

WASECA COUNTY COMPREHENSIVE PLAN

October 2005



CHARTING A COURSE FOR THE NEXT 20 YEARS
CHARTING A COURSE FOR THE NEXT 20 YEARS

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Introduction to the Waseca County Comprehensive Plan

This document establishes a Comprehensive Plan for Waseca County. The primary purpose of the Plan is to provide a “vision” for growth, development, community sustainability and vitality by outlining what Waseca County residents would like to see occur in the future.

The Waseca County Comprehensive Plan focuses on growth and development issues for the next 20 years, or until approximately the year 2025. This “2025 vision” was used as a manageable amount of time, although the Plan will be updated every five (5) years to keep current with changing natural, civil and political conditions.



The Role of the County Board

On January 25, 2002, Waseca County embarked on this plan by contracting with Region Nine Development Commission (RNDC), Community Development, to help the County write a new Comprehensive Plan. Citizens were involved on a monthly basis during public meetings to develop the specific contents of the Plan.



Waseca County

Waseca County is located in south-central Minnesota and covers 415 square miles. Waseca is adjacent to Blue Earth County to the west, Faribault and Freeborn Counties to the south, Steele County to the east, and Le Sueur and Rice Counties to the north.

Comprehensive Planning Process

The Waseca County comprehensive planning process was designed from the start to have strong citizen participation and intergovernmental cooperation. The County Board appointed a Citizens' Task Force to assist with the development of the Comprehensive Plan. The Task Force participants included citizen representatives, elected and appointed officials from the county, cities and townships. The diverse nature of participants helped to contribute to a wide range of ideas on how the County should address key planning issues identified throughout the planning process. Meetings were held with each city and township in Waseca County early in the planning process, which was accomplished by meeting at least once with every local unit of government. The primary purpose of these meetings was to give representatives from the cities and townships an opportunity to identify local planning issues and to express how they should be addressed.

State agencies were also invited to participate in the planning process. The Minnesota Department of Agriculture and the Department of Trade and Economic Development made presentations to the Citizens' Task Force.

Citizen Participation and Input

Several methods were used to obtain citizen input in the County's comprehensive planning process, which included a Citizens' Comprehensive Planning Task Force, community-visioning meetings, and citizen attitude survey. These methods were used to help develop the vision statement for the county as well as the goals and policy statements found in the Waseca Comprehensive Plan.

Citizens Comprehensive Planning Task Force

The Waseca County Board appointed a steering committee of citizens in April of 2002. The Board appointed seventeen citizens representing a variety of community perspectives. The task force met on a regular basis to provide input on community topics and identify the key issues facing Waseca County. Numerous discussions were occurred which provided direction for the development of the plan. Some of the work sessions addressed the following areas:

-  What Makes a Good Community
-  Community Issues
-  Community Strengths and Assets

Citizens attending the visioning meetings developed a lengthy list of elements of a good community including the following:

- | | |
|--|--|
|  A pleasant, safe place to live |  Friendly people |
|  Quality education |  Quiet, rural environment |
|  A good place to live and visit |  Good golf course |

- | | |
|---|--|
|  Good fire department and rescue squad |  Good nursing home |
|  Housing for low-income seniors |  Good roads |
|  Sense of community/historical sites |  Location for growth |
|  Parks, lakes and wooded lots |  Variety of churches |
|  Small enough to know people |  Prosperous agriculture |
|  Recreational opportunities. | |

Comments made by the Task Force often echoed comments made by the citizens in the mailed survey and those heard at public meetings that the community needs to plan for and guide its future.

Community citizens were often noted as being their own community resource. Many natural resources in the community were recognized as assets for the community's quality of life. The survey results are included in the appendix of this plan.

Citizen Visioning

The Citizen Visioning meetings were held February 12, 2002, in Janesville; April 3, 2002, in New Richland; and April 17, 2002, in Waseca. An average of 30 people attended each meeting.

The Task Force found two benefits in performing a citizen survey: it provided an opportunity for every citizen in the community to provide input directly into the planning process and share values, ideas and concerns, and a second benefit of the survey was that it helped build interest in the planning process and what the County may do to guide its future.

A Community Attitudes Survey was mailed to property-owners in Waseca County through property tax records. Region Nine mailed a total of 6,758 surveys and a total of 1,476 surveys were returned for a 21.8% percent response rate. The survey results were tabulated using SPSS statistical, a program developed by SPSS.

A majority of the respondents felt that the most important or meaningful reasons for living in Waseca County were the small town character, good schools and friendly people.

Items needing improvements included: the need for more industry; improved roads and strategies to maintain the younger population. There were a number of other items identified by the respondents that need improvement but there was not as much consensus on what the priority items should be. This reflects the specific nature of the items for improvement that were identified (i.e. repair streets, etc.)

The respondents overwhelmingly supported the statement that the community needs more growth when answering the survey question on what direction should the community's future be. Business opportunities and industry were the two leading areas that the County should focus on.

Respondents provided a wide range of comments and ideas. There was a strong response for the need to take an active role in guiding the community's future growth. To balance community growth with protection of open space. Establishing a minimum level or quality of housing and development will require an active County government working in collaboration with its citizens.

Waseca County Vision for 2025

The "Waseca County Vision 2025" was developed through the Community Visioning meetings, Citizen Attitudes Survey, Waseca County staff interviews and the Comprehensive Planning Task Force. The Community Vision is designed to provide guidance to governmental, educational, business and community leadership entities by identifying critical and strategic issues in Waseca County that should be addressed through decisive leadership goals, strategies and action items.

To achieve desired results by 2025, four key principles and ten vision elements were identified.

The issues that emerged during the visioning process form the foundation of the policies and principles of this plan. These issues do not encompass, nor does the plan address, all "quality of life" concerns or all governmental operations. Rather, the comprehensive plan concerns itself with those aspects of community life and governance that most directly affect the use of land and future development of the County. The plan acknowledges the complexity of these issues and recommends an intergovernmental approach to finding solutions.



The Land and Governance – Town and Country

Waseca County communities should retain their own characters, distinct and be buffered from one another (where still possible) by a true “agricultural” zone. Residential areas would have established boundaries, and all significant development would occur within them. Community growth boundaries should be mutually agreed-upon by neighboring towns, cities and the County. They need to be based upon established development patterns, anticipated population growth, adopted inter-municipal boundary agreements, and local comprehensive plans.

