	214	51	31.3%
V. Hustisford	498	554	610	666	722	778	834	336	67.5%
V. Iron Ridge	383	416	449	482	515	548	581	198	51.7%
V. Kekoskee	66	65	64	63	62	61	60	-6	-9.1%
V. Lomira	899	1,067	1,235	1,403	1,571	1,739	1,907	1,008	112.1%
V. Lowell	153	169	184	200	215	231	246	93	60.8%
V. Neosho	223	222	220	219	217	216	214	-9	-4.0%
V. Randolph*	539	567	594	622	649	676	704	165	30.6%
V. Reeseville	315	339	363	387	411	435	459	144	45.7%
V. Theresa	528	647	765	884	1,002	1,121	1,239	711	134.7%
C. Beaver Dam	6,685	7,029	7,373	7,717	8,061	8,405	8,749	2,064	30.9%
C. Columbus*	13	17	21	25	29	33	37	24	184.6%
C. Fox Lake	695	768	841	914	987	1,060	1,133	438	63.0%
C. Hartford*	3	3	2	1	1	0	0	-3	-100.0%
C. Horicon	1,584	1,637	1,690	1,743	1,796	1,849	1,902	318	20.1%
C. Juneau	863	945	1,027	1,109	1,191	1,273	1,355	492	57.0%
C. Mayville	2,081	2,277	2,472	2,668	2,863	3,059	3,254	1,173	56.4%
C. Watertown*	3,169	3,524	3,879	4,234	4,589	4,944	5,299	2,130	67.2%
C. Waupun*	2,121	2,296	2,471	2,646	2,821	2,996	3,171	1,050	49.5%
Dodge County	33,672	36,148	38,624	41,100	43,576	46,052	48,528	14,856	44.1%
Wisconsin	2,321,144	2,453,829	2,586,514	2,719,199	2,851,884	2,984,569	3,117,254	796,110	34.3%

*Municipality crosses county line, only includes portion in Dodge County.
Source: U.S. Bureau of the Census, 1990 and 2000. Linear forecasts completed by Foth & Van Dyke.

Table 2-9
WDOA Household Forecast, Dodge County, 2000-2025

	2000 Census	Household Forecast					# Change	% Change
	Total Households	2005	2010	2015	2020	2025	2000-2025	2000-2025
T. Ashippun	845	904	968	1,030	1,084	1,138	293	34.7%
T. Beaver Dam	1,301	1,383	1,472	1,559	1,634	1,709	408	31.4%
T. Burnett	330	334	339	343	344	346	16	4.8%
T. Calamus	379	382	386	389	390	390	11	2.9%
T. Chester	280	287	296	307	316	324	44	15.7%
T. Clyman	290	302	315	328	338	349	59	20.3%
T. Elba	385	398	412	425	436	446	61	15.8%
T. Emmet	414	445	479	511	540	569	155	37.4%
T. Fox Lake	477	546	621	712	806	892	415	87.0%
T. Herman	394	405	418	430	438	447	53	13.5%
T. Hubbard	620	655	694	732	763	795	175	28.2%
T. Hustisford	492	516	543	569	591	612	120	24.4%
T. Lebanon	610	639	672	702	728	754	144	23.6%
T. Leroy	389	395	403	410	414	418	29	7.5%
T. Lomira	423	424	427	428	426	425	2	0.5%
T. Lowell	433	439	448	455	459	463	30	6.9%
T. Oak Grove	428	418	410	400	387	374	-54	-12.6%
T. Portland	396	415	437	457	474	491	95	24.0%
T. Rubicon	662	720	782	842	896	950	288	43.5%
T. Shields	198	202	206	210	213	216	18	9.1%
T. Theresa	364	369	375	381	383	386	22	6.0%
T. Trenton	456	458	462	464	463	462	6	1.3%
T. Westford	551	574	600	624	643	663	112	20.3%
T. Williamstown	235	236	237	238	237	236	1	0.4%
V. Brownsville	209	221	235	248	259	269	60	28.7%
V. Clyman	153	156	161	165	167	170	17	11.1%
V. Hustisford	472	494	519	542	562	582	110	23.3%
V. Iron Ridge	360	378	397	416	431	447	87	24.2%
V. Kekoskee	66	62	59	55	50	46	-20	-30.3%
V. Lomira	846	930	1,020	1,108	1,188	1,269	423	50.0%
V. Lowell	142	146	152	156	160	163	21	14.8%
V. Neosho	213	213	214	214	212	211	-2	-0.9%
V. Randolph*	497	506	517	527	534	541	44	8.9%
V. Reeseville	287	295	304	312	318	324	37	12.9%
V. Theresa	495	551	610	668	721	774	279	56.4%
C. Beaver Dam	6,349	6,511	6,703	6,878	7,000	7,125	776	12.2%
C. Columbus*	13	0	0	0	0	0	-13	-100.0%
C. Fox Lake	615	642	672	701	725	748	133	21.6%
C. Hartford*	3	1	1	1	1	1	-2	-66.7%
C. Horicon	1,474	1,480	1,492	1,500	1,496	1,491	17	1.2%
C. Juneau	818	852	891	932	968	1,002	184	22.5%
C. Mayville	1,988	2,151	2,328	2,499	2,652	2,806	818	41.1%
C. Watertown*	3,054	3,325	3,610	3,891	4,148	4,402	1,348	44.1%
C. Waupun*	2,011	1,991	1,985	2,001	2,004	1,995	-16	-0.8%
Dodge County	31,417	32,751	34,272	35,760	36,999	38,221	6,804	21.7%
Wisconsin	2,084,556	2,190,210	2,303,238	2,406,798	2,506,932	2,592,462	507,906	24.4%

*Municipality crosses at least one county line, data provided are for the entire municipality.
Source: Wisconsin Department of Administration, Demographic Services Center. Final Household Projections for Wisconsin Municipalities: 2000-2025. January 2004.

According to the Demographics Services Center, the total number of households in the county is estimated to increase from 31,417 to 38,221 households by 2025, an increase of 21.7% for the 25-year period.

Household forecasts were completed for Dodge County to the year 2030 by WDOA. According to the forecast, Dodge County is estimated to have 39,168 households by 2030, a 24.7% increase from the 2000 household count.

Census/Estimate and Persons per Household Forecast

The forecast detailed in Table 2-10 utilizes the Census/Population forecast as detailed in the Issues and Opportunities element. The population forecast is then divided by the average household size for each community as detailed by the 2000 Census. It therefore assumes that household size will not change for the forecast period. The result is the following forecast of households for Dodge County from 2000 to 2030.

Table 2-10
Census/Estimate & Persons per Household Forecast, Dodge County, 2000-2030

	2000 Census Total Households	2010	2015	2020	2025	2030	# Change 2000-2030	% Change 2000-2030
T. Ashippun	845	1,014	1,136	1,273	1,427	1,600	755	89.3%
T. Beaver Dam	1,301	1,471	1,557	1,647	1,743	1,844	543	41.7%
T. Burnett	330	338	340	342	344	346	16	5.0%
T. Calamus	379	385	386	387	388	389	10	2.5%
T. Chester	280	402	432	463	497	533	253	90.3%
T. Clyman	290	319	338	358	379	401	111	38.3%
T. Elba	385	420	442	466	490	516	131	34.0%
T. Emmet	414	486	531	580	633	692	278	67.1%
T. Fox Lake	477	1,284	1,452	1,641	1,854	2,096	1,619	339.4%
T. Herman	394	414	426	439	452	465	71	18.0%
T. Hubbard	620	718	777	842	911	987	367	59.2%
T. Hustisford	492	543	575	609	645	683	191	38.9%
T. Lebanon	610	645	657	669	682	695	85	13.9%
T. Leroy	389	404	417	429	443	456	67	17.3%
T. Lomira	423	418	413	408	403	398	-25	-5.9%
T. Lowell	433	447	453	460	467	474	41	9.4%
T. Oak Grove	428	409	398	388	378	369	-59	-13.8%
T. Portland	396	435	457	480	504	530	134	33.7%
T. Rubicon	662	808	885	970	1,063	1,166	504	76.1%
T. Shields	198	212	222	231	241	252	54	27.2%
T. Theresa	364	371	373	374	376	378	14	3.8%
T. Trenton	456	455	454	454	454	454	-2	-0.5%
T. Westford	551	598	628	659	692	727	176	31.9%
T. Williamstown	235	230	225	220	216	211	-24	-10.2%
V. Brownsville	209	253	289	330	377	430	221	105.9%
V. Clyman	153	155	157	159	162	164	11	7.1%
V. Hustisford	472	515	546	578	613	649	177	37.6%
V. Iron Ridge	360	389	408	428	449	471	111	30.9%
V. Kekoskee	66	60	56	52	48	45	-21	-32.4%
V. Lomira	846	1,163	1,393	1,667	1,996	2,389	1,543	182.4%
V. Lowell	142	157	168	179	192	205	63	44.2%
V. Neosho	213	202	195	188	182	175	-38	-17.7%
V. Randolph*	497	551	567	584	601	618	121	24.4%
V. Reeseville	287	298	304	310	316	322	35	12.2%
V. Theresa	495	709	897	1,135	1,437	1,818	1,323	267.2%
C. Beaver Dam	6,349	6,771	6,962	7,158	7,360	7,567	1,218	19.2%
C. Columbus*	13	0	0	0	0	0	-13	-100.0%
C. Fox Lake	615	680	717	757	799	844	229	37.2%
C. Hartford*	3	1	1	1	0	0	-3	-86.6%
C. Horicon	1,474	1,446	1,431	1,416	1,401	1,386	-88	-6.0%
C. Juneau	818	1,193	1,289	1,394	1,507	1,629	811	99.1%
C. Mayville	1,988	2,298	2,440	2,591	2,751	2,921	933	46.9%
C. Watertown*	3,054	3,791	4,141	4,524	4,943	5,400	2,346	76.8%
C. Waupun*	2,011	3,436	3,690	3,963	4,256	4,570	2,559	127.2%
Dodge County	31,417	36,763	38,696	40,730	42,871	45,125	13,708	43.6%
Wisconsin	2,084,556	2,333,849	2,437,579	2,545,919	2,659,075	2,777,260	692,704	33.2%

*Municipality crosses at least one county line, data provided are for the entire municipality.
Source: U.S. Bureau of Census, 2000. Foth & Van Dyke. Wisconsin Department of Administration, Demographics Services Center, Population Estimate, 2003.

2.4 Housing Trends and Outlook

There were a number of changes in the State of Wisconsin and Dodge County with regard to housing from 1990 to 2000. Housing trends that need to be considered as part of the planning process are identified below:

- Increased pressure to convert farmland to residential use;
- Increased need to remodel and rehabilitate the older housing stock in the county;
- Increased demand to build housing in rural areas;
- Demographic trends and an aging population will increase the need for more choices relative to elderly housing, rental units, and starter homes;
- Highway improvements will make commuting easier and increase rural development pressures.

3. Transportation

3.1 Introduction

Broadly speaking, a transportation system can be defined as any means used to move people and/or products. The land use pattern of Dodge County, its municipalities, and the region are tied together by the transportation system, which includes roads, multi-use trails, railroads, airports, and any other method of travel used to move people and products. Residents, businesses, agricultural producers, and manufacturers all rely on a dependable transportation system to function and provide linkages to other markets. Dodge County's transportation network plays a major role in the efficiency, safety, and overall desirability of the area as a place to live and work.

Roads and highways account for the majority of a transportation system and are probably the most common paths, however, are not the only component. Therefore rail lines, waterways, airways, and trails are all additional opportunities that contribute to the entire transportation system. Taken together, these individual transportation options create a community's transportation system. Thus, it is critical that the transportation element address each of these choices.

In addition, it is imperative that the system be as safe as possible. For example, one common safety concern involves private parties accessing public roadways via driveways and the potential hazards this brings to public roadway users. In order to ensure safety and efficiency, the transportation system needs to be efficiently managed and maintained. A community benefits from continual improvements which can include surface improvements, adjustments to interchange signals, signage, and even new routes. Poor maintenance and missed opportunities cost the community in the long run. Therefore, in addition to the necessary budgetary and safety considerations of the system, planning for the location and density of new development will need to be evaluated for potential impacts on the transportation system.

This section contains an inventory of existing transportation systems and conditions, and establishes a framework for making improvements to the transportation system in Dodge County.

3.2 Existing Road System

According to the Wisconsin Department of Transportation (WDOT), there is a total of 2,022 miles of highway in Dodge County. This includes 240 miles of state highway, 542 miles of county highway, and 1,240 miles of local roads.

Two major four lane U.S. Highways and a well-developed railway service connect Dodge County to the surrounding region. U.S. Highway 151 runs in a northeast, southwest direction through the northwest portion of the county and provides vehicular access from several cities in Dodge County to Madison, Fond du Lac, and beyond. U.S. Highway 41 runs in a north-south direction through the northeast portion of the county and provides access to Milwaukee, Fond du

Lac, Green Bay, and beyond. Interstate Highways 90 and 94 pass to the west and south of Dodge County, respectively.

Dodge County contains an extensive system of State and County highways as well. State highway 26 runs in a north-south direction through the center of the county. State highway 33 runs in an east-west direction through the northern portion of the county, including routes through the Cities of Fox Lake, Beaver Dam, and Horicon. State highway 60 runs in an east-west direction through the southern portion of the county. Several other state highways including 68, 49, 175, 28, 67, 73 and 19 also provide major transportation routes throughout the county.

The extensive system of local roads provides for circulation between and within communities for local residents and provides the link to other transportation routes.

3.3 Functional Classification of Roads

The road system is composed of four levels of government jurisdiction. These levels include the local road system, and county, state, and federal highways. Each roadway within the county can also be classified by function. The function that the road serves in relation to existing traffic patterns, the adjacent land use, land access needs, and the average daily traffic volumes determine its functional classification. There are both urban and rural classification systems, both of which are detailed below. For a map of the functional classification of highways in Dodge County refer to the Appendix, Map 3-1.

Urban Functional Classifications

Urban functional classifications are used for roads in urban areas, i.e., places of 5,000 population or more. Therefore these classifications would be used for the Cities of Mayville, Beaver Dam, Watertown, and Waupun.

- **Principal Arterials s**erve longer intra-urban trip and traffic traveling through urban areas. They carry high traffic volumes and provide linkage to major activity centers. The urban principal arterials are connected to the system of rural principal and minor arterials.

- **Minor Arterials** provide intra-community continuity and service to trips of moderate length, with more emphasis on land access than principal arterials. The minor arterial system interconnects with the urban arterial system and provides system connections to the rural collectors.

- **Collectors** provide both land access service and traffic circulation within residential neighborhoods, commercial areas, and industrial areas. These facilities collect traffic from the local streets in residential neighborhoods and channel it onto the arterial system.

- **Local Streets** comprise all facilities not on one of the higher systems. They primarily provide direct access to adjacent land and access to higher order systems. Local streets

offer the lowest level of mobility, and through-traffic movement on this system is usually discouraged.

Rural Functional Classifications

Rural functional classifications are used for all roads outside of urban areas. The majority of Dodge County's transportation system would be classified under the rural functional system.

- **Principal Arterials** serve interstate and inter-regional trips. These routes generally serve all urban areas greater than 5,000 population.

  Principal arterials in Dodge County include USH 151, USH 41, STH 26, and STH 33.

- **Minor Arterials,** in conjunction with the principal arterials, they serve cities, large communities, and other major traffic generators providing intra-regional and inter-area traffic movements.

  Minor arterials include STH 49, 68, 28, 67, 33, 73, 60, 175, and 19; and CTH YY.

- **Major Collectors** provide service to moderate sized communities and other intra-area traffic generators, and link those generators to nearby larger population centers or higher function routes.

  Major collectors include CTH AW, MM, A, M, HH, P, G, D, E, W, S, R, O, T, CW, Y and V, and the portion of STH 175 south of the Village of Theresa.

- **Minor Collectors** collect traffic from local roads, and provide links to all remaining smaller communities, locally important traffic generators, and higher function roads. All developed areas should be within a reasonable distance of a collector road.

  Minor collectors include CTH F, Z, AY, TW, C, B, V, KW, J, EE, ME, MM, DJ, CP. Lake Emily Road, a portion of CTH K, Q and E, and a northern portion of CTH I.

- **Local Roads** provide access to adjacent land and provide for travel over relatively short distances. All roads not classified as arterials or collectors are local function roads.

Table 3-1 details the functional classification of roads found in Dodge County.

Table 3-1
Functional Classifications in Miles, Dodge County, 2005

	Rural		Urban		
Classisfication	CTH	Non-CTH	CTH	Non-CTH	Total
Principal Arterial	0.0	0.0	0.0	0.0	0.0
Minor Arterial	6.8	2.0	6.5	15.9	31.2
Major Collector (rural only)	234.0	5.9	0.0	0.0	240.0
Minor Collector (rural only)	123.1	19.9	0.0	0.0	143.1
Collector (urban only)	0.0	0.0	2.9	12.7	15.6
Local	166.4	1,060.7	1.1	129.5	1,357.7
Total	530.3	1,088.5	10.4	158.2	1,787.5

Source: Wisconsin Department of Transportation.

3.4 Traffic Volume Trends

Annual Average Daily Traffic (AADT) counts for 1995, 1998, and 2001 are presented in this section for several major roadways in Dodge County. The WDOT calculates Annual Average Daily Traffic counts by multiplying raw hourly traffic counts by seasonal, day-of-week, and axle adjustment factors. The daily hourly values are then averaged by hour of the day and the values are summed to create the AADT count. For a map detailing traffic volume trends for Dodge County refer to the Appendix, Map 3-2.

State and U.S. Highway Traffic Volume Trends

Table 3-2 displays AADT count trends for several U.S. and State Highway segments throughout Dodge County.

Table 3-2
Selected State and U.S. AADT Counts, Dodge County, 1995-2001

Location	1995	1998	2001	# Change 1995-01	% Change 1995-01
USH 41 north, between CTH KK and STH 67	10,650	11,500	11,500	850	8.0%
USH 151 north, between CTH C and A	5,800	6,500	7,200	1,400	24.1%
USH 151 north, just south of CTH S	5,200	6,800	7,500	2,300	44.2%
STH 19, between CTH G and BB	3,000	3,200	3,500	500	16.7%
STH 26, just south of CTH B	4,000	4,000	3,300	-700	-17.5%
STH 26, just north of CTH Q	7,600	8,100	6,800	-800	-10.5%
STH 28, between Mayville and Horicon	5,600	7,000	5,900	300	5.4%
STH 33, just south of Fox Lake	4,000	4,200	4,100	100	2.5%
STH 33, between Horicon and Beaver Dam	6,800	5,900	5,900	-900	-13.2%
STH 49, between CTH YY and Brownsville	3,700	3,800	4,000	300	8.1%
STH 60, just east of Lowell	3,900	3,600	3,100	-800	-20.5%
STH 60, just west of STH 67	3,800	5,900	5,300	1,500	39.5%
STH 67, just north of Iron Ridge	3,100	2,500	3,900	800	25.8%
STH 68, just north of CTH F	2,500	2,300	2,300	-200	-8.0%
STH 73, just south of CTH CC	1,900	2,000	1,800	-100	-5.3%

Source: Wisconsin Department of Transportation, Annual Average Daily Traffic (AADT) counts, 1995, 1998, and 2001.

As indicated in Table 3-2, traffic volume trends in Dodge County are highly variable depending upon location.

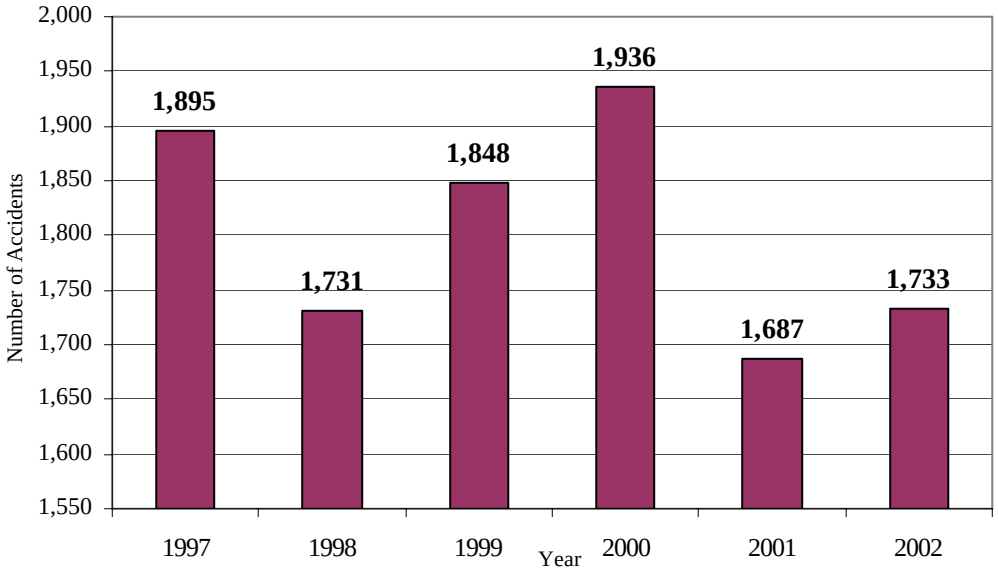
3.5 Traffic Accidents

The number of traffic accidents in the county is a major indicator of traffic volumes and the overall safety of the transportation system. The average number of accidents was 1,819 from 1997 to 2001in Dodge County. The neighboring county of Columbia averaged 1,840, Dane County averaged 10,202, Fond du Lac averaged 2,646, and Jefferson County averaged 1,694 accidents from 1997 to 2001.

The WDOT tracks accident types and locations via accident reports filed by police. This information is used by the WDOT and County Highway Department when making decisions regarding local road improvements.

Figure 3-1 displays the number of accidents in Dodge County from 1997-2002.

Figure 3-1
Traffic Accidents, Dodge County, 1997-2002



Source: Wisconsin Department of Transportation, DMV Traffic Accident Database.

3.6 Additional Modes of Transport

A Transportation System Includes:

- Roads
- Transit Services
- Rail Services
- Bicycles Lanes, Paths, Trails, and Accommodations
- Air Travel
- Pedestrian Accommodations
- Harbors

Trucking

Trucking is an integral part of the Dodge County economy and depends on a safe and efficient highway system as well as adequate local roads and streets. Infrastructure to support trucking is abundant in Dodge County and the surrounding region. All state and U.S. highways, as well as several county trunk highways, within Dodge County are designated official truck routes by the Wisconsin Department of Transportation. There is one state rest area in the county located off STH 41 south of Lomira.

Air Service

The Dodge County Airport, located north of Juneau, is classified as a transport/corporate airport according to the Wisconsin State Airport System Plan 2020. This classification indicates that the airport is intended to serve corporate jets, small passenger and cargo jet aircraft used in regional service, and small airplanes used in commuter air service. The Dodge County Highway Committee is responsible for planning and operating the Dodge County Airport.

The Watertown Municipal Airport, located approximately 30 miles south of the Dodge County Airport in the City of Watertown, is also a transport/corporate airport.

The Hartford Municipal Airport is classified as a general utility airport. This airport is intended to serve virtually all small general aviation single and twin engine aircraft with a maximum takeoff weight of 12,500 pounds or less. Waupun also has limited airport service.

Commercial service is available at: General Mitchell International Airport in Milwaukee; Madison's Dane County Airport; and the Austin Straubel International Airport in Green Bay. These facilities have regularly scheduled service with a variety of commercial airlines.

There are eight additional private airports or landing strips located in Dodge County. These facilities serve private companies, hobbyist aviators, crop dusters, or individual owners.

For a map of airport locations serving Dodge County refer to the Appendix, Map 3-1.

Rail Service

At least one rail line passes through every town in the county, except the Towns of Portland, Hustisford, and Leroy. The Dodge County network of railroads includes rail lines operated by the Canadian Pacific Rail System, Union Pacific, Canadian National, and Wisconsin & Southern Railroad Company, refer to Map 3-1.

Freight service as well as passenger trains traverse the county. Three of the lines travel south toward the Milwaukee area. One line runs south from Clyman Junction while another travels north from Horicon and extends past Oshkosh. This network allows for the easy flow of products throughout the county, with lines connecting Dodge County to Milwaukee, Madison, Fond du Lac, Oshkosh, Green Bay, and beyond. These railroads are important also for attracting industrial uses to the county. Amtrak passenger service is available from Columbus with connections to Minneapolis/St. Paul and Chicago.

Water Transportation

There are a number of rivers, streams, and major lakes in Dodge County. Some of these water bodies and waterways are utilized by commercial businesses to provide recreation services such as boat tours and boat rentals. There are no known businesses that utilize Dodge County waterways for strictly commercial or industrial business purposes, such as moving cargo or freight. It is not anticipated that this type of activity will occur in Dodge County during the planning period.

Pedestrian Travel

Walking is one of the most common and elementary forms of transportation. We combine walking with almost every other mode of transportation and trip-making, whether it is to complete a trip made by car to a downtown parking location, or a walk to and from a bus stop. In Wisconsin, walking is still a very significant part of our work-trip commutes. According to the 2000 census, 100,301 people in the Wisconsin work force commuted to work by walking.

Dodge County has adopted the *Dodge County Bicycle and Pedestrian Improvement Plan* to help guide the development of pedestrian facilities. The following are key recommendations from the plan to enhance walking in Dodge County.

- Dodge County's top pedestrian priority is to focus its attention on and draw countywide attention to "Walk to School" initiatives for children of all ages. Dodge County will work with community leaders, decision makers, voters, and citizens to encourage school districts and/or municipalities to:
  1. Build new schools in close proximity to homes of the children who will attend so that they can walk to school. Utilize existing neighborhood schools whenever possible.
  2. Complete sidewalk gaps along safe routes to school.
  3. Urge groups of children to walk together.
  4. Encourage parents to walk with their children to school if they have safety concerns, employing effective strategies like "the walking school bus."

- Commit to working with local governments to promote an ongoing, countywide educational campaign involving all possible partners to help motorists understand and comply with their legal responsibility to yield to pedestrians. Such an educational campaign would include information about safe speed and traveling distance.

- Encourage municipal governments to complete sidewalk gaps on all frequently used walking routes in and through their communities. Focus should be on connections between retail development and multi-family housing.

- Encourage individual communities to work together and create partnerships to: (1) develop maps of short, medium, and long walking routes with historical information and points of interest/destinations to promote walking by residents and visitors. (2) promote walking for transportation, recreation, physical fitness (including weight control and heart health), and community enjoyment.

Bicycle

The *Dodge County Bicycle and Pedestrian Improvement Plan* will also be used to promote and improve conditions for bicycling throughout Dodge County. The following are key recommendations from the plan to improve bicycling in Dodge County.

- Improve bicycle safety around the Horicon Marsh by paving shoulders and adding signage to increase motorists' awareness of bicyclists.

- Paved shoulders should be included for County Trunk Highways (CTH) identified in the plan when the highway is resurfaced. This is most important on the recommended routes but bike use should always be considered when repaving county highways to determine if a paved shoulder is needed.

- Because of the relatively low annual average daily traffic (AADT) and typical traffic speeds, a key recommendation of the plan is to sign popular bike routes whether on town roads or county roads with "Caution Bike" signs to raise motorists' awareness of bicyclists on the highway.

- The final mile of a state trunk highway or county trunk highway can be particularly busy with motor traffic approaching or leaving a village or city. The plan recommends paving the shoulders of the main roads leading out of communities in Dodge County to the first major intersection when other road improvements are made.

Bicyclists have an excellent facility in Dodge County, the Wild Goose State Trail. This 34-mile trail begins in the Town of Clyman, passes through the City of Juneau, and follows an abandoned railroad bed along the edge of Horicon Marsh, before proceeding to the City of Fond du Lac. The trail is surfaced with compacted limestone screening and passes cultivated farm fields, wood lots, prairie remnants, abundant wildlife, and historic small communities. In addition to bicycles, this multi-use trail accommodates hiking and snowmobile riding as well as horseback riding in a section between STH 60 and the City of Juneau.

Over a mile of hiking trails are also available at Astico Park. Trails primarily follow the Crawfish River shoreline. Other trails and paths meander throughout the open and wooded areas of the park and provide scenic views of the surrounding countryside and link facilities within the park. Ledge Park offers over two miles of hiking trails through the 83-acre property. Hiking opportunities are also available at the Horicon Marsh.

Public Transit

Public transportation is usually in the form of bus service. Transit bus service has fixed routes and schedules. Since a certain population size and make-up is needed to provide transit services cost-effectively, Dodge County does not have transit bus service in any of its communities. Publicly funded taxi services are located in Hartford and Watertown.

Transportation for Persons with Disabilities

Paratransit is a specialized transit service to specific segments of the population that require more accessible vehicles and flexible routing. Paratransit services provide transportation to the elderly and disabled, or those individuals with limited transportation alternatives. Providers of the service include municipally owned buses and vans, taxis, limousines, and privately owned buses and vans, including those operated by nursing homes, senior citizen activity centers and hotels. Coordination among the providers is often accomplished through contractual agreements between a provider and various supplemental providers. The overall number of persons requesting specialized transportation is expected to grow in the future.

Paratransit service is provided in Watertown, Beaver Dam, and Waupun as shared-ride taxi service. Shared-ride taxi service is a contracted taxi that may pick up more than one person for routes to separate locations.

3.7 Existing Transportation Plans

Local Plans (Urban and Rural)

A number of communities in Dodge County utilize a Capital Improvement Planning (CIP) process to prioritize transportation projects and necessary expenditures. Often these plans cover a five to ten year period and serve as the primary transportation planning document for the community.

In addition to the Dodge County Comprehensive Plan, the county's Capital Improvement Plan details future highway and bridge projects. The plan also provides information on future projects at the Dodge County Airport.

County Plans

Capital Improvement Projects
The Dodge County Highway Department has completed a capital improvement plan for 2006 through 2010 which includes the following projects:

2006
- CTH P S. Co. Line – CTH O, 1.5 miles, reconstruct
- CTH AY Iron Ridge – STH 28, 9.0 miles, engineering and rehab
- CTH K, CTH Q – CTH J, 0.8 miles, reconstruct
- CTH O, STH 67 – CTH P, 3.1 miles, engineering and r/w
- CTH E, CTH ME – CTH R, 5.5 miles, rehab and resurface
- CTH O, CTH R – STH 67, 5.5 miles, rehab and resurface
- Cupery Bridge, CTH C, Town of Westford, replacement

2007
- CTH O, CTH 67 – CTH P, 3.1 miles, reconstruct
- CTHC, Fox Lake – CTH W, 3.0 miles, engineering and r/w
- CTH S, CTH WS – CTH P, 3.1 miles, engineering
- CTH S, CTH P – E. County Line, 3.0 miles, engineering and r/w
- Lowell Bridge, CTHG, Village of Lowell, replacement
- Airport: Design and right-of-way extension of runway 8/26 including runway and taxiway lighting and land

2008
- CTH C, Fox Lake – CTH W, 3.0 miles, reconstruct
- CTH C, CTH W – USH 151, 3.0 miles, engineering and r/w
- CTH S, CTH WS – CTH P, 3.1 miles, rehab and resurface
- Airport: Grading for extension to west end of runway and taxiway for runway 8/26 including drainage, crushed aggregate base course, and pavement. Runway and taxiway lighting. Relocation of hanger access road.

2009

- CTH C, CTH W – USH 151, 3.0 miles, reconstruct
- CTH DW, CTH P – E. County Line, 2.5 miles, engineering and r/w
- CTH C, USH 151 – STH 26, 2.5 miles, engineering and r/w

2010

- CTH C, USH 151 – STH 26, 3.0 miles, reconstruct
- CTH H, CTH Y – STH 175, 3.5 miles, engineering and r/w

Dodge County Bicycle and Pedestrian Improvement Plan

The purpose of the plan is to promote and improve conditions for bicycling and walking throughout Dodge County. Plan recommendations, if implemented, will increase transportation safety for pedestrians, bicyclists, and motorists. The main recommendations of the plan reflect the plan objective of providing connections between communities and major outdoor destinations and increasing the levels of bicycling and walking in the county. The plan includes an inventory of existing conditions, maps, recommending policies and practices that promote bicycling and walking, and a listing road improvement to expand bicycling opportunities.

Jefferson County Bikeway/Pedestrianway Plan

The plan was completed in May of 1996. The plan contains strategies for county-wide bike improvements as well as community plans for nine Jefferson County communities. The Dodge County Bicycle and Pedestrian Improvement Plan connects to the routes specified to exit Jefferson County into Dodge County. Those routes are as follows:

- CTH Q – This roadway is considered suitable as a shared-use road for bikes and automobiles. Directional signs are the only recommended improvement.

- Waterloo/STH 19 – The plan recommends on-street bike lanes and to work with the WDOT to reduce speed limits along this busy route. It also recommends posting the County Bike Logo along the route.

- Watertown/Water Street – The plan recommends that Water Street become an on-street route to connect to Second Street Road, then to Hill Road and CTH M north to Clyman Junction and the Wild Good Trail Head.

Regional Plans

Dodge County is not a member of a regional planning commission or a Metropolitan Planning Organization (MPO). These organizations often coordinate and plan for transportation systems within a regional context. There are no regional transportation related plans that apply to Dodge County.

State Plans

The Wisconsin Department of Transportation maintains several plans with statewide policies, recommendations, and strategies regarding various aspects of transportation. These plans should

be taken into consideration and utilized when transportation decisions or plans are made in Dodge County. The following are current statewide transportation planning documents.

- Translink 21: A Multi-modal Transportation Plan for Wisconsin's 21st Century
- Wisconsin State Highway Plan 2020
- Wisconsin Bicycle Transportation Plan 2020
- Wisconsin State Airport System Plan 2020
- Five Year Airport Improvement Plan
- Wisconsin Statewide Pedestrian Policy Plan 2020
- Wisconsin Department of Transportation Access Management System Plan
- Statewide Transportation Improvement Plan
- Six-Year Highway Improvement Program
- Wisconsin State Rail Plan 2020

Wisconsin Department of Transportation Land Use Vision

Coordinating transportation and land use decisions to effectively manage our transportation systems.