Municipal annexations may occur within these agreed upon boundaries, but even prior to annexation, cities should play an active role in reviewing development proposals. Within these agreed-upon boundaries, the market would function to



provide a balanced development throughout the region. No longer would developers “shop” the best deal, pitting city against city or city against county. New employment areas should be focused around major transportation interchanges, with new commercial development easily accessible by public transportation or walking. New residential development, along with rehabilitation of

existing housing, should accommodate a wide range of styles and prices. We would provide incentives, such as density bonuses, for proximity to transit or employment uses and use of existing infrastructure. Because of such incentives, in-fill development and redevelopment would become more cost-effective and attractive in established neighboring communities and new growth would more fully bear its real costs. Natural systems should guide development, too. Rivers, lakes and wetlands should be restored to health and ecological diversity. They will provide the most economical drainage and stormwater management system, as well as, enhancing the natural beauty of the County. Natural resource protection policies, which limit or prohibit development on parcels containing wetlands, floodplains, shoreland areas and forested areas should be adopted by the county and municipalities, ensuring that all such areas are given adequate and consistent protection.

Agricultural areas will retain their rural qualities, with commercial clusters. Agricultural related. The Waseca County development system would take into account the true costs of land uses – transportation, sewage, storm water drainage, public school facilities, and other public services. While unsewered rural lands may still cost less, acre for acre, the real costs of development would be factored in at the time of development, rather than catching up with residents in the form of property tax increases. Thus, demand for new housing at the periphery of development would decrease, while increasing in established areas.

Four Key Principles

Strategic Vision for Change

Our vision for change is a comprehensive plan for revitalization. It is a means to analyze the full local context and the linkages to the larger region. It builds on the County's assets and coordinates its response to its needs -- such as public safety, human and social services, and environmental protection. It integrates economic, physical, environmental, community, and human development in a comprehensive and coordinated fashion so that families and communities can work together and thrive. It also sets real goals and performance benchmarks for measuring progress and establishes a framework for assessing how new experience and knowledge can be incorporated on an on-going basis into a successful plan.

Community-Based Partnerships

Our road to economic opportunity and community development starts with broad participation by all segments of the community. The residents themselves, however, are the most important elements of revitalization. Others may include the political and governmental leadership, community groups, health and social service groups, environmental groups, religious organizations, the private and nonprofit sectors, centers of learning, and other community institutions. Communities cannot succeed with public resources alone. Private and nonprofit support and involvements are critical to the success of a community seeking revitalization. Partners also must be created within and among the levels of government. Government departments and agencies on all levels must work together to ensure that relevant programs and resources can be used in a coordinated, flexible, and timely fashion to help implement the County's strategic plan and that regulatory and other barriers to sustainable growth are removed.

Sustainable Community Development

Creation of jobs is the first critical step toward Waseca citizens creating a more vibrant community where human initiative, work, and stable families can flourish. However, economic development can be successful only when part of a coordinated and comprehensive strategy that includes physical development as well as human development. A community where streets are safe to walk, the air and water are clean, housing is secure, and human services are accessible and available, and where a vital civic spirit is nurtured by innovative design, is a community that can be a source of strength and hope to its residents. A community where learning is a commitment for life can foster the skills, habits of mind, and attitudes that will make work rewarding and families nurturing.

Economic Opportunity

Our first priority in revitalizing communities is to create economic opportunities-jobs and work - for all residents. The creation of jobs, both within the community and throughout the region, provides the foundation so residents can become economically self-sufficient and communities can revitalize themselves.

Opportunities for entrepreneurial initiatives, small business expansion, and training for jobs that offer upward mobility are other key elements for providing economic opportunity and direction.

The Ten Vision Statements

Infrastructure Vision Statement: The Waseca County will plan for, construct and maintain quality infrastructure that is safe, affordable, environmentally sound, aesthetically pleasing and allows for managed growth.



Transportation Vision Statement: Waseca County will have a transportation system that facilitates and strengthens its economic vitality and effectively moves people to and from required destinations.



Sustainable Agriculture Vision Statement: In general, land should not be converted from those agricultural uses, which protect long-term resource productivity. Comprehensive land-use planning is necessary to ensure a balance of lands for all purposes. Two trends are of intense concern: the loss of productive agricultural land to urban, industrial, and other development and the conversion of marginal lands and underdeveloped areas to agricultural use.



Technology Vision Statement: The Waseca County Community will encourage the development and maintenance of state-of-the-art telecommunications and Internet services that meet our citizens' needs and keeps our businesses competitive.



Population Growth Vision Statement: Waseca County will strive for a planned growth in population while maintaining a unique quality of life.



Integrated Services Vision Statement: Waseca County governmental jurisdictions will provide integrated services in the most efficient and cost-effective manner possible.

Economic Strength Vision Statement: Waseca County will be an economically sound and business-friendly community emphasizing the need to retain and expand current and new businesses as the base for economic strength and employment growth.

Multicultural Population Vision Statement: Waseca County represents a multicultural population that will aspire to live and work together in harmony through public awareness and appreciation of cultural differences.



Education Systems Vision Statement: Waseca County will continue to strive for and support world-class education systems that emphasize the importance of life-long learning.



Positive Image Vision Statement: Waseca County will portray a strong positive image as a place to live, work, play and do business.

Population

Population Profile

The U.S. Census provides a thorough assessment of the Country's population once every ten years. All of the information presented in this section was taken from Census records, including the recently released 2000 Census. *Historic Population Levels.*

Population Profiles: Population in 1970, 1980, 1990, and 2000

	1970	1980	1990	2000	'90-2000 Change	
					Actual	Percent
Population	16,663	18,448	18,079	19,526	1,447	8.00
Land Area (sq. mile)	415.00	415.00	423.20	423.25	0.05	0.01
Density (persons per sq. mile)	40.15	44.45	42.72	46.13	3.41	7.99
Housing Units	5,406	6,884	7,011	7,427	416	5.93
Households	--	6,469	6,649	7,059	410	6.17
Persons Per Household	--	2.85	2.72	2.56	-0.16	-5.85
Persons in Group Quarters	--	432	526	1,440	914	173.76

2000 Census: Waseca County

An indicator of change and other forces external to the county, it is often helpful to compare historical population profiles with neighboring counties. Waseca County experienced a greater percent increase in population than Blue Earth County. Between 1990 and 2000 Blue Earth County increased in population by 1,897 persons whereas Waseca County increased by 1,447 persons.

Rice County experienced the most significant population increases as the growth pressure spills from the Twin Cities metropolitan area. Rice, Le Sueur and Steele counties have experienced positive population growth over the past thirty (30) years. Steele County experienced its greatest growth between 1970 and 1980 whereas Le Sueur and Rice counties population gains were most significant between 1990 and 2000. In addition, in tandem with population growth, the density of persons per square mile and number of households has increased.

2000 Census: Blue Earth County	1970	1980	1990	2000	'90-2000 Change	
					Actual	Percent
Population	52,322	52,314	54,044	55,941	1,897	3.51
Land Area (sq. mile)	737.00	737.00	752.30	752.36	0.06	0.01
Density (persons per sq. mile)	70.99	70.98	71.84	74.35	2.52	3.50
Housing Units	15,767	19,381	20,358	21,971	1,613	7.92
Households	--	18,011	19,277	21,062	1,785	9.26
Persons Per Household	--	2.90	2.80	2.46	-0.34	-12.25
Persons in Group Quarters	--	4,237	4,137	4,116	-21	-0.51

2000 Census: Le Sueur County	1970	1980	1990	2000	'90-2000 Change	
					Actual	Percent
Population	21,332	23,434	23,239	25,426	2,187	9.41
Land Area (sq. mile)	440.00	440.00	448.50	448.50	-0.00	-0.00
Density (persons per sq. mile)	48.48	53.26	51.81	56.69	4.88	9.41
Housing Units	7,672	9,509	9,785	10,858	1,073	10.97
Households	--	8,033	8,468	9,630	1,162	13.72
Persons Per Household	--	2.92	2.74	2.61	-0.13	-4.89
Persons in Group Quarters	--	266	297	293	-4	-1.35

2000 Census: Rice County	1970	1980	1990	2000	'90-2000 Change	
					Actual	Percent
Population	41,582	46,087	49,183	56,665	7,482	15.21
Land Area (sq. mile)	496.00	496.00	497.50	497.57	0.07	0.01
Density (persons per sq. mile)	83.83	92.92	98.86	113.88	15.02	15.20
Housing Units	12,330	15,667	17,520	20,061	2,541	14.50
Households	--	14,276	16,347	18,888	2,541	15.54
Persons Per Household	--	3.23	3.01	2.65	-0.36	-11.92
Persons in Group Quarters	--	5,608	5,651	6,690	1,039	18.39

2000 Census: Steele County	1970	1980	1990	2000	'90-2000 Change	
					Actual	Percent
Population	26,931	30,328	30,729	33,680	2,951	9.60
Land Area (sq. mile)	425.00	425.00	429.50	429.55	0.05	0.01
Density (persons per sq. mile)	63.37	71.36	71.55	78.41	6.86	9.59
Housing Units	8,758	11,255	11,840	13,306	1,466	12.38
Households	--	10,600	11,342	12,846	1,504	13.26
Persons Per Household	--	2.86	2.71	2.57	-0.14	-5.14
Persons in Group Quarters	--	902	711	629	-82	-11.53

Population in Waseca County has increased 21.7 percent from 1960 to 2000. There was a slight decline in population from 1980 to 1990 but the gains in all other census counts far outweighed the slight dip from that time period.

Waseca County's population growth of 8 percent from 1990 to 2000 outpaced Region Nine area, which incurred a 3 percent increase during the same time period. The cities of New Richland and Waldorf lost population from 1990 to 2000, while the populations of Janesville and Waseca increased 7.1 percent and 14.6 percent, respectively. It should be noted that the Census Bureau released a

corrected population for Waseca city and two townships in 2001. The published information from the Census Bureau wasn't corrected, nor will it be at any point in the future.

The median age in Waseca County also increased. In 1990, the median age in the county was 33.2 years and in 2000, it was 36.3 years. This followed the trend in the area overall.

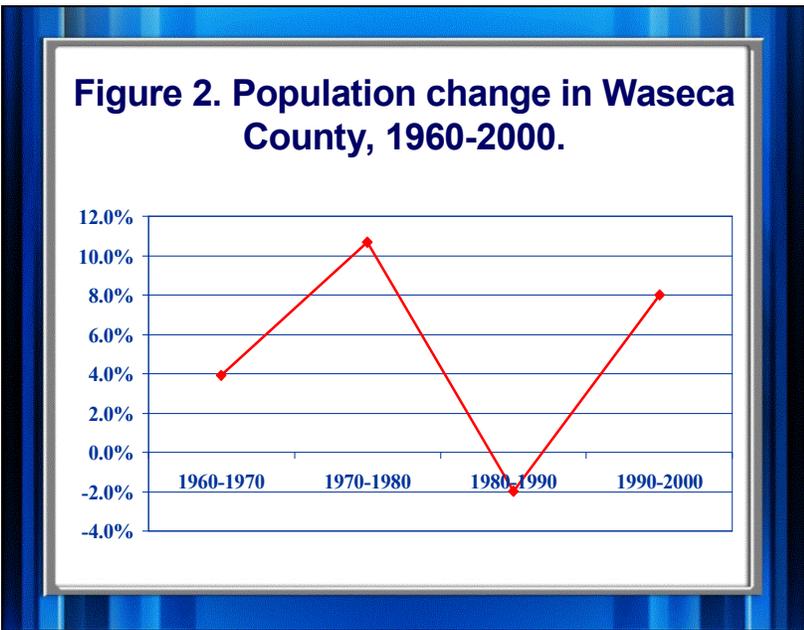
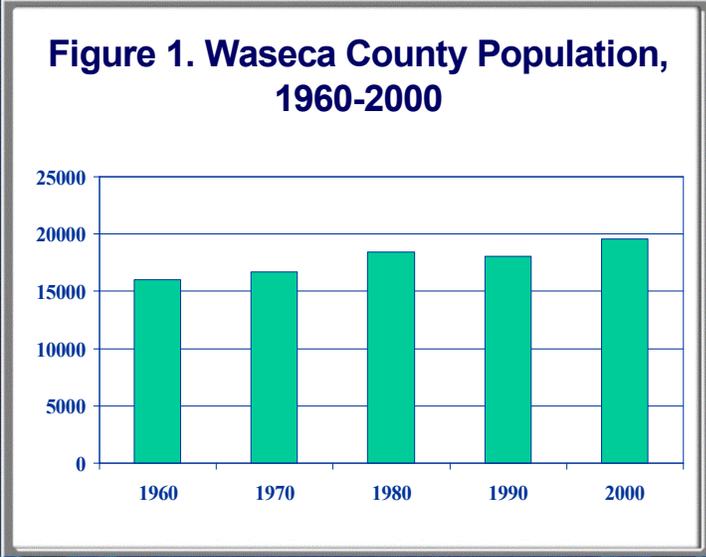


Figure 3. Waseca County age distribution, 1990-2000.