Six Year Highway Improvement Program: 2004-2009

The Wisconsin Department of Transportation currently invests approximately $750 million each year towards improving and rehabilitating roads. The Six-Year Highway Improvement Program details roads that are scheduled for improvements within each WDOT region. The following are projects identified for Dodge County:

- Columbus – STH 26, 12.85 miles, recondition to provide 24 feet of pavement, shoulders to be 10 feet with a minimum 3 feet paved
- Watertown bypass (Boulder Rd. intersection), 0.20 miles, close the median at the Watertown bypass (STH 16) and Boulder Road intersection an construct a new connector between CTH M and Boulder Road
- CTH R intersection, 0.39 miles, reconstruct the intersection to include dedicated left and right turn lanes plus signals
- Waterloo – Hubbleton Road, 6.23 miles, resurface the existing pavement and pave a minimum of 3 feet of the shoulder
- Maunesha River Bridge, 0.01 miles, place a concrete overlay on the existing deck

- STH 67/175 – USH 41, reconstruct and provide 24 feet of pavement and 6 feet of shoulder with 3 feet paved
- Main Street, City of Mayville, 1.67 miles, reconstruct the existing urban street
- Washington and Vine Streets, City of Horicon, 1.36 miles, reconstruct the existing urban street and replace the storm, sanitary, and water lines
- STH 73, Fox Lake, 3.87 miles, pulverize the existing asphalt and overlay
- WSOR – Burnett Street, 0.87 miles, reconstruct the existing urban street
- STH 67 Interchange, 2.03 miles, reconstruct the interchange to current standards
- Milwaukee – Fond du Lac, 7.17 miles, replace existing deteriorated pavement with new concrete pavement
- STH 115 – STH 67, replace the existing deficient bridge
- STH 67 – Washington County line, replace the existing deficient bridge
- High Street, Village of Randolph, 2.57 miles, reconstruct the existing urban street
- Randolph – STH 33, 0.50 miles, recondition STH 73 from the north village limits of Randolph to STH 33
- Columbus – Randolph, 10.48 miles, pulverize the existing pavement and overlay
- STH 60 – Juneau, 5.23 miles, reconstruct the roadway and provide 24 feet of pavement and 6 foot shoulders. STH 115 will jurisdictional transfer to Dodge County after construction.
- Beaver Dam Bypass, 5.01 miles, reconstruct the interchange, replace the ramp pavements
- Crawfish River Bridge, 0.01 miles, overlay bridge deck
- STH 49 interchange, 0.50 miles, reconstruct the interchange, replace the ramp pavements
- Lomira – North County Line, 2.65 miles, recondition roadway to current standards
- Milwaukee Street, Village of Lomira, 0.37 miles, reconstruct the existing street, provide one sided parking

3.8 Transportation Trends and Outlook

The future transportation system will be affected by a number of factors including demographics, the economy, and overall development patterns. The following are anticipated trends and factors that can affect the transportation system in Dodge County over the planning period:

- Reduced funding for transportation projects are anticipated due to state and federal budget constraints.
- As vehicle ownership continues to increase and trips become longer, congestion on major roadways is anticipated to increase.
- The demand for paratransit services will increase as the population ages and the baby-boomers move into older age groups.
- There will be continued demand for quality trucking routes as manufacturing continues to be a major sector of the Dodge County economy.
- Routes between cities and villages are likely to continue to grow in traffic volume.
- Concerns raised by local residents are likely to center around controlling traffic speeds and intersection safety.
- Major highway intersections will continue to be target locations for new commercial and industrial development.
- New driveways onto town and county roads will continue to increase.
- Issues regarding agricultural transport, such as milk and manure hauling, may increase.
- Conflicts between automobiles and slower farm equipment are likely to increase.
- Interest in designating local roads for ATV and snowmobile use is likely to increase.

4. Utilities and Community Facilities

4.1 Introduction

Efficient provision of high quality community facilities and services boosts property values, controls taxes, and contributes to many aspects of the quality of life within Dodge County. Local features such as parks, schools, utilities, and protective services help define a community's character. These services require substantial investment supported by local tax bases or user fees.

In order to estimate the future utility and community facility needs of Dodge County, an inventory of existing conditions was conducted. This portion of the plan presents the results of that inventory. For further detailed information on community utilities and facilities for those communities which participated in the planning process, refer to local planning reports.

Utilities and Community Facilities Include:

- Administrative facilities and services
- Police, fire, and emergency medical services
- Schools
- Quasi-public facilities (libraries, clubs, churches, cemeteries, post offices)
- Parks and recreation
- Solid waste and recycling services
- Communication and power facilities
- Sanitary sewer services
- Public water services
- Stormwater facilities
- Health and day care facilities

4.2 Administrative Facilities and Services

Dodge County

Dodge County administrative facilities are located in the Administration Building at 127 East Oak Street in the City of Juneau. The Dodge County Board of Supervisors consists of 37 Supervisors. The following committees, commissions, and boards are also part of Dodge County government:

- Executive
- Agricultural and Extension
- Automation and Information Management
- Audit
- Board of Adjustment
- Building
- Civil Service
- Community Action Council
- Community Options
- Courtroom Security and Facilities
- Dodge County Aging Advisory
- Insurance, Inventory & Purchasing
- Jail Building
- Land Conservation
- Land Information
- Law Enforcement
- Local Emergency Planning
- Library
- Federated Library
- Personnel and Labor Negotiations
- Planning and Development
- Railroad Consortium
- Special Centralized Payroll and Human

- Finance
- Health Facilities
- Highway
- Housing Authority
- Human Services Board
- Inter-County Coordinating Resources System
- Taxation
- Veterans
- Waste Management Local Siting
- Workforce Development

Dodge County Public Buildings

Dodge County owns and maintains an extensive number of buildings and facilities, most of which are located in the City of Juneau. The following are facilities currently owned by Dodge County.

- Dodge County Administration Building – 127 East Oak Street, City of Juneau
- Dodge County Highway Building – 211 East Center St, City of Juneau
- Satellite Highway Shops
  - Beaver Dam Shop 1600 North Spring St, City of Beaver Dam (To be shut down)
  - Mayville Shop 853 Horicon St, City of Mayville
  - Fox Lake Shop 635 Spring St, Fox Lake (To be shut down)
  - Reeseville Shop 406 North Main St, Reeseville
  - Neosho Shop 271 West Lehman St, Neosho
  - CTH A, Town of Trenton
- Dodge County Justice Facility – 210 West Center St, City of Juneau
- Dodge County Detention/Jail Facility – 216 West Center St, City of Juneau
- Dodge County Office Building – 143 East Center St, City of Juneau
- Clearview North – 199 Home Road, City of Juneau
- Clearview South – 198 Home Road, City of Juneau
- Sheriff's Department – 141 North Main St, City of Juneau
- Wisconsin Aviation (Airport) – N 6471 STH 26, Town of Oak Grove
- Dodge County Parks – All parks contain shelter and restroom structures.
  - Astico Park N 3620 CTH TT, Town of Elba
  - Derge Park N 8379 CTH CP, Town of Westford
  - Ledge Park N 7403 Park Road, Town of Williamstown
  - Harnischfeger Park W3048 Crawfish Road, Town of Lebanon

4.3 Police Services

Dodge County Sheriff's Department

The Dodge County Sheriff's Department serves as the primary law enforcement agency to many communities in the county and also operates the County Jail in Juneau.

The Dodge County Sheriff is elected on a partisan ballot for a two-year term. The duties and responsibilities of the Dodge County Sheriff are identified and regulated by Wisconsin State Statutes. The Sheriff and the Administration Division of the Dodge County Sheriff's Department have overall responsibility for the administration of the department in its entirety, inclusive of the Dodge County Detention Center and the Dodge County Huber Center. Wisconsin State

Statutes require that the sheriff serve all summons, subpoenas and other legal process delivered to him. This division of the Dodge County Sheriff's Department carries out this statutory responsibility.

The Criminal Investigative Division of the Dodge County Sheriff's Department is responsible primarily to investigate the matters dealing with the criminal portion of the Wisconsin State Statutes. Detectives are responsible for handling initial portions of Chapters 51 and 55 commitments, primarily from an emergency commitment standpoint and transportation aspect. They have the responsibility for completing all necessary reports and documentation necessary for the District Attorney's Office to complete and accomplish prosecution of criminal cases.

The Dodge County Sheriff's Department Institutional Investigator handles all criminal matters that arise within the four state institutions within the confines of Dodge County. This position is funded in its entirety, along with all associated expenses, by the State of Wisconsin, Department of Health and Social Services.

The Dodge County Sheriff's Department, Jail Division, was created in requirements by Wisconsin State Statutes and is regulated by the Wisconsin State Division of Health and Social Services. The Sheriff is charged with the maintenance and upkeep of a county level detention facility. This division confines, supervises, and provides for the welfare of all individuals incarcerated within the Dodge County Jail. In 1990, the Dodge County Board of Supervisors approved a plan for the conversion of Dodge County Health Facilities to a Dodge County Huber Detention facility, remodeling was done in the present Jail facility to nearly double that facility's Huber capacity. The combined Huber capacity of both facilities is 91.

The Dodge County Sheriff's Department Radio Communications Division provides for police radio communication within Dodge County. This unit within the Dodge County Sheriff's Department dispatches all squads and police personnel within the county with the exception of the City of Waupun, City of Watertown, and the City of Beaver Dam, who have their own, on a full-time basis. In the absence of dispatcher in the remaining communities, this division provides police dispatching services during those portions of the day. In addition to the police dispatching, this division also dispatches emergency medical services and fire departments.

The Dodge County Sheriff's Department Snowmobile Patrol was established for the enforcement of Wisconsin State Statutes and administrative rules pertaining to the operation of snowmobiles in Dodge County. This unit of enforcement is primarily responsible for assuring and providing for safe operation of snowmobiles on Dodge County public trails. Additionally, it enforces criminal statutes and motor vehicle statutes relating to the operation of this equipment. The unit provides for preventative patrol and security checks to cottages, buildings, and facilities that would not normally be accessible during the winter months.

The Dodge County Sheriff's Department Traffic Division is primarily responsible for the enforcement of motor vehicle laws as created by Wisconsin State Statutes and Ordinances developed and approved by the Dodge County Board of Supervisors. Additionally this unit provides preventative patrol in the criminal areas and it conducts preliminary criminal investigations.

New jail and court facilities were completed in 2000. The jail occupies 138,490 square feet and houses up to 356 inmates. The courts portion of the building occupies 115, 104 square feet and houses five courtrooms, the Clerk of Courts and all other administrative offices.

Additional information on local police departments in Dodge County is provided. Information that was readily available on local departments for communities not participating in the planning process is also provided.

Brownsville Police Department

The Brownsville Police Department provides police service to the village. Staff includes one part-time chief. The department has one car and also a K-9, German Shepherd. Mutual aid it provided if requested by the Sheriff within a 5 mile radius of the village.

Mayville Police Department

The Mayville Police Department is located at 25 South School Street. There are 11 total officers in the department and two administrative staff. Of the 11 officers, it includes a chief, captain, sergeant, detective, school liaison officer, six patrol officers, and two administrative assistants. Equipment includes 5 vehicles and one city vehicle that is also used by the fire or other city departments. There is also one motorcycle and several bikes. The existing department building is located next to city hall and is approximately 7 to 8 years old. According to the department Captain, facilities are adequately meeting the needs of the department. The Mayville Police Department is currently doing fundraising for a K9 program for the department. The program will be funded entirely by donations.

Police Services

The following police departments and law enforcement agencies are located in Dodge County:

- Dodge County Sheriff's Department
- Brownsville Police Department
- Mayville Police Department
- Iron Ridge Police Department
- Fox Lake Police Department
- Randolph Police Department
- Columbus Police Department
- Waupun Police Department
- Juneau Police Department
- Lomira Police Department
- Beaver Dam Police Department
- Lowell Police Department
- Reeseville Police Department
- Watertown Police Department
- Horicon Police Department
- Hustisford Police Department
- Theresa Police Department
- Hartford Police Department
- Neosho-Rubicon-Ashippun (NRA) Police Department

Iron Ridge Police Department

The Iron Ridge Police Department includes one full-time chief of police and three part-time officers. The department provides 24 hours a day service and is housed in the village Community Center. The Dodge County Sheriff's Department provides secondary police service to the village when needed.

Fox Lake Police Department

The Fox Lake Police Department is located at 248 E State Street in Fox Lake. The department is staffed by one Chief, three full time officers, and five part-time officers. Equipment includes three patrol cars. Existing facilities are adequate and there are currently no plans in place to expand or create new facilities.

Randolph Police Department

Police department facilities are located at 136 West Stroud St. in Randolph. Staff includes two full-time officers, one of which is the chief, and three part-time officers. The department has two patrol vehicles and no other major equipment. The department offers mutual aid to surrounding communities when needed. Current space for the department is somewhat limited. Water Utility offices were located next to the department, but they have since moved. Expansion into this vacant space may occur in the future if budgets allow.

Columbus Police Department

The Columbus Police Department is located at 105 North Dickason Blvd. Department staff includes one chief, one lieutenant, one sergeant, eight full-time officers, one part-time officer, four full-time dispatch, two part-time dispatch, and one administrative assistant. One of the full-time officers is a school liaison officer. Equipment includes three marked vehicles, two Ford Explorers (community service vehicles), and one motorcycle. The current department is in a relatively small space and discussions have been started regarding how to resolve the problem. It is likely that the department will need to expand to create a new facility within the next five years.

Waupun Police Department

The Waupun Police Department is located at 16 East Main Street, Waupun. Staff includes one chief of police, one deputy chief, three lieutenants, one sergeant detective, one school resource officer, and 10 patrol officers. All positions are full-time. Department equipment includes three marked patrol squads, one unmarked supervisor squad, one unmarked chief squad, one unmarked detective squad, one marked K-9 squad, one unmarked deputy chief squad, one marked parking enforcement squad, and one unmarked school resource squad. There are currently no plans for expansion of department facilities. The department could use more space for storage in the office and the garage. In December of 2003 the dispatch center for the department was combined with the Fond du Lac Sheriff's Department.

Juneau Police Department

The Juneau Police Department is located at the Safety Building. Staff includes one chief, one sergeant, one detective, one full-time patrol officer, and one part-time patrol officer. One of the patrol officers is also a school liaison officer. The department has three patrol cars. A new public safety building that houses the police, fire, and EMS departments has been recently constructed and is located at 100 Lincoln Drive. This facility should be more than adequate to serve the city during the planning period.

Lomira Police Department

The Lomira Police Department, located at 549 Church Street. Staff includes three full-time officers and three part-time officers. The department has three patrol cars.

Beaver Dam Police Department

The Beaver Dam Police Department is located at 205 South Lincoln Avenue. Currently, the department has 30 officers and ten civilian employees. The department also has specialty units including K9, school liaison, bike unit, evidence tech, and drug unit. In 1999, the communications center was completely renovated and along with the radio system. Beginning in January 2002, all squad cars were equipped with automatic defibrillators. In 2002, the department enhanced its 911 system to allow the location and number of any caller to be known.

Reeseville Police Department

The Reeseville Police Department is staffed by a chief, sergeant, and two patrol officers. The department is getting new offices. They will be located in the new village building on Firehouse Drive behind the Fire Station as soon as they are completed.

Watertown Police Department

The Watertown Police Department is located at 106 Jones Street. The department includes a chief, two captains, six sergeants, three detectives, as well as a number of patrol officers and dispatchers. The department also includes a drug task force, K9 unit, bike patrol, school liaison, DARE officers, and community service officer.

Hustisford Police Department

The department is located at 210 South Lake Street. The department includes a full-time chief, four part-time officers, and a part-time secretary.

Theresa Police Department

The Village of Theresa Police Department provides protective service to the village. Staff includes a full-time chief, one full-time officer and five part-time officers. The Theresa Police Department is located at 202 South Milwaukee Street, connected to the village hall. Twenty-four-hour coverage is not provided by the department. Service is provided from Wednesday to Sunday only. The department has one police car.

Hartford Police Department

The Hartford Police Department is located at 110 North Johnson Street. Staff includes the chief of police, five sergeants, one detective, 14 officers, six dispatch staff, and three support services staff.

Neosho-Rubicon-Ashippun (NRA) Police Department

Five officers and a chief staff the Neosho-Rubicon-Ashippun (NRA) Police Department. Hours vary and all staff is part-time. The department has two fully equipped squad cars. Funding for the department is split three ways between the communities. The Dodge County Sheriff's Department serves as backup to the NRA Police Department.

4.4 Fire Departments and Emergency Medical Services

Dodge County is served by an extensive system of fire departments and emergency medical service providers, see Map 4-1 and 4-2 located in the Appendix. Some departments in the county provide both of these services. Table 4-1 details the fire service providers serving the county and the square mileage they serve. Table 4-2 details the emergency medical service providers serving the county.

Table 4-1
Fire Departments, Dodge County, 2005

Fire Emergency Service	Square Miles	% of Total
Allentown	9.5	1.1%
Ashippun	35.2	3.9%
Beaver Dam	98.3	11.0%
Brownsville	24.8	2.8%
Burnett	35.9	4.0%
Clyman	35.1	3.9%
Columbus	51.4	5.8%
Fox Lake	50.2	5.6%
Hartford	12.9	1.4%
Horicon	22.6	2.5%
Hustisford	38.8	4.3%
Iron Ridge	30.3	3.4%
Juneau	31.5	3.5%
Kekoskee	41.4	4.6%
Knowles	24.2	2.7%
Lebanon	47.8	5.4%
Lomira	11.9	1.3%
Mayville	3.2	0.4%
Neosho	11.0	1.2%
Randolph	29.0	3.3%
Reeseville	60.2	6.7%
Theresa	36.0	4.0%
Waterloo	23.9	2.7%
Watertown	47.0	5.3%
Waupun	55.2	6.2%
Woodland	25.7	2.9%
Total	892.9	100.0%

Source: Dodge County Planning, Development and Parks Department.

Table 4-2
Emergency Medical Service, Dodge County, 2005

Emergency Medical Service	Square Miles	% of Total
Allenton	9.7	1.1%
Beaver Dam	147.5	16.5%
Brooks	54.7	6.1%
Columbus	62.6	7.0%
Fox Lake	50.7	5.7%
Hartford	57.8	6.5%
Horicon	50.0	5.6%
Horicon	6.3	0.7%
Juneau	93.6	10.5%
Lebanon	82.6	9.3%
Mayville	118.9	13.3%
Oconomowoc	11.7	1.3%
Randolph	29.0	3.2%
Theresa	47.1	5.3%
Waterloo	23.5	2.6%
Watertown	47.1	5.3%
Total	892.9	100.0%

Source: Dodge County Planning, Development and Parks Department.

Provided is information obtained from participating communities in the planning process on fire and emergency medical service providers. Information that was readily available on local departments and service providers for communities not participating in the planning process is also provided.

Ashippun Fire Department

The Ashippun Fire Department was organized December 4, 1917. It has 45 members. In 1954, a new fire station was built to house 4 trucks, meeting room and kitchen facilities. In 1972, an addition was built to accommodate 3 more trucks, new meeting room, offices, and kitchen. The fire house is now 60’ x 128’. The department has mutual aid contracts with Dodge, Jefferson, and Waukesha Counties. The department protects part of the Towns of Lebanon, Oconomowoc, Erin, and all of Ashippun.

Equipment used by the Ashippun Fire Department includes a 1966 International Tandem with a 750 gpm pump and a 1,500 gallon tank; a 1967 1,300 gallon tanker; a 1979 Chevrolet step van with a 16’ body used to carry the coats and equipment; a 1992 GMC rescue van used by the first responders; a 1982 Mach Pierce with 1,000 gpm pump, a 2,500 gallon tank and top mount controls; a 1986 Mack DM model tanker with a 3,000 gallon Equalizer II tank; and a 1989 Ford F250 combination grass fire truck and crash rescue truck equipped with a 200 gallon poly tank, 6 gallon foam tank, a 200 gpm pump, and ability to carry rescue tools and a hydraulic ram. 1996 Pierce Saber 1250, 1,000 gallons top mount, six man.

Beaver Dam Fire Department

The Beaver Dam Fire Department was organized in December of 1886 as the Germania No. 1 Fire Company. On September 3, 1878, the Hook and Ladder Company was formed. Present city owned fire fighting apparatus includes: a 1977 Pirsch 1,250 gpm Triple Combination pumper with 300 gallon booster tanks, a 1973 Pirsch 1,000 gpm Triple Combination pumper with 300 gallon booster tank; and a 1981 Pirsch/Spartan 100 foot Aeriael with 1,250 gpm pump.

The Beaver Dam Fire Department covers the Town of Beaver Dam and parts of the Towns of Calamus, Lowell, Trenton, and Westford. Jointly, these towns own rural fire fighting apparatus which include: a 1976 FWD 1,000 gpm Triple Combination pumper with 750 gallon booster tank and an 1980 International/3D tanker-pumper with 2,900 gallon tank and 1,000 gpm pump. Together the city and the towns own a 1983 Chevy/3D 4x4 with a 125 gpm high pressure pump and 210 gallon booster tank. This unit is used for grass fires and lighting. It also carries the "Jaws of Life" unit for use at vehicle accidents. EMS and rescue equipment includes a 1985 Ford/MedTec Type III Ambulance; a 1993 Ford Med/Type III, a 1979 GMC/3D Type I Ambulance; a 1975 20' Thompson Rescue Boat with a 165 hp Mercury inboard/outboard engine for use on Beaver Dam Lake; 1993 Crown Victoria; 1984 Chevrolet Suburban, Trans/Utility Van; 1989 S-10 pickup and a 1984 John Deere Snowmobile with a rescue sled.

The Beaver Dam Fire Department combines 16 career staff and 33 paid on-call volunteers. Of career personnel, the chief is on duty during the day, Monday through Friday, and always on call. The other 15 make up the three duty shifts and there is a third shift deputy. Each shift works 24 hours on, 48 hours off, consisting of a Battalion Chief, two Driver/Pump Operators, and a firefighter, all of whom are EMT-Intermediate-Defibrillator Automatics.

Brownsville Fire Company

The Brownsville Fire Company was incorporated in 1912 as a non-stock, not-for-profit corporation, to protect the Brownsville area from fire. At the time of organization, the company took over the equipment of the disbanded Brownsville Hook & Ladder company, which had been serving the Brownsville area since 1891.

The Brownsville Fire Company is comprised of 25 active firefighters, 18 inactive members and seven members with 20 or more years of active fire fighting. The Company is privately run and the Village of Brownsville contracts for service. Equipment consists of a 1987 Pierce 1,500 gpm/100 ft. ladder American La France Quint refurbished in 1989, 1996 3-D 250 gpm pumper and first responder truck, 1991 Ford 3,500 gallon tanker, 1972 Ford 3,300 gallon tanker, and the "Jaws of Life" and an air compressor to compliment their in-station 5 cylinder cascade. Also, the first motorized engine, a 1931 Pirsch on a Studebaker chassis, still responds for parades. The service area includes the Village of Brownsville, sections of the Towns of Lomira and Leroy in Dodge County and sections of the Town of Byron in Fond du Lac County.

The First Responders Unit has 13 members. The unit is defibrillator certified and operates a "Jaws of Life". A thermal imaging camera was purchased in 2001. The unit works with Mayville EMS, Theresa EMS, Brooks ambulance and Fond du Lac Fire Department Paramedics.

Burnett Volunteer Fire Department

The Burnett Volunteer Fire Department was organized January 9, 1915. The fire station is part of the town hall. The department has 22 active members and the following equipment: a GMC tanker-pumper with 1,500 gallon tank and 500 gpm from mount pump equipped with aluminum ladders, hose, and other equipment; a 1983 C-70 Chevrolet with 427 cubic inch V-8 with 750 gpm PTO midship pump, 1,200 gallon tank with 10" quick dump, aluminum ladders, hose, etc.; a ¾ ton 4WD Chevrolet pickup used for grass fires with a 250 gallon tank, 150 foot ¾" hose with fog nozzle on hose reel, 150 gpm Myers pump with a 14 hp Koehler electric start engine, four 500 watt lights, and an 8000 No. electric winch with 150' cable; and a 1975 Mack 2,900 gallon tanker. 1973 Chevrolet step van equipment vehicle and 1989 4wd Chevrolet Suburban serves as a first responder vehicle. The department has first responders, but the Town of Burnett contracts with the City of Horicon for ambulance service. The City of Juneau provides back-up service.

Clyman Volunteer Fire Department

In 1909 the Clyman Volunteer Fire Department was formed. Equipment includes: 1,000 gpm pumper, 3,200 gallon tanker, a 500 gpm pumper, 1986 Chevrolet Type II EMS vehicle, 1979 Ford 1,000 gpm with 750 gallon tank, 1995 International Tanker with 3,000 gallon tank, equipment van and grass fire truck, which also serves as a light truck at night fires, and a 1989 KME pumper with a six man cab, 1,500 gpm and 1,000 gallon tank. The department services the Town of Clyman as well as the Village of Clyman.

Columbus Fire Department

The Columbus Fire Department was organized on October 26, 1877 and consisted of a Hose Co., Ladder Co., and Engine Co. This organization continued until 1918, when the three companies merged to form one department. In 1974 the department moved into its present station. The department consists of 40 members. In addition to the city, the department serves a rural territory consisting of two full towns and a large part of four others, extending into three counties.

The Columbus Fire Department's equipment includes: a 1982 Mack-Pirsch Quint 1,250 gpm pump and a 100 foot aerial ladder; 1977 Mack 1,250 gpm pumper; 1975 Ford 1,500 gallon tank with a 350 gpm PTO pump; 1969 Ford Tandem pumper tanker (2,800 gallon tank 750 gpm pump); 1980 Chevrolet one ton 4x4 grass truck with 300 gallon tank and 250 gpm PTO pump; 1978 Chevrolet one ton window van for use by the fire inspectors and as a personnel carrier; 1960 American LaFrance 1,000 gpm pumper with a Cummins diesel engine; and a 1979 Mach 2,800 gallon tanker with a 500 gpm tailboard pump.

Fox Lake Fire Association

The Fox Lake Fire Association is an independent organization supported by the town and City of Fox Lake, Town of Trenton, and Town of Westford. Staff includes 39 members. In 1990, the department received a used, 1978 ¾ ton 4x4 Chevrolet truck from Wisconsin Power and Light Company. Also, the association has a 1980 GMC 2,000 gallon tanker, 1992 4,000 gallon

Freightliner, 1983 Horton Rescue, 1972 Chevrolet van, rescue vehicle, first responder vehicle, and pumper truck.

Hartford Fire Department

Hartford Hook and Ladder No. 1 was organized on January 18, 1863, and Washington Fire Engine Co. No. 1 was organized on October 18, 1878. On February 1, 1932, the two organizations merged to create the Hartford Fire Department. Equipment consists of: 1976 Ford tanker with 1,800 gallon tank with side dumps and 350 PTO midship pump and deluge gun; 1978 Mack five man cab, 1,250 gpm pumper; 1979 Ford 1,800 gallon tanker; a custom built 1,250 gpm pumper; equipment truck; custom built 1,500 gpm pumper; a 1984 E-One 95 foot aerial platform truck, ¾ ton GMC grass rig, 1996 Pierce 1,750 gpm pumper with a 750 tank and a 1991 GMC one ton chassis for grass fires. The department has 41 active members, 19 honorary members, a department physician, and an associate member.

Hustisford Fire Department and Emergency Medical Service

The Hustisford Fire Department, organized on April 4, 1883, has 36 active members. In 1977, the Village and Town of Hustisford entered into joint ownership of the fire department. Present equipment consists of a 1978 International CO 1910 chassis Pierce Suburban 1,000 gpm Waterous pump and 1,000 gallon water tank and a 1990 F-350 Ford crew cab chassis and utility body, which is used for grass fires, lighting units, and mobile air supply, a 1992 F-350 Ford/Wheeled Coach Mod-U-Van which is used by the EMS and also transports firefighters to structure fires and a 1993 International 2674 chassis on which is mounted a 3,000 J&B tanker.

The Hustisford Emergency Medical Service was founded in 1979 as a First Responder Unit. A 1992 Ford/Wheeled Coach Mod-U-Van serves as a rescue vehicle. Membership consists of 24 trained personnel. Each member is assigned to one of three crews to handle the 100 plus calls annually.

Iron Ridge Fire Department

The Iron Ridge Fire Department was organized in June of 1888. This is an independent department which the village contracts with for service. There are 27 active members. Equipment consists of the following: first responder vehicle, 1996 Ford E450 14', five man crew rescue vehicle; 1982 IHC 1250GPM Darley Pumper manufactured by Welch Fire Equipment; 1991 KME Renegade Pumper 1250GPM, Hale pump and 1,000 gallon Poly Tank; 1992 Dodge ¾ ton 4x4 grass rig; 1999 Sterling tanker, 3,000 gallon Welch tank, two 12" side dumps and one 12" rear dump; 1990 Ford L8000 tanker, 3,000 gallon Welch tank, two 12" side dumps and one 12" rear dump; and 2005 rescue pumper, 1500GPM, 1,000 gallon water tank, seating for eight.

In 1980, the Iron Ridge Fire Department organized a First Responder Unit and a rescue vehicle was purchased. There are 13 members serving the unit. In 1982, the "Jaws of Life" was purchased.

Juneau Volunteer Fire Department

The Juneau Volunteer Fire Department was organized in 1878. Equipment consists of three pumping units, one tanker, an equipment van, mini truck, and a retired 1926 Kissel Pumper. The department responds to 40 to 50 calls per year, including chimney, grass, car, hazardous materials, and a few house and barn fires. There are 35 members serving the department. In 1973, the city purchased a 1973 Pacemaster 300 van type II ambulance and the Juneau Emergency Medical Service was organized. In 1987, a McCoy Miller type III 138" Ranger was put into service. The Juneau EMS serves the City of Juneau, the Villages of Clyman, and Hustisford, and the Towns of Hustisford, Clyman, and Oak Grove. There are 13 EMT's, three drivers, and four trainees.

Kekoskee Fire Department

The Kekoskee Fire Department was organized in November, 1915. There are 34 members. Equipment includes a 1971 International 2010, 2,500 gallon tank; Chevrolet C70 with a 750 gpm midship pump and 800 gallon tank; an International model 1954, 466 diesel with a 3,600 gallon tank; 1976 Mack, 1,500 gpm, 1,000 gallons; 1977 International, 14 box, "Jaws of Life" and a 1985 Chevrolet step van for small equipment. The department responds to fires carrying 8,100 gallons of water. In 1976 a new station was constructed on 2 acres of land on CTH "TW". The 50' x 100' building includes a meeting room and kitchen facilities and in 1995 an addition of 50' x 130' was completed.

Lebanon Fire Department and Emergency Medical Service

The Lebanon Fire Department was organized on August 3, 1931. There are seven trucks in service: 1987 Pierce Lance Custom Pumper with a 1,250 gpm capacity, 750 gallon tank, Jaws of Life and other equipment; 1976 Ford C900, 1,000 gpm Peter Pirsch, 750 gallon tank; a 1947 Mack 500 gpm pumper; 1996 4wd Ford F350; Chevrolet step van used as an equipment truck and backup rescue vehicle; 1,500 gallon tanker; and a 1993 Peterbilt 3,000 gallon tanker. All equipment is housed in the fire station which was constructed in 1967. The station has two meeting rooms and a kitchen. There are 35 members serving the department.

The Lebanon Fire Department Emergency Medical Service was organized on May 10, 1976. The EMS serves all or parts of the Towns of Lebanon, Emmet, Ashippun, Hustisford, Rubicon, and Clyman. In 1996 a new Ford F450 Medtech Modular ambulance was put into operation. In 1985, the "Jaws of Life" was purchased. The Lebanon EMS is certified in the EMT-DA program and was able to purchase the HeartStart 1000 defibrillator. The service consists of 20 EMT-DA's and three drivers.

Lomira Volunteer Fire Department

The Lomira Volunteer Fire Department serves the village, as well as portions of the surrounding Towns of Lomira, Ashford and Byron. The volunteer departments of Brownsville, Knowles and Theresa provide mutual aid protection. The Lomira Fire Department was organized in 1898. Firefighting equipment consists of : a 1985 Smeal 1,000 gpm midship pump with 1,000 gallon tank mounted on a 1985 Chev 70 series chassis with a Detroit Diesel; a 1979 C-70 Chev chassis

with a 2,400 gallon tank; a 1981 Ford F-800 chassis with a 1,700 gallon tank; and a 1978 Chev step van for equipment and a first responder vehicle. 1994 Freightliner with 1,500 gpm pump, 1,000 gallon water tank, 20 gallon Class A foam tank.

On March 1, 1970 the Village of Lomira Fire Department moved to its new station located on the corner of Highway 67 and Water Street. The village purchases and maintains all firefighting equipment used by the 30 person on-call department. Lomira's First Responder Unit provides emergency medical and rescue services to the same service area as the fire department.

Neosho Fire Department

The Neosho Fire Department was organized in October of 1887. In April of 1976, the new four door fire station was completed in the center of the village on STH 67. In 1985 the EMT and First Responders program was started to assist on the rescue squad. Equipment consists of: a 750 gallon stationary pump purchased in 1968; a Pierce 750 gallon midship pump; a custom 1995 Chevrolet truck with 4WD; 250 gallon John Beam water pump purchased in 1972 and used for grass and care fires; a F750 Ford with a 1,800 gallon tank and Marion Body, pump on the back; a Chevrolet step van purchased in 1974 and used as a utility truck; a 1976 Chevrolet step van used for fire and rescue; and a 1985 Chevrolet truck with Marion Body, 1,250 gpm LaFrance 500 gallon tank and 1,800 gallon tank and 1,250 gpm LaFrance 500 gallon tank.

Randolph Fire Department

On January 25, 1893, the Village of Randolph organized its fire department. The department has 40 members. Equipment includes: 1965 Ford F750 Darley pumper; a 1969 Ford F100 used for grass fires; 1975 Ford utility van equipped for medium rescue; 1979 Ford C-9000 milk truck with 2,500 gallon tank; 1986 Ford F350 4x4 which carries rescue tools, "Jaws of Life", air packs and assorted equipment; and a 1991 Medtec Type III-156 Aero Cab Ambulance. There are currently 18 EMT's. The ambulance association serves the Villages of Randolph and Friesland, and the Towns of Fox Lake, Westford, Courtland, and Randolph.

Reeseville Fire Department

The Reeseville Fire Department was organized March 7, 1892. There currently are 25 members. The Village of Reeseville, Town of Lowell and parts of the Towns of Portland and Elba are served. Equipment includes: 1975 Chevrolet van equipment and personnel truck; 1976 Ford Pierce C-900 1,000 gpm 1,000 gallon tank; 1986 Ford Darley 1,000 gpm 1,000 tank C800; 1993 International 4-door cab, 1,000 gpm 1,000 tank; 1981 GMC 2,200 tank, 4WD GMC grass rig and an all terrain vehicle with a tank and pump to assist with grass fires.

Theresa Fire Department and Ambulance Service

The Theresa Fire Co. No. 1 was organized on November 22, 1895. The Town of Theresa and the village now share the operation. The department also has mutual aid agreements with all of the departments in Dodge County as well as Allenton and Kohlsville in Washington County. In 1989, a new firehouse was built. Equipment consists of: a 1968 Ford 750 gpm pumper; 1996

custom 1,750 gpm pumper; a 1982 Mack 4,000 gallon tanker, a 1994 Mack 2,500 gallon tanker, a 1987 Ford 4 x 4 grass truck, a 1987 Dodge van, and a 2001 Peterbuilt rescue command vehicle.

Emergency medical services are provided by the Theresa Ambulance Service. The service recently moved into new facilities located above the village hall. The Service provides EMS services to the village as well as the Towns of Williamstown, Herman, Lomira, Theresa, and the Village of Lomira. Service equipment includes a 1994 Medtech one Ford diesel chassis. There are 25 EMT's and 8 drivers. There is one full-time EMT, all others are volunteers.

Watertown Fire Department

The Watertown Fire Department is a full time paid department consisting of 20 career firefighters and 15 auxiliary firefighters. The department provides fire protection to four surrounding towns serving 25,000 residents in a 101 square mile area. Equipment includes three pumpers, one 100' aeriel, on brush/grass unit, two ambulances, one van, three boats, and two cars. The department also provides Emergency Medical Services. The department owned ambulances will respond within a 10 mile radius of the city. Two EMS units are staffed by 17 members of the department who are certified EMT Intermediates. The paramedic program may be implemented in the future.

Waupun Fire Department

The Waupun Fire Department protects three towns, the City of Waupun, and four state prison units. There are 30 persons in the department. Ten people are available at all times to answer calls outside the city. On September 17, 1986, the City of Waupun took possession of the new Safety Building. This building houses the fire, police, and emergency government departments, providing room for personnel, meetings, equipment, and storage. Equipment includes a 100' aeriel platform, three Class A pumpers, a mini-pumper, a tanker, and an equipment van. The department also has "Jaws of Life".

Mayville Fire Department

The Mayville Fire Department was organized in May of 1871. There are 32 members that serve the department. Equipment includes: 1987 E-One 110' Aerial Ladder which also carries emergency lighting equipment; a 1980 Peter Pirsch Diesel 1,000 gpm; a 1975 Peter Pirsch Diesel 1,000 gpm which has a Plecton Controlled System for activating the civil defense sirens; a 1971 Peter Pirsch Gas Engine 1,000 gpm; a 1980 Command and Equipment Step Van; and a 14'Jon Boat for water rescues.

Lowell Fire Department

Although a fire department has existed for several decades, it wasn't until 1900 that the Lowell Fire Department was formally organized. In 1970, a new fire station was built to provide room for up to six vehicles as well as a meeting place for the members. Lowell set a national precedent in 1972 when three women were accepted into the department as firefighters. Equipment consists of: 1973 International 750 gpm pumper; 1975 Chevrolet tanker 2,000 gallon; 1985 Ford van used by the First Responders; 1973 FWD 1,250 gpm pumper with 1,000 gallon

tank. Lowell and Reeseville's First Responders make up the Lowell Reeseville First Responders Emergency Medical Service.

4.5 School Facilities

Dodge County is served by 19 school districts, see Map 4-3 located in the Appendix for school district boundaries. Table 4-3 details school districts serving the county as well as their service area in square miles.

Table 4-3
School Districts, Dodge County, 2005

School Districts	Square Miles	% of Total
Beaver Dam	107.1	12.5%
Columbus	45.2	5.3%
Dodgeland (Juneau)	82.2	9.6%
Fall River	9.2	1.1%
Hartford J 1	9.1	1.1%
Herman #22	33.9	3.9%
Horicon	50.1	5.8%
Hustisford	48.9	5.7%
Lomira	53.9	6.3%
Markesan	0.7	0.1%
Mayville	95.0	11.1%
Neosho J 3	31.3	3.6%
Oakfield	1.6	0.2%
Oconomowoc Area	21.9	2.6%
Randolph	27.8	3.2%
Rubicon J 6	13.3	1.5%
Waterloo	47.5	5.5%
Watertown	84.4	9.8%
Waupun	96.1	11.2%
Total (ROW not included)	859.0	100.0%

Source: Dodge County Planning, Development and Parks Department.

As indicated by the table, the Beaver Dam School District serves the largest geographic area of Dodge County. The Mayville School District and Waupun School District also serve a large portion of the county. Detailed below is the name of each district serving Dodge County as well as the schools within that district.

Beaver Dam School District

- Beaver Dam Charter School
- Beaver Dam High School
- Beaver Dam Middle School
- Jefferson Elementary

Mayville School District

- Mayville High School
- Mayville Middle School
- Parkview Elementary

- Lincoln Elementary
- Prairie View Elementary
- South Beaver Dam Elementary
- Trenton Elementary
- Washington Elementary
- Wilson Elementary

Columbus School District

- Columbus Elementary
- Columbus High School
- Columbus Middle School

Dodgeland (Juneau) School District

- Dodgeland Elementary
- Dodgeland Middle/High School

Fall River School District

- Fall River Elementary
- Fall River High School

Hartford School District

- Central Middle School
- Lincoln Elementary
- Passage Middle School
- Rossman Elementary

Herman #22 School District

- Herman Elementary

Horicon School District

- Horicon High School
- Van Brunt Elementary
- Van Brunt Middle School

Hustisford School District

- Hustisford High School
- John Hustis Elementary

Neosho J3 School District

- Neosho Elementary

Oakfield School District

- Reynolds Elementary
- Oakfield Middle School
- Oakfield High School

Oconomowoc Area School District

- Greenland Elementary
- Ixonia Elementary
- Meadow View Elementary
- Oconomowoc High School
- Oconomowoc Middle School
- Park Lawn Elementary
- Summit Elementary

Randolph School District

- Randolph Elementary
- Randolph High School

Rubicon J6 School District

- Saylesville Elementary

Waterloo School District

- Dane County Transition School
- Jefferson County Alternative School
- Waterloo Elementary
- Waterloo High School
- Waterloo Middle School

Watertown School District

- Concord Elementary
- Douglas Elementary
- Jefferson County Alternative School
- Lebanon Elementary
- Lincoln Elementary
- Riverside Middle School
- Schurz Elementary
- Watertown High School

Lomira School District

- Lomira Elementary
- Lomira High School
- Lomira Jr. High
- Theresa Elementary

Markesan School District

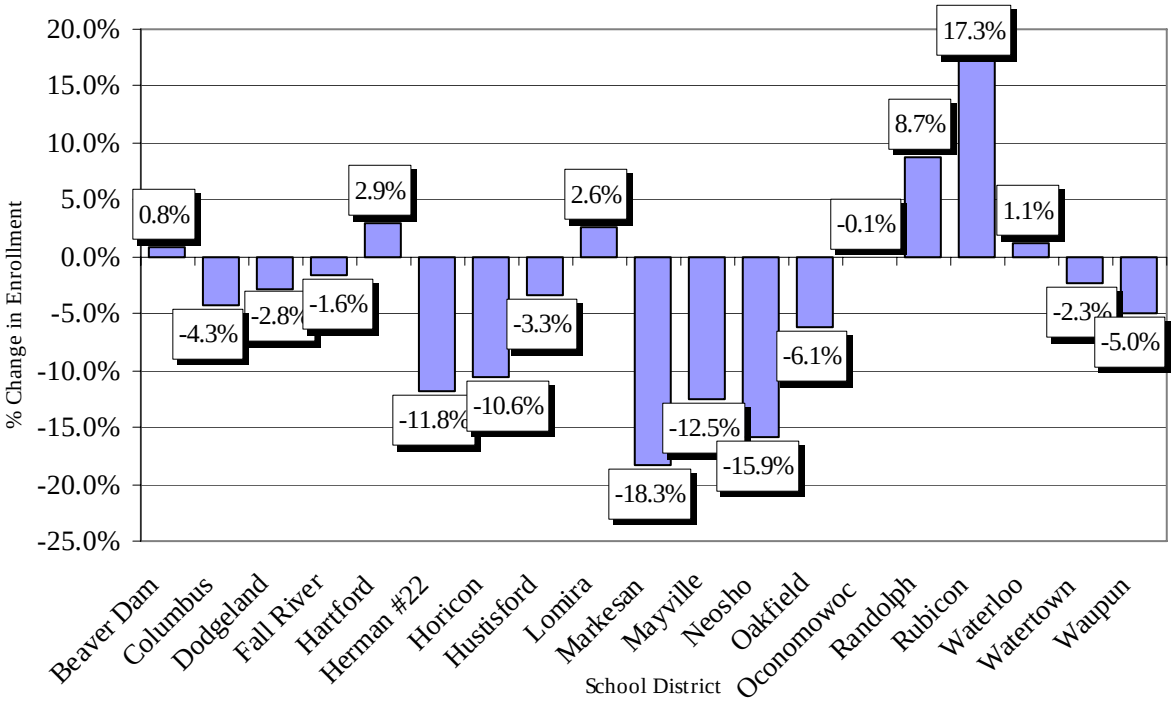
- Markesan Elementary
- Markesan High School
- Markesan Middle School
- Webster Elementary

Waupun School District

- Amity Elementary
- Fox Lake Elementary
- Jefferson Elementary
- Washington Elementary
- Waupun Alternative High School
- Waupun High School
- Waupun Middle School

Figure 4-1 displays school districts serving Dodge County and their percentage change in enrollment from the 1999/2000 school year to the 2003/2004 school year.

Figure 4-1
Percentage Change in School District Enrollment, Dodge County, 1999/2000-2003/2004



Source: Wisconsin Department of Public Instruction.

As indicated in Figure 4-1, some districts serving the county have been experiencing enrollment increases while even more have been experiencing enrollment decreases. The district experiencing the greatest increase in enrollment for the period shown was the Rubicon School District. The district experiencing the greatest decrease in enrollment was the Markesan School District.

Dodge County is also home to higher education facilities. Post-secondary schools such as trade schools and technical colleges are available in Beaver Dam, Hartford, Mayville, Watertown, and Waupun. Moraine Park Technical College is located in Beaver Dam, with branches located in Hartford, Mayville, and Waupun. The Madison Area Technical College and Maranatha Baptist Bible College are located in Watertown.

4.6 Quasi Public Facilities

Libraries

Dodge County is served by 15 municipal libraries, indicated as follows.

- Beaver Dam Community Library
- Brownsville Public Library
- Columbus Public Library

- Fox Lake Public Library
- Hartford Public Library
- Horicon Public Library
- Hustisford Public Library
- Iron Ridge Library
- Juneau Public Library
- Lomira Public Library
- Theresa Public Library
- Mayville Public Library
- Hutchinson Public Library, Randolph
- Watertown Public Library
- Waupun Public Library

Dodge County Fairgrounds

The Dodge County Fairgrounds, located along HWY 33 about three miles east of the City of Beaver Dam, covers 62.5 acres and is owned and operated by the Dodge County Fair Association. The fairgrounds are best known as the site of the annual Dodge County Fair in August and stock car racing during summer. The site contains a number of large exhibition buildings, a horse show arena, a racetrack, and other facilities to accommodate other types of events such as horse shows, circuses, rallies, and outdoor conventions. Parking on the site is unimproved with mostly grassed areas used.

Clubs, Associations, and Other Organizations

Dodge County is home to a number of locally established as well as countywide clubs, associations, and other organization. Detailed below are some of the largest and better known groups found in Dodge County.

- Ashippun Sportsmen Club
- Stonebank Sportsman's Club, Ashippun
- Goose Haven Gun Club, Inc., Mayville
- Wings Over Wisconsin, Inc., Mayville
- Beaver Dam Dog Training Club
- Beaver Dam Fishermen's Club
- Beaver Bowmen/Archery Club
- Dodge County Association of Snowmobile Club
- Beaver Dam Power Boat and Yacht Club
- Dodge County Horsemen's Association
- Marshview Riders, Inc. (ATV club)
- Horicon Marsh Bowmen
- Horicon Marsh Sportsmen's Club of Mayville
- Field and Stream Sportsmen's Club, Mayville
- Mayville Rifle Club
- Horicon Marsh Classic Car Club
- Rock River Coalition
- Theresa Pioneer Snowmobile Club
- Friends of Dodge County Parks
- Dodge County also has a number of Lions, Lioness, and VFW related organizations

Friends of Dodge County Parks

Friends of Dodge County Parks is a non-profit citizens group which raises money through individual and corporate donations to develop and improve Dodge County parks and the Wild Goose State Trail. Local snowmobile clubs, horse clubs, the all terrain vehicle club and other user groups provide additional financial support and assistance. Local funds used for trail development and facilities are typically supplemented by state and federal grants.

Correctional Institutions

There are four correctional facilities located in Dodge County. The John C. Burke Correctional Center, located in Waupun, consists of 12 acres and has a capacity to hold 162 women. The Dodge County Correctional Institution is a 57-acre intake facility located in Waupun. It has the capacity to hold 1,165 men and 30 women. Fox Lake Correctional Institution, in the Town of Fox Lake, is a minimum-security facility on 85 acres, with an operating capacity of 691 men. The Waupun Correctional Institution is a maximum-security facility located on 20 acres in Waupun, and has a capacity for 882 inmates. Additionally, the Waupun State Prison Farm includes almost 300 acres of agricultural land and farm support buildings. These facilities employ over 1,100 individuals from Dodge and surrounding counties.

Municipal Courts

As of September 2003, there were 225 municipal courts and 227 municipal judges in Wisconsin. Dodge County is home to four municipal courts including the following:

- Town of Fox Lake, Hon. Larry Huettl
- City of Beaver Dam, Hon. Judy Johnsen
- City of Fox Lake, Hon. Richard J. Quirk
- City of Horicon, Hon. Laura L. Reynolds

The majority of municipal court cases involve traffic and ordinance matters, including first-time drunken driving offenses. Juvenile matters, such as truancy, underage drinking, drug offenses and curfew violations have become a large part of municipal court caseloads within the last few years. Municipal courts handle a significant portion of the statewide court caseload in these areas. Municipalities may join together to form one court. The contracting municipalities need not be contiguous or even in the same county. Any number of municipalities may join and voters in all the municipalities elect the judge.

Post Offices

The following post offices serve Dodge County.

- Neosho, Rubicon Street
- Fox Lake, West State Street
- Waupun, Franklin Street
- Mayville, North School Street
- Theresa, Church Street
- Hustisford, East Griffith Street
- Rubicon, Rome Road
- Hartford, East Wisconsin Street
- Beaver Dam, North Spring Street
- Clyman, Main Street

- Horicon, East Lake Street
- Iron Ridge, North Street
- Burnett, 2nd Street
- Lomira, Railroad Ave.
- Brownsville, Main Street
- Juneau, East Oak Street
- Lebanon, Highway 109
- Lowell, North River Street
- Ashippun, Highway 67
- Reeseville, Main Street
- Randolph, Modem Line

Churches and Cemeteries

The following are churches and cemeteries located in communities participating in the planning process.

Town of Ashippun
- St. John's Lutheran Church and Cemetery
- Zion Lutheran Church
- St Olof's Church and Cemetery
- St. Paul's Episcopalian Church and Cemetery
- There are four abandoned cemeteries located in the town.

Town of Burnett
- Burnett Union Cemetery
- Burnett Central Cemetery
- Stone Cemetery
- Zion Evangelical Lutheran
- Emmanuel Evangelical Lutheran

Town of Elba
- St. Columbhill Catholic Church and cemetery

Town of Fox Lake
- County Line Lutheran Church
- Lake Emily Cemetery
- Grand Prairie Cemetery

Town of Herman
- Zum Kripplein Christi Lutheran Church and School (Wisconsin Synod)
- Emmanuel Lutheran Church (Wisconsin Synod)
- Trinity Evangelical Lutheran Church (Wisconsin Synod)
- St. Mary's Catholic Church

Town of Portland
- Washington Cemetery
- Van Delavan Cemetery or Gerah Cemetery
- German Methodist Cemetery
- Austin Cemetery

Town of Rubicon
- St. John's Church and Cemetery
- St. Matthew's Catholic Cemetery
- St. John's Cemetery
- Cemetery, STH 60
- Cemetery, CTH P

Town of Shields
- Immanuel Lutheran Cemetery
- St. Marks Lutheran
- Apostolic House of Prayer

Town of Trenton
- Trenton Cemetery
- Catholic Cemetery
- Highland Murray Gardens Cemetery

Village of Brownsville
- St. Paul's Lutheran Church
- St. Paul's Cemetery
- Village Cemetery

Village of Iron Ridge
- St. Matthew's Lutheran Church and Cemetery
- Our Savior Lutheran Church

- There are nine cemeteries in the town. Two cemeteries are located on Goodland Road, while the others are located on Rock Road, W. Iowa Road, N. Astor Road, in Woodland, St. John Road, west of CTH U, and north of STH 33.

Town of Hustisford
- Thorow Cemetery
- Unnamed cemetery is located on STH 115

Town of LeRoy
- St. Andrew's Catholic Church and Cemetery
- Miles Farm Cemetery
- Kantin Cemetery
- There are also two unnamed cemeteries and Indian burial grounds are located in the town off CTH Z

Town of Lomira
- St. Luke's Knowles Lutheran Church and Cemetery
- St. Paul's Church and Cemetery
- Town of Lomira Cemetery
- Ebenezer Cemetery
- Salem Cemetery

Village of Lomira
- St. John's Evangelical Lutheran Church (Wisconsin Synod)
- St. Mary's Catholic Church
- Trinity United Methodist Church

Village of Neosho
- St. Paul's Lutheran
- St. Matthew's Catholic Church
- Woodlawn Cemetery
- St. Bartholomew Cemetery

Village of Theresa
- Theresa Union Cemetery
- St. Theresa's Catholic Cemetery
- St. Theresa's Catholic Church
- St. Peter Lutheran Church

City of Juneau
- Juneau City Cemetery

City of Mayville
- St. Mary's Catholic Church
- Gateway Community Church
- Christian Life Fellowship
- St John's Lutheran Church
- United Methodist Church
- St. Paul's Lutheran Church.
- Immanuel Lutheran Church
- Graceland Cemetery
- St. John's Cemetery
- St. Mary's Cemetery
- Unnamed cemetery located east of High Street

4.7 Parks, Recreation, and Open Space

A wide variety of parks, recreation, and open spaces are provided throughout Dodge County. The following section details the park, recreation, and open spaces resources found in the county. Refer to Map 4-4 in the Appendix for the location of town, county, state, and federal recreation facilities in Dodge County. Additional recreational resources provided by state or federal agencies are detailed in the Agricultural, Natural, and Cultural Resources element. Table 4-4 details the acreage of public land and parks found in the towns of Dodge County.

Table 4-4
Public Lands and Parks, Dodge County Towns

	Acres	% of Total
T. Ashippun	15.3	0.0%
T. Beaver Dam	976.1	2.2%
T. Burnett	6,381.1	14.1%
T. Calamus	298.1	0.7%
T. Chester	9,170.4	20.2%
T. Clyman	37.3	0.1%
T. Elba	121.1	0.3%
T. Emmet	0.0	0.0%
T. Fox Lake	800.1	1.8%
T. Herman	0.0	0.0%
T. Hubbard	407.9	0.9%
T. Hustisford	0.0	0.0%
T. Lebanon	183.4	0.4%
T. Leroy	6,862.6	15.1%
T. Lomira	308.6	0.7%
T. Lowell	1,752.7	3.9%
T. Oak Grove	59.7	0.1%
T. Portland	1,706.9	3.8%
T. Rubicon	55.2	0.1%
T. Shields	2,644.5	5.8%
T. Theresa	1,986.1	4.4%
T. Trenton	826.2	1.8%
T. Westford	913.9	2.0%
T. Williamstown	9,881.9	21.8%
Total	45,389.3	100.0%

Source: Dodge County Planning, Development and Parks Department.

Dodge County Parks, Recreation and Open Space

Horicon Ledge Park

This park is an 82.8 acre campground park located about two miles northeast of the City of Horicon in the Town of Williamstown. It is situated on the "ledge" of the Niagara escarpment which provides a dramatic and scenic change in topography in the park. The park is basically divided into two functional areas: upper ledge and lower ledge. Each area has a single roadway access to it. Lower ledge is primarily a picnicking area with two open shelters, a toilet building, a small playground, a pond with natural stream and some open areas. Some group and individual camping has been permitted on the extreme north end of the lower ledge area. The upper ledge area is primarily wooded with most of its campsites and its trails found there. Two pit toilet restrooms are centrally located in the wooded area with the campsite surrounding. Two large

open areas, one with a shelter and picnic facilities, the other with a playground area located to the west and south of the wooded areas. The park contains 45 campsites and is best known for its interesting rock formations and phenomenal scenic views of the Horicon Marsh along its hiking trails atop the ledge. Horicon Ledge Park is open year round to provide winter recreational opportunities such as cross-country skiing.

Astico Park

Astico Park is located about three miles east of the City of Columbus in the Town of Elba. Astico is the county's largest park. This scenic park is located on 100 acres of land bordered on three sides by the Crawfish River and the historic Danville Mill Pond. The park lies on a drumlin, a long narrow hill formed by glaciation, and is predominantly wooded. The park contains 70 campsites, three picnic shelters, three playground areas, hiking trails, large open play fields, and fishing and canoeing access areas. The park features a new restroom facility with showers and a sewage tank dump station in addition to other scattered toilet building facilities. Two continually flowing artesian wells in the park have become an attraction for many.

Derge Park

Derge Park is located on the west central shore of Beaver Dam Lake, in the northwest part of Dodge County between Beaver Dam and Randolph. Derge Park covers only 12.4 acres which is very small for a county park facility. Derge Park is mostly wooded, however, a wind storm eliminated numerous trees. The park provides 25 campsites with electric hookups, a boat launch with an unimproved parking area, a playground and picnic areas with shelters. A large enclosed shelter building accommodates and is popular for large group gatherings. This site contains flush toilets, showers and a sewage tank dump station. The park is divided into two functional areas by HWY "CP", with the campsites and shelter buildings located west of the road and the boat launch, parking area, and playground east of the road.

Wild Goose State Trail

Wild Goose State Trail is a 34 mile multi-use recreational trail which runs north to the City of Fond du Lac and south to STH 60, south of the City of Juneau. About 20 miles of the trail are located in Dodge County. The trail is relatively flat as it follows an abandoned railroad grade. The trail skirts the western edge of the Horicon Marsh and traverses a variety of land uses such as woodlands, wetlands, streams, cropland, pasture, and historic railroad communities. Additionally, patches of native prairie vegetation have been identified within the trail corridor in various areas. The trail is state owned, but operated by Dodge and Fond du Lac Counties and is used primarily for quiet recreation such as biking and hiking. Snowmobiles, ATV's, and cross-country skiers use the trail in winter.

Nitschke Park

Nitschke Park is located near the center of Dodge County adjacent to the Wild Goose State Trail and just west of the Horicon Marsh. The property is nearly 54 acres in size and contains up to 46 effigy, conical and linear mounds believed to have been constructed between 800AD - 1100AD by the Late Woodland Effigy Mound Culture. The mounds represent one of the best surviving examples of the Mound Builders culture that once occupied the Dodge County area.

Harnischfeger Park
Harnischfeger Park is 132 acres of wooded areas and open space located along the Rock River about one mile west of the unincorporated community of Ashippun in the Town of Lebanon. The park offers a clubhouse, two shelters, miniature golf, volleyball courts, play equipment and canoe rentals.

Local Parks, Recreation, and Open Space
For further detail on these facilities for communities participating in the planning process, refer Dodge County is also home to a number of municipally owned parks and recreation facilities.

4.8 Solid Waste Management and Recycling

The majority of towns in Dodge County provide Saturday morning drop-off of solid waste and recyclables, while others contract with private companies for curbside collection of solid waste and recycling services. Commercial and industrial businesses generally arrange for private solid waste collection. According to the DNR, there are 40 responsible units for recycling in the county, indicating that each town, village, and city is responsible for complying with recycling regulations. There are three communities that share a recycling drop-off site, however they are not one responsible unit.

There is one privately operated landfill in Dodge County, Superior Glacier Ridge Landfill. The landfill is located in the Town of Williamstown. According to the DNR, this landfill had approximately 1,286,000 million cubic yards of capacity as of January 2002. There is an estimated four years of remaining capacity at the landfill. There are plans to expand the landfill.

Dodge County does not provide any services related to solid waste or recycling. The county does coordinate a Clean Sweep Program.

4.9 Communication and Power Facilities

Telephone

Four communication companies provide telephone service to the county, refer to Map 4-5 in the Appendix. Century Tel, Inc., SBC, Telephone and Data Systems, Inc., and Verizon split the county into various service areas. Cellular telephone service is available throughout the county. Strength of the signal will vary depending on tower locations and topography. Table 4-5 displays the telephone service providers of Dodge County as well as their service area in square miles.

Table 4-5
Telephone Service, Dodge County, 2005

Telephone Service	Square Miles	% of Total
Century Tel, Inc.	85.6	9.6%
SBC WI	469.6	52.6%
Telephone and Data Systems, Inc.	62.8	7.0%
Unassigned Territory	2.0	0.2%
Under 10,000 Lines or < 3 each	0.2	0.0%
Verizon North, Inc.	272.8	30.6%
Total	892.8	100.0%

Source: Dodge County Planning, Development and Parks Department.

Natural Gas

All communities in Dodge County have gas service available. Three companies, Wisconsin Gas Company, Wisconsin Electric Power Company, and Alliant Energy provide natural gas service throughout the county, refer to Map 4-7 in the Appendix. The split service boundaries do not inconvenience local users; however, each of the companies provides different support services to their customers. Table 4-6 displays the natural gas service providers of Dodge County as well as their service area in square miles.

Table 4-6
Natural Gas Service, Dodge County, 2005

Natural Gas	Square Miles	% of Total
Alliant Energy	481.8	54.0%
No Gas Service Available	0.0	0.0%
Wisconsin Electric Power Company	193.0	21.6%
Wisconsin Gas Company	218.1	24.4%
Total	892.8	100.0%

Source: Dodge County Planning, Development and Parks Department.

Electricity

Three companies (two private firms and one cooperative) provide electrical services to residential and commercial users in Dodge County, refer to Map 4-6 in the Appendix. Three municipal electric systems also provide service to portions of the county. Alliant Energy primarily serves the northern two-thirds of the county, Wisconsin Electric Power Company serves the far southern and far eastern portions of the county, and the Columbus Rural Electric Cooperative serves the City of Columbus and far western portions of the county. The City of Juneau has its own system. The City of Waupun also serves portions of the Town of Chester and the Village of Hustisford also serves most of the Town of Hustisford. Table 4-7 displays the electrical service providers of Dodge County as well as their service area in square miles.

Table 4-7
Electric Service, Dodge County, 2005

Electric Service	Square Miles	% of Total
Alliant Energy	373.9	41.9%
Columbus Rural Electric Cooperative	75.2	8.4%
Municipalities (serving beyond corporate limits)	28.9	3.2%
Wisconsin Electric Power Co. (private)	414.9	46.5%
Total	892.8	100.0%

Source: Dodge County Planning, Development and Parks Department.

Wind Energy Facilities

There are two major wind energy facility projects planned for Dodge County. One project in the Town of Herman will contain 33 wind turbines, producing 54 megawatts of power. Construction is scheduled to begin in early 2006. Another project scheduled to begin construction in 2006, will be located in the Dodge County Towns of Leroy and Lomira as well as two neighboring towns in Fond Du Lac County. The project area consists of approximately 32,400 acres of predominantly agricultural land. The proposed facilities include approximately 133 turbines throughout the project area and will produce 200 megawatts of power.

The Dodge County regulations (Wind Energy System Overlay District) are in the Land Use Code and apply in areas subject to County Zoning. The Code also allows for personal wind energy systems of 100 feet or less, without the need for a conditional use permit (public hearing). There are several smaller wind energy systems built on private property.

4.10 Sanitary Sewer Service

The majority of Dodge County's municipalities are served by sanitary sewer systems, refer to Map 4-8 in the Appendix. Sanitary districts also operate a few town systems. One village, Neosho and the hamlets of Knowles and Minnesota Junction do not have sanitary sewer systems.

The following is a list of municipal sewer providers and sanitary districts found in Dodge County:

Dodge County Municipal Sewer Providers

- Village of Brownsville
- Village of Clyman
- Village of Hustisford
- Village of Iron Ridge
- Village of Lomira
- Village of Lowell
- Village of Randolph
- Village of Reeseville
- Village of Theresa
- City of Beaver Dam
- City of Columbus
- City of Hartford
- City of Horicon
- City of Juneau
- City of Mayville
- City of Watertown
- City of Waupun

Dodge County Sanitary Districts

- Ashippun Sanitary District
- Burnett Sanitary District
- Fox Lake Inland District
- Herman Sanitary District
- Hubbard Sanitary District #1
- Hubbard Sanitary District #2
- Hustisford Sanitary District
- Lebanon Sanitary District
- Portland Sanitary District
- Rubicon Sanitary District
- Elba Sanitary District
- LeRoy Sanitary District

For additional information on sanitary sewer service for those communities that participated in the planning process, refer to local planning documents.

4.11 Private On-site Wastewater Treatment Systems (POWTS)

Private on-site wastewater treatment systems, or POWTS, are systems that receive domestic quality wastewater and either retain it in a holding tank, or treat it and discharge it into the soil, beneath the ground surface. The Wisconsin Department of Commerce has administrative rules, Comm 83, for building plumbing and non-municipal sewer lines, and for private on-site wastewater treatment systems. Any system with a final discharge exposing treated wastewater upon the ground surface, or discharging directly into surface waters of the state, is subject to DNR regulation. Additionally, certain POWTS are subject to both Department of Commerce and Department of Natural Resources review and regulation.

Wisconsin Administrative Code Comm 83, revised during the 1990s to add provisions for new system technologies and land suitability criteria came into effect on July 1, 2000. Unlike the code it replaced, the new rules prescribe end results - the purity of groundwater discharged from the system - instead of the specific characteristics of the installation.

Communities that are not identified in Section 4.10 as having a publicly owned wastewater treatment system or sanitary district utilize private onsite wastewater treatment systems for disposal of wastewater.

4.12 Public Water Supply

Nineteen communities in Dodge County provide public water supply systems, either through a municipal system or one managed by a sanitary district, refer to Map 4-8 in the Appendix. According to the 2002 Dodge County Agricultural Preservation Plan, there are no well-head protection plans or ordinances in Dodge County. The information contained within this section was obtained from Annual Reports from the listed utility to the Wisconsin Public Service Commission as well as from public water system investigations completed by the Wisconsin Department of Natural Resources.

Beaver Dam Water Utility

The Beaver Dam Water Utility was organized in 1889. Sewer service is not rendered via the utility. There are approximately 5,300 residential metered customers served by the system, 580 commercial customers, and 60 industrial customers. Groundwater is the only water source utilized for water distribution. The Utility utilized four wells, ranging from 365 feet in depth to 585 feet. Storage facilities include: 1) steel elevated tank, built in 1973, with a 500,000 gallon capacity; 2) steel elevated tank, built in 1949, with a 400,000 gallon capacity; and 3) concrete reservoir, built in 1957, 1,000,000 gallon capacity. The utility has approximately 360,000 feet of water main, the majority of which is 6" in diameter. There are also 625 hydrants maintained by the utility, all of which are located within the municipality.

Village of Brownsville Water Utility

The Village of Brownsville Water Utility was organized in 1947. Sewer service is not rendered by the Utility. There are approximately 200 residential metered customers served by the system, 25 commercial customers, and no industrial customers. Groundwater is the only water source utilized for water distribution. There are two wells that provide water to the system, ranging in depth from 975 feet to 1,250 feet. The Utility has two storage facilities, an elevated tank that was constructed in 1948 with a 50,000 gallon capacity, and a 70,000 gallon reservoir. There are approximately 24,000 feet of water main within the system and 46 fire hydrants.

The Wisconsin Department of Natural Resources completed an investigation of the public water system at the Village of Brownsville in 2001. Detailed inspections are completed every five years as part of an inspection program mandated by the US Environmental Protection Agency. The investigated concluded that the Brownsville waterworks system is in good overall condition, but is in need of some improvements. The DNR recommendations included the following:

- Start planning and budgeting for water treatment to remove the excess radionuclides from the drinking water.
- Consideration should be given to the addition of fluoride to the water supply.
- Improvements to each well house to reduce corrosion, maintain conditions, and improve overall appearance.

- Review and possibly improve security.
- Establish a equipment replacement fund.
- Begin planning and budgeting for additional elevated storage.

Clyman Utility Commission

The Clyman Utility Commission provides water and sewer service. The Commission was organized in 1920. There are approximately 150 residential metered customers served by the water system, 12 commercial customers, and 1 industrial customer. Groundwater is the only water source utilized for water distribution. The Commission uses three wells, ranging in depth from 233 feet to 653 feet. There is one storage facility, an elevated tank, built in 1994, with a 250,000 gallon storage capacity. The Commission has approximately 22,000 feet of water main and 42 hydrants.

Columbus Water & Light Department

The Columbus Water & Light Department was formed in 1899. Sewer service is not provided by the Department. There are approximately 1,500 residential metered customers served by the water system, 211 commercial customers, and 13 industrial customers. Groundwater is the only water source utilized for water distribution. Water is supplied through the use of three wells, ranging in depth from 575 feet to 677 feet. Storage facilities include: 1) elevated tank, built in 1971, with a capacity of 250,000 gallons; 2) concrete reservoir, built in 1994, 300,000 gallon capacity; and 3) concrete reservoir, built in 1941, 240,000 gallon capacity. The Department also has approximately 154,000 feet of water main and 248 hydrants. The Light Department (electric) has approximately 2,000 residential customers and 385 commercial and industrial customers. The Department also has three substations.

City of Fox Lake Water Utility

The Utility was organized in 1913. Sewer service is not provided via the utility. There are approximately 565 residential metered customers served by the water system, 65 commercial customers, and 10 industrial customers. Groundwater is the only water source utilized for water distribution. The Utility operates two wells, which range in depth from 444 to 540 feet. The Utility also has one elevated storage tank that was built in 1993 with a capacity of 225,000 gallons. There are approximately 68,000 feet of water mains within the water distribution system as well as 140 hydrants.