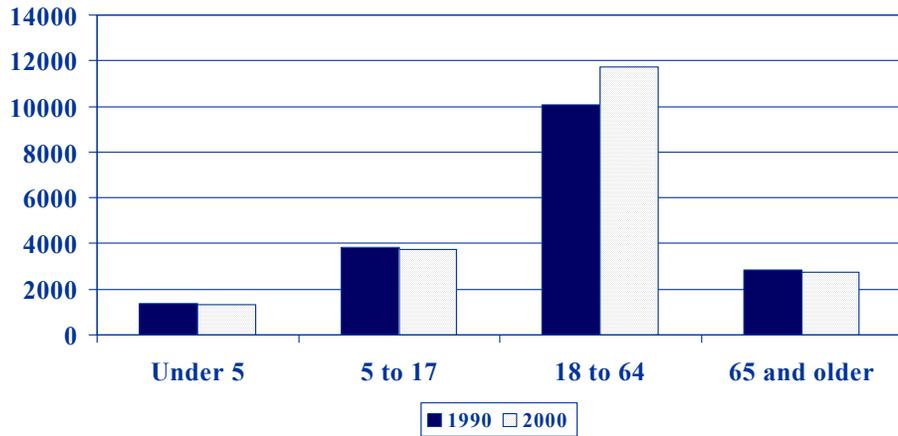


Table 1. 2000 Census: Waseca County Population Profiles: Persons by Race, Age, and Gender

Age	Male Persons	Female Persons	All Persons	Percent of Total
Under 5 years	669	645	1,314	6.73
5 to 9 years	661	640	1,301	6.66
10 to 14 years	788	702	1,490	7.63
15 to 17 years	451	483	934	4.78
18 and 19 years	253	242	495	2.54
20 years	135	108	243	1.24
21 years	151	98	249	1.28
22 to 24 years	418	294	712	3.65
25 to 29 years	746	527	1,273	6.52
30 to 34 years	798	535	1,333	6.83
35 to 39 years	931	688	1,619	8.29
40 to 44 years	873	758	1,631	8.35
45 to 49 years	770	685	1,455	7.45
50 to 54 years	660	541	1,201	6.15
55 to 59 years	412	400	812	4.16
60 and 61 years	142	141	283	1.45
62 to 64 years	203	212	415	2.13
65 and 66 years	105	128	233	1.19
67 to 69 years	180	211	391	2.00
70 to 74 years	276	393	669	3.43
75 to 79 years	262	323	585	3.00
80 to 84 years	193	264	457	2.34
85 years and over	122	309	431	2.21
Total Population	10,199	9,327	19,526	100.00

Figure 4. Population in Waseca County Cities, 1990-2000.