City of Hartford Utilities

This Utility was organized in 1895. Sewer service is not provided, however water and electricity are. There are approximately 3,300 residential metered customers served by the water system, 360 commercial customers, and 51 industrial customers. There are also approximately 30 unmetered commercial customers. Groundwater is the only water source utilized for water distribution. There are six wells operated by the Utility, ranging in depth from 40 feet to 704 feet. Storage facilities include: 1) steel reservoir, built in 1933, capacity of 150,000 gallons; 2)

steel reservoir, built in 1999, with a capacity of 300,000 gallons; 3) steel reservoir, built in 1997, capacity of 500,000 gallons; 4) concrete reservoir, built in 1961, 150,000 gallon capacity; and 5) concrete reservoir, built in 1923, 150,000 gallon capacity. The Utility also has approximately 370,000 feet of water main and 501 hydrants. There are approximately 4,400 electricity customers served by the utility, and also 680 commercial and 60 industrial customers. The Utility operates seven substations.

City of Horicon – Water Utility

The City of Horicon Water Utility was organized in 1912. Sewer service is not operated via the utility. There are approximately 1,300 residential metered customers served by the water system, 130 commercial customers, and 27 industrial customers. Groundwater is the only water source utilized for water distribution. The Utility operates four wells, ranging in depth from 582 to 786 feet. Storage facilities include: 1) elevated tank, built in 1975, with a 200,000 gallon capacity; 2) reservoir, built in 1912, with a 103,700 gallon capacity; and 3) elevated tank, built in 1912, 106,000 gallon capacity. The Utility has approximately 126,000 feet of water main and 250 hydrants.

Hustisford Utilities

Hustisford Utilities was formed in 1937. Sewer and water service is provided by the utility. There are approximately 380 residential metered customers served by the water system, 60 commercial customers, and 9 industrial customers. Groundwater is the only water source utilized for water distribution. The Utility operates two wells, ranging in depth from 225 to 252 feet. There are two elevated storage tanks used for storage. One was built in 1971 and has a capacity of 200,000 gallons and the other tank was built in 1991 and has a capacity of 200,000 gallons. There are approximately 46,000 feet of water main owned by the utility as well as 85 fire hydrants. Electricity service is utilized by approximately 500 residential, 700 rural residential, and 180 commercial and industrial customers. The Utility operates one substation.

Iron Ridge Water Utility

The Iron Ridge Water Utility was organized in 1922. Sewer service is provided by the utility. There are approximately 260 residential metered customers served by the water system, 21 commercial customers, and 10 industrial customers. Groundwater is the only water source utilized for water distribution. The utility operates two wells, ranging in depth from 500 to 525 feet. The utility also has one standpipe that was built in 1981 with a total capacity of 275,000 gallons. There are approximately 28,000 feet of water main in the system as well as 56 fire hydrants.

The Wisconsin Department of Natural Resources completed an investigation of the public water system at the Village of Iron Ridge in 2000. Detailed inspections are completed every five years as part of an inspection program mandated by the US Environmental Protection Agency. The investigation concluded that the Iron Ridge waterworks system is in good overall condition, but is in need of some improvements. The DNR recommendations included the following:

- Consideration should be given to the addition of fluoride to the water supply.
- Installation of a dehumidifier is recommended for each pump house to prevent corrosion.
- Recommended to establish an equipment replacement fund.

Juneau Utility Commission

The Juneau Utility Commission was organized in 1895. There are approximately 700 residential metered customers served by the water system, 80 commercial customers, and 13 industrial customers. Groundwater is the only water source utilized for water distribution. The Utility operates three wells, ranging in depth from 625 to 680 feet. Storage facilities include one elevated water tower with a storage capacity of 500,000 gallons and one water tower site. The highest daily water usage experienced for one day was 339,000 gallons. The Utility also owns approximately 81,000 feet of water main and 154 fire hydrants.

The Wisconsin Department of Natural Resources completed an investigation of the public water system at the City of Juneau in 2001. Detailed inspections are completed every five years as part of an inspection program mandated by the US Environmental Protection Agency. The investigation concluded that the Juneau waterworks system is in good overall condition, but is in need of some improvements. The DNR recommendations included the following:

- Installation of larger dehumidifiers is recommended for each pump house to prevent corrosion.
- Auxiliary power should be added to the system.

Lomira Water Utility

The Lomira Water Utility was organized in 1940. Sewer service is not rendered via the utility. There are approximately 675 residential metered customers served by the water system, 90 commercial customers, and 11 industrial customers. Groundwater is the only water source utilized for water distribution. The Utility has two wells, ranging in depth from 1,195 to 1,207 feet. Storage facilities include: 1) elevated tank, built in 1939, 50,000 gallon capacity; 2) concrete reservoir, built in 1939, 40,000 gallon capacity; 3) elevated tank, built in 1990, 300,000 gallon capacity. The Utility also has approximately 64,000 feet of water main and 121 fire hydrants.

The Wisconsin Department of Natural Resources completed an investigation of the public water system at the Village of Lomira in 2002. Detailed inspections are completed every five years as part of an inspection program mandated by the US Environmental Protection Agency. The investigated concluded that the Lomira waterworks system is in good overall condition, but is in need of some improvements. The DNR recommendations included the following:

- The village should consider the addition of another well.

- Consideration should be given to the addition of fluoride to the water supply.
- The pump at well #2 may need to be lowered to prevent cavitation.
- Additional auxiliary power is recommended at well #2.
- Review and implementation of additional security measures.
- Installation of a dehumidifier is recommended for each pump house to prevent corrosion.
- Establishment of an equipment replacement fund.

The village has determined that another well may be needed in the future.

Lowell Municipal Water and Sewer Utility

The utility was organized in 1969. Sewer and water service is rendered via the utility. There are approximately 106 residential metered customers served by the water system, 12 commercial customers, and one industrial customer. Groundwater is the only water source utilized for water distribution. The utility has one well with a depth of 212 feet and an elevated tank that was built in 1970 with a 50,000 gallon capacity. The utility also has approximately 14,000 feet of water main and 18 fire hydrants. The sewage operation serves approximately 106 residential customers, 12 commercial, and one industrial customer. The utility owns approximately 21,000 feet of sewer main.

Mayville Water Utility

The utility was organized in 1907. There are approximately 1,600 residential metered customers served by the water system, 181 commercial customers, and 33 industrial customers. Industrial users represent nearly 50% of water sales. Water system facilities include four wells, ranging in depth from 760 to 818 feet. Groundwater is the only source of water utilized by the utility. Water storage facilities include: 1) elevated tank, built in 1976 with a 500,000 gallon capacity; 2) standpipe, built in 1962 with a 200,000 gallon capacity. There are approximately 32 miles of water distribution and transmission mains ranging in size up to 16 inches in diameter.

A number of plans and studies have been completed for the city with regard to the water system as follows.

- Preliminary water distribution plan, 1974
- Water system plan, 1975
- Water system plan, 1977
- Water system plan, 1990

- WDNR Water System Investigation, 1999
- Water system study, 2000

The Wisconsin Department of Natural Resources completed an investigation of the public water system at the City of Mayville in 1999. Detailed inspections are completed every five years as part of an inspection program mandated by the US Environmental Protection Agency. The investigated concluded that the Mayville waterworks system is in good overall condition, but is in need of some improvements.

A water system study was completed for the city by Earth Tech, Inc. in 2000. The study evaluated the city's water system needs to the 2020. Changes, improvements, and general policy issues were discussed and recommended.

Town of Portland Sanitary District #1

The District was organized in 1970. Sewer service is not provided by the District. The Town of Portland Sanitary District has a contract until 2009 with the Waterloo Water & Light Commission for the purchase of water. There are approximately 60 residential metered customers served by the water system, seven commercial customers, and no industrial customers. The District has approximately 9,100 feet of water main and four fire hydrants.

Randolph Water Utility

The Randolph Water Utility was organized in 1907. Sewer service is not rendered via the utility. There are approximately 570 residential metered customers served by the water system, 95 commercial customers, and 22 industrial customers. Groundwater is the only water source utilized for water distribution. The utility has three wells, ranging in depth from 385 to 552 feet. Storage facilities include: 1) elevated tank, built in 1906 with a 75,000 gallon capacity; 2) reservoir, built in 1930 with a 75,000 gallon capacity. The utility has approximately 45,000 feet of water main and 96 hydrants.

Reeseville Water Utility

The Reeseville Water Utility was organized in 1924. Sewer service is not rendered by the utility. There are approximately 210 residential metered customers served by the water system, 30 commercial customers, and five industrial customers. Groundwater is the only water source utilized for water distribution. The utility has two wells, ranging in depth from 219 to 350 feet. The utility also has one elevated storage tank that was built in 2001, with a capacity of 200,000 gallons. The utility has approximately 24,000 feet of water main and 48 fire hydrants.

Watertown Water Commission

The Watertown Water Commission was organized in 1895. Sewer service is not rendered by the utility. There are approximately 6,600 residential metered customers served by the water system, 750 commercial customers, and 65 industrial customers. Groundwater is the only water source utilized for water distribution. The utility operates nine wells, ranging in depth from 703 to

1,145 feet. Storage facilities include: 1) elevated tank, built in 1966 with a capacity of 300,000 gallons; 2) elevated tank, built in 1995 with a 300,000 gallon capacity; 3) elevated tank, built in 1996 with a 300,000 gallon capacity; 4) elevated tank, built in 1951 with a 300,000 gallon capacity; 5) reservoir, built in 1966 with a 360,000 gallon capacity; 6) reservoir, built in 1952 with a 324,000 gallon capacity; 7) elevated tank, built in 1985 with a 500,000 gallon capacity; 8) elevated tank, built in 1966 with a 300,000 gallon capacity. The utility has approximately 577,000 feet of water main and 1,060 fire hydrants.

Waupun Utilities

Waupun Utilities was organized in 1894. Sewer service is rendered by the utility. There are approximately 2,800 residential metered customers served by the water system, 330 commercial customers, and 16 industrial customers. Groundwater is the only water source utilized for water distribution. The utility operates five wells, ranging in depth from 611 to 965 feet. Water storage facilities include: 1) elevated tank, built in 1966 with a 250,000 gallon capacity; 2) reservoir, built in 1941 with a 500,000 gallon capacity; 3) reservoir, built in 1972 with a 32,000 gallon capacity; and 4) elevated tank, built in 1992 with a 400,000 gallon capacity. The utility also has approximately 264,000 feet of water main and 378 fire hydrants. Electric operations serve approximately 3,600 residential and 500 industrial and commercial customers. The utility has six substations.

Village of Theresa Municipal Water and Sewer Utility

The utility was organized in 1954. Both sewer and water service are rendered by the utility. There are approximately 480 residential metered customers served by the water system, 25 commercial customers, and 3 industrial customers. Groundwater is the only water source utilized for water distribution. The utility has two wells, ranging in depth from 102 to 875 feet. The source for Well No. 1, which is the main source for drinking water, is a sand and gravel aquifer. A sandstone aquifer is the source for Well No. 2, which serves as a backup system and provides water for fire fighting. Waster storage facilities include one elevated storage tank that was built in 1997 with a 200,000 gallon capacity. The utility also has approximately 43,000 feet of water main and 75 fire hydrants. Sewage operations serve approximately 475 residential, 25 commercial, and 3 industrial customers. The utility has approximately 40,000 feet of sewer main.

The Wisconsin Department of Natural Resources completed an investigation of the public water system at the Village of Theresa in 1998. Detailed inspections are completed every five years as part of an inspection program mandated by the US Environmental Protection Agency. The investigated concluded that the Theresa waterworks system is in good overall condition, but is in need of some improvements. The DNR recommendations included the following:

- Measures should be taken to reduce the amount of water loss occurring in the system. A water loss study may be needed.

- Installation of a dehumidifier at each pump house is recommended.

- Fluoride addition was discontinued in May of 1993. This should be reviewed.
- The Department recommends that zeolite softeners be installed at well #2.

4.13 Stormwater Management

The goal of stormwater management is to prevent runoff from delivering pollutants or sediment to lakes, rivers, streams, or wetlands. Commonly applied stormwater management tools include: ditches, culverts, grassed waterways, rock chutes, retention basins or settling ponds, curb and gutter, storm sewer, and construction site erosion control.

State law currently requires certain construction sites, municipalities, and industries to obtain a Stormwater Discharge Permit from the WDNR. Construction sites with more than one acre of bare soil and non-metallic mine sites of any size must obtain a permit. Incorporated areas with a population of less than 50,000 are not required to obtain a permit. Industrial sites are categorized based on their potential for contamination of stormwater runoff. The highest potential sources of pollution are regulated more strictly than the lowest.

Ditches, culverts, and local topography are the primary stormwater management tools for the majority of towns in Dodge County, while a majority of the incorporated areas address stormwater management by requiring the installation of storm sewer, and curb and gutter as part of all new development. The Dodge County Land Use Code regulates stormwater management in major subdivisions and in environmentally sensitive areas.

Dodge County Drainage Districts

Chapter 88, Wisconsin Statutes, enables the establishment of local drainage districts and drainage boards. The drainage district program is responsible for the systematic drainage of lands for agricultural practices. Primary responsibility for planning for and administering drainage districts resides with the county drainage board. The board also resolves drainage disputes among landowners. Twenty-five counties, including Dodge County, have drainage boards with jurisdiction over about 160 individual drainage districts. The Dodge County Drainage Board oversees 36 separate drainage districts throughout Dodge County.

Drainage boards are responsible for planning to meet specific rule requirements established by the Wisconsin Department of Agriculture, Trade & Consumer Protection (DATCP). DATCP has established standards for the maintenance of district drains and facilities, procedures for assessments of land benefited by drainage, and procedures for investigating districts for compliance. DATCP also reviews and approves construction and restoration plans, provides on-site inspections, and performs other activities that will bring drainage districts into compliance.

In addition, county drainage boards are authorized to assess landowners for the cost associated with making improvements and/or correcting problems when the landowner is the source of adverse impacts on downstream water quality. Landowners must receive drainage board approval before taking any action which could potentially affect a drainage system.

4.14 Health Care Facilities

The availability of adequate health care facilities and services is becoming increasingly important 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. The following hospitals serve Dodge County and its residents:

Beaver Dam Community Hospital
The Beaver Dam Community Hospital provides full inpatient and outpatient services, 24-hour emergency services, and urgent care services.

Columbus Community Hospital
Main services that are offered are 24-hour emergency, obstetrics, general surgery, ambulatory surgery, cardiopulmonary, Home Oxygen Therapy, Lifeline, and Swing Bed. Additional services offered include allergy, dermatology, ear/nose/throat, oncology, ophthalmology, orthopedics, plastic surgery, podiatry, urology, and urgent care.

Waupun Memorial Hospital
Waupun Memorial Hospital, a member of Agnesian Healthcare, has been serving the area for over 50 years. Its medical staff physicians provide care in more than 20 medical specialties. A number of medical services and specialties and department can be found at the hospital including a state-of-the-art emergency department, urgent care services, intensive care unit, physical medical services, obstetrics unit, and more.

Watertown Memorial Hospital
The Watertown Memorial Hospital medical staff consists of approximately 60 physicians and mid-level practitioners. The hospital provides an array of services ranging from urgent care and obstetrics to surgery and chronic pain management.

Aurora Medical Center-Hartford
The Aurora Medical Center in Hartford offers a variety of services and departments including adult day care, rehabilitation center, birth day center, cancer services, emergency department, GI services, orthopedics, pain management center, sleep disorders center, wound care, and hyperbaric oxygen therapy.

As the population ages and the baby-boomers move into older age groups there will be increasing demand for long-term care, nursing homes, community based residential facilities, and similar other elder care facilities. According to the Wisconsin Department of Health and Family Services, Division of Disability and Elder Services, the following facilities are currently located in Dodge County:

- Beaver Dam Care Center, Beaver Dam, 120 beds, privately owned facility
- Hillside Manor, Beaver Dam, 123 beds, voluntary nonprofit corporation
- Clearview North, Juneau, 142 beds, county owned
- Clearview South, Juneau, 120 beds, county owned
- Hope Health and Rehabilitation Center, Lomira, 42 beds, privately owned

- Mayville Nursing and Rehabilitation Center, Mayville, 102 beds, privately owned
- Continental Manor Health and Rehabilitation Center, Randolph, 84 beds, privately owned
- Beverly Terrace, Watertown, 125 beds, privately owned
- Marquardt Memorial Manor Inc., Watertown, 140 beds, voluntary nonprofit corporation
- Christian Home and Rehabilitation Center, Waupun, 81 beds, voluntary nonprofit corporation

4.15 Day Care Facilities

Under Wisconsin law, no person may for compensation provide care and supervision for four or more children under the age of seven for less than 24 hours a day unless that person obtains a license to operate a child care center from the Wisconsin Department of Health and Family Services. This does not include a relative or guardian of a child who provides care and supervision for the child; a public or parochial school; a person employed to come to the home of the child's parent or guardian for less than 24 hours a day; or a county, city, village, town, school district or library that provides programs primarily intended for recreational or social purposes.

There are 2 different categories of state licensed child care; they depend upon the number of children in care:

- Licensed Family Child Care Centers provide care for up to 8 children. This care is usually in the provider's home, but it is not required to be located in a residence.

- Licensed Group Child Care Centers provide care for 9 or more children. These centers are usually located somewhere other than a residence and may be small or large in size.

There are approximately 30 child care centers located in Dodge County. The child care facilities are concentrated near the population centers in the County. There are only three child care centers located in the four towns in the southeast quadrant of the County. The population in this area is projected increase substantially over the planning period. Therefore, additional child care centers in this area may be needed to serve the growing population.

4.16 Utilities and Community Facilities Trends and Outlook

The following trends are anticipated with regard to planning for future utilities and community facilities:

- Local government budget constraints will drive the need for intergovernmental cooperation for services and programs.
- There will be an increased need for communities and other jurisdictions to coordinate the development of trails and other recreational facilities.
- Increased development in rural areas will create the need for police and other governmental services in areas that do not currently provide such services.
- The demand for health care and child care facilities will increase.
- Decreasing school enrollments may cause further school closings and consolidations.

5. Agricultural, Natural, and Cultural Resources

5.1 Introduction

The natural resources of a county offer a clean and abundant supply of groundwater and surface water, assure safe air to breathe, and provide a natural landscape of terrestrial and aquatic habitats such as forest, prairies, and wetlands. Natural resources include the parks, trails, scenic areas, and other outdoor places people rely on for recreation. Natural resources are essential to a vibrant economy – measured in tourism revenues, enhanced property values, sustainable agriculture and wood products, low cost raw materials (such as sand, gravel, and stone), available water for manufacturing processes, etc.

While Wisconsin's natural resources benefit each community they are also susceptible to internal and external forces. For example, the increasing human demands by a growing state population increase consumption of water, land, and raw materials. Our natural resources generally do not increase to meet this extra demand. Additionally, unplanned or poorly planned development patterns in the last several decades are often the result of a demand for "healthy country living", which is transforming our rural landscapes. This rural migration along with the expansion of the urban fringe, forces local governments to consider expanding their services to meet the demands – sometimes costing more than will be recovered in new tax base revenues.

There are many state and some federal regulations designated to protect Wisconsin's natural resources. Some state laws, including those for floodplains, shorelands, and wetlands, establish minimum use and protection standards that must be adopted and administered by local governments. But not all natural resources are protected by state law. Local governments throughout the state have the flexibility to plan for and develop their own local ordinances to deal with the unique land use issues/conflicts in their community and to protect the natural resources that they value most. As population growth, land consumption, and technological improvements continue, communities need to take on the additional role of stewards and protectors of these resources.

Land development patterns are directly linked to the natural, agricultural, and cultural resource bases of each community. Therefore, these features need to be considered before making any decisions concerning future development within the community. Development must be carefully adjusted to coincide with the ability of the agricultural, natural and cultural resource base to support the various forms of urban and rural development. This balance must be maintained to prevent the deterioration of that underlying and sustaining base, because these resources make each community unique.

This element provides an inventory and assessment of the agricultural, natural, and cultural resources of Dodge County. Dodge County has many unique natural features, including the largest freshwater cattail marsh in the United States, the Horicon Marsh. The Marsh provides residents and visitors with a wide variety of recreational opportunities in a beautiful setting. The county's agricultural, natural, and cultural resources contribute greatly to the quality of life.

5.2 Soils

Soil is composed of varying proportions of sand, gravel, silt, clay, and organic material. The composition of a soil must be evaluated prior to any development, as varying limitations exist for each soil. Dodge County soils are products of the deposits left after the glacier receded about 12,000 years ago. These deposits consisted of sand, gravel, large rocks, clay, limestone fragments, and igneous and metamorphic rocks. The deposits have prompted mineral and sand and gravel extraction throughout the county. The Niagara escarpment is a source of commercial grade stone and crushed lime. Iron deposits were also once mined on the escarpment.

The majority of soils in the county are upland silt loam considered good for agricultural uses. Topsoil generally ranges between 10 and 14 inches in depth. The seven general soil associations found in the county include Fox-Casco-Rodman, McHenry-Pella, Plano-Mendota, Houghton-Pella, St. Charles-LeRoy-Lomira, Theresa-Lamaritine-Hochheim, and St. Charles-Miami-Elburn.

5.3 Prime Agricultural Soils

The soils in Dodge County are classified by the United States Department of Agriculture to represent different levels of agricultural use. Class I, II, and the best Class III soils are all considered good soils for agricultural production. This classification system is based on criteria of production potential, soil conditions and other basic production related criteria. Dodge County has a wide expanse of good agricultural soils. In general, areas of the county that are not classified as Class I, II, or the best Class III soils include the waterbodies and wetland areas, areas of steep slope, and the escarpment areas of the county (refer to Map 5-1, located in the Appendix). Table 5-1 details the acreage of prime soils found in the towns of Dodge County.

Table 5-1
Prime Agricultural Soils, Dodge County Towns

	Acres	% of Total
T. Ashippun	17,556.1	3.8%
T. Beaver Dam	19,173.3	4.1%
T. Burnett	18,399.4	3.9%
T. Calamus	19,975.5	4.3%
T. Chester	16,177.7	3.5%
T. Clyman	20,497.2	4.4%
T. Elba	20,719.5	4.4%
T. Emmet	18,274.7	3.9%
T. Fox Lake	18,657.2	4.0%
T. Herman	19,542.8	4.2%
T. Hubbard	14,971.0	3.2%
T. Hustisford	18,118.6	3.9%
T. Lebanon	19,690.8	4.2%
T. Leroy	18,756.2	4.0%
T. Lomira	19,985.4	4.3%
T. Lowell	30,475.9	6.5%
T. Oak Grove	20,224.2	4.3%
T. Portland	19,930.9	4.3%
T. Rubicon	17,259.6	3.7%
T. Shields	14,796.2	3.2%
T. Theresa	19,031.1	4.1%
T. Trenton	31,255.7	6.7%
T. Westford	18,153.3	3.9%
T. Williamstown	14,701.8	3.2%
Total	466,324.2	100.0%

Source: Dodge County Planning, Development and Parks Department.

5.4 Agriculture and Farmland

Agriculture is central to the culture, economy, and landscape of Dodge County. According to the Wisconsin Town Land Use Data Project, conducted by the University of Wisconsin-Madison, 75.7% of total land cover in the county is in farmland (1993 data). According to the 2002 Census of Agriculture, the amount of land in farms in Dodge County decreased 2% from 410,651 acres in 1997 to 404,054 acres in 2002. For the same period, the average size of farms increased 4% from 197 acres in 1997 to 205 acres in 2002. The number of farms decreased 6% from 2,085 farms in 1997 to 1,968 farms in 2002. Similar trends can be found in many Wisconsin counties. Refer to Chapter 6, Economic Development, for further detail on the economic impacts of agriculture in Dodge County. The following tables detail some of the key agricultural production statistics from Dodge County.

Table 5-2
Agricultural Production, Dodge County, 2003

Commodity	Annual Production (2003)
Soybeans	2,192,600 bushels
Barley	46,300 bushels
Corn for grain	16,825,000 bushels
Corn for silage	488,900 tons
Oats	555,000 bushels
Winter wheat	704,700 bushels
Forage	256,400 tons
Alfalfa Hay	112,400 tons
Sweet corn	40,000 tons
Cattle and calves	107,000 head

Source: Wisconsin 2004 Agriculture Statistics report (2003 data)

Table 5-3
Number of Dairy Cows and Milk Production 2002-2003, Dodge County, Wisconsin

	2002	2003
Number of cows	42,500	42,500
Milk per cow (pounds)	16,800	17,300
Total milk produced (1,000 pounds)	714,000	735,250

Source: Wisconsin 2004 Agriculture Statistics report (2003 data)

Agriculture not only produces food and fiber, but is also to Wisconsin's culture and heritage. Barns, cows, fields, and silos paint the scene that so many define as Wisconsin's rural character. Farm families include some of the earliest settlers of many areas and provide a sense of continuity to a community. Public opinion surveys conducted by the American Farmland Trust, the U.S. Department of Agriculture, the American Farm Bureau, Wisconsin counties, and other local units of government show that Wisconsin citizens place a high value on the presence of agriculture and agricultural lands. Agriculture is therefore linked not only to the economy, but the social and cultural heritage of a community.

Agriculture is also connected to other land uses and issues. The interaction between farms and rural residential development has impacted land values, property taxes, and the right to farm. The distance from farm related services, markets for farm commodities, processing industries, and other critical land uses can determine the long term success of an agricultural area. Agriculture is also linked to transportation issues. Agriculture brings large vehicles to rural roads including farm equipment and heavy trucks. These rural roads are rarely constructed to handle the size and weight of such large vehicles. This often contributes to traffic issues, the posting of weight limits, and increased local expenditures for road maintenance.

Wisconsin's Proposed Livestock Facility Siting Law

The Livestock Facility Siting law (Wisconsin Act 235 and s. 93.90, Wisconsin Statutes) is scheduled to go into effect on October 1, 2005 and has two primary impacts on livestock farming and units of government.

1. It places limitations on the application of zoning and other ordinances to the siting of new livestock facilities and the expansion of existing livestock facilities.

2. For those units of government that regulate such facilities, it establishes a uniform, state-wide framework of performance standards that may be applied to livestock facilities.

In general, the applicability of this law is with regard to the siting of new livestock farms and the expansion of existing livestock farms, either of which will result in a facility with 500 or more animal units. The requirements of this law may also apply to farms or expansions that have fewer than 500 animal units, but only if the lower threshold was adopted as part of an applicable local ordinance prior to July 19, 2003.

General Permitting Limitations

A permit for the siting of a new livestock facility or the expansion of an existing livestock facility can only be disapproved by a unit of government under certain circumstances. One of the following must be true before a permit application can be disapproved.

- The site is in a non-agricultural zoning district.

- The site is in an agricultural zoning district that prohibits livestock facilities over 500 animal units (subject to the Zoning Limitations below).

- The site violates a duly adopted shoreland zoning, floodplain zoning, construction site erosion control, or stormwater management ordinance, or a duly adopted building, plumbing, or electrical code.

- The site will have 500 or more animal units but does not comply with the performance standards of this law.

Zoning Limitations

The zoning limitations of this law apply to those units of government with zoning requirements that:

- Require conditional use or special exception permits for livestock facilities or expansions,

- Differentiate between livestock operations of different sizes, or

- Prohibit livestock operations in all zoning districts.

For those ordinances that require a conditional use or special exception permit for livestock facilities or expansions, that unit of government must also apply and enforce the performance standards of this law if a resulting facility will have 500 or more animal units. For those zoning ordinances that differentiate between livestock operations of different sizes, a district must also be included that does not differentiate between livestock operations of different sizes. For example, if a "General Agriculture" district only allows livestock operations and expansions with fewer than 500 animal units, then there must also be an "Intensive Agriculture" district that allows livestock operations and expansions of any size as permitted or conditional uses.

Ordinances that prohibit livestock operations in all zoning districts may no longer be legally defensible. Any such ordinance must be based on scientifically defensible findings of fact that clearly show that such prohibitions are necessary to protect public health or safety.

Performance Standards

Units of government will be required to apply and enforce the performance standards of this law if they either:

- Require a conditional use or special exception permit for the siting of new, or the expansion of existing, livestock farms that will result in a facility with 500 or more animal units; or

- Administer local regulations that overlap with the performance standards of this law for the siting of new, or the expansion of existing, livestock farms. Such regulations might include manure storage, feedlot, or livestock facility licensing ordinances, or performance standards within zoning ordinances.

Units of government that wish to begin or continue to enforce performance standards that apply to livestock facilities must bring their ordinances into compliance with this law. Units of government may only set more restrictive local performance standards if they are based on scientifically defensible findings of fact that clearly show the standards are necessary for the protection of public health or safety. Units of government may only apply performance standards to livestock farms with fewer than 500 animal units if a lower threshold was adopted in an ordinance prior to July 19, 2003.

The specific performance standards will be defined in rules adopted by the Wisconsin Department of Agriculture, Trade, and Consumer Protection (DATCP). Each performance standard has its own thresholds for various levels of required compliance. In general, applicability is similar to

Proposed Performance Standards

Areas of regulation in the proposed performance standards include the following:

- Property line and road setbacks
- Water quality setbacks
- Odor management for livestock structures
- Odor management for land application of stored, untreated liquid manure
- Waste and nutrient management
- Waste storage facilities
- Runoff management (including animal lots and feed storage)
- Mortality management

the rest of the law at 500 or more animal units, except that existing livestock farms are allowed a one time 20% increase in the number of animal units (over the number of animal units on the effective date of the law, October 1, 2005) without coming into compliance with the new performance standards.

5.5 Forests

Only about 3.3% of the county's surface area is in woodland use. An estimated 8,850 acres of forests were lost between 1987 and 1992. The main woodland species that remain are oak, elm, maple, and other hardwoods (refer to Map 5-3, located in the Appendix).

There is limited economic potential from the remaining woodlots since they tend to be small and widely scattered. Many contain residential development or are located in public parks and recreation areas.

Urban Forests

Urban forests consist of all the trees and other vegetation in and around a community. This includes not only tree-lined streets, but also trees in home landscapes, school yards, parks, river banks, cemeteries, vacant lots, utility rights-of-way, and anywhere else trees can grow. Shrubs, flowers, vines, ground cover including grasses, and a variety of other wild plants and animals are also components of the urban forest system. Urban forest resources are found in Dodge County's cities and villages as well as in unincorporated rural hamlets. Urban trees provide functions and benefits with respect to stormwater management and temperature regulation. Urban trees provide energy savings through shading and by reducing the effects of "heat islands" that come from paved surfaces.

Wisconsin Forests

Forests have been vital to the quality of life in Wisconsin, providing opportunities for sportsmen, tourists, and recreationists. Forests are also essential to the protection of ground and surface water resources. According to the draft *Wisconsin Statewide Forest Plan* (WDNR, 2004), Wisconsin's forests cover 16 million acres, or 46% of the state's land area. While the public sector and the forest industry own significant forest acreage, most of the state's forest land (57%), is owned by private, non-industrial landowners. Thirty percent of the state's forests are owned by the public sector, with federal holdings accounting for 10%, state holdings 5%, and county governments, municipalities, and school districts totaling 15%. Accounting for the balance of the forest resource, Wisconsin's Native American tribes own 2% of the state's forests, corporations own 4%, and the forest industry owns 7%.

5.6 Metallic and Non-Metallic Mineral Resources

Wisconsin Administrative Code NR 135 requires that all counties adopt and enforce a Non-metallic Mining Reclamation Ordinance that establishes performance standards for the reclamation of active and future non-metallic mining sites, but not abandoned sites. It is intended that NR 135 will contribute to environmental protection, stable non-eroding sites,

productive end land use, and the potential to enhance habitat and increase land values and tax revenues.

Dodge County has a Non-Metallic Mining Reclamation Overlay District as part of its adopted Land Use Code. The purpose of this overlay district is to establish a local program to ensure the effective reclamation of non-metallic mining sites on which non-metallic mining takes place in Dodge County. As part of this program permits are required by metallic and non-metallic sites in the county. According to the 2005 annual report on permits, there are currently 25 permitted sites in Dodge County.

5.7 Wetlands

The hydrology of soils, or the amount of water saturation present, largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promotes the development of characteristic wetland (hydric) soils.

Wetlands may be seasonal or permanent and are commonly referred to as swamps, marshes, fens, or bogs. Wetland plants and soils have the capacity to store and filter pollutants ranging from pesticides to animal wastes. Wetlands can make lakes, rivers, and streams cleaner, and drinking water safer. Wetlands also provide valuable habitat for fish, plants, and animals. In addition, some wetlands can also replenish groundwater supplies. Groundwater discharge from wetlands is common and can be important in maintaining stream flows, especially during dry months.

Wetlands Defined

According to the United States Environmental Protection Agency, wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Wetlands can be recognized by the presence of three features:

1. *Wetland hydrology*, or varying degrees of saturated conditions.
2. *Hydrophytes*, or specially adapted plants that favor the prolonged presence of water.
3. *Hydric soils*, or soils that contain characteristics that confirm the long term presence of wetland hydrology.

Local, state, and federal regulations place limitations on the development and use of wetlands and shorelands. The Wisconsin Department of Natural Resources (WDNR) has inventory maps for each community that identifies wetlands two acres and larger. The wetland inventory map should be consulted whenever development proposals are reviewed in order to identify wetlands and to ensure their protection from development. An extensive series of wetlands is found throughout Dodge County (refer to Map 5-4, located in the Appendix). Table 5-4 details the acreage of wetlands found in Dodge County.

Table 5-4
Wetlands, Dodge County

	Acres	% of Total
T. Ashippun	3,382.6	3.1%
T. Beaver Dam	2,775.9	2.5%
T. Burnett	8,035.6	7.4%
T. Calamus	4,370.4	4.0%
T. Chester	11,320.9	10.4%
T. Clyman	1,924.6	1.8%
T. Elba	2,482.1	2.3%
T. Emmet	1,024.9	0.9%
T. Fox Lake	4,362.0	4.0%
T. Herman	1,915.1	1.8%
T. Hubbard	4,490.5	4.1%
T. Hustisford	5,900.3	5.4%
T. Lebanon	5,132.3	4.7%
T. Leroy	6,175.9	5.7%
T. Lomira	2,379.5	2.2%
T. Lowell	8,160.6	7.5%
T. Oak Grove	1,938.5	1.8%
T. Portland	3,471.4	3.2%
T. Rubicon	1,974.4	1.8%
T. Shields	5,020.2	4.6%
T. Theresa	3,685.0	3.4%
T. Trenton	3,805.6	3.5%
T. Westford	3,807.4	3.5%
T. Williamstown	9,740.7	8.9%
V. Brownsville	7.8	0.0%
V. Clyman	0.0	0.0%
V. Hustisford	132.2	0.1%
V. Iron Ridge	20.7	0.0%
V. Kekoskee	16.8	0.0%
V. Lomira	27.1	0.0%
V. Lowell	152.8	0.1%
V. Neosho	28.5	0.0%
V. Randolph*	1.3	0.0%
V. Reeseville	4.2	0.0%
V. Theresa	21.4	0.0%
C. Beaver Dam	229.8	0.2%
C. Columbus*	0.0	0.0%
C. Fox Lake	166.9	0.2%
C. Hartford*	11.6	0.0%
C. Horicon	440.1	0.4%
C. Juneau	19.4	0.0%
C. Mayville	30.9	0.0%
C. Watertown*	395.6	0.4%
C. Waupun*	22.6	0.0%
Dodge County	109,006.1	100.0%

*Community partially located outside of county, acreage only includes portion in the county.
Source: Dodge County Planning, Development and Parks Department.

Horicon National Wildlife Refuge and Horicon Marsh Wildlife Area

These two protected wildlife areas, collectively known as the Horicon Marsh, make up the largest freshwater cattail marsh in the United States. This marsh has been designated as "A Wetland of International Importance" by the Ramsar Convention and accepted as a "Globally Important Bird Area" by the American Bird Conservancy. The Green Bay Lobe of the Wisconsin glacier formed the Horicon Marsh during the last Ice Age more than 10,000 years ago. The glacier left behind a shallow, 50-square mile lake as it receded. Over time, this lake and the deposit of silt and organic materials reduced the depth of the basin. Due to its geological significance, Horicon Marsh has been included as a unit of the Ice Age National Scenic Reserve in cooperation with the National Park Service. The northern two-thirds of the marsh is under the jurisdiction of the U.S. Fish and Wildlife Service and the southern one-third is under the jurisdiction of the Wisconsin Department of Natural Resources.

After many years of damming, ditching, and draining in an attempt to alter the marsh, the Wisconsin Legislature passed the Horicon Marsh Wildlife Refuge Bill in 1927 for the restoration of the Marsh including land acquisition and dam construction to re-flood this drained wetland. Today, the Horicon Marsh covers about 32,000 acres, making it the largest freshwater marsh in the upper Midwest.

5.8 Floodplains

For planning and regulatory purposes, the floodplain is normally defined as those areas, excluding the stream channel, that are subject to inundation by the 100-year recurrence interval flood event. This event has a one percent chance of occurring in any given year. Because of this chance of flooding, development in floodplain should be discouraged and the development of park and open space in these areas encouraged. The floodplain includes the floodway and flood fringe. The floodway is the portion of the floodplain that carries flood water or flood flows, while the flood fringe is the portion of the floodplain outside the floodway, which is covered by waters during a flood event. The flood fringe is generally associated with standing water rather than rapidly flowing water.

Wisconsin Statute 87.30 requires Counties, Cities, and Villages to implement floodplain zoning. In addition, the Federal Emergency Management Agency (FEMA) has developed flood hazard data. Table 5-5 details the acreage of floodplains found in the communities of Dodge County. Refer to Map 5-5 located in the Appendix for floodplains within the county.

Table 5-5
Floodplains, Dodge County

	Acres	% of Total
T. Ashippun	4,757.2	3.5%
T. Beaver Dam	5,260.0	3.8%
T. Burnett	9,495.9	6.9%
T. Calamus	8,223.4	6.0%
T. Chester	10,243.2	7.5%
T. Clyman	2,977.2	2.2%
T. Elba	5,403.8	4.0%
T. Emmet	2,766.9	2.0%
T. Fox Lake	8,907.2	6.5%
T. Herman	2,232.4	1.6%
T. Hubbard	3,253.8	2.4%
T. Hustisford	9,394.9	6.9%
T. Lebanon	9,314.3	6.8%
T. Leroy	6,048.3	4.4%
T. Lomira	853.9	0.6%
T. Lowell	6,993.3	5.1%
T. Oak Grove	5,519.1	4.0%
T. Portland	7,640.5	5.6%
T. Rubicon	3,546.3	2.6%
T. Shields	4,407.2	3.2%
T. Theresa	1,984.4	1.5%
T. Trenton	1,547.4	1.1%
T. Westford	6,060.4	4.4%
T. Williamstown	9,618.0	7.0%
V. Brownsville	0.0	0.0%
V. Clyman	0.0	0.0%
V. Hustisford	0.0	0.0%
V. Iron Ridge	1.6	0.0%
V. Kekoskee	0.0	0.0%
V. Lomira	0.0	0.0%
V. Lowell	0.0	0.0%
V. Neosho	48.5	0.0%
V. Randolph*	0.0	0.0%
V. Reeseville	0.0	0.0%
V. Theresa	38.3	0.0%
C. Beaver Dam	0.0	0.0%
C. Columbus*	0.0	0.0%
C. Fox Lake	0.0	0.0%
C. Hartford*	0.0	0.0%
C. Horicon	0.0	0.0%
C. Juneau	0.0	0.0%
C. Mayville	177.5	0.1%
C. Watertown*	0.0	0.0%
C. Waupun*	0.0	0.0%
Dodge County	136,714.6	100.0%

*Community partially located outside of county, acreage only includes portion in the county.
Source: Dodge County Planning, Development and Parks Department.

5.9 Topography

During the last Ice Age, which ended about 10,000 years ago, a massive ice sheet covered the entire county. The county's topography was shaped by the advance and retreat of this ice mass. Glacial debris was deposited as ground moraine and other glacial formations, varying in thickness throughout the county from 100 to 300 feet in depth. There is approximately 400 feet of elevation change with the highest points reaching 1,200 feet above sea level in the northeast, to 800 feet above sea level in the southwestern portions of the county. The two most prominent topographic features in the county include the very flat, marsh areas, such as the Horicon Marsh, and the Niagara Escarpment, which rises 190 feet in some areas.

5.10 Watersheds and Drainage

A watershed is an area of land from which water drains to a common surface water feature, such as a stream, lake, or wetland. In Wisconsin, watersheds vary in scale from major river systems to small creek drainage areas, and typically range in size from 100 to 300 square miles. River basins can contain several watersheds. There are 32 river basins in Wisconsin which range in size from 500 to over 5,000 square miles. In order to protect and improve the state's water resources, the WDNR prepares water quality management plans for each river basin in the state. These plans identify sources of water quality problems and identify management objectives for the WDNR, local communities, counties, and other agencies.

Almost all of the land in Dodge County is located in the Upper Rock River Basin. This basin includes 14 surface watersheds. The Upper Rock River Basin encompasses about 1,890 square miles. The Rock River Basin covers 3,700 square miles (refer to Map 5-6, located in the Appendix). Table 5-6 displays the watersheds of Dodge County and the square miles found within each watershed.

Table 5-6
Watersheds, Dodge County, 2005

Watershed	Square Miles	% of Total
Ashippun River	35.0	3.9%
Beaver Dam River	243.2	27.2%
Calamus Creek	29.3	3.3%
East and West Branches Milwaukee River	4.2	0.5%
East Branch Rock River	119.3	13.4%
Lower Crawfish River	72.8	8.2%
Lower Grand River	3.3	0.4%
Maunesha River	4.0	0.4%
Middle Rock River	5.8	0.6%
Oconomowoc River	0.6	0.1%
Rubicon River	44.9	5.0%
Sinissippi Lake	177.0	19.8%
Upper Crawfish River	12.5	1.4%
Upper Rock River	140.9	15.8%
Total	892.8	100.0%

Source: Dodge County Planning, Development and Parks Department.

A report from the Wisconsin Department of Natural Resources titled *The State of the Rock River Basin* was completed in April of 2002. According to the report, the most serious challenges facing the Basin include:

- Water quality impacts and increased runoff quantity from agriculture and urban land uses, such that many of the rivers and streams are not meeting water quality standards.
- Loss of agricultural lands and its impacts on wildlife habitat, recreational uses, rural landowners, and the economy.
- Loss of critical, sensitive habitat and connection between habitats.
- Significant groundwater contamination in areas of the Basin.
- Lower urban groundwater levels due to increased use and decreased groundwater infiltration due to more acres of impervious land.

5.11 Surface Water Features

Over 21,000 acres of surface water cover parts of Dodge County, including 31 lakes and 50 rivers and streams. Table 5-7 details the amount of surface water found in Dodge County and its communities.

Table 5-7
Surface Water, Dodge County

	Acres	% of Total
T. Ashippun	108.8	0.5%
T. Beaver Dam	2,237.4	10.6%
T. Burnett	409.5	1.9%
T. Calamus	329.0	1.6%
T. Chester	998.9	4.7%
T. Clyman	49.1	0.2%
T. Elba	260.1	1.2%
T. Emmet	39.5	0.2%
T. Fox Lake	4,063.8	19.3%
T. Herman	25.9	0.1%
T. Hubbard	1,732.5	8.2%
T. Hustisford	1,219.3	5.8%
T. Lebanon	200.4	1.0%
T. Leroy	717.6	3.4%
T. Lomira	28.7	0.1%
T. Lowell	497.0	2.4%
T. Oak Grove	222.0	1.1%
T. Portland	406.4	1.9%
T. Rubicon	261.9	1.2%
T. Shields	334.2	1.6%
T. Theresa	360.1	1.7%
T. Trenton	499.3	2.4%
T. Westford	3,404.1	16.1%
T. Williamstown	1,236.0	5.9%
V. Brownsville	0.1	0.0%
V. Clyman	0.0	0.0%
V. Hustisford	132.3	0.6%
V. Iron Ridge	2.2	0.0%
V. Kekoskee	11.3	0.1%
V. Lomira	10.0	0.0%
V. Lowell	36.3	0.2%
V. Neosho	21.8	0.1%
V. Randolph*	0.2	0.0%
V. Reeseville	0.5	0.0%
V. Theresa	14.4	0.1%
C. Beaver Dam	874.9	4.1%
C. Columbus*	1.3	0.0%
C. Fox Lake	35.3	0.2%
C. Hartford*	1.3	0.0%
C. Horicon	132.3	0.6%
C. Juneau	0.2	0.0%
C. Mayville	72.4	0.3%
C. Watertown*	0.0	0.0%
C. Waupun*	106.0	0.5%
Dodge County	21,094.1	100.0%

*Community partially located outside of county, acreage only includes portion in the county.
Source: Dodge County Planning, Development and Parks Department.

The following is a description of the more prominent lakes, rivers, and streams in Dodge County.

Lakes

The glacial history of Dodge County left a poorly developed drainage system, shallow depressions for lakes, and numerous wetland areas. As a result, there are very few lakes in the county and the existing lakes are very shallow in depth, averaging only about seven feet. The major lakes in the county are highlighted below.

Beaver Dam Lake

Beaver Dam Lake is the largest lake in Dodge County and the 16th largest in Wisconsin. It was formed in 1842 when a 10 foot dam was constructed on the Beaver Dam River to provide water power. The City of Beaver Dam is located on the southeast shore. The lake experienced problems when carp were introduced at the turn of the century. None of the procedures used to reduce the carp population have been entirely successful. Today the lake experiences problems of pollution due to agricultural and urban runoff including industrial cooling water discharge and storm water discharge from the City of Beaver Dam. The shallow depth and resulting turbidity contribute to problems of rough fish, winter fish kills, and shoreline erosion. The fishery consists primarily of buffalo fish, crappie, bullheads, walleye, northern pike, and carp. Despite its problems, the lake is valuable for boating and has many boat launching and parking facilities. Area parks provide shore fishing and picnic areas. Additionally, the lake provides hunting opportunities for waterfowl during the fall migration. Winter uses include snowmobiling, ice fishing, and ice skating. However, open water is a hazard in some locations due to aerators.

Sinissippi Lake

Sinissippi Lake was formed by a 12 foot dam, originally erected in 1845, which flooded a marshy valley of the Rock River. Siltation from the watershed, coupled with deposition from deteriorating marshes, contributes to the shallowness of the lake. The fishery consists mainly of carp, bullheads, and northern pike. A large number of waterfowl visit the lake in the spring. Sinissippi Lake experiences problems of algae blooms during the summer and fish kills in winter.

The Lake Sinissippi Improvement District (LSID) has been formed to help improve and protect the lake and its watershed. LSID is a special unit of government. All residents with deeded access or lake frontage between the Village of Hustisford and County Highway S are included within the LSID boundary.

Fox Lake

Fox Lake was originally a smaller natural lake formed by glacial activity. In 1845 it was greatly increased in size and depth by construction of an 11 foot dam on Mill Creek. The City of Fox Lake is located on the southeast shore of the lake where city parkland with a boat landing provides recreational access. A town park with a boat landing provides access on the north side of the lake. Because Fox Lake is deeper, it is experiencing less pollution than Beaver Dam or Sinissippi Lakes. Fox Lake is heavily used for boating, water skiing, and fishing. Despite stocking and rough fish removal projects, the original game fish population is being reduced by over abundant carp populations. Fox Lake drains toward Beaver Dam Lake via Mill Creek. The

protection of Fox Lake is assisted by the Fox Lake Inland Lake Protection & Rehabilitation District.

Neosho Millpond
The millpond is a shallow impoundment of the Rubicon River created by an 11 foot high dam at Neosho. The fishery is of moderate quality with turbid water and lack of aquatic vegetation. The millpond is largely undeveloped with pasture lands and steep hill sides in the adjacent rural areas. Housing developments are primarily located within the Village of Neosho. The millpond is best suited for fishing, small boats, and hunting. A public boat landing and swimming beach are some of the facilities available in adjacent Neosho Park.

Lake Emily
Lake Emily is a shallow, fertile lake located in the extreme northwest corner of Dodge County. The lake is principally fed by seepage, springs and runoff. A four-foot dam assists in maintaining the water levels. The lake provides a quality fishery primarily of perch, bluegills, largemouth bass, and northern pike and receives heavy usage year round. Much of the lakeshore is developed with cottages and homes, except for the west side which is still undeveloped. A town-owned boat landing provides good fishing and boating access on the southern end of the lake.

Lost Lake
Lost Lake is located in west-central Dodge County. The lake is mainly seepage fed and drains to Beaver Dam Lake. The lake is popular for fishing and hunting although freeze out conditions limit the fishery. Much of the shoreline consists of marshy areas, thus development is limited. Boat ramps exist on the north and south sides of the lake as extensions of the town roads.

In addition to the six lakes described above, Dodge County has 25 other lakes, which are relatively small and shallow. These lakes generally provide recreational opportunities, including hunting and fishing, and are often important as waterfowl habitat.

Rivers and Streams

A total of 387 miles of streams and rivers can be found in Dodge County. The most prominent are the Rock, Beaver Dam, and Crawfish Rivers. Numerous intermittent streams and creeks are scattered throughout Dodge County. Major river and stream features are highlighted below.

Rock River
The Rock River drains Dodge County toward the south, eventually emptying into the Mississippi River. It is located in the eastern half of the county and is generally oriented north-south. The main stem of the Rock River begins in the Horicon Marsh where the east, south, and north branches converge. The east branch begins around Allenton in Washington County and flows in a northwesterly direction through Theresa and Mayville before it reaches the Horicon Marsh. The south branch begins west of Waupun and flows through Waupun while the west branch begins near Brandon in Fond du Lac County, where it flows east a distance before heading south to the Horicon Marsh. Upon exiting the Horicon Marsh, the Rock River flows through the City of Horicon and then into Lake Sinissippi, which was created by a dam in the Village of Hustisford. As it leaves the Village of Hustisford, the Rock River begins a long meandering

journey through miles of the flat rural country-side of the Towns of Hustisford and Lebanon and portions of northeast Jefferson County before it flows north back into Dodge County at the City of Watertown. The fall of the river from the upper federal dam in the Horicon National Wildlife Refuge to the upper Watertown dam is just 34 feet over 58 miles. It meanders a bit through Watertown as it once again heads south flowing through such cities as Fort Atkinson, Janesville, Beloit, and Rockford, Illinois before reaching its ultimate destination – the Mississippi River. A number of boat landings and park facilities can be found along the Rock, but primarily in and around the cities, villages, and Lake Sinissippi. Recreational facilities are lacking in the rural areas between the Village of Hustisford and the City of Watertown. Canoeing, picnicking, and possibly camping facilities should be explored.

Crawfish River

The Crawfish River is a major tributary of the Rock River, primarily draining the western half of Dodge County. The river flows from Columbia County into Dodge County near the City of Columbus and meanders in an erratic fashion in an easterly and southeasterly direction. The river is impounded at Danville creating a millpond, where an historic mill remains. Astico County Park lies adjacent to the river and millpond providing canoeing and fishing access. After merging with the Beaver Dam River in the Mud Lake Wildlife area in southwestern Dodge County, the Crawfish River continues southward where it empties into the Rock River in the City of Jefferson.

Beaver Dam River

The Beaver Dam River is the major river draining the northwestern portion of Dodge County. From its start at Beaver Dam Lake, it flows southward 31 miles before flowing into the Crawfish River at Mud Lake. Fishing and canoeing opportunities are possible, especially during periods of high flow. A dam at Lowell with some adjacent parkland provide the primary access to the river. According to the Department of Natural Resources, the river is severely affected by polluted runoff from barn yards and soil erosion, leading to degraded water quality and higher populations of rough fish. Designating parkland and environmentally sensitive lands in the City of Beaver Dam along the river, in conjunction with other efforts, could better protect the river and provide recreational access to it.

5.12 Groundwater Resources

The source of all groundwater is precipitation, which percolates down through the soil until it reaches the saturated zone called an aquifer, where it is then contained. Water in a aquifer travels from its source to a discharge point such as a well, wetland, spring, or lake. During periods of increased precipitation or thaw, this vast resource is replenished with water moving by gravity through permeable soils which is called a water table system. In some instances, groundwater moves because of pressure created by a confining layer of impervious rock which is called an artesian system. The availability of groundwater within the county varies locally and should be investigated before any development occurs.

Most groundwater contamination is related to poorly sited land uses. For example, agricultural manure, petroleum, and salt storage in areas of high groundwater tables or fractured bedrock are all potential sources of groundwater pollution. Contamination of groundwater reserves can also

result from such sources as percolation of water through improperly placed or maintained landfill sites, private waste disposal (septic effluent), runoff from livestock yards and urban areas, improper application of agricultural pesticide or fertilizers, excessive lawn and garden fertilizers and pesticides, leaks from sewer pipes, and seepage from mining operations. Runoff from leaking petroleum storage tanks and spills can also add organic and chemical contaminants in locations where the water table is near the surface. Once groundwater contamination has occurred, successful remediation is expensive and can take years, or may never occur, depending upon the pollutant. Therefore, when considering specific land uses for an area, it is vital to consider the physical characteristics of the area and the relationships between the land and the proposed/actual use in order to ensure that groundwater contamination does not occur.

Within Dodge County there are areas that have natural occurring and human influenced well contamination. According to studies performed by University of Wisconsin-Extension offices, there are multiple types of contamination in Dodge County. One major contamination is nitrates, which are mainly human influenced and a major concern in parts of Dodge County. Currently, the Town of Lomira and areas north of the City of Beaver Dam have higher than average nitrate levels. Also, the land north of the City of Beaver Dam has noticeably higher chloride levels. These two types of contamination may be linked to agricultural practices, shallow bedrock, or uncontrolled spreading of contaminants. Another contamination that raises concern is the higher number of positive bacteria samples in the area. The Town of Fox Lake has a higher number of bacteria samples than any other town in Dodge County. Almost all of the high bacteria samples were found around Fox Lake. Some of these contaminations can be linked to unique bedrock or groundwater features, or current or past land use practices in the area. To help control future well contaminations, individual communities should conduct testing to identify contaminated areas and reduce development in those areas.

Groundwater Terms

Precipitation percolates through the soil and bedrock where it eventually reaches a saturated zone known as an aquifer. It is from these aquifers that wells draw their water.

The process of precipitation moving through the soil and bedrock and into an aquifer is known as groundwater recharge. Groundwater recharge maintains the quantity of water in an aquifer.

The natural process of recharge can be altered by land use and development. Impervious surfaces, or surfaces that prevent precipitation from soaking into the ground like buildings and pavement, affect the rate of recharge and quantity of available groundwater. Certain human uses of the land can carry harmful substances to a groundwater aquifer leading to groundwater contamination. There are many potential sources of contamination including manure, yard and agricultural fertilizers, road salt, failing septic systems, leaking underground storage tanks, and vehicle emissions.

Impaired Waters

Section 303(d) of the federal Clean Water Act requires each state to periodically submit to the US Environmental Protection Agency (EPA) for approval, a list of impaired waters. Impaired waters are those that are not meeting the state's water quality standards found in Wisconsin Administrative Code Chapter NR 102. The Department of Natural Resources last submitted an updated list to EPA in August of 2004.

Impaired waters listed as being located within or partially within Dodge County include Alto Creek, Beaver Dam River, Casper Creek, Crawfish River at Columbus Millpond, Davy Creek, Gill Creek, Horicon Marsh, Irish Creek, Kummel Creek, Limestone Creek, Mason Creek, Mud Creek, Park Creek, Rock River, South Branch Rock River, Schultz Creek, and Sinnissippi Lake. Note that these rivers, creeks, and lakes may be on the impaired waters list for various reasons.

Wellhead Protection

The goal of wellhead protection is to prevent potential contaminants from reaching the wells that supply municipal water systems. This is accomplished by monitoring and controlling potential pollution sources within the land area that recharges those wells.

Wellhead protection planning is administered by the WDNR as required by the U.S. Environmental Protection Agency (EPA) and 1986 amendments to the Federal Safe Drinking Water Act. Wellhead planning is encouraged for all communities, but is required when any new municipal well is proposed.

The general process of community-level wellhead protection planning includes:

1. Forming a planning committee.
2. Delineating the wellhead protection area.
3. Inventorying potential groundwater contamination sources.
4. Managing the wellhead protection area.

Point Source Discharges

Many industrial processes depend upon the ability to dispose of water they have used by discharging it to a surface water body – typically a river or stream. The WDNR establishes regulations and monitors compliance of all such discharges. Permits are obtained through the Wisconsin Pollutant Discharge Elimination System program (WPDES). The capacity of these waterways to receive processed water without becoming ecologically impaired is also monitored.

WPDES permits for point source discharges are commonly required of municipalities, sanitary districts, industries, and large livestock operations. According to the WDNR, current municipal WPDES permit holders in Dodge County include:

• Ashippun Sanitary District WWTF • Beaver Dam Wastewater Treatment Facility • Brownsville Wastewater Treatment Facility • Burnett • Hidden Sanitary District #1 • Clyman Wastewater Treatment Facility • Columbus Wastewater Treatment Facility • Fox Lake Wastewater Control Commission WWTF Meadows Association WWTF • Horicon Wastewater Treatment Facility • Hustisford Wastewater Treatment Facility • Iron Ridge Wastewater Treatment Facility	• Juneau Wastewater Treatment Facility • Kekoskee Wastewater Treatment Facility • Lebanon Sanitary District #1WWTF • Lomira Wastewater Treatment Facility • Lowell Wastewater Treatment Facility • Mayville Wastewater Treatment Facility • Randolph Wastewater Treatment Facility • Reeseville Wastewater Treatment Facility • Theresa Wastewater Treatment Facility • Waupun Wastewater Treatment Facility • WI Department of Corrections Fox Lake Correctional Institution WWTF

According to the WDNR, current industrial WPDES permit holders in Dodge County include:

- Crave Brothers Farmstead Cheese LLC
- Grand Cheese Co. Brownsville
- Max PE Radloff and Sons Inc.
- National Rivet and Manufacturing Company
- Oconomowoc Electroplating Superfund
- Seneca Foods Corporation – Clyman
- Seneca Foods – Mayville
- Sensient Flavors Inc.
- Specialty Cheese Co. Leader Plant
- Specialty Cheese Co. – Lebanon
- Trace & Sons Inc. – Watertown
- United Liquid Waste Recycling Inc.
- WMFB Inc.

According to the WDNR, as of February 2004, 132 WPDES permits had been issued statewide for large, confined animal feeding operations (CAFOs). CAFOs required to obtain WPDES permits are those having 1,000 or more animal units and a point source discharge. There are three licensed CAFOs in Dodge County.

5.13 Air Quality

Air quality, especially good air quality, is often taken for granted. The eastern portion of Wisconsin experiences high concentrations of ground-level ozone. Ground-level ozone, or smog, forms when pollutants emitted from vehicle exhaust, power plants, factories, and other

combustion sources combine in the hot summer sun. In addition, warm weather causes an increase in air conditioner usage, which can increase harmful emissions from these sources.

To manage the state's air quality, the DNR uses both a network of air quality monitors and a series of air pollution control rules that limit emissions from air pollution sources based on various criteria. There is one air monitoring site in Dodge County, which is located in the City of Mayville.

5.14 Environmental Corridors/Sensitive Areas

Environmental corridors are continuous systems of open space that often include environmentally sensitive lands including woodlands, wetlands and habitat areas, natural and cultural resources requiring protection from disturbance and development, and lands needed for open space and recreational use (refer to Map 5-7, located in the Appendix). Environmental corridors serve multiple functions. Protection and preservation of environmental corridors contribute to water quality through reduction of non-point source pollution and protection of natural drainage systems. Environmental corridors can also protect and preserve sensitive natural resource areas, such as wetlands, floodplains, woodlands, steep slopes, native grasslands, prairies, prairie savannas, groundwater recharge areas, and other areas that would impair habitat and surface or groundwater quality if disturbed or developed.

The Dodge County Land Use Code includes an Environmental Protection Overlay District. The primary purpose of the Environmental Protection Overlay District is to promote the public health, safety, and general welfare by providing for uses compatible with protecting, preserving, and enhancing significant natural areas within the County. These areas include wooded areas of environmental importance, significant archaeological sites, slopes in excess of 12 percent, soil depths less than 60 inches, or other areas in which the public has interest in preserving or protecting.

5.15 Threatened and Endangered Species

The Wisconsin Department of Natural Resources (WDNR) lists species as "endangered" when the continued existence of that species as a viable component of the state’s wild animals or wild plants is determined to be in jeopardy on the basis of scientific evidence. "Threatened" species are listed when it appears likely based on scientific evidence that the species may become endangered within the foreseeable future. The WDNR also lists species of "special concern" of which some problem of abundance or distribution is suspected but not yet proved; the intent of this classification is to focus attention on certain species before becoming endangered or threatened.

Table 5-8 identifies the rare, threatened, and endangered species that can be found in Dodge County.

5.16 Wildlife Habitat and State Natural Areas

Wildlife habitat can be simply defined as the presence of enough food, cover, and water to sustain a species. The wildlife habitat of Dodge County is particularly accommodating to waterfowl. In addition to hundreds of thousands of geese that migrate to the Horicon Marsh each spring and fall, the county's numerous marshlands are home to ducks, herons, egrets, and swans. The county also has an excellent pheasant habitat. Dodge County is also home to a variety of song birds and the typical upland animals of southern Wisconsin, including deer, rabbit, fox, raccoon, squirrel, and muskrat.

The Wisconsin Department of Natural Resources identifies State Natural Areas, which are defined as tracts of land in a natural or near natural state and which are managed to serve several purposes including scientific research, teaching of resource management, and preservation of rare native plants and ecological communities. There are four State Natural Areas in Dodge County including Fourmile Island Rookery, Waterloo Prairie, Mayville Ledge Beech-Maple Woods, and Neda Mine.

Fourmile Island Rookery

The Fourmile Island Rookery is located within the Horicon Wildlife Area. The island contains one of the largest heron and egret rookeries in the Midwest. The narrow island is forested with large oaks, basswood, elm, aspen, and cottonwood trees used for nests by great blue herons, black-crowned night herons, and great egrets. The Fourmile Island Rookery is owned by the Wisconsin Department of Natural Resources and was designated a State Natural Area in 1965.

Waterloo Prairie

Waterloo Prairie is located within the Waterloo Wildlife Area. Waterloo Prairie contains two separated units of wet grasslands along Stony Brook and it tributaries. The northern portion features a large, raised calcareous fen and spring complex with numerous wet seepage slopes while a more extensive wet prairie meadow lies to the south. The prairie is owned by the DNR and was designated a State Natural Area in 1968.

Mayville Ledge Beech-Maple Woods

Mayville Ledge is a one-half mile exposure of Niagara dolomite escarpment, ranging from 40 to 60 feet in height. The escarpment slope supports an ungrazed forest of sugar maple, basswood, red oak, and American elm. The level plain above the escarpment supports a variable aged woods of ironwood, American beech, sugar maple, and yellowbud hickory. Mayville Ledge is owned by the University of Wisconsin-Milwaukee and was designated a State Natural Area in 1987.

Neda Mine

Neda Mine is an abandoned iron mine at the base of the Niagara dolomite escarpment that contains one of the largest bat hibernacula in Wisconsin. Both shaft and open pit mining occurred here from the mid-1800s until 1914. Over time the old mine shafts and tunnels

collapsed providing “cave” habitat for at least three species of bats. More than 300,000 bats have been estimated hibernating in the maze of mine shafts. Neda mine is owned by the University of Wisconsin and was designated a State Natural Area in 1978.

Table 5-8
Rare, Threatened, and Endangered Species, Dodge County

	Wisconsin Status	Taxa
Plants		
Lesser Fringed Gentian	Special Concern	
Richardson Sedge	Special Concern	
Showy Lady's-Slipper	Special Concern	
Slim-Stem Small-Reedgrass	Special Concern	
Small White Lady's-Slipper	Threatened	
Wafer-Ash	Special Concern	
Yellow Gentian	Threatened	
Animals		
Cantrall's Bog Beetle	Special Concern	Beetle
Giant Carrion Beetle	Endangered	Beetle
Barn Owl	Endangered	Bird
Black-Crowned Night-Heron	Special Concern	Bird
Forster's Tern	Endangered	Bird
Great Egret	Threatened	Bird
Red-Shouldered Hawk	Threatened	Bird
Gorgone Checker Spot	Special Concern	Butterfly
A Side-Swimmer	Special Concern	Crustacean
American Eel	Special Concern	Fish
Banded Killifish	Special Concern	Fish
Least Darter	Special Concern	Fish
Pugnose Minnow	Special Concern	Fish
Redfin Shiner	Threatened	Fish
River Redhorse	Threatened	Fish
Slender Madtom	Endangered	Fish
Striped Shiner	Endangered	Fish
Week Shiner	Special Concern	Fish
Blanchard's Cricket Frog	Endangered	Frog
Arctic Shrew	Special Concern	Mammal
Franklin's Ground Squirrel	Special Concern	Mammal
Pigmy Shrew	Special Concern	Mammal
Prairie Vole	Special Concern	Mammal
Ellipse	Threatened	Mussel
Blanding's Turtle	Threatened	Turtle

Source: Wisconsin Department of Natural Resources.

Wisconsin's Land Legacy Program

The WDNR has conducted a study of places that may be important in meeting the state's conservation and recreation needs over the next 50 years. The following areas or features have been identified in Dodge County:

- Crawfish River – Waterloo Drumlins
- Glacial Habitat Restoration Area
- Horicon Marsh
- Niagara Escarpment
- Upper Rock River

5.17 Historic Places

State and National Register of Historic Places

The National Register of Historic Places recognizes properties of local, state, and national significance. Properties are listed in the National Register because of their associations with significant persons or events, because they contain important information about our history or prehistory, or because of their architectural or engineering significance. The National Register also lists important groupings of properties as historic districts. In addition, the National Park Service highlights properties that have significance to the nation as a whole by conferring on them the status of National Historic Landmark.

The Wisconsin State Register of Historic Places parallels the National Register. However, it is designed to enable state-level historic preservation protection and benefits. Most of the properties in Wisconsin listed in the National Register are also listed in the State Register.

There are 29 sites in Dodge County that are listed on the State or National Register (refer to Map 5-8, located in the Appendix). They are as follows:

T. Burnett • Willard Greenfield, farmstead **T. Chester** • Horicon Site **T. Lebanon** • Schoenicke Barn **T. Portland** • Hensler Petroglyph Site **T. Shields** • St. Joseph's Roman Catholic Church	**C. Hustisford** • John Hustis House • Ferdinand Schulze House **C. Juneau** • Dodge County Courthouse **C. Lomira** • Boller, W.H., meat market and residence **C. Mayville** • Beaumont Hotel • Hollenstein Wagon and Carriage Factory

T. Williamstown • Kekoskee Archeological District **C. Beaver Dam** • Dodge County Historical Museum • Hotel Rogers • St. Mark's Episcopal Church • Swan House and Vita Spring Pavilion • Weyenberg Shoe Factory • Williams Free Library **C. Fox Lake** • Fox Lake Railroad Depot • Indian Point Site **C. Horicon** • Daniel C. Van Brunt House	• Main Street Historic District • White Limestone School **C. Randolph** • Hutchinson Memorial Library **C. Watertown** • Ferdinand C. Hartwig House **C. Waupun** • Central State Hospital Historic District • Marin K. Dahl House • Waupun Public Library • Wisconsin State Prison Historic District

Wisconsin Architecture & History Inventory

The Wisconsin Architecture & History Inventory (AHI), provided by the Wisconsin Historical Society lists historical and architectural information on properties in Wisconsin. The AHI contains data on buildings, structures, and objects that illustrate Wisconsin's unique history. The majority of properties listed are privately owned. Listed properties convey no special status, rights, or benefits. These sites should be periodically reviewed for possible designation on state or national registers.

According to the AHI the following communities have sites listed in the inventory.

• T. Ashippun, 21 sites • T. Beaver Dam, 22 sites • T. Burnett, 23 sites • T. Calamus, 5 sites • T. Chester, 36 sites • T. Clyman, 12 sites • T. Elba, 22 sites • T. Emmet, 23 sites • T. Fox Lake, 38 sites • T. Herman, 101 sites • T. Hubbard, 35 sites • T. Hustisford, 21 sites • T. Lebanon, 22 sites • T. Leroy, 19 sites • T. Lomira, 25 sites • T. Lowell, 20 sites	• T. Westford, 5 sites • T. Williamstown, 16 sites • V. Brownsville, 1 site • V. Clyman, 6 sites • V. Hustisford, 44 sites • V. Iron Ridge, 4 sites • V. Kekoskee, 3 sites • V. Lomira, 8 sites • V. Lowell, 7 sites • V. Neosho, 6 sites • V. Randolph, 36 sites • V. Reeseville, 12 sites • V. Theresa, 24 sites • C. Beaver Dam, 139 sites • C. Columbus, 425 sites • C. Fox Lake, 44 sites

♦ T. Oak Grove, 69 sites ♦ T. Portland, 24 sites ♦ T. Rubicon, 12 sites ♦ T. Shields, 27 sites ♦ T. Theresa, 22 sites ♦ T. Trenton, 105 sites	♦ C. Hartford, 282 sites ♦ C. Horicon, 59 sites ♦ C. Juneau, 30 sites ♦ C. Mayville, 118 sites ♦ C. Watertown, 1,635 sites ♦ C. Waupun, 187 sites

Cultural Resources Protection Laws

There are laws, both federal and state, that protect cultural resources from the effects of projects that have federal, state, or local government involvement. Which law applies will depend upon which level of government is primarily involved in funding, permitting, or licensing the project. The primary historic preservation laws are listed in Table 5-9.