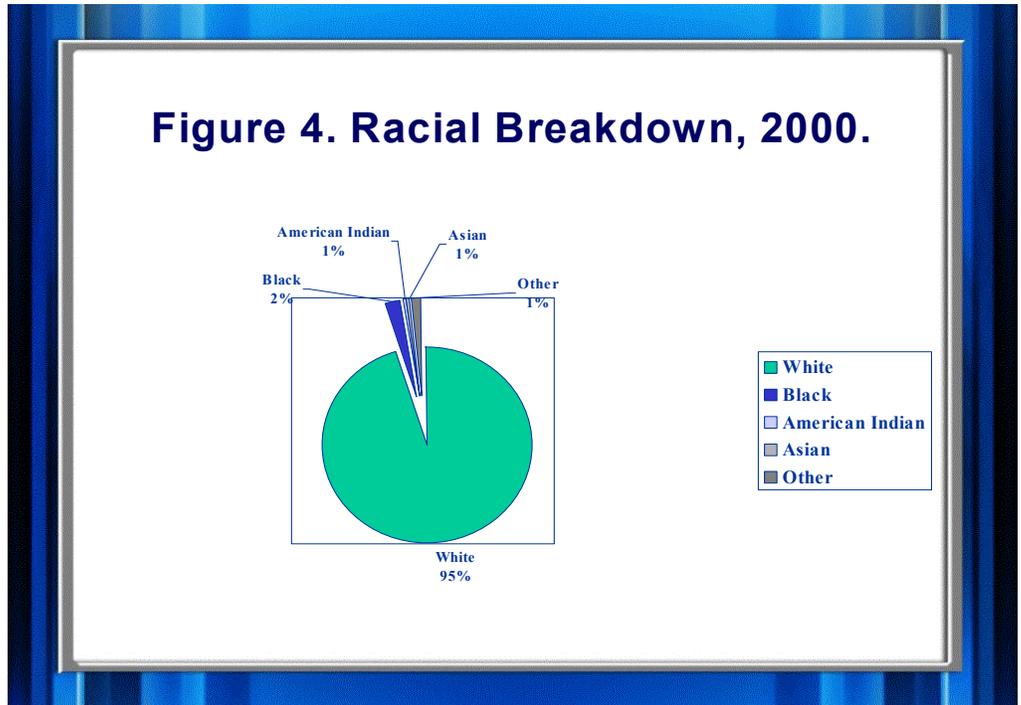
Table 2. Age Rank Report, 2003

Rank	Name	Population	Median Age	Population by Age							
				0-14	15-24	25-34	35-44	45-54	55-64	65-74	75 Plus
1	Waseca City	8,493	36	22.2%	11.8%	12.9%	15.8%	12.4%	7.0%	6.7%	8.8%
2	Woodville Township	2,273	35	13.8%	10.6%	22.5%	21.3%	16.8%	7.3%	3.7%	1.8%
3	Janesville City	2,109	34	22.2%	11.5%	14.7%	13.8%	12.4%	6.8%	6.4%	9.6%
4	New Richland City	1,197	42	20.5%	7.6%	11.4%	13.5%	10.5%	8.3%	9.0%	16.7%
5	Alton Township	645	37	18.0%	10.4%	15.8%	22.0%	13.0%	8.1%	5.7%	5.0%
6	Otisco Township	629	37	23.1%	11.1%	9.5%	19.1%	14.5%	8.6%	7.6%	3.7%
7	Iosco Township	598	39	21.6%	10.0%	7.9%	19.7%	17.1%	12.4%	5.2%	3.3%
8	Blooming Grove Township	523	38	21.8%	10.5%	11.3%	17.2%	17.6%	9.2%	4.8%	4.8%
9	Janesville Township	520	39	19.6%	14.0%	8.1%	15.6%	18.3%	10.0%	7.1%	3.7%
10	St. Mary Township	504	35	28.8%	9.1%	9.9%	18.5%	13.3%	6.5%	6.2%	5.4%
11	New Richland Township	497	39	22.9%	10.3%	6.6%	18.1%	16.7%	8.9%	8.0%	5.2%
12	Freedom Township	397	40	19.6%	9.8%	12.1%	15.9%	14.6%	8.1%	11.6%	6.0%
13	Wilton Township	392	36	26.3%	10.7%	9.2%	17.3%	13.0%	9.9%	6.9%	4.6%
14	Vivian Township	259	42	21.6%	5.8%	11.2%	13.9%	15.4%	12.0%	11.6%	7.3%
15	Byron Township	248	40	20.6%	8.1%	10.5%	15.7%	12.1%	8.1%	8.9%	12.9%
16	Waldorf City	242	41	17.8%	12.8%	9.5%	13.6%	17.8%	10.7%	9.5%	5.0%
Grand Total		19,526	36	21.0%	11.0%	13.3%	16.6%	13.6%	7.7%	6.6%	7.5%

Race and Ethnicity

While there were increases in the non-White and Hispanic/Latino population in Waseca County from 1990 to 2000, the overall numbers remain rather small. Nearly 95 percent of the county population is White.

It is important to note when discussing race, that the Census Bureau does not classify Hispanic/Latino as a separate race. Instead, Hispanic/Latino is categorized as an ethnicity and therefore someone who is Hispanic/Latino can be of any race. In reporting race, many people who chose Hispanic/Latino as their ethnicity may also choose Other as their race and that is likely responsible for much of the increase in the Other race category in Waseca County from 1990 to 2000.



In Waseca County in 2000, 2.9 percent of the population was Hispanic/Latino. This is a 338.8 percent increase from 1990 (129 to 566). The category of Other race increased 436.2 percent (from 47 to 252) from 1990 to 2000. As indicated above, there is likely a correlation between the two groups.

Overall, in Waseca County there was a 364.1 percent increase in the non-White (195 to 905) population. The largest increase was among Blacks, where the population increased from 26 people in 1990 to 441 in 2000.

The 2000 Census introduced another option for racial classification, the two or more races group. Since the category was not available in 1990, it is not possible to compare the numbers with previous years. However in 2000, there were 139 people who classified themselves as belonging to two or more races.

**Tables 2,3 & 4. 2000 Census: Waseca County
Population Profiles: Total, Hispanic/Latino, and Minority Populations**

PL 94-171

2000 Population by One Race	All Persons		Under 18		18 & Over	
	Number	Pct	Number	Pct	Number	Pct
White	18,482	94.7	4,722	93.7	13,760	95.0
Black or Africa American	441	2.3	77	1.5	364	2.5
American Indian and Alaska Native	116	0.6	12	0.2	104	0.7
Asian	90	0.5	36	0.7	54	0.4
Native Hawaiian and Other Pacific Islander	6	0.0	1	0.0	5	0.0
Other Race	252	1.3	105	2.1	147	1.0
Two or More Races	139	0.7	86	1.7	53	0.4
Total	19,526	100.0	5,039	100.0	14,487	100.0

2000 Hispanic/Latino Population by One Race	All Persons		Under 18		18 & Over	
	Number	Pct	Number	Pct	Number	Pct
Hispanic or Latino: White	284	50.2	119	49.4	165	50.8
Hispanic or Latino: Black or Africa American	6	1.1	6	2.5	0	0.0
Hispanic or Latino: American Indian and Alaska Native	5	0.9	0	0.0	5	1.5
Hispanic or Latino: Asian	1	0.2	1	0.4	0	0.0
Hispanic or Latino: Native Hawaiian and Other Pacific Islander	0	0.0	0	0.0	0	0.0
Hispanic or Latino: Other Race	244	43.1	98	40.7	146	44.9
Hispanic or Latino: Two or More Races	26	4.6	17	7.1	9	2.8
Hispanic or Latino: Total	566	100.0	241	100.0	325	100.0

2000 Total Minority	All Persons		Under 18		18 & Over	
	Number	Pct	Number	Pct	Number	Pct
Total Population Minus White Alone non-Hispanic	1,328	6.8	436	8.7	892	6.2