Table 5-9
Cultural Resources Protection Laws

Type of Project	Applicable Law
Public Projects (Federal)	Section 106, National Historic Preservation Act
Public Projects (State)	Section 44.40, Wisconsin Statutes
Public Projects (Municipal)	Section 66.1111, Wisconsin Statutes
Public Projects (School District)	Section 120.12(21), Wisconsin Statutes
Any Potential Disturbance of Burial Sites	Section 157.70, Wisconsin Statutes

Section 106 of the National Historic Preservation Act of 1966 (as amended) requires that every federal agency sponsoring, authorizing, permitting, licensing, or funding an undertaking, whether directly or indirectly, take into account effects the project may have on historic properties. Undertakings may include the reconstruction of a public highway using federal funds, filling in or reestablishment of a wetland, or selling or adding on to a post office building.

All projects under the jurisdiction of a state agency that do not have any federal involvement are subject to Wisconsin's state historic preservation laws. The primary state agency provision is Wisconsin Statute § 44.40. Examples of agency projects covered by this law are financial grants from the Wisconsin Department of Natural Resources, new building construction on a University of Wisconsin campus, and power plant and transmission line utility permits from the Public Service Commission. Each state agency with project jurisdiction is required to check the Wisconsin Historical Society's inventories to see if there are recorded properties within the project area, and determine whether the project may affect any such property. If an historic property may be affected, then the agency must submit the project proposal to the Society for its review and comments.

Under Wisconsin Statute § 66.1111, all municipalities in Wisconsin must consider whether their actions may affect historic properties listed in the State or National Register of Historic Places. Projects subject to review under this law include construction of a new facility that results in the abandonment of a National Register-listed building, or development of a publicly owned park that may affect a listed archeological site. If such a project is being considered, the local unit of government is required to submit a proposal to the Wisconsin Historical Society at the earliest

stages of planning to seek the Society's determination of whether the project may adversely affect the listed property. If there may be an adverse effect, then the Society may require negotiation with the local unit of government to explore alternatives and other project options that may avoid, minimize, or mitigate the possible adverse effect.

Under Wisconsin Statute § 120.12(21), at the earliest stages of planning, school districts are required to determine whether their long-range planning for facilities development or proposed demolitions of historic properties may affect properties that are listed in the State or National Registers of Historic Places. If these actions may affect listed properties, then the school district is required to submit a project proposal to the Society for its determination of whether the project may adversely affect a listed property. If there may be an adverse effect, then the Society may require negotiation with the school district to explore alternatives that avoid, minimize, or mitigate the adverse effect.

Wisconsin's burial law, Wisconsin Statute 157.70, prohibits unauthorized intentional disturbances of burial sites, from platted cemeteries to Native American mounds, to abandoned family burials. Once a Native American mound group or any marked or unmarked burial area is formally cataloged as a burial site under Section 157.70, that area is exempt from property taxes. This makes the property tax treatment of all human burial sites equal to the property tax treatment given to operating cemeteries.

5.18 Cultural Resources

Cultural Facilities

Cultural amenities enhance the quality of life, encourage residential development, and attract tourism. Such amenities are limited in Dodge County since its communities are small and lack the support populations needed for diverse cultural opportunities. The primary cultural facilities in Dodge County consist of libraries, museums, and historical markers. There are 14 libraries in the county, 15 museums, and four official historical markers. The libraries are all municipally owned. Four of the museums are privately operated.

Libraries, museums, and historical markers available in and around the communities of Dodge County are as follows:

Ashippun
- Honey Acres (Museum)

Beaver Dam
- Beaver Dam Community Library
- Williams Free Library (Dodge County Historical Museum)

Brownsville
- Brownsville Public Library

Columbus
- Columbus Public Library
- Christopher Columbus Museum

Fox Lake
- Fox Lake Public Library
- Fox Lake Railroad Depot (Museum – Fox Lake Historical Society)
- Bunny Berigan Historical Marker

Hartford
- Hartford Public Library
- Hartford Heritage Auto Museum

Horicon
- Horicon Public Library
- Satterlee Clark House (Museum – Horicon Historical Society)

Hustisford
- Hustisford Public Library
- John Hustis House (Museum – Hustisford Historical Society)

Juneau
- Juneau Public Library
- Northwestern Hotel (Museum – Dodge Centre Historical Society)
- Adrian "Addie" Joss (Historical Marker)

Lomira
- Lomira Public Library

Mayville
- Mayville Public Library
- White Limestone School (Museum)
- Holstein Wagon and Carriage Factory (Museum – Mayville Historical Society)
- First Iron Smelter (Historical Marker)

Neosho
- Old Village Hall (Museum – Neosho Historical Society)

Randolph
- Hutchinson Public Library

Theresa
- Theresa Public Library
- Soloman Juneau Homestead Museum (Theresa Historical Society)

Watertown

- Watertown Public Library
- Octagon House (Museum – Watertown Historical Society)
- First Kindergarten Museum

Waupun

- Waupun Public Library
- Waupun Heritage Museum
- Public Sculptures (7)
- Auto Race: Green Bay to Madison (Historical Marker)

As shorter trips and historical attractions continue to become more popular, local museums will likely be in greater demand as recreational destinations. A present problem with most local museums is the very limited amount of time they are open to the public due to the number of available volunteers and low or non-existent staffing budgets. As demand increases, the museums should be made more convenient and accessible as a local recreation facility.

5.19 Community Design

Community design as a cultural resource helps explain the origins and history of how a given community looks, feels, and functions in the present day. Components of the origin of community design include historic settlement patterns, resource use (like mining, farming, and forestry) in rural areas, the industries and businesses that influenced urban areas, transportation features and traffic flow patterns, natural features like rivers, lakes, and wetlands, and the heritage and values of the people that lived in a community in the past and that live there today. These factors might be expressed through street layout, building architecture, landscaping, preservation of natural features, development density, and other components of development design. The design of a community as seen today might also be influenced by community decisions including the use of zoning and subdivision controls, the establishment of parks and other community facilities, the use of historic preservation, and in some cases, the use of land use planning. Each community within Dodge County has its own unique community design which, when all taken into consideration, make up the community design of Dodge County.

5.20 Agricultural, Natural, and Cultural Resources Trends and Outlook

The following are anticipated trends in regard to agricultural, natural, and cultural resources in Dodge County for the planning period.

- The number of farms will continue to decline.
- The size of the average farm will continue to show moderate increases.
- Pressure to convert farmland to other uses will increase.
- The number of dairy farms will continue to decline.

- Dairy herd sizes will continue to increase.
- Dairy herd production will continue to increase.
- The number of large “commercial” type farming will increase, especially dairy.
- Interest in farmland preservation programs will decrease.
- Interest in cash cropping will increase.
- Interest in specialty farming will increase.
- Interest in “value-added” businesses to complement small dairy and general farming operations will increase.
- Large dairies required to obtain Wisconsin Point Discharge Elimination System (WPDES) permits will increase.
- Interest in using lakes and rivers for recreational purposes will continue.
- The county’s river fronts, woodlands, and highland areas will be desired as residential building sites.
- Challenges to groundwater resources will grow including increasing quantity of withdrawal and increasing potential for contamination sources.
- Highway expansion and increased traffic will have a negative impact on air quality.
- The recognized value of historic and cultural resources will grow, demanding more attention be given to their preservation.

6. Economic Development

6.1 Introduction

The nature of economics is cyclical, based on a combination of factors including product life cycles, applications of technology, government interventions, and a host of other indicators. Because of this, development will happen in a community whether or not it is planned; the community will experience economic changes whether or not they are desired changes. The advantage of comprehensive planning is that a community can anticipate these changes and guide development to the best of its abilities and capacities.

Economic development planning is the process by which a community organizes, analyzes, plans, and then applies its energies to the tasks of improving the economic well-being and quality of life for those in the community. This can be done by addressing issues ranging from enhancing a community's competitiveness, establishing industrial policy, encouraging sustainable development, creating jobs, increasing wages and enhancing worker training, and improving overall quality of life. All of these issues affect residents within a community and are addressed directly or indirectly in this comprehensive plan.

The reason to plan for economic development is straight-forward - economic development helps pay the bills. It requires working together to maintain a strong economy by creating and retaining desirable jobs which provide a good standard of living for individuals. Increased personal income and wealth increases the tax base, so a community, county, or state can provide the level of services residents expect. A balanced, healthy economy is essential for community well-being. Economic development expenditures are a community investment. They leverage new growth and redevelopment to improve the area. Influencing and investing in the process of economic development allows community members to determine future direction and guide appropriate types of development according to their values.

Five General Components of Economic Development Practice

- Organizational Development
- Infrastructure Development
- Business Development
- Workforce Development
- Community Cash Flow Development

There are a variety of economic development plans, but successful communities tend to have one thing in common – an articulated, shared vision of where they want to go and of what things residents and businesses value in their community. Successful plans for economic development acknowledge the following:

1. Knowing your region's economic function in the global economy.
2. Creating a skilled and educated workforce.
3. Investing in an infrastructure for innovation.
4. Creating a great quality of life.
5. Fostering an innovative business climate.
6. Reinventing and digitizing government.

7. Taking regional governance and collaboration seriously.

For these reasons, it is important to the planning process to identify the county's economic characteristics or resources. These characteristics include: the labor force, employment by industry, unemployment characteristics, and income characteristics. Assessment of these characteristics and resources provides insight into the historical and current economic situation in the county, thereby providing direction for planning the future of the economic base.

This element identifies the economic characteristics and trends in Dodge County. It is intended that this element will help identify deficiencies and opportunities related to the economic base in order to promote the stabilization, retention, and expansion of quality employment opportunities.

Dodge County's Economic History

Agriculture motivated settlement in Dodge County, but timber and manufacturing were byproducts. Many parts of the county were covered by forest, although oak savannas, wetlands, and prairie were also common. Dams for sawmills and grist mills were established in 1838 in Watertown, 1840 in Columbus, 1841 in Beaver Dam, 1844 in Danville, and 1845 in Hustisford and Fox Lake. Dams and mills soon followed at Horicon, Portland, Kekoskee, Mayville, Theresa, Rubicon, and Ashippun. Timber was used for local construction, but after the discovery of iron, much of what remained was converted to charcoal for smelting. Timber resources in Dodge County were largely depleted by 1875.

Manufacturing in Dodge County is nearly as old as white settlement itself. Watertown had a wagon factory in 1841, a brick factory and flour mill in 1842, woolen mill in 1844, distillery in 1845, and a brewery in 1848. By 1850, there were 30 manufacturing plants in the county. The early 1850s saw the opening of a tannery in Watertown, a flour mill in Hustisford, a foundry and iron manufacturing company in Horicon, and a plow factory in Waupun. Farm implement manufacturers were established in Beaver Dam and Watertown in 1855.

In 1840, agricultural production in Dodge County exceeded 2,000 bushels each of oats, corn, and potatoes, 500 tons of hay, 40 horses and 150 cattle. Wheat and apple growing were also important. By 1850, there were 2,338 farms in Dodge County.

Iron was discovered in the Town of Hubbard at Iron Ridge and in the Town of Williamstown in the 1840s. A blast furnace was built in Mayville in 1849. From 1869 to 1872, about 174,000 tons of iron ore were removed. The discovery of large deposits of higher grade ore in Minnesota largely ended iron mining in Dodge County.

Agriculture dominated Dodge County's economy until the mid-20th century, at which point manufacturing became the major source of employment and income. Trade and services also began to emerge as major economic components. Manufacturing accounts for a major share of employment, while trade and services continue to grow.

An important element of the planning process is to identify and analyze the county's economic characteristics or resources. These characteristics generally include the labor force, employment

by industry, unemployment characteristics, commuting patterns, the types of major employers, and income characteristics.

6.2 Labor Force and Employment Status

Civilian Labor Force

The labor force, according to the Wisconsin Department of Workforce Development definition, includes those who are either working or looking for work, but does not include individuals who have made a choice to not work. This may include retirees, homemakers, and students. The labor force does not include institutional residents, military personnel, or discouraged job seekers.

Table: 6-1
Civilian Labor Force Annual Averages, Dodge County and Wisconsin, 2000-2004

	2000	2001	2002	2003	2004	# Change 2000-04	% Change 2000-04
Dodge County							
Labor Force	48,597	48,399	46,857	48,018	47,773	-824	-1.7%
Employment	47,123	45,904	44,275	45,134	45,242	-1,881	-4.0%
Unemployment	1,474	2,495	2,582	2,884	2,531	1,057	71.7%
Unemployment Rate	3.0	5.2	5.5	6.0	5.3	2.3	76.7%
Wisconsin							
Labor Force	2,992,250	3,032,130	3,037,928	3,068,739	3,071,179	78,929	2.6%
Employment	2,891,238	2,898,949	2,877,047	2,896,670	2,919,201	27,963	1.0%
Unemployment	101,012	133,181	160,881	172,069	151,978	50,966	50.5%
Unemployment Rate	3.4	4.4	5.3	5.6	4.9	1.5	44.1%

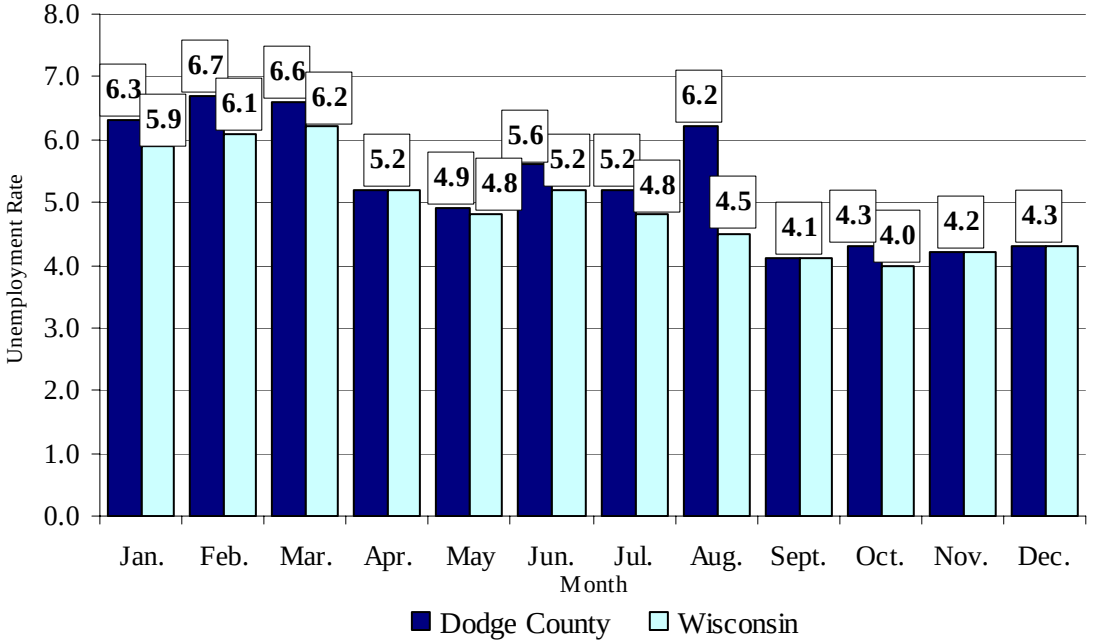
Source: Wisconsin Department of Workforce Development, Bureau of Workforce Information, Local Area Unemployment Statistics, 2000-2004.

The labor force of Dodge County has decreased by 824 persons since 2000, or -1.7%, and the number of unemployed has increased. It should be noted that the period shown reflects an economic period in which much of the United States was experiencing decreased in employment.

Unemployment Rates

The number of unemployed in the county includes not only those who are receiving unemployment benefits, but also any resident who actively looked for a job and did not find one. Unemployment rates by month for 2004 are illustrated in Figure 6-1.

Figure 6-1
Monthly Unemployment Rates, Dodge County and Wisconsin, 2004



Source: Wisconsin Department of Workforce Development, Bureau of Workforce Information, Local Area Unemployment Statistics, 2004.

Dodge County experienced an unemployment rates during 2004 that were very similar to the state as a whole. Unemployment is generally lower in the summer due to seasonal work such as tourism, agriculture, and construction, a trend typically found throughout Wisconsin.

Household Income

Table 6-2 displays the 1999 household incomes and median household income for Wisconsin and Dodge County as reported by the 2000 Census. The median household income for Dodge County was $45,190, slightly higher than the State's reported median income of $43,791.

Table 6-2
Household Income, Dodge County, 1999

	Dodge County		Wisconsin	
	Number	% of Total	Number	% of Total
Less than $10,000	1,659	5.3%	148,964	7.1%
$10,000 to $14,999	1,627	5.2%	121,366	5.8%
$15,000 to $24,999	3,579	11.4%	264,897	12.7%
$25,000 to $34,999	4,434	14.1%	276,033	13.2%
$35,000 to 49,999	6,420	20.4%	377,749	18.1%
$50,000 to $74,999	8,326	26.4%	474,299	22.7%
$75,000 to $99,999	3,305	10.5%	226,374	10.9%
$100,000 to $149,999	1,605	5.1%	133,719	6.4%
$150,000 or More	558	1.8%	62,903	3.0%
Total	31,513	100.0%	2,086,304	100.0%
Median Household Income	$45,190		$43,791	

Source: U.S. Bureau of the Census, 2000.

Travel Time to Work

For most of the general population, the location of their home depends on the location of their work. Knowing the amount of time people are willing to travel to work can serve as an indicator for the future location of housing and economic development. Travel time to work is also an indicator of what residents are willing to sacrifice for location. Many individuals are willing to allow for longer commute times to live in a particular area.

Table 6-3 displays the travel time to work for residents of Dodge County.

Table 6-3
Travel Time to Work, Dodge County, 2000

	Dodge County		Wisconsin	
	Number	% of Total	Number	% of Total
Less than 5 minutes	3,454	8.1%	135,194	5.0%
5 to 9 minutes	7,955	18.7%	398,697	14.8%
10 to 14 minutes	6,884	16.2%	476,569	17.7%
15 to 19 minutes	5,212	12.2%	440,637	16.4%
20 to 24 minutes	5,043	11.8%	372,180	13.8%
25 to 29 minutes	2,015	4.7%	159,448	5.9%
30 to 34 minutes	3,268	7.7%	248,714	9.2%
35 to 39 minutes	960	2.3%	59,121	2.2%
40 to 44 minutes	1,124	2.6%	61,540	2.3%
45 to 59 minutes	2,530	5.9%	120,028	4.5%
60 to 89 minutes	1,498	3.5%	68,071	2.5%
90 or more minutes	731	1.7%	45,110	1.7%
Worked at home	1,924	4.5%	105,395	3.9%
Total	42,598	100.0%	2,690,704	100.0%

Source: U.S. Bureau of the Census, 2000.

Of those travelling to work, the largest percentage had a commute time of 5 to 9 minutes. Trends found in Dodge County are very similar to those found in Wisconsin as a whole. The percentage of individuals who work at home is somewhat larger in Dodge County than in Wisconsin.

Place of Work

Table 6-4 indicates the place of work for Dodge County residents. When compared to Wisconsin, Dodge County has a greater percentage of its workers working outside of the county. Due to the location of Dodge County and fairly easy access to major population and economic centers within the state, this trend is anticipated to continue.

Table 6-4
Place of Work for Workers Age 16 and Over, Dodge County and Wisconsin, 2000

	Dodge County		Wisconsin	
	Number	% of Total	Number	% of Total
Worked in state of residence	42,507	99.8%	2,589,341	96.2%
Worked in county of residence	25,483	59.8%	1,988,905	73.9%
Worked outside county of residence	17,024	40.0%	600,436	22.3%
Worked outside state of residence	91	0.2%	101,363	3.8%
Total	42,598	100.0%	2,690,704	100.0%

Source: U.S. Bureau of the Census, 2000.

6.3 Economic Base Analysis

Employment by Industrial Sector

Employment by industrial sector illustrates the structure of the economy. Historically, the State of Wisconsin has had a high concentration of employment in the manufacturing and agricultural sectors of the economy. Recent state and national trends indicate a decreasing concentration of employment in the manufacturing sector, while employment within the services sector is increasing. This trend is partly attributed to improved technology, and the aging of the state and county's population.

Table 6-5 displays the number and percent of employed persons by industry group in Dodge County and the State of Wisconsin for 2000.

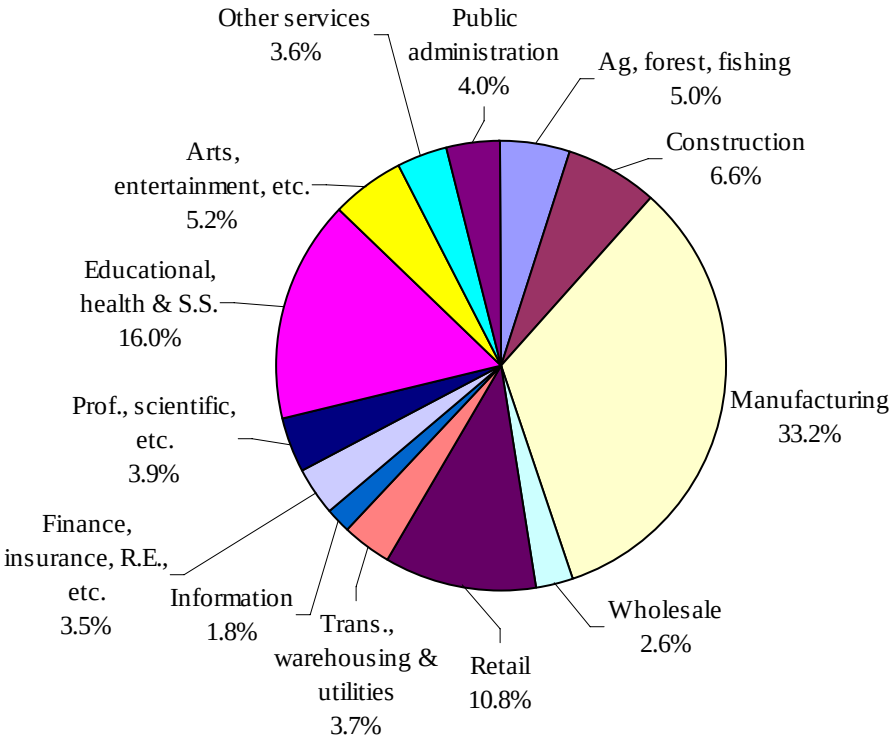
Table 6-5
Employment by Industrial Sector, Dodge County and Wisconsin, 2000

	Dodge County		Wisconsin	
Industry	Number	Percent of Total	Number	Percent of Total
Agriculture, forestry, fishing and hunting, and mining	2,148	5.0%	75,418	2.8%
Construction	2,840	6.6%	161,625	5.9%
Manufacturing	14,359	33.2%	606,845	22.2%
Wholesale trade	1,142	2.6%	87,979	3.2%
Retail trade	4,668	10.8%	317,881	11.6%
Transportation and warehousing, and utilities	1,584	3.7%	123,657	4.5%
Information	792	1.8%	60,142	2.2%
Finance, insurance, real estate, and rental and leasing	1,523	3.5%	168,060	6.1%
Professional, scientific, management, administrative, and waste management services	1,691	3.9%	179,503	6.6%
Educational, health and social services	6,929	16.0%	548,111	20.0%
Arts, entertainment, recreation, accommodation and food services	2,235	5.2%	198,528	7.3%
Other services (except public administration)	1,555	3.6%	111,028	4.1%
Public administration	1,731	4.0%	96,148	3.5%
Total	43,197	100.0%	2,734,925	100.0%

Source: U.S. Bureau of the Census, 2000.

The greatest percentage of employment for the county was in the manufacturing sector (33.2%), followed by educational, health, and social services (16.0%). Employment by industry for Dodge County is very similar to the state as a whole. However, Dodge County does have a significantly stronger concentration of employment in manufacturing. Figure 6-2 also displays employment by industry for Dodge County in 2000.

Figure 6-2
Employment by Industry, Dodge County, 2000



Source: U.S. Bureau of the Census, 2000.

Employment by Occupation

The previous section, Employment by Industry, described employment by the type of business or industry. What people do, or what their occupation is within those sectors, can also reveal factors that influence incomes and overall employment. Table 6-6 displays the number and percent of employed persons by occupation in Dodge County and the State of Wisconsin for 2000.

Table 6-6
Employment by Occupation, Dodge County and Wisconsin, 2000

Occupation	Dodge County Number	Dodge County Percent of Total	Wisconsin Number	Wisconsin Percent of Total
Management, professional, and related occupations	10,911	25.3%	857,205	31.3%
Service occupations	5,979	13.8%	383,619	14.0%
Sales and office occupations	9,298	21.5%	690,360	25.2%
Farming, fishing, and foresty occupations	660	1.5%	25,725	0.9%
Construction, extraction, and maintenance occupations	4,158	9.6%	237,086	8.7%
Production, transportation, and material moving occupations	12,191	28.2%	540,930	19.8%
Total	43,197	100.0%	2,734,925	100.0%

Source: U.S. Bureau of the Census, 2000.

The occupation with the greatest percentage of employment in Dodge County was in production, transportation, and material moving occupations, accounting for 28.2% of total employment. The occupation with the second highest percentage of employment was in management, professional, and related occupations (25.3%), followed by sales and office occupations (21.5%).

Wages by Industry Division

The wages that are provided by a particular industry in a particular area can offer several insights. For example, higher wages within an industry, when compared to neighboring communities, can indicate a strength in a particular economic segment. That wage can also be used to attract commuters and new residents to the area. A higher than average wage and a dependence on a particular industry can also lead to local recession if there should be a downturn within the industry. Lower than average wages can indicate a lower quality of life in the area or a lack of highly qualified labor.

Table 6-7
Annual Average Wage by Industry Division, Dodge County and Wisconsin, 2002

	Dodge County Annual Average Wage	Wisconsin Annual Average Wage	Percent of State Average	1-Year Percent Change	5-Year Percent Change
All industries*	$29,566	$30,922	95.6%	1.5%	20.0%
Agriculture, Forestry, & Fishing	$25,070	$22,565	111.1%	0.4%	17.2%
Construction	$44,962	$39,011	115.3%	2.8%	25.3%
Manufacturing	$35,955	$39,739	90.5%	0.9%	15.2%
Transportation, Communications, & Utilities	$27,962	$36,639	76.3%	0.1%	14.3%
Wholesale Trade	$32,405	$40,521	80.0%	3.2%	46.1%
Retail Trade	$13,652	$14,596	93.5%	4.3%	20.5%
Finance, Insurance, & Real Estate	$24,988	$40,933	61.0%	5.1%	11.6%
Services	$22,769	$28,775	79.1%	4.8%	27.0%
Total Government	$30,724	$33,785	90.9%	0.5%	22.1%

Source: Wisconsin Department of Workforce Development, *Employment, Wages, and Taxes Due covered by Wisconsin's U.C. Law*, 2002. *Mining excluded from table since wages were suppressed to maintain confidentiality in every county.

The construction and manufacturing industries in Dodge County offered the highest annual average wages in 2002. The agriculture, forestry, and fishing industry along with the construction industry had an annual average wage greater than the State of Wisconsin as a whole. The greatest disparity in wages between Dodge County and the state was in the finance, insurance, and real estate industry. Table 6-7 shows the annual average wage by industry division for Dodge County and Wisconsin in 2002.

Major Employers

There are a number of major employers in Dodge County. Table 6-8 displays the principal employers found in the county in 2003.

Table 6-8
Principal Employers, Dodge County, 2003

Employer	Nature of Business	# of Employees Dec. 31, 2002
Private Sector		
Quadgraphics, Lomira and Hartford	Commercial publications	2,200
John Deere Works, Horicon	Mowers and tractors	1,572
Beaver Dam Community Hospital	Hospital and nursing home	979
Watertown Memorial Hospital	Hospital	684
Metalcraft of Mayville	Metal fabrication	626
Mayville Engineering Co., Mayville	Custom stamping	508
Beatrice Cheese Co., Mayville	Dairy products	269
Tab Products Co., Mayville	Distribution and manufacture of office equipment	257
Kraft Foods, Beaver Dam	Manufacture cream & cheese products	250
Michels Corporation, Brownville	Construction	250
Federal Mogul Sintered Products, Waupun	Metal fabrication	218
Citizen Publishing, Beaver Dam	Printing and publishing	217
Mayville Metal	Cabinets	207
National Rivet & Mfg. Co., Waupun	Manufacturing rivets	176
Willow Foods Inc., Beaver Dam	Pizza and salads	175
Kondex Corp., Lomira	Agricultural cutting tools	160
Burgess Norton Mfg. Co., Beaver Dam	Powered sintered metal structural products	148
Maysteel Corp., Mayville	Stainless steel and aluminum sheet metal	143
Gardner Equipment, Juneau and Beaver Dam	Barn equipment	134
Silgan Containers Corp., Waupun	Can manufacturing	112
Kirsh Foundry, Inc., Beaver Dam	Malleable iron and gray iron castings	108
Seneca Foods Corp., Clyman and Mayville	Canning company	105
Karavan Trailers, Inc., Fox Lake	Recreational trailers	100
R.E. Phelon, Lomira	Small engine ignitions	100
Total		9,698
Public Sector		
State of Wisconsin -		
Dodge Correctional Institution, Waupun	Prison hospital	585
Waupun Correctional Institution, Waupun	Prison	444
Fox Lake Corrections Institution, Fox Lake	Prison	370
Subtotal		1,399
Dodge County -		
Clearview	Skilled nursing home	439
General and Sheriff	General services and public safety	336
Human services and health	Social services, mental health, public health and aging	114
Highway	Public works	85
Subtotal		974
Beaver Dam School District	Primary and secondary education	517
Total		2,890

Source: Dodge County Accounting Department, 2003. *Table may not include all principal employers.

Agriculture Industry Analysis

Agriculture and the related food processing industry is a major employer in Dodge County, as well as Wisconsin. This industry is of particular importance when completing a comprehensive plan because land is a major requirement for success. According to the 2002 Census of Agriculture, the amount of land in farms in Dodge County decreased 2% from 410,651 acres in 1997 to 404,054 acres in 2002. For the same period, the average size of farms increased 4% from 197 acres in 1997 to 205 acres in 2002. The number of farms decreased 6% from 2,085 farms in 1997 to 1,968 farms in 2002. Similar trends can be found in many Wisconsin counties. The Wisconsin Agricultural Statistics Service defines a farm as a place that sells $1,000 of agricultural products.

Dairy production in Dodge County is the largest agriculture related industry. In 2002, Dodge County ranked in the top 10 of counties with the greatest amount of milk production. There were 43,000 milk cows in the county in 2001 and 42,500 in 2002. Dodge County ranked fifth in the state in total number of cattle and calves in 2003 with109,000 head.

Crop production is also a major agricultural industry in the county. According to the Wisconsin Agricultural Statistics Service the following major crops were prevalent in Dodge County in 2002:

- Approximately 1,300 acres of barley was planted, approximately 500 acres were harvested, resulting in a production of 29,600 bushels in 2002.

- Approximately 5,700 acres were harvested for oats in 2002, resulting in a production of 443,000 bushels.

- In 2002, Dodge County harvested 123,100 acres of corn for grain. Dodge County ranked fourth in the state for production of corn for grain in 2002.

- Dodge County harvested 68,600 acres of forage (dry equivalent) in 2002, ranking fourth in the state. Forage production includes all forms of harvested hay on a dry equivalent basis.

- Dodge County ranked fourth in the state for winter wheat production in 2002 with 8,200 acres harvested and a production of 529,800 bushels.

- Dodge County ranked fourth in the state in the production of corn for silage in 2002. Approximately 27,700 acres were harvested resulting in a production of 405,700 tons.

- Approximately 40,900 acres of alfalfa were harvested as dry hay in Dodge County in 2002, resulting in a ranking of eighth in the state.

- In 2002, Dodge County harvested 2,700 acres of green peas for processing resulting in a ranking of third in the state.

- Dodge County ranked third in the state in soybean production in 2002 with approximately 62,300 acres harvested and 3 million bushels produced.

- Dodge County ranked fifth in the state in production of sweet corn in 2002 with 5,300 acres harvested and 34,400 tons produced.

According to the Wisconsin Department of Commerce, Dodge County is part of a five county region with a well-developed agriculture processing industry. Regional value-adding industries include large dairy plants, smaller cheese factories, livestock sales and processing, and vegetable processing.

Agricultures Economic Impact

The production, sales, and processing of Dodge County's farm products generates employment, economic activity, income, and tax revenue. In 2004, the University of Wisconsin Extension, with economic supporting data from Steven Dellar, supplied information on just how important agriculture is to the overall Dodge County economy. Provided are some of the most notable impacts from agriculture in the county.

- Agriculture provides jobs for 9,508 Dodge County residents.

- Every new job in agriculture generates an additional 0.9 jobs in Dodge County.

- Dairy is the largest part of Dodge County's agriculture.

- Fifteen plants process dairy products in Dodge County.

- One dairy cow generates $2,167 in direct income to producers.

- Agriculture accounts for $1.41 billion in economic activity.

- Every dollar of sales of agricultural products generates an additional $0.39 of economic activity in other parts of the Dodge County economy.

Tourism

Tourism plays a vital role in Dodge County's economy. Area accommodations, restaurants, retail stores, recreational areas, and attractions help strengthen the local economy and improve the quality of life for residents, as well as visitors. The following information was obtained from the Wisconsin Department of Tourism in regard to the tourism industry in Dodge County for the year 2004.

- Dodge County ranks 38th in the state for traveler spending.
- Travelers spent an estimated $77 million in Dodge County in 2004.
- Summer is the biggest season and generated traveler expenditures amounting to $28 million. Fall travelers spent $19 million; winter/spring visitors each spent $15 million.
- It is estimated that employees earned $48 million in wages generated from tourist spending, an increase of 3.5% from 2003.
- Traveler spending in 2004 supported 2,038 full-time equivalent jobs.
- Local revenues (property taxes, sales taxes, lodging taxes, etc.) collected as a result of travelers amounted to an estimated $3.3 million in 2004, an increase of $3 million from 2003.
- Travelers generated $10 million in state revenues (lodging, sales and meal taxes, etc.).

Travelers are defined as Wisconsin residents and out-of-state visitors traveling for pleasure, business, or a combination of reasons.