Table 5. Race Rank Report, 2003

Rank	Name	Population	White	Black	Am. Indian	Asian/PI	Hispanic Origin	Median Age
1	Waseca city	8,493	94.2%	1.4%	0.4%	0.6%	5.1%	35.50
2	Woodville township	2,273	84.2%	11.5%	2.8%	0.9%	1.1%	35.40
3	Janesville city	2,109	97.7%	0.1%	0.4%	0.2%	1.6%	33.80
4	New Richland city	1,197	99.1%	0.0%	0.0%	0.1%	1.2%	41.60
5	Alton township	645	89.8%	7.8%	1.6%	0.5%	1.7%	37.00
6	Otisco township	629	98.3%	0.0%	0.2%	0.2%	1.4%	37.40
7	Iosco township	598	98.3%	0.0%	0.0%	0.3%	0.8%	39.30
8	Blooming Grove township	523	96.9%	1.0%	0.2%	0.4%	0.2%	38.10
9	Janesville township	520	99.4%	0.0%	0.2%	0.4%	0.0%	39.10
10	St. Mary township	504	98.2%	0.8%	0.2%	0.2%	0.6%	34.90
11	New Richland township	497	99.2%	0.2%	0.0%	0.4%	0.8%	39.40
12	Freedom township	397	99.2%	0.0%	0.0%	0.0%	1.0%	40.20
13	Wilton township	392	98.0%	0.0%	0.0%	0.3%	3.3%	35.70
14	Vivian township	259	98.1%	0.0%	0.0%	0.0%	1.9%	41.60
15	Byron township	248	99.2%	0.0%	0.0%	0.0%	0.0%	39.70
16	Waldorf city	242	99.6%	0.0%	0.0%	0.4%	1.7%	41.30
	Grand Total	19,526	94.7%	2.3%	0.6%	0.5%	2.9%	36.46

Figure 5. Change in Hispanic/Latino population, 1990-2000.

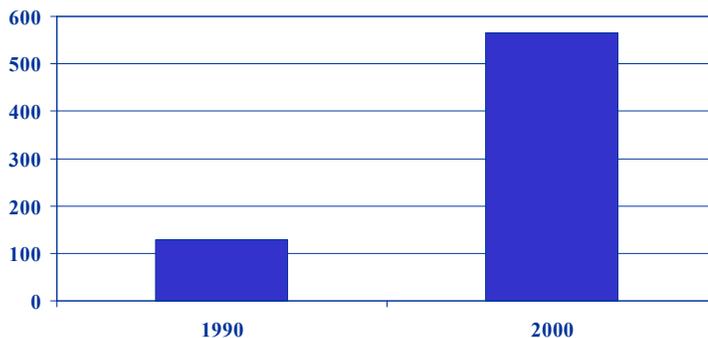


Figure 6. Non-White Population, 1990-2000.

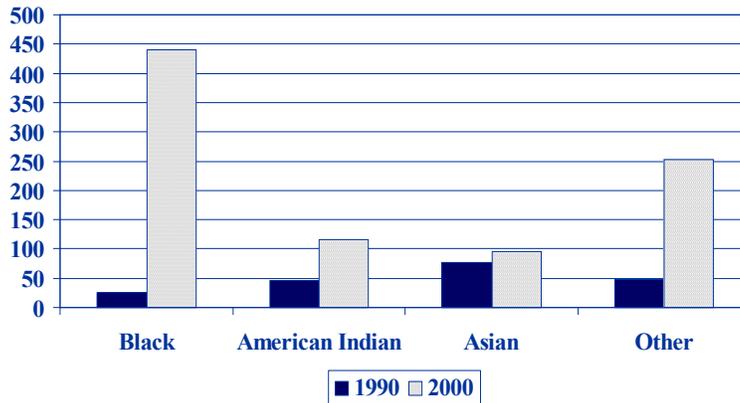
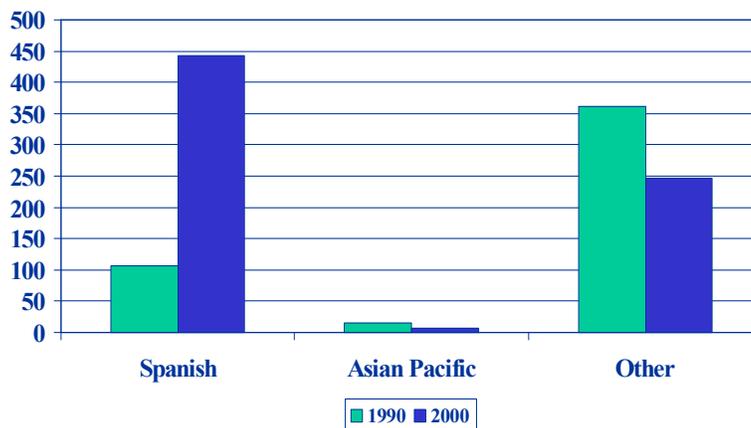


Figure 7. Persons speaking a language other than English at home in Waseca County, 1990-2000.



Residency, Language and Ancestry

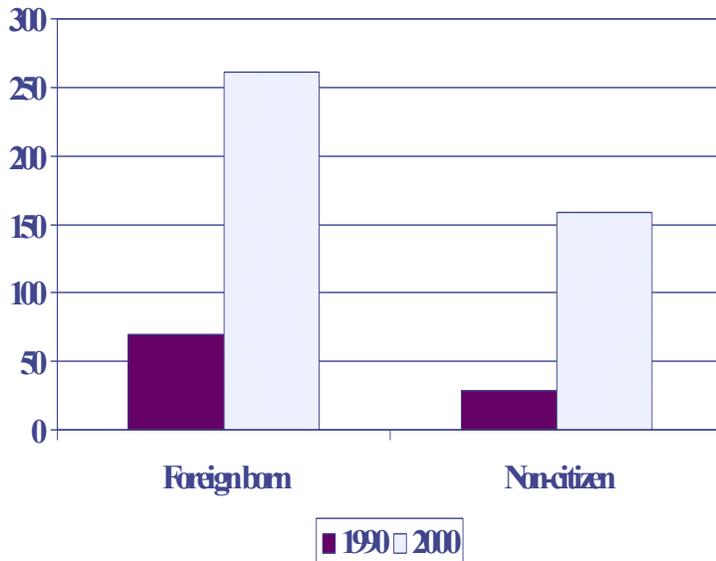
Residency

One of the measures of residency in the census is where respondents were living five years prior to the census. In 1995, there were fewer people living in the same house than there were in 1985, five years prior to the census in 1990. In 1990, 63.8 percent of Waseca County residents were living in the same house since 1985. In 2000, 60.4 percent of county residents were living in the same house since 1995.

Of those people who lived in a different house in 1995, more reported that they were living in Waseca County in 1995 (51.7 percent) than respondents in the 1990 census (46.8 percent).

The Census indicates that there slightly more people moving to Waseca County from a different state in 1995 than in 1985. The bulk of those people were born in the Midwest. In 1990, 15.9 percent of those people who reported living in a different house in 1985 also reported that they lived in a state other than Minnesota. In 2000, 17.1 percent reported as living in a different state in 1995. Nearly 60 percent of those people were born in the Midwest.