Economic Base Analysis

The economic future of Dodge County requires an understanding of the economy as it relates to the Wisconsin economy as well as the United States economy. The Economic Base Analysis technique divides the economy into basic and non-basic sectors. The basic sector is made up of local businesses that are dependent on external factors. Manufacturing and local resource oriented firms (like logging or mining) are usually considered to be basic sector firms because their success depends largely upon non-local factors, and they usually export their goods. The non-basic sector, in contrast, is composed of those firms that depend largely upon local business conditions. Economic Base Theory asserts that the means of strengthening and growing the local economy is to develop and enhance the basic sector.

There are nine economic divisions that are used for Economic Base Analysis. There are four goods-producing sectors: agriculture, forestry, and fishing; mining; construction; and manufacturing. There are five services-producing sectors: transportation and public utilities; wholesale trade; retail trade; finance, insurance and real estate; and services.

Location Quotient Analysis

The Location Quotient analysis technique compares the Dodge County economy to the United States. This allows for identifying specializations in the Dodge economy. This is calculated by taking the Dodge County employment within a certain industry in a given year and dividing it by the Dodge County total employment for the given year. The total is then divided by the result of taking the United States employment in the same industry in the given year divided by the total United States employment for the given year. The result will be one of the following:

- If the Location Quotient (LQ) is **less than 1.0**, all employment is considered non-basic, therefore that industry is not meeting local demand for a given good or service.

- An LQ **equal to 1.0** suggests that the local employment is exactly sufficient to meet the local demand for a given good or service. Therefore, all of this employment is also considered non-basic because none of these goods or services are exported to non-local areas.

- An LQ **greater than 1.0** suggests that local employment produces more goods and services than the local economy can use, therefore these goods and services are exported to non-local areas, which makes them basic sector employment.

Note that government is not included in the analysis, although it is a major employer in Dodge County. Government is a non-profit entity that should not be expanded for economic purposes.

Table 6-9
Location Quotient Employment Analysis, Dodge County, 1990 and 2000

	1990 Employment	% of Total	2000 Employment	% of Total	% Change 1990-00	LQ 1990	LQ 2000
Ag, Forestry, Fishing	511	1.8%	(D)	NA	NA	1.5	NA
Mining	67	0.2%	(D)	NA	NA	0.3	NA
Construction	1,923	6.9%	3,432	8.6%	78.5%	1.1	1.3
Manufacturing	10,055	36.0%	13,628	34.1%	35.5%	2.1	2.5
Transportation, Public Utilities	1,115	4.0%	1,772	4.4%	58.9%	0.7	0.8
Wholesale	1,158	4.2%	1,412	3.5%	21.9%	0.7	0.7
Retail	5,220	18.7%	6,859	17.2%	31.4%	0.9	0.9
Finance, Insurance, Real Estate	1,330	4.8%	2,433	6.1%	82.9%	0.5	0.6
Services	6,524	23.4%	10,387	26.0%	59.2%	0.7	0.7
Total Employment	27,903	100.0%	39,923	100.0%	43.1%	1.0	1.0

Source: U.S. Department of Commerce, Bureau of Economic Analysis, Regional Accounts Data, 1990 and 2000.
(D) Not shown to avoid disclosure of confidential information.

Basic Employment

There are two areas within the 2000 Dodge County economy which can be considered basic employment areas: construction and manufacturing. These two areas produce more goods and services than the county economy can use. The retail sector of the Dodge economy is also very close to being considered basic employment. Having basic employment is important because it suggests that if a downturn in the local economy occurs, these sectors will not be strongly affected because they are dependent more on non-local economies. Having strong basic sector employment and industry within the county will strengthen the county's economy, as well as the economies of municipalities within the county.

Non-Basic Employment

The remaining economic divisions are considered non-basic employment sectors. This suggests that these sectors are not meeting local demand for services and could be expanded. Those sectors with an LQ close to one or equal to one, as may be the case in the future, would indicate that local demand is being met and services or goods are not being exported.

Overall, the Dodge County economy in 2000 was overly dependent on the manufacturing industry. This may be of benefit to the county if other local industries experience a downturn. The manufacturing industry would likely remain strong because markets are based on non-local sources. However, a slow national economy or a national recession will have significant effects on the manufacturing businesses in the county.

Industrial Parks

New industrial development usually occurs in urban areas to take advantage of utility and transportation services found there. Some fringe areas around traditional urban centers have recently seen development of open land for industrial uses due to the expansion of utilities and transportation networks and the desire for clean ("green field") locations on which to build.

Industrial parks are found in all of the cities in Dodge County. The Villages of Hustisford, Randolph, Iron Ridge, Lomira, and Reeseville also have industrial parks. The City of Beaver Dam created an 80-acre industrial park along Highway 151.

Commuting Patterns

Table 6-10 displays the commuting patterns for Dodge County as indicated by the 2000 Census.

Table 6-10
Commuting Patterns, Dodge County, 2000

	Live in Dodge County, Work In:	Travel to Dodge County from:	Net Commute
Jefferson County	4,021	1,491	-2,530
Washington County	3,230	791	-2,439
Waukesha County	3,051	514	-2,537
Fond du Lac County	1,852	4,401	2,549
Dane County	1,440	427	-1,013
Milwaukee County	1,241	318	-923
Columbia County	1,115	1,001	-114
Ozaukee County	246	41	-205
Racine County	148	32	-116
Winnebago County	123	225	102
Green Lake County	102	395	293
Walworth County	73	80	7
Outagamie County	68	34	-34
Elsewhere	405	763	358
Dodge County	25,483	25,483	0
Total	42,598	35,996	-6,602

Source: U.S. Bureau of the Census, 2000.

Approximately 6,600 more workers travel out of Dodge County for work than those that commute into the county for work. The largest number of commuters travel to Jefferson County (4,021), followed by Washington County (3,230), and Waukesha County (3,051). For those that travel to the county for work, the majority commute from Fond du Lac County (4,401).

6.4 Attraction of New Business and Industry

Strengths and Weaknesses Analysis

A simple determination of the strengths and weaknesses of Dodge County and its economy provides the basic planning steps for future economic development. Strengths should continue to be promoted and new development that fits these features should be encouraged. Weaknesses should be improved or further analyzed and new development which displays aspects similar to identified weaknesses should be discouraged.

The following information was obtained from an economic development focus group held in June of 2004, local planning documents, and Dodge County Planning Department staff.

Strengths

- Location, the triangle between Madison, Milwaukee, Fox Valley.
- Labor availability, skills, work ethic, and low cost.
- Quality of life, natural resources, schools, and hospitals.
- Agricultural diversity supports food processing.
- Strong manufacturing base.
- Good supply of land, land available in industrial parks.
- Well maintained communities.
- Airport located centrally within the county.
- Strong local and county government leadership.
- Access to major highways.

Infrastructure and Economic Development

The infrastructure available in a community is closely tied to the level of economic development that a community can support. The availability or lack of infrastructure may also be a major strength or weakness for economic development.

Different types of infrastructure include transportation, communication, utility, and social infrastructure.

See Chapter 4, Utilities and Community Facilities, for an inventory of Dodge County's infrastructure.

- Tourism groups/agencies are available for assistance in the county.
- A county-wide revolving loan fund has been established.
- Extensive railroad network.
- Access to a technical college and general proximity to major universities.
- Affordable housing opportunities.

Weaknesses

- Tax burden and need for low cost tax base.
- Lack of county-wide economic development entity and staff.
- Dependency on manufacturing.
- Overall lack of economic diversity.
- Dollars leaving county, not re-spent in Dodge County.
- Loss of labor force to other counties.
- Limited cooperation between governments.
- Relatively low paying jobs.
- Lack of cultural, shopping, and recreation opportunities to attract some of the labor force.
- Aging workforce.
- Brain drain, graduates leaving the county.
- Not a member of a Regional Planning Commission.
- High seasonal employment.
- Limited revenue and financing options for development of new infrastructure to support economic development.
- County population base that is disbursed among many communities resulting in small urban centers with limited resources.

Environmentally Contaminated Sites for Commercial or Industrial Use

The Environmental Protection Agency (EPA) and the Wisconsin Department of Natural Resources (WDNR) encourage the clean-up and use of environmentally contaminated sites for commercial and industrial use. The WDNR has created the Bureau for Remediation and Redevelopment Tracking System (BRRTS) which identifies environmentally contaminated sites for communities in Wisconsin. The most commonly listed types of sites are the following:

- Spills, a discharge of a hazardous substances that may adversely impact, or threaten to adversely impact public health, welfare or the environment. Spills are usually cleaned up quickly.

- LUST, a Leaking Underground Storage Tank that has contaminated soil and/or groundwater with petroleum. Some LUST cleanups are reviewed by DNR and some are reviewed by the Dept. of Commerce.

- ERP, Environmental Repair Program sites are sites other than LUSTs that have contaminated soil and/or groundwater. Often, these are old historic releases to the environment.

- VPLE, Voluntary Property Liability Exemptions apply to sites in which a property owner conducts an environmental investigation and cleanup of an entire property and then receives limits on future liability.

- Superfund, Superfund is a federal program created by Congress in 1980 to finance cleanup of the nation's worst hazardous waste sites. Thirty-nine sites are currently found in Wisconsin.

According to the BRRTS database, there are 655 environmentally contaminated sites in Dodge County. Of the 655 sites, 308 are closed, and 347 sites are open. Closed sites have completed all clean up requirements and have received a case closure letter from the DNR. Open sites are in need of clean up or clean up is underway. There are 347 sites that could have potential for commercial or industrial use. Of the 347 open sites, 247 are reported spill sites, 60 are LUST sites, 34 are ERP sites, 4 are VPLE, and 2 are Superfund sites.

Opportunities for Redevelopment

In addition to environmentally contaminated sites, vacant or under utilized buildings and vacant lots represent opportunities for redevelopment. A majority of these opportunities exist in villages and cities. No significant areas of land are in need of redevelopment in the County.

6.5 Employment Forecast

In January 2001, the Wisconsin Department of Workforce Development (WDWD) released a publication titled *Wisconsin Projections, 1998-2008*. This publication makes economic projections for the state regarding the labor force, industries, and occupations.

Wisconsin's population is projected to grow slower and older than the nation as a whole, leading to lower participation rates in the workforce. Wisconsin is also having difficulty attracting international immigrants, domestic migrants, and retaining its own citizens. Wisconsin will continue to face the challenge of filling job openings. The five industries that are projected to add the most jobs from 1998 to 2008 are business services, health services, educational services, social services, and miscellaneous retail stores. The top five occupations in Wisconsin with the greatest expected job openings for 1998 to 2008 are cashiers, retail salespersons, waiters and waitresses, general office clerks, and general managers/top executives. The five fastest growing occupations for 1998 to 2008 include desktop publishing specialists, computer support specialists, systems analysts, paralegals and legal assistants, and geologists/geophysicists.

6.6 Economic Development Trends and Outlook

Agriculture dominated the Dodge County economy until the mid-20th century, at which point, manufacturing became a major source of employment and income. Trade and services have begun to emerge as major economic components. These trends formed the base of the current Dodge County economy. Over the next twenty years a number of economic trends are anticipated that will affect the existing economic base:

- The composition of the labor force will change due to continued decreases in family size and the aging of the population.
- Dodge County will likely continue to depend heavily on the manufacturing sector of the economy. International and national economic trends will continue to affect the manufacturers found in Dodge County.
- Population disbursement in the county will continue to limit economic development in some areas.
- Increases in automation and technology in manufacturing will change the existing manufacturing base and affect the labor force.
- Tourism will likely increase as a factor in the county economy.
- Dodge County will continue to be a desirable place to live, and transportation improvements will increase the ability of individuals to work outside the county resulting in increased population.
- The service-based sector of the economy will continue to grow, particularly health-related services, as the population ages.

7. Intergovernmental Cooperation

7.1 Introduction

This element identifies planning activities in and around Dodge County, and provides a description of Wisconsin's statutes associated with intergovernmental cooperation.

In general terms, intergovernmental cooperation is any arrangement by which officials of two or more jurisdictions coordinate plans, policies, and programs to address and resolve issues of mutual interest. It can be as simple as communicating and sharing information, or it can involve entering into formal intergovernmental agreements and sharing resources such as equipment, buildings, staff, and revenue. It can even involve consolidating services, jurisdictions, or transferring territory.

Many issues cross jurisdictional boundaries, affecting more than one community. For example, air, water, and wildlife pass over the landscape regardless of boundaries so that one jurisdiction's activities with regard to air, water, and wildlife impacts other jurisdictions downwind or downstream.

Today, increased communication technologies and personal mobility mean that people, money, and resources also move across jurisdictions, as quickly and freely as air and water. Persons traveling along roadways use a network of transportation routes, moving between jurisdictions without even realizing it.

Frequently, the action of one governmental unit impacts others. Increasingly, we have come to the realization that many vital issues are regional in nature. Watersheds, economic conditions, commuter patterns, housing, media markets, and effects from growth and change are all issues that spill over municipal boundaries and impact the region as a whole.

Wisconsin has over 2,500 units of government and special purpose districts defined as follows:

- 72 counties
- 190 cities
- 395 villages
- 1,265 towns
- 426 school districts
- 16 technical college districts
- Sanitary districts, drainage districts, lake protection districts, metropolitan sewage districts, etc.

Dodge County Units of Government

Dodge County has 44 units of government, and special purpose districts defined as follows:

- 24 Towns
- 9 Cities
- 11 Villages
- 19 School districts
- 10 Sanitary districts
- 36 Drainage districts
- 3 Lake protection districts

Wisconsin ranks 13th nationwide in total number of governmental units and third nationwide in governmental units per capita. Having so

many governmental units allows for very local representation and means that Wisconsin and county residents have numerous opportunities to participate in local decision-making. However, the sheer number of governmental units with overlapping decision-making authority presents challenges. More governmental units can make communication, coordination, and effective action more difficult, creating a greater potential for conflict. Instead of communicating ideas within one jurisdiction, communication needs to move across multiple jurisdictions and involve multiple boards, commissions, committees, executives, administrators, and citizens. Goals between communities may differ and present challenges. More governmental units may also mean unwanted and wasteful duplication in the delivery of community services. Cooperation can help avoid this.

Intergovernmental Cooperation Benefits

There are many reasons intergovernmental cooperation makes sense. The following are some examples:

- Cost Savings – Cooperation can save money by increasing efficiency and avoiding unnecessary duplication. Cooperation can enable some communities to provide their residents with services that would otherwise be too costly.

- Address Regional Issues – By communicating and coordinating their actions, and working with regional and state jurisdictions, local communities are able to address and resolve issues which are regional in nature.

- Early Identification of Issues – Cooperation enables jurisdictions to identify and resolve potential conflicts at an early stage, before affected interests have established rigid positions, before the political stakes have been raised, and before issues have become conflicts or crises.

- Reduced Litigation – Communities that cooperate are able to resolve issues before they become mired in litigation. Reducing the possibility of costly litigation can save community money, as well as the disappointment and frustration of unwanted outcomes.

- Consistency – Cooperation can lead to consistency of the goals, objectives, plans, policies, and actions of neighboring communities and other jurisdictions.

- Predictability – Jurisdictions that cooperate provide greater predictability to residents, developers, businesses, and others. Lack of predictability can result in lost time, money, and opportunity.

- Understanding – As jurisdictions communicate and collaborate on issues of mutual interest, they become more aware of one another's needs and priorities. They can better anticipate problems and work to avoid them.

- Trust – Cooperation can lead to positive experiences and results that build trust between jurisdictions.

- History of Success – When jurisdictions cooperate successfully in one area, the success creates positive feelings and an expectation that other intergovernmental issues can be resolved as well.

- Service to Citizens – The biggest beneficiaries of intergovernmental cooperation are citizens for whom government was created in the first place. They may not understand, or even care about, the intricacies of particular intergovernmental issues, but all Wisconsin residents can appreciate their benefits, such as costs savings, provision of needed services, a healthy environment, and a strong economy.

7.2 Multi-Jurisdictional Plan Building Process

In order to facilitate meaningful opportunities for intergovernmental cooperation, the Dodge County Comprehensive Plan and 19 local plans were partially built utilizing a regional meeting approach. This approach grouped the participating communities into one of five regions (see Map 1-2, Multi-jurisdictional Plan Groupings, located in the Appendix). The regions were arranged based on: their location in the county; common features such as agriculture, highways and river corridors; and shared service areas for utilities and emergency services.

Geographic Complexities of Planning

The number of municipal boundaries significantly complicates the plan development process as multiple units of government have vastly different ways of providing public services and facilitating growth management administration. However, multi-jurisdictional planning also promotes coordinated regional geographic information systems development, promotes inter-municipal coordination of data and ideas, facilitates cooperative discussion of land use, growth regulation, and shared services, and promotes efficiency in plan development and implementation.

The regional meeting approach provided an excellent forum for communities to discuss and resolve issues. Each meeting involves three phases. During the first phase, general trends and other information were presented at the beginning of each meeting. The second phase involved "breakout" sessions, whereby each community met with an assigned planner to work through issues and concerns specific to each community. The third phase involved the communities getting back together to present findings and solutions.

7.3 Wisconsin Intergovernmental Agreement Statutes

Intergovernmental Cooperation

Wisconsin Statute, 66.0301 permits local agreements between the state, cities, villages, towns, counties, regional planning commissions, and certain special districts, including school districts, public library systems, public inland lake protection and rehabilitation districts, sanitary districts, farm drainage districts, metropolitan sewerage districts, sewer utility districts, Indian tribes or bands, and others.

Intergovernmental agreements prepared in accordance with s. 66.0301, formerly s. 66.30, are the most common form of agreement and have been used by communities for years, often in the context of sharing public services such as police, fire, or rescue. This type of agreement can also be used to provide for revenue sharing, determine future land use within a subject area, and to set temporary municipal boundaries. However, the statute does not require planning as a component of any agreement and boundary changes have to be accomplished through the normal annexation process.

Boundary Agreements Pursuant to Approved Cooperative Plan

Under 66.0307, Wisconsin Statutes, combinations of municipalities may prepare cooperative boundary plans or agreements. Each city, village, or town that intends to participate in the preparation of a cooperative plan must adopt a resolution authorizing its participation in the planning process.

Cooperative boundary plans or agreements involve decisions regarding the maintenance or change of municipal boundaries for a period of 10 years or more. The cooperative plan must include a plan for the physical development of the territory covered by the plan, a schedule for changes to the boundary, plans for the delivery of services, an evaluation of environmental features and a description of any adverse environmental consequences that may result from the implementation of the plan, and it must address the need for safe and affordable housing. The participating communities must hold a public hearing prior to its adoption. Once adopted, the plan must be submitted to the Wisconsin Department of Commerce for State approval. Upon approval, the cooperative plan has the force and effect of a contract.

Creation, Organization, Powers and Duties of a Regional Planning Commission

Wisconsin Statute 66.0309 permits local governments to petition the governor to create a regional planning commission (RPC). If local support for a commission is unanimous, the governor may create it by executive order. The governor may also create a commission if local governments representing over 50% of the population or assessed valuation of the proposed region consent to the creation. Commission members are appointed by either local governments or the governor.

State Statutes require the RPC to perform three major functions:

- Make and adopt a comprehensive plan for the physical development of the region.
- If requested by a local unit, report recommendations to that local unit on the location of or acquisition of land for any of the items or facilities, which are included in the adopted regional comprehensive plan.
- Make an annual report of its activities to the legislative bodies of the local governmental units within the region.

RPC's are also authorized to perform several other functions; however, by law they serve a strictly advisory role.

Dodge, Columbia, Jefferson, Rock, and Sauk Counties are the only counties in the state that are not part of a Regional Planning Commission.

Municipal Revenue Sharing

Wisconsin Statute, 66.0305, Municipal Revenue Sharing, gives authority to cities, villages and towns to enter into agreements to share revenue from taxes and special charges with each other. The agreements may also address other matters, including agreements regarding services to be provided or the location of municipal boundaries.

Boundaries of the shared revenue area must be specified in the agreement and the term of the agreement must be for at least 10 years. The formula or other means for sharing revenue, the date of payment of revenues, and the means by which the agreement was made may be invalidated after the minimum 10-year period.

Annexation

Wisconsin Statute, 66.021, Annexation of Territory, provides three petition methods by which annexation may occur. Annexation involves the transfer of one or more tax parcels from a town to a city or village. Cities and villages can not annex property without the consent of landowners as required by the following petition procedures:

1. Unanimous approval - A petition is signed by all of the electors residing in the territory and the owners of all of the real property included within the petition.

2. Notice of intent to circulate petition (direct petition for annexation) - The petition must be signed by a majority of electors in the territory and the owners of one-half of the real property either in value or in land area. If no electors reside in the territory, then only the landowners need sign the petition.

3. Annexation by referendum - A petition requesting a referendum election on the question of annexation may be filed with the city or village when signed by at least 20 percent of the electors in the territory.

Incorporation

Wisconsin Statutes, 66.0201 - Incorporation of Villages and Cities; Purpose and Definitions, and 66.0211 - Incorporation Referendum Procedure, regulate the process of creating new villages and cities from town territory. Wisconsin Statute, 66.0207 - Standards to be applied by the department, identifies the criteria that have to be met prior to approval of incorporation.

The incorporation process requires filing an incorporation petition with circuit court. Then, the incorporation must meet certain statutory criteria reviewed by the Municipal Boundary Review Section of the Wisconsin Department of Administration. These criteria include:

- Minimum standards of homogeneity and compactness, and the presence of a "well developed community center;"
- Minimum density and assessed valuation standards for territory beyond the core;
- A review of the budget and tax base in order to determine whether or not the area proposed for incorporation could support itself financially;
- An analysis of the adequacy of government services compared to those available from neighboring jurisdictions;
- An analysis of the impact incorporation of a portion of the town would have on the remainder, financially or otherwise; and
- An analysis of the impact the incorporation would have on the metropolitan region.

Extraterritorial Zoning

Wisconsin Statute, 62.23(7a), Extraterritorial Zoning, allows a city with a population of 10,000 or more to adopt zoning in town territory, three miles beyond a city's corporate limits. A city or village with a population less than 10,000 may adopt zoning 1.5 miles beyond its corporate limits. If the extraterritorial area of two municipalities overlaps, jurisdiction is divided between them as provided under s. 66.0105. Refer to Map 7-1, located in the Appendix, for extraterritorial jurisdictions of municipalities in Dodge County.

Under extraterritorial zoning authority, a city or village may enact an interim zoning ordinance that freezes existing zoning, or, if there is no zoning, existing uses while a plan and regulations are developed. The statute provides that the interim ordinance may be for two years.

A joint extraterritorial zoning committee must be established consisting of three city or village plan commission members and three town members. The city or village plan commission works with the joint committee in preparing the plan and regulations. The joint committee must approve the plan and regulations by a majority vote before they take affect.

The City of Mayville utilizes its extraterritorial zoning jurisdiction in Dodge County.

Extraterritorial Subdivision Review

Wisconsin Statute, 236.10, Approvals Necessary, allows a city or village to exercise its extraterritorial plat review authority in the same geographic area as defined within the extraterritorial zoning statute. Refer to Map 7-1, located in the Appendix, for extraterritorial jurisdictions of municipalities in Dodge County. However, extraterritorial zoning requires town

approval of the zoning ordinance, while extraterritorial plat approval applies automatically if the city or village adopts a subdivision ordinance or official map. The town does not approve the subdivision ordinance for the city or village. The city or village may waive its extraterritorial plat approval authority if it does not wish to use it.

The purpose of extraterritorial plat approval jurisdiction is to help cities and villages influence the development pattern of areas outside their boundaries that will likely be annexed to the city or village. Overlapping authority by incorporated municipalities is prohibited. This situation is handled by drawing a line of equal distance from the boundaries of the city and/or village so that not more than one ordinance will apply.

7.4 Inventory of Plans for Communities in Dodge County and Neighboring Counties

Community Plans in Dodge County

In Dodge County, 19 of 44 communities are participating in the development of the Dodge County Multi-Jurisdiction Comprehensive Plan. Of the remaining 25 communities, six have land use plans, six have comprehensive plans that are not "Smart Growth" compliant, six have Comprehensive "Smart Growth" Plans, and seven do not have any plans. Refer to Map 7-2, Status of Planning in Dodge County, located in the Appendix.

Land Use Plans

- Town of Calamus, Town of Clyman, Town of Hubbard, Town of Lowell, Village of Hustisford, and City of Hartford.

Comprehensive Plans

- Town of Chester, Town of Theresa, City of Beaver Dam, City of Horicon, and City of Waupun.

"Smart Growth" Comprehensive Plans

- Town of Beaver Dam, Town of Emmet, Town of Lebanon, Town of Williamstown, City of Columbus, City of Fox Lake, and City of Watertown.

No Plans

- Town of Oak Grove, Town of Westford, Village of Clyman, Village of Kekoskee, Village of Lowell, Village of Randolph, and Village of Reeseville.

Fond du Lac County

Fond du Lac County is located to the north of Dodge County and shares the majority of Dodge County's northern border as well as a portion of the eastern border. Fond du Lac County does not have a comprehensive plan, and no planning efforts are currently underway.

Washington County

Washington County is located to the east of Dodge County and shares the majority of Dodge County's eastern border. Washington County does not have a comprehensive plan. Washington County and 12 local municipalities have formally agreed to work together in a planning effort to develop a multi-jurisdictional comprehensive plan that fulfills the requirements of the Wisconsin Comprehensive Planning Law. The Wisconsin Department of Administration (DOA) has awarded a joint comprehensive planning grant of $280,000 to Washington County for the development of a multi-jurisdictional plan. The planning process is scheduled to begin in July of 2005.

Waukesha County

Waukesha County is located to the south of Dodge County and shares only a small portion of its border with Dodge County. The Waukesha County Development Plan was adopted in 1996. The Southeastern Wisconsin Regional Planning Commission (SEWRPC) and Waukesha County are working with 24 municipalities to complete an updated comprehensive plan. The county received a planning grant from the Wisconsin Department of Administration for $812,300 in 2005. The plan is scheduled to be completed in early 2007.

Jefferson County

Jefferson County is located to the south of Dodge County and shares its entire northern border with Dodge County. Jefferson County has an Agricultural Preservation and Land Use Plan that was adopted in 1999.

Dane County

Dane County is located to the west of Dodge County and shares only a small portion of its border with Dodge County. In 2002, Dane County and 14 communities applied for and received a comprehensive planning grant from the Wisconsin Department of Administration. The plan is scheduled for completion in 2006.

Columbia County

Columbia County is located to the west of Dodge County and shares its entire eastern border with Dodge County. Columbia County is in the beginning stages of developing a comprehensive plan for the county and 15 of 21 towns. The plan is being prepared by county staff and is expected to take three to four years to complete.

Green Lake County

Green Lake County is located to the north of Dodge County and shares only a small portion of its border with Dodge County. In September 2003, Green Lake County adopted a comprehensive plan consistent with Wisconsin's Comprehensive Planning legislation. Residents of four cities, two villages, and eight towns participated in the development of the plan.

7.5 Inventory of Existing Intergovernmental Agreements

There are a total of 25 fire departments and 16 emergency medical service providers serving Dodge County. The majority of these departments serve more than one community and have service areas which cross municipal borders, and some cross county borders. The service area boundaries of most of these services are based more on need and development patterns rather than on municipal boundaries. The coordination and provision of these services are based on a variety of different intergovernmental agreements.

Various informal and formal agreements also exist between communities throughout the county to address sharing services and facilities such as parks, road maintenance, snowplowing, and library funding. Chapter 4, Utilities and Community Facilities further discusses some of these relationships as well as local planning documents.

Local Mutual Assistance

Mutual aid agreements exist between communities throughout the county to address police, fire, and ambulance services. Mutual aid agreements allow communities to share equipment and resources in the event of need.

In Dodge County, there is one formal boundary agreement between the City of Watertown and the Town of Emmet. The agreement addresses future land use, density, timing of annexations, street layout, parks, stormwater management, and revenue sharing.

7.6 Analysis of Dodge County's Relationship with School Districts, Local Governmental Units, Other Jurisdictions, Neighboring Counties, Region, and State

Local Governmental Units

There are 44 municipalities located at least partially in Dodge County. The 44 local municipalities consist of nine cities, 11 villages and 24 towns. Five of the municipalities (four cities and one village) are divided between Dodge County and another county.

Relationship
Dodge County's relationship with the local governmental units can be characterized as one of mutual respect. The county is often the neutral party in disputes or issues between municipalities. The county also serves as a source of information that is available to the local governmental units.

Siting and Building Public Facilities
There is no formal process established for siting and building public facilities with local governments.

Sharing Public Services
County Departments such as the Planning, Development, and Parks Department and Highway Department offer services to those towns who seek additional assistance beyond the required level of service. Nine towns have adopted the County Land Use Code and the county administers the land use regulations in those towns. The Planning, Development and Parks Department also provides planning services for a fee to any municipality. Many communities have taken advantage of this service over the years.

The County Highway Department installs driveway culverts and road name signs for those towns that choose to pay for such an additional service. The Highway Department also maintains all county highways found throughout the county.

The Dodge County Sheriff's Department provides police protection and services throughout the county. Service is provided to all communities that are not served by a local municipal police department.

Other county departments also offer services throughout the county including the Land Information Department and Land Conservation Department.

School Districts

Dodge County is served by a total of 19 school districts.

Relationship
Dodge County's relationship with the school districts can be characterized as limited. The school districts tend to operate rather independently and interaction with the county tends to be minimal.

Siting School Facilities
The siting of new school facilities is mainly conducted by the school districts. The county has historically had little input into the location of new school facilities.

Sharing School Facilities
No formal agreement between the school districts and Dodge County exist for the shared use of school facilities. However, school facilities have, on occasion, been used by the county to hold meetings. School recreation facilities are also often used by residents in proximity to school facilities.

Region

Dodge County is located in the south-central region of the State of Wisconsin. The county is not part of a regional planning commission. Dodge County has limited overall interaction at a regional level, the majority of contacts and relationships are between Dodge County and a single neighboring county.

State

Dodge County's relationship with the State of Wisconsin mainly involves administering various state mandates that have been delegated to counties.

7.7 Intergovernmental Cooperation Trends and Outlook

The following intergovernmental trends are anticipated during the planning period in Dodge County.

- Intergovernmental cooperation will increase as state, county, and local governments strive to spend less money more efficiently.
- The sharing of employees, equipment, and facilities will increase locally to meet demand at reduced costs.
- Comprehensive planning will help communities share information and identify opportunities for shared services and facilities.
- Given the large number of small cities and villages in Dodge County, annexation and other land use conflicts will continue between towns and incorporated communities.
- The use of boundary agreements and extraterritorial review tools will increase as development pressures increase near municipal borders.
- Economic development will further require leveraging the strengths of the county as a region rather than an uncoordinated, individual focus on the community level.
- Successful intergovernmental cooperation will require sustained commitment and investment by all affected parties to produce value over time.

8. Land Use

8.1 Introduction

This element provides an analysis of existing land use in Dodge County. Transportation networks, ownership patterns (public and private), natural resources, market forces, existing ordinances, and resource management activities all contribute to the pattern of development that occurs in Dodge County.

8.2 Existing Land Use

Land use is a means of broadly classifying different types of activities relating to how land is used. The type, location, density, and geographic extent of developed and undeveloped lands influence community character, quality of life, public service needs (e.g., roads, utilities, parks, emergency services), tax base, and availability of jobs throughout the county. The maps developed in the planning process (particularly the existing land use map) are used to analyze the current development pattern, and serve as the framework for formulating how land will be used in the future.

A primary function of this Land Use element is to help assess the development pattern and how it potentially impacts future land use. The analysis should result in some perspective as to how the components of land use relate to each other, and develop some ideas on land use management that is compatible and desirable for Dodge County's long term development pattern.

Land Use Integration

Land use is highly integrated with all the planning elements. Changes in land use are not isolated; typically changes in land use are the end result of change to another element. Growth in population, development of new housing, and building of a new road all have land use impacts.

The land use pattern in Dodge County consists of rural towns containing mostly agricultural land and scattered residential development, along with several small incorporated communities providing centers for commerce, services, and cultural resources. The existing land uses in Dodge County are shown on Map 8-1 located in the Appendix and are generally described below. Table and Figure 8-1 details the existing land uses and acreages of Dodge County.

Agricultural and Other Resource Land

By far the largest of the land use categories is the combined total for agriculture and undeveloped/vacant land, which is a reflection of the large amount of prime agricultural soils found in the county. This category also includes wetlands and open space areas. The question of how much land is converted to urban uses and where this conversion takes place is a key element of the land use planning process.

Residential

Residential development in Dodge County consists mainly of single family housing, including farmsteads. Limited multi-family housing, manufactured housing, and seasonal housing units are also present. Residential development is mostly scattered throughout the county, and generally follows transportation corridors. However, small concentrations of residential development can be found along lake shorelines, and adjacent to incorporated municipalities. More intensive residential development, such as duplexes, condominiums, and apartments can be found in the villages and cities in Dodge County.

Commercial

Commercial growth can be witnessed throughout the county. Many of the major roadways attract businesses. In recent years, commercial growth has occurred in the Mayville/Horicon area, and also on the STH 151 and STH 33 corridors near Beaver Dam. The Beaver Dam area has captured a substantial number of traditional highway commercial uses such as gasoline stations, fast-food restaurants, and convenience shopping. The City of Waupun has also seen significant commercial development areas along STH 49.

Industrial

Most industrial development can be found in Dodge County's cities and villages, which have the infrastructure (i.e., sewer and water) to support this type of development. Most of the cities and villages have industrial parks. However, some fringe areas around traditional urban centers have recently seen development of open land for industrial uses, due to the expansion of utilities and transportation networks.

Public and Quasi-Public

The residential, commercial, and industrial land use categories account for the majority of the land area devoted to urban uses. Public and Quasi-Public land uses perform a support function to the people living and working in both urban and rural environments. Land uses within this classification include hospitals, schools, cemeteries, and churches, along with government offices, prisons, and public buildings. The amount of land devoted to these uses is not large in comparison to the other land use categories, but these facilities provide critical support and employment opportunities to the population of the county.

Parks and Recreation

Dodge County has many areas that are dedicated for use as parks and recreational land. The effects of a growing county population, growing interest in outdoor activities, and increased mobility will place greater demands on recreational facilities in the county. The preservation of public recreational areas as the county continues to grow is a key element in maintaining the quality of life in Dodge County.

Transportation

Transportation related land use features include local roads, county and state highways, and railroad corridors.

Communication and Utilities

Communication and utilities land use features include power lines, electrical substations, wastewater treatment plants, water towers, solid waste and recycling centers, telecommunication towers.