Both the foreign-born and non-citizen populations in the county have increased since the 1990 Census.



However, it should be noted that the overall numbers remain very small in relation to the county population.

The foreign-born population of Waseca County increased 272.9 percent from 1990 to 2000 (from 70 to 261 people). This amount reflects 1.3 percent of the county's total population.

Non-citizen population in the county jumped from 29 people in 1990 to 159 people in 2000, which is an increase of 448.3 percent. This is 0.8 percent of the entire county population. However, the non-citizen population accounts for slightly more than 60 percent of the foreign-born population in the county. In 1990, slightly more than 40 percent of the foreign-born population was non-citizens.

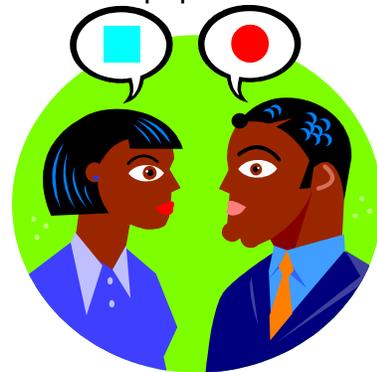
Foreign-born population includes people who were not U.S. citizens at birth. Foreign-born people are those who indicated they were either a U.S. citizen by naturalization or they were not a citizen of the United States.

In the 2000 Census there was no question that asked about immigration status. The population surveyed includes all people who indicated that the United States was their usual place of residence on the census date. The foreign-born population includes: immigrants (legal permanent residents), temporary migrants (students, for example), humanitarian migrants or refugees, and unauthorized migrants; people illegally residing in the United States.

Language

The population in Waseca County overwhelmingly speaks English only. The overall percentage dropped just slightly from 97.1 percent of the population in 1990 to 96.2 percent of the population in 2000.

The population speaking Spanish at home increased from 107 people in 1990 to 442 people in 2000; an increase of 313.1 percent. At the same time, however, the number of people speaking any other language at home dropped from 361 people to 246; that is a drop of 31.9 percent.



Ancestry

Reported ancestry has changed little in Waseca County over the last decade. The three most-reported ancestries were German, Norwegian and Irish in both 1990 and 2000. Numbers decreased slightly over the decade between, but the rankings remained the same. There were more specific ancestries reported in Waseca County in 2000 than in 1990, as shown in the following table.

**Table 6. 2000 Census: Waseca County
Social Profiles: Ancestry (Total Categories Tallied) for People with One or
More Ancestry Categories Report**

SF3 - PCT018		
	Population	Percent
Total specified ancestries tallied:	22,712	100.00
Acadian/Cajun	3	0.01
Arab:	12	0.05
Lebanese	10	0.04
Syrian	2	0.01
Australian	2	0.01
Austrian	46	0.20
Belgian	78	0.34
British	6	0.03
Bulgarian	2	0.01
Canadian	6	0.03
Czech	338	1.49
Czechoslovakian	70	0.31
Danish	369	1.62
Dutch	314	1.38
English	893	3.93
European	85	0.37
Finnish	62	0.27
French (except Basque)	658	2.90
French Canadian	145	0.64
German	9,416	41.46
Greek	8	0.04
Hungarian	22	0.10
Icelander	11	0.05
Iranian	2	0.01
Irish	2,399	10.56

Italian	146	0.64
Table 6. Continued Social Profiles: Ancestry	Population	Percent
Luxemburger	3	0.01
Northern European	2	0.01
Norwegian	3,397	14.96
Polish	638	2.81
Romanian	2	0.01
Russian	37	0.16
Scandinavian	80	0.35
Scotch-Irish	125	0.55
Scottish	147	0.65
Serbian	2	0.01
Slovene	7	0.03
Subsaharan African:	23	0.10
Nigerian	3	0.01
Somalian	12	0.05
African	8	0.04
Swedish	966	4.25
Swiss	92	0.41
Turkish	4	0.02
Ukrainian	9	0.04
United States or American	869	3.83
Welsh	96	0.42
West Indian (excluding Hispanic groups):	14	0.06
Jamaican	6	0.03
West Indian	8	0.04
Yugoslavian	3	0.01
Other groups	1,103	4.86

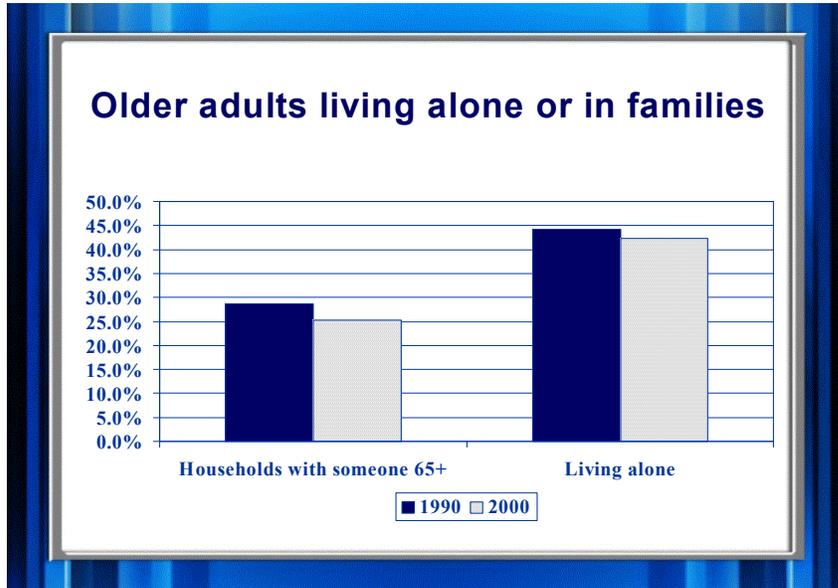
**Table 7. 2000 Census: Waseca County
Social Profiles: Place of Birth for the Foreign-born Population**

SF3 - PCT019		
	Population	Percent
Total:	261	100.00
Europe:	47	18.01
Northern Europe:	11	4.21
United Kingdom	4	1.53
Other Northern Europe	7	2.68
Western Europe:	21	8.05
Germany	21	8.05
Southern Europe:	2	0.77
Italy	2	0.77
Eastern Europe:	13	4.98
Czechoslovakia (includes Czech Republic and Slovakia)	1	0.38
Poland	2	0.77
Romania	2	0.77
Russia	6	2.30
Other Eastern Europe	2	0.77
Asia:	44	16.86
Eastern Asia:	33	12.64
China:	7	2.68
China, excluding Hong Kong and Taiwan	7	2.68
Korea	26	9.96
South Central Asia:	11	4.21
India	11	4.21
Africa:	22	8.43
Eastern Africa:	22	8.43
Other Eastern Africa	22	8.43

Table 7. Continued Social Profiles: Place of Birth		
	Population	Percent
Oceania:	2	0.77
Australia and New Zealand Subregion:	2	0.77
Australia	2	0.77
Americas:	146	55.94
Latin America:	102	39.08
Caribbean:	5	1.92
Trinidad and Tobago	5	1.92
Central America:	77	29.50
Mexico	67	25.67
Other Central America:	10	3.83
El Salvador	3	1.15
Guatemala	6	2.30
Honduras	1	0.38
South America:	20	7.66
Brazil	20	7.66
Northern America:	44	16.86
Canada	44	16.86

Households and Families

Older Adults



The percentage of households in Waseca County with someone 65 or older in 2000 was slightly less than those in 1990. In 1990, 28.7 percent of all households in the county had someone 65 or older living there. In 2000, 25.2 percent of households had at least one older adult present.

The 2000 Census also reported slightly fewer people 65 and older living alone than in 1990. In 1990, 44.2 percent of people 65 and older lived alone. In 2000, 42.4 percent of people 65 and older lived alone.

Children

There was a very slight drop in Waseca County households with someone 18 or under present from the 1990 Census to the 2000 Census. In 1990, 37.6 percent of all households had at least one child under 18 present; in 2000, 36.4 percent of households did. The number of children under 18 living with two parents also declined from 1990 to 2000. In 1990, 84.5 percent of children lived with both parents and in 2000, 76.9 percent did. This was part of a region-wide and statewide trend.



Marital Status

Slightly more people indicated they had never been married in 2000 than in 1990. In 1990, 23.8 percent of the population 15 or older indicated they had never been married. In 2000, 25 percent indicated such. In both census counts, more men than women had never been married.

In 1990, there were more married people in Waseca County than in 2000. Of the population 15 or older, 61.3 percent indicated they were married in 1990. That dropped to 59.7 percent of the population over 15 in 2000.

The percentage of Waseca County's population that was divorced increased from 5.5 percent in 1990 to 8.9 in 2000. Interestingly, more women than men reported being divorced in 1990, while more men than women reported being divorced in 2000.

Another new category this year in the census helps to paint a picture of households and families. The category is unmarried-partner households.

Of all households, 4.3 percent are unmarried-partner households. By and large -- 91.4 percent -- those are made up of a householder of one sex and opposite-sex partners, but 8.6 percent of respondents indicated the householder has a same-sex partner. As this question was not asked on the 2000 Census, it is not possible to compare with any previous numbers.



Population Projections

Population projections from the State of Minnesota show continued growth for Waseca County through 2030. As reflected on the Total Population chart on page 32.

The county's population is projected to increase 10 percent. There will be much more significant changes within certain age groups in the county from 2005 to 2030.

Populations in the age groups 60 and older are projected to see double- and triple-digit increases. The largest projected increase is 161.8 percent (from 550 in 2005 to 1,440 in 2030) in the 70-74 age group. The smallest projected increase is in the population 85 and older; 42.9 percent (490 in 2005 to 700 in 2030).

Under 60, the age groups are projected to either decrease or remain the same, except for a slight increase (2.3 percent) in 10- to 14-year-olds. The age group that is expected to lose the most population is ages 50 to 54. The state-planning department has calculated a decrease of 24.4 percent, from 1,560 in 2005 to 1,180 in 2030. There is no change expected in the 25 to 39 age groups.

A population projection is a well-informed estimate of how many people could live in an area in the future. One of the best indicators used to make a reliable estimate is the area's historic level of growth. For example, if a community has grown by an average of two people a year for the last 20 years, it is often assumed that this average rate of growth will continue into the future.

The difficult part of making population projections is determining whether past trends will continue and, if not, how they will change. The future population of a community is derived from certain quantitative measures: its present population plus births and net migration minus any deaths. Therefore, any factor that influences births, deaths, or migration will alter the projected population.

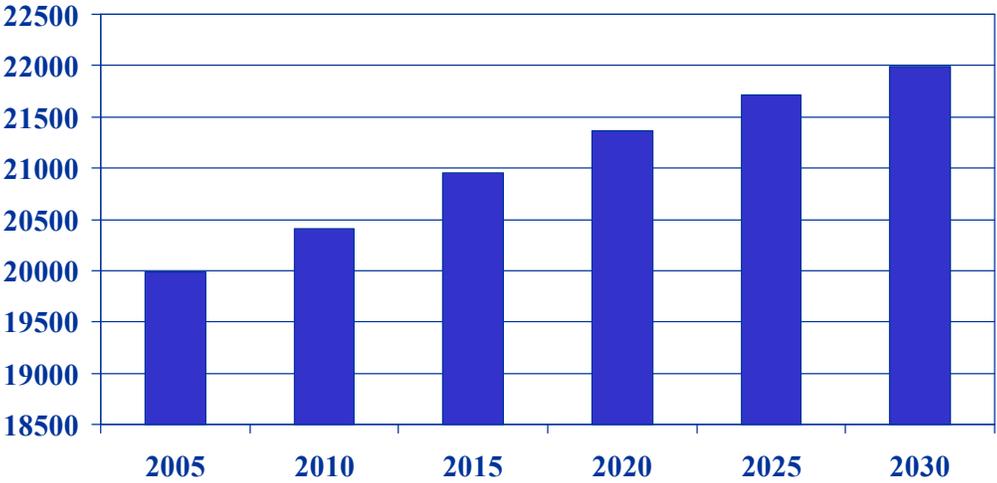
However, several qualitative factors can affect the community's attractiveness to both current and potential residents: ease and cost of commuting to employment areas; employment opportunities within the community; local housing supply and housing costs; and the community's overall aesthetics (lakes, scenery