Woodlands

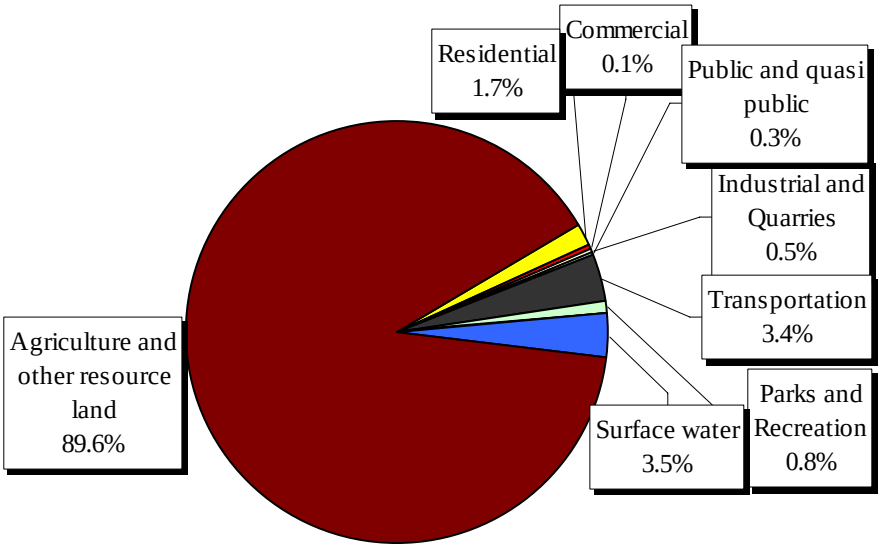
Woodlands account for approximately 3% of total land use in Dodge County. Woodlands tend to be scattered throughout the county and located on steep slopes, and in wetland areas.

Table 8-1
Existing Land Use, Dodge County Towns, 2004

Land Use	Acreage	Percent of Total
Residential	9,599.8	1.7%
Single family residential	9,411.0	1.7%
Two family residential	85.3	0.0%
Multi family residential	33.7	0.0%
Mobile home parks	69.8	0.0%
Commercial	648.3	0.1%
Industrial and Quarries	2,887.9	0.5%
Public and quasi public	1,607.5	0.3%
Transportation	19,007.7	3.4%
Parks and Recreation	4,661.2	0.8%
Communication and utilities	118.7	0.0%
Surface water	19,641.3	3.5%
Agriculture and other resource land	501,161.4	89.6%
Total	559,333.7	100.0%

Source: Dodge County Planning, Development and Parks Department.

Figure 8-1
Existing Land Use, Dodge County Towns, 2004



Source: Dodge County Planning, Development and Parks Department.

8.3 Land and Resource Management

Land and resource management is comprised of several components that significantly affect land use. The type of land ownership has a direct correlation to how that property is managed, and how lands may be used in the future. As resource management takes place under both private and public land ownership, the type of programs utilized are primary to evaluating the impact on land use. The programs that are used in Dodge County are important for preserving the county's rural character and natural resource base. The following are the most commonly used land and resource management programs in Dodge County.

Conservation and Recreation Land Ownership in Dodge County

- Federal Government: 20,918 acres
- State Government: 23,372 acres
- County Parks & Forests: 1,131 acres
- Total: 45,421 acres

Dodge County ranks 25th out of Wisconsin's 72 counties in total ownership.
Source: Wisconsin Blue Book, 2003-2004

Farmland Preservation Program

The Farmland Preservation Program is available to landowners who own at least 35 acres of land zoned for exclusive agricultural uses, or land that is under a long term preservation agreement

with the state, and can show $6,000 gross farm profits from the land per year. Land must remain zoned for exclusive agricultural uses and cropland must be farmed so that soil erosion rates comply with conservation standards. In Dodge County this program is managed by the Dodge County Land Conservation Department, and the Planning, Development and Parks Department. Table 8-2 details the amount of land enrolled in the Farmland Preservation Program. Map 8-2, located in the Appendix, geographically shows program participation.

Table 8-2
Farmland Preservation, Dodge County

	Acreage	Percent of Total
T. Ashippun	1,419.1	0.8%
T. Beaver Dam	1,818.7	1.1%
T. Burnett	10,749.3	6.4%
T. Calamus	15,371.4	9.2%
T. Chester	2,728.1	1.6%
T. Clyman	3,839.1	2.3%
T. Elba	13,198.1	7.9%
T. Emmet	2,976.4	1.8%
T. Fox Lake	2,544.7	1.5%
T. Herman	2,373.0	1.4%
T. Hubbard	2,934.1	1.7%
T. Hustisford	3,134.7	1.9%
T. Lebanon	2,447.9	1.5%
T. Leroy	11,174.1	6.7%
T. Lomira	12,713.7	7.6%
T. Lowell	4,952.7	2.9%
T. Oak Grove	10,637.8	6.3%
T. Portland	16,422.3	9.8%
T. Rubicon	2,303.4	1.4%
T. Shields	3,547.6	2.1%
T. Theresa	13,766.0	8.2%
T. Trenton	21,281.3	12.7%
T. Westford	2,958.7	1.8%
T. Williamstown	2,684.7	1.6%
Dodge County	167,976.8	100.0%

Source: Dodge County Planning, Development and Parks Department.

Managed Forest Law (MFL)

The MFL program is administered by the WDNR. The purpose of the Managed Forest Law is to promote sound forestry management practices by providing property tax reduction incentives to landowners. Wooded parcels at least 10 acres in size are eligible to be enrolled in the program.

At least 80% of the land must be productive forest land in order to be eligible for the program. Lands may be enrolled for either 25 or 50-year periods. This requires a long-term commitment from the property owners, but also provides long term protection from property tax escalations.

Preparation of an approved forestry management plan is required, which can be prepared by a WDNR forester at no charge. Practices identified in the plan must be carried out for the duration of the contract period. Mandatory management activities required by the law include cutting mature timber, thinning plantations and natural stands, pine releases, planting, post harvest treatments, and soil conservation practices. Landowners have the right to close up to 80 acres of their land to the public, otherwise the land is classified as open, and public access is permitted for hunting, fishing, cross-county skiing, sight seeing, and hiking.

Conservation Reserve Program (CRP)

The CRP is the Federal Government's largest environmental protection program in existence. Administered by the United States Department of Agriculture (USDA), the purpose of the program is to provide wildlife benefits, tree planting benefits, water quality benefits, and economic benefits. CRP is a voluntary approach to improving the environment using partnerships between government and private landowners. The program provides incentives to farmers for establishing conservation practices, which benefit resources both on and off the farm. Incentives are in the form of annual rental payments and cost-share assistance in return for establishing long-term, resource conserving measures on eligible lands. Rental payments are based on the agricultural rental value of the land, and cost-share assistance is provided in the amount up to 50% of the participant's costs to establish approved practices. The contract duration is from 10 years up to 15 years.

8.4 Supply, Demand, and Price Trends of Land

There are a variety of sources available to help measure the supply, demand, and price trends of land in an area. The following section will further detail available information for Dodge County.

Agricultural Land Sales

Table 8-3 displays information on agricultural land sales in Dodge County from 1999 to 2003 as provided by the Wisconsin Agricultural Statistics Service.

Table 8-3
Agricultural Land Sales, Dodge County, 1999-2003

	1999	2000	2001	2002	2003	# Change 1999-03	% Change 1999-03
Ag Land Continuing in Ag Use							
Number of Transactions	65	46	39	43	67	2	3.1%
Acres Sold	5,633	4,171	2,917	3,748	5,815	182	3.2%
Dollars per Acre	$2,165	$2,112	$2,665	$2,665	$3,135	$970	44.8%
Ag Land Being Diverted to Other Uses							
Number of Transactions	16	27	17	12	18	2	12.5%
Acres Sold	749	1,404	624	503	776	27	3.6%
Dollars per Acre	$2,822	$3,389	$3,358	$3,804	$4,167	$1,345	47.7%
Total of all Ag Land							
Number of Transactions	81	73	56	55	85	4	4.9%
Acres Sold	6,382	5,575	3,541	4,251	6,591	209	3.3%
Dollars per Acre	$2,242	$2,434	$2,788	$2,863	$3,257	$1,015	45.3%

Source: Wisconsin Agricultural Statistics Service, Agricultural Land Sales, 1999-2003.

As indicated by Table 8-3, the total amount of agricultural land sold in Dodge County has increased moderately since 1999. However, the value of the acres sold has been increasing more dramatically. In 2003, the value of agricultural land that is sold for other uses is valued higher than agricultural land that continues in agricultural use.

Forest Land Sales

Table 8-4 displays information on forest land sales in Dodge County from 1998 to 2001. More recent information on forest land sales was not available.

Table 8-4
Forest Land Sales, Dodge County, 1998-2001

	1998	1999	2000	2001	# Change 1998-01	% Change 1998-01
Forest Land Continuing in Forest Land						
Number of Transactions	18	18	9	17	-1	-5.6%
Acres Sold	182	194	77	145	-37	-20.3%
Dollars per Acre	$610	$653	$696	$1,337	$727	119.2%
Forest Land Being Diverted to Other Uses						
Number of Transactions	7	10	5	13	6	85.7%
Acres Sold	104	104	24	109	5	4.8%
Dollars per Acre	$1,225	$2,263	$2,301	$2,288	$1,063	86.8%
Total of all Forest Land						
Number of Transactions	25	28	14	30	5	20.0%
Acres Sold	286	298	101	254	-32	-11.2%
Dollars per Acre	$833	$1,215	$1,077	$1,745	$912	109.5%

Source: Wisconsin Agricultural Statistics Service, Forest Land Sales, 1998-2001.

The value of forest land in Dodge County has increased substantially over the relatively short time period shown. The average price of forest land sold for other uses increased $1,063 per acre between 1998 and 2001. The value of forest land that is diverted to other uses is also valued substantially higher than forest land that remains in forest use.

Equalized Value in Dodge County

The equalized value of real property is a vital component to the provision of public facilities and services. The increase in real property value in Dodge County provides additional tax revenues necessary to fund public facilities and service programs in the county.

Equalized values are based on the full market value of all taxable property in the state, except for agricultural land. The goal of this policy, known as use value assessment, is to protect Wisconsin's farm economy and curb urban sprawl by assessing farmland based upon its agricultural productivity, rather than its potential for development.

Table 8-5 displays equalized values for Dodge County.

Table 8-5
Equalized Values, Dodge County, 1999-2003

1999	Residential	Commercial	Manufacturing	Agricultural	Forest	Other	Total
Total in Towns	991,152,400	71,478,300	33,766,200	289,773,400	9,793,300	343,143,600	1,739,107,200
Total in Villages	252,768,300	64,423,600	20,136,600	1,091,000	11,900	1,875,600	340,307,000
Total in Cities	1,130,814,000	299,409,800	126,324,000	816,900	25,000	545,200	1,557,934,900
Dodge County	2,374,734,700	435,311,700	180,226,800	291,681,300	9,830,200	345,564,400	3,637,349,100

2000	Residential	Commercial	Manufacturing	Agricultural	Forest	Other	Total
Total in Towns	1,096,855,400	72,288,900	34,805,400	203,414,300	10,855,500	331,085,900	1,749,305,400
Total in Villages	261,148,800	72,488,100	20,980,000	704,400	12,000	1,962,700	357,296,000
Total in Cities	1,195,377,500	349,899,300	129,420,100	411,600	25,000	341,400	1,675,474,900
Dodge County	2,553,381,700	494,676,300	185,205,500	204,530,300	10,892,500	333,390,000	3,782,076,300

2001	Residential	Commercial	Manufacturing	Agricultural	Forest	Other	Total
Total in Towns	1,212,586,800	80,684,800	37,705,300	203,696,500	19,103,000	353,813,100	1,907,589,500
Total in Villages	272,764,100	79,296,600	21,967,400	663,500	25,200	1,927,000	376,643,800
Total in Cities	1,268,650,700	361,032,200	141,827,400	493,400	49,800	173,000	1,772,226,500
Dodge County	2,754,001,600	521,013,600	201,500,100	204,853,400	19,178,000	355,913,100	4,056,459,800

2002	Residential	Commercial	Manufacturing	Agricultural	Forest	Other	Total
Total in Towns	1,328,036,900	86,232,700	39,190,500	113,502,400	26,194,400	359,325,900	1,952,482,800
Total in Villages	287,644,000	86,361,300	22,461,300	389,300	29,200	1,768,300	398,653,400
Total in Cities	1,307,171,500	370,740,500	145,671,900	329,200	50,000	188,100	1,824,151,200
Dodge County	2,922,852,400	543,334,500	207,323,700	114,220,900	26,273,600	361,282,300	4,175,287,400

2003	Residential	Commercial	Manufacturing	Agricultural	Forest	Other	Total
Total in Towns	1,451,492,100	98,089,600	39,050,000	78,972,400	31,002,500	369,995,000	2,068,601,600
Total in Villages	299,326,200	89,906,700	22,900,100	315,700	41,300	2,107,800	414,597,800
Total in Cities	1,361,574,100	390,252,200	144,099,800	202,000	52,000	60,400	1,896,240,500
Dodge County	3,112,392,400	578,248,500	206,049,900	79,490,100	31,095,800	372,163,200	4,379,439,900

Source: Wisconsin Department of Revenue, Statement of Changes in Equalized Value by Class and Item, 1999-2003. Other includes swamp, waste, and other land.

The total equalized value of real estate in Dodge County increased by approximately 20% from 1999 to 2003. Residential development contributes the greatest portion of total equalized value for the county, approximately 71% of the total for 2003.

Farmland Use Value Assessment

In 1974, the State Legislature amended the Rule of Uniform Taxation (Article VIII, Section 1.) in the Wisconsin Constitution to permit the preferential treatment of agricultural land. The 1995-1997 Budget Act changed the standard for assessing agricultural land in Wisconsin from market value to use value. The goal of this legislation, known as use value assessment, is to protect Wisconsin's farm economy and curb urban sprawl by assessing farmland based upon its agricultural productivity, rather than its potential for development.

Specifically, the value of agricultural land for assessment purposes was changed from market value to use value. In a use value assessment system, the use of the land is the most important factor in determining its assessed value.

Use value in Wisconsin is specific to land only. The use value legislation passed in 1995 requires that the assessed value of farmland be based on the income that could be generated from its rental for agricultural use. Income and rental from farming are a function of agricultural capability. Because any land could theoretically be used for agricultural purposes, statutes and administrative rules limit the benefit of use value assessment to only those lands that qualify as "land devoted primarily to agricultural use."

The implementation of use-value assessment in Wisconsin has helped farmers maintain lower property taxes on their agricultural land. As an example, equalized values for agricultural lands in Dodge County were $291,681,300 in 1999, or 8% of total equalized value. The equalized values dropped to $79,490,100 in 2003, which represents 1.8% of the total equalized value.

8.5 Land Use Trends and Outlook

Changes in land use are related to changes in population, housing, transportation, community services, agriculture, natural resources, and economic development. The following land use trends are anticipated in Dodge County over the next 20 to 25 years.

- Dodge County's population and the number of housing units in the county will continue to grow.
- The number of persons per household will continue to decrease requiring more housing units and more land to accommodate the county's growing population.
- The county's riverfronts, woodlands, and highland areas will be desired for residential development.
- Two major four lane highway corridors, HWY 41 and HWY 151, pass through the county. The locations of interchanges on these highways have strong influences on nearby development patterns.
- Portions of STH 26 will receive freeway status, and the resulting closure of local road access points will impact land use development and emergency service patterns.
- Residential and highway corridor development will continue in order to accommodate those who commute to employment centers in Madison, Milwaukee, and the Fox Valley.
- Agriculture will maintain a strong presence in Dodge County. There will likely be a decreasing number of total farms, but an increasing number of large farms.

9. Implementation

9.1 Introduction

This chapter includes a description of the plans used by Dodge County staff, the Planning, Development and Parks Committee, and the County Board of Supervisors to make decisions regarding conservation and development. This chapter also includes a description of the county's regulations and ordinances.

Dodge County Planning, Development and Parks Department

The Dodge County Planning, Development and Parks Department was created by the Dodge County Board of Supervisors in April, 1968. The Department is governed by the Dodge County Planning, Development and Parks Committee.

The purpose of the Department is to promote the orderly and sound development of Dodge County. It is responsible for providing the Board of Supervisors, its committees, and County departments with consultation and recommendations on planning matters, and for carrying out plans and enforcing ordinances adopted by the Board. The Department also has the responsibility for the maintenance and development of the County Park and trail system.

9.2 Dodge County Planning Efforts

Dodge County Plan

The Dodge County Plan was adopted in 1999 to address some of the economic and development pressures that were being experienced. After passage of Wisconsin's Comprehensive Planning legislation, Wis. Stats. 66.1001, the Dodge County Board of Supervisors decided that it was in the county's best interest to pursue funding for an update to meet the requirements of the new legislation.

Bikeway/Pedestrian Plan

In an effort to promote improved conditions for walking and bicycling, Dodge County has completed the *Dodge County Bikeways and Pedestrianways Plan for Dodge County and Its Communities*. The plan includes research into collision data, survey results regarding residents' perception of bicycle riding and walking, and implementation/maintenance costs for existing and proposed improvements, such as:

- Paved Shoulders
- Signing
- Pavement Markings
- County Bicycle Facility Improvements
- Bike Lanes
- Wide Curb Lanes
- Shared Use Roadway

The implementation of this plan will provide safe transportation alternatives throughout the county, while increasing recreational opportunities.

Parks, Outdoor Recreation, and Open Space Plan

The intent of the Park, Outdoor Recreation, and Open Space Plan is to guide Dodge County and its local municipalities in the development of parks and facilities for active and passive recreation, and the preservation of open space. The plan also serves to maintain county eligibility for recreation grant funding.

The plan addresses recommendations for future park development, including acquisition of additional lands for future parks and expansion of existing ones, as well as, the provision of additional facilities in existing and future parks. Goals in the plan include providing safe and accessible recreational opportunities and preserving significant natural, cultural, and historic resources while operating the park system in a cost efficient and effective manner. The plan provides specific recommendations that range from future site acquisition for additional county parks to local improvements, such as installation of park signs and tree planting.

Agricultural Preservation Plan

The Dodge County Agricultural Preservation Plan was adopted in June, 2002. The plan was prepared under the Farmland Preservation Chapter of the Wisconsin Statutes. It establishes public policy in support of the preservation and maintenance of agricultural land in Dodge County and the encouragement of a healthy agricultural economy. The Farmland Preservation Program has been in existence since 1977 and in force in Dodge County since 1979.

The State of Wisconsin, Department of Revenue instituted the Wisconsin Farmland Preservation Program in 1977. Goals of the Farmland Preservation Program are twofold: to preserve Wisconsin farmland by means of local land use planning and soil conservation practices and to provide property tax relief to farmland owners. There are two programs offered, the Farmland Preservation Credit Program and the Farmland Tax Relief Credit Program.

To qualify for the Farmland Preservation 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. According to the Department of Revenue, about 80% of the claims are for land under zoning and 20% are for land covered by agreements. In addition, participants must comply with soil and water conservation standards set by the state Land Conservation Board.

In Dodge County, exclusive agricultural zoning exists in the Towns of Burnett, Calamus, Elba, Shields, Leroy, Lomira, Oak Grove, Portland, Theresa, Trenton, and Williamstown. Farmers within these towns are automatically eligible for the Farmland Preservation Program. Farmers with their land zoned exclusive agricultural do not have to sign contractual agreements with the Department of Agriculture. The farmers within the remaining towns without exclusive agricultural zoning must sign individual agreements with the state.

Approximately $30.3 million in direct benefits was distributed to Wisconsin farmers in 2002 through the Farmland Preservation Credit Program and the Farmland Tax Relief Credit Program. About 21,000 farmers claimed Farmland Preservation credits amounting to $16.6 million, and 56,400 farmers received Farmland Tax Relief Credits totaling $13.7 million. Farmland Preservation Credits averaged $797 per claimant, equal to 21% of claimants' average property tax bills. Approximately 37% of farm owners with 35 acres or more claimed Farmland Preservation Credits in 2002. In the 2001 property tax year there were 848 Farmland Preservation Credit claims in Dodge County, a total credit of $748,944. The average credit awarded was $883. The participation rate for Dodge County was 42.6%.

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 property taxes up to a maximum credit of $1,500. In Dodge County there were 1,991 claims for this program in the 2001 property tax year. The average credit awarded was $256.

Land and Water Resources Management Plan

The purpose of the Dodge County Land and Water Resource Management Plan is to direct what types of conservation efforts will be emphasized over the next three years, where these efforts will be undertaken, and how they will be carried out. The overall goal of the plan is to accomplish better natural resource protection through the combined and coordinated efforts of county, state, federal, and private personnel.

The plan addresses the following items:

- Assessment of water quality and soil erosion conditions in Dodge County.
- Identification of goals, objectives, and action steps to accomplish plan goals.
- Identification of applicable performance standards and prohibitions to be utilized.
- Multi-year activity plan.
- System to track progress.
- Information and education activities.
- Methods to coordinate activities with other applicable programs.

Through the Land and Water Resources Management Plan, Dodge County will be able to make changes that improve groundwater and surface water quality and decrease soil erosion.

Overall Economic Development Program Plan

In 1985 Dodge County created an Overall Economic Development Program (OEDP) plan in order to pursue financial assistance programs from the U.S. Department of Commerce, Economic Development Administration. The program includes annual reports and an update to the OEDP plan every five years. The update, which spans the years 1997-2002, sets goals, delineates objectives, and recommends programs and activities. The goals outlined in the Dodge County Overall Economic Development Program Plan are intended to benefit the County and its municipalities. While much progress has been (and continues to be) made on the original goals, there is some that will likely need more attention in the future. They are:

- A strong, diverse, and up-to-date hospitality and tourist industry.
- A larger and more diverse housing market.
- Basic public works facilities and community services to guarantee public health and safety and to provide further development potential for industrial, commercial, and residential growth.
- A wider variety of cultural, recreational, and entertainment opportunities available within Dodge County

Several of the goals, programs and objectives in the OEDP address the nine elements of Wisconsin's Comprehensive Planning legislation. The Economic Development Administration no longer requires an Overall Economic Development Plan to retain eligibility for Federal assistance. The Dodge County Comprehensive Plan completed in 1999 contains an economic development component.

9.3 Dodge County Code Administration

Zoning Ordinance

Zoning is a mechanism that uses proximity to compatible and/or opposing uses, natural resources, and transportation systems to provide for a variety of land uses and promote orderly growth. The Zoning Map arranges the community into districts such as residential, agriculture, commercial, industrial, or conservancy. The zoning ordinance takes this delineation further and specifies the permitted land uses, the size of buildings, yard/lot dimensions, and other requirements for development and construction. The goal of the zoning ordinance is to secure a reasonable development pattern by keeping similar and related uses together and separating dissimilar, unrelated, and incompatible uses.

Along with the authority to create a zoning map and zoning ordinance, the county has the authority to enforce zoning in the unincorporated areas of the county, which are the areas outside of incorporated cities and villages. Refer to Maps 9-1 and 9-2, located in the Appendix, for information on county zoning.

The Dodge County Land Use Code was developed to combine the county's zoning ordinance, subdivision ordinance and other separate ordinances into one code. The code delineates 10 "zones" or districts as follows:

- R-1 Single Family-Residential
- R-2 Two-Family Residential
- R-3 Multi-Family Residential
- C-1 General Commercial C-2 Extensive Commercial
- I-1 Light Industrial District
- I-2 Industrial District
- A-1 Prime Agricultural District
- A-2 General Agricultural District
- WL Wetland District

The zoning districts of the Dodge County Land Use Code are utilized by the county to provide areas consistent with the Comprehensive Plan, and to provide public and semi-public land uses to complement residential development. Additionally, the districts allow the county to protect residents from harmful effects such as excessive noise and pollution while protecting property from fires and other public safety hazards, as well as ensuring the provision of necessary public services and facilities.

Overlay Zoning Districts

The use of an overlay district allows additional and more stringent provisions than the base-zoning district. These districts are used to prevent negative impacts through restrictions that are specific to the purpose and intent of each overlay. Dodge County has 11 overlay districts as follows:

- Shoreland Wetland Overlay District

The statutory authority for shoreland regulations in Dodge County is granted through Wisconsin Statutes 59.692.

The Dodge County Shoreland Wetland Overlay District provides criteria for defining a shoreland and includes all areas designated as wetlands on the Wisconsin Wetland Inventory maps. The overlay district regulates permitted and conditional uses for lands within the district. It also describes specifically what type of ditching, excavating, and dredging may be done on these lands.

- Floodplain Overlay District

The statutory authority for floodplain regulations in Dodge County is granted through Wisconsin Statutes 87.30

The Dodge County Floodplain Overlay District includes floodplains or A-Zones as depicted on the Federal Emergency Management Agency floodplain maps approved by the Department of Natural Resources. This district prohibits uses that may be impacted during a flood. Examples include on-site sewage disposal systems, wells, solid waste disposal sites, and structures designed for human habitation with high flood damage potential.

- Environmental Protection Overlay District

The statutory authority for environmental protection in Dodge County is granted through Wisconsin Statutes 59.97, 59.971, 59.99, 87.30, and 144.26

In Dodge County, the Environmental Protection Overlay District applies to those towns which have adopted the County Land Use Code. This district provides for uses compatible with protecting, preserving, and enhancing significant natural areas within the County, such as wooded areas of environmental importance, significant archeological sites, slopes in excess of 12

percent, soil depths less than 60 inches, or other areas in which the public has interest in preserving or protecting.

- Airport Overlay District

The statutory authority for airport area regulations in Dodge County is granted through Wisconsin Statutes 114.136.

The Airport Overlay District regulates the continued use and/or expansion of the airport by setting height limitations for structures, requiring permits for new or altered buildings within the district, and providing for all necessary hazard marking and lighting.

- Highway Setback Overlay District

The statutory authority for highway setback regulations in Dodge County is granted through Wisconsin Statutes 59.69.

The Highway Setback Overlay District is intended to prevent conflicts between new structures and the provision for new highways by establishing setback lines along all public highways and at the intersections. Structures within 200 feet of the highway must comply with the setback measurements established in the Land Use Code.

- Planned Unit Development Overlay District

The statutory authority for planned development regulations in Dodge County is granted through Wisconsin Statutes 59.97, 59.971, 59.99, 87.30, and 144.26.

The Planned Unit Development Overlay District is intended to promote quality urban design and environmentally sensitive development by allowing flexibility in the design standards present in the Code.

- Land Spreading and Petroleum Contaminated Soil Overlay District

The statutory authority for land spreading and petroleum contaminated soil regulations in Dodge County is granted through Wisconsin Statutes 59.69.

The Land Spreading and Petroleum Contaminated Soil Overlay District regulates and restricts the spreading of petroleum contaminated soils on the lands and waters of the County. This results in the protection of spawning grounds and prevention of water pollution.

- Wireless Communication Facilities Overlay District

The statutory authority for wireless communication facilities regulations in Dodge County is granted through Wisconsin Statutes 59.69.

The Wireless Communication Facilities Overlay District allows for the creation of new towers while evaluating the impact these towers have on the community. The negative impact on the community is minimized through encouraging non-residential locations, co-location design, and minimal visual impact.

- Sanitary Facilities Overlay District

The statutory authority for sanitary facilities regulations in Dodge County is granted through Wisconsin Statutes 59.70 (5) COMM 83.

The Sanitary Facilities Overlay District exists in order to protect the community through regulating the location, construction, installation, alteration, design, and use of all private water supply and sewage disposal systems.

- Wind Energy System Overlay District

The Wind Energy System Overlay District permits the establishment of wind energy systems while preventing any adverse impacts through the regulation of location, height, aesthetics, lighting, setbacks, noise, signal interference, security fencing, and landscaping.

- Non-Metallic Mining Reclamation Overlay District

The statutory authority for non-metallic reclamation regulations in Dodge County is granted through Wisconsin Statutes 295.13(1), 59.51, NR 135.32.

The Non-Metallic Mining Reclamation Overlay District is used to ensure the effective reclamation of non-metallic mining sites on which non-metallic mining takes place in Dodge County. The Code requires a public hearing for new mines and sets standards for the issuance of permits.

Official Maps

The statutory authority for official mapping is granted to cities, villages, and towns with village powers through Wisconsin Statutes 60.61(e), 61.35 and 62.23 (6).

Cities, villages, and towns with village powers may use official maps to show streets, parks, walkways, and public transit facilities beyond their boundaries. Depicting these future improvements educates property owners and the surrounding communities so they may plan accordingly. For the same reasons above, the county can benefit by maintaining records of official mapping actions completed by the cities, villages, and towns in the county.

Sign Regulations

The statutory authority for signage regulations in Dodge County is granted through Wisconsin Statutes 59.69.

Signage attracts and educates the general public regarding location and types of services to be expected at a location. However, an undue proliferation of signage can also detract from the aesthetic appeal of an area. Therefore it is important for a community to devise regulations which allow for the utility of signage to attract customers and relay information while protecting the visual environment of the community. Dodge County allows for some signage without a permit; such as those used to promote the sale of real estate or those that pertain to the sale of agricultural products on a farm. Other signage requires a permit by which the location, size, and height are all regulated through the Land Use Code. The Land Use Code also allows some flexibility in sign area and height when a Master Sign Plan is utilized. The applicant is granted this flexibility by demonstrating the compatibility of the location, color, architectural theme, lettering, material and height of the signs. This contributes to the aesthetic standards the county has developed.

Erosion/Stormwater Control Ordinances

The statutory authority for erosion and stormwater control regulations in Dodge County is granted through Wisconsin Statutes 59.693

As stated in the Dodge County Land Use Code, the purpose of the Stormwater Management/Soil Erosion Control regulation is "to set forth requirements for land development and land disturbing activities to minimize sedimentation, water pollution, flooding, and related property and environmental damage caused by soil erosion and uncontrolled stormwater runoff during and after construction, in order to diminish the threats to public health, safety, welfare, and the natural resources of Dodge County." This provision sets requirements such as diversion of upslope runoff, sediment cleanup and best management practices to be utilized in certain activities which result from land division, construction, excavation, or other land disturbing activities.

Historic Preservation Ordinances

The statutory authority for historic preservation in Dodge County is granted through Wisconsin Statutes 59.69 (4m).

As communities utilize ordinances and plans to accommodate growth and development in the future it is important not to lose sight of the past places and events that have been crucial in forming the community as it is today. The Dodge County Land Use Code states that "Historic structures and sites shall be protected to the maximum extent feasible." The code does not create a Historic Preservation Ordinance or Historic Preservation Commission, but the environmental protection overlay can be used to protect archaeological sites. The code further requires that the State Historical Society shall be notified of developments that impact historical or burial sites outside of the overlay district.

Site Plan Regulations

The statutory authority for site plan regulations in Dodge County is granted through Wisconsin Statutes 59.69.

It is common in development practices to utilize a site plan to demonstrate that standards such as lot dimensions and setbacks are being met. It is also common for additional elements that protect the health, safety, and welfare of the community be demonstrated. In Dodge County the code regulates glare from glass and industrial operations, heat, humidity, vibration, and noise impacts. The development is also required to provide information regarding the installation of landscaping, location of dumpsters and delivery areas, and the different sources of illumination on site.

Design Review Ordinances

The statutory authority for design review regulations in Dodge County is granted through Wisconsin Statutes 59.69.

The Land Use Code for Dodge County creates standards for building exterior walls that are visible from adjoining public streets or properties. These standards include requiring features that promote visual interest such as windows and wall plane projections. Additionally, the code requires at least 50 percent of the building wall to be surfaced in brick, wood, stone, or textured concrete units. These standards ensure that while the needs of the community are met through a large-scale development, the development does not compromise the uniqueness of each community.

Building Codes

The statutory authority for building code regulations in Dodge County is granted through (Department of Commerce) Comm 61- 65.

The Wisconsin Administrative Code regulates building construction stating "the purpose of this code is to protect the health, safety and welfare of the public and employees by establishing minimum standards for the design, construction, maintenance and inspection of public buildings, including multifamily dwellings, and places of employment." New construction within Dodge County is subject to the Wisconsin Administrative Code. Dodge County has not adopted the one and two-family state uniform dwelling code.

Mechanical Codes

The statutory authority for building code regulations in Dodge County is granted through (Department of Commerce) Comm 61 – 65.

The International Mechanical Code has been adopted as part of the Wisconsin Commercial Building Code. The International Mechanical Code establishes minimum regulations for mechanical systems using prescriptive and performance-related provisions. It is founded on broad-based principles that make possible the use of new materials and new mechanical designs. Developments in Dodge County will be subject to the Wisconsin Commercial Code and the mechanical code component.

Housing Codes

The statutory authority for housing code regulations in Dodge County is granted through (Department of Commerce) Comm 20.

Housing codes are administered to illustrate proper construction practices and ensure safe buildings. Building codes regulate many elements including ventilation, ceiling height, exits, fire wall separation and floor design. The State of Wisconsin Statutes and the Wisconsin Administrative Code address these elements. Dodge County does not have a housing code and enforcement of requirements may or may not be done at a local level.

Sanitary Codes

The statutory authority for sanitary code regulations in Dodge County is granted through (Department of Commerce) Comm 83.

According to the Sanitation Chapter of the Wisconsin Administrative Code " the purpose of this chapter is to establish minimum standards and criteria for the design, installation and maintenance of sanitation systems and devices which are alternatives to water-carried waste plumbing fixtures and drain systems so that these sanitation systems and devices are safe and will safeguard public health and the waters of the state." The County Land Use Code, Section 4.10, regulates private onsite wastewater treatment systems.

Subdivision Ordinance

The statutory authority for subdivision regulations in Dodge County is granted through Wisconsin Statutes 236.

As land is utilized, sold, and developed it becomes defined through street creation and parcel boundaries. One of the most effective tools a municipality has to define the growth patterns of the landscape is subdivision regulations. Dodge County regulates minor land divisions and major subdivisions. In addition to defining how lots will be created, the code provides direction on a variety of elements that are instrumental in making each lot buildable. These elements include:

- Block length and width
- Lot area and dimensions
- Grading and Surfacing
- Monumenting
- Street Arrangement (i.e. arterial, collector, or minor streets)
- Street Design
- Street Intersections
- Sidewalks, Pedestrian Connections, and Trails
- Water Service
- Sanitary Sewage Disposal Systems
- Electric and Street Lighting Systems

- Underground Utilities
- Curbs and Gutters
- Stormwater Management
- Soil Erosion Control

Chapter 7 of the Code also provides for the impact that these subdivisions will have on the community by requiring land dedication (or fee-in-lieu) for parks, recreation, and open space. This allows the county to use dedicated land or purchase land that will provide additional opportunities for parks and open space to be enjoyed by all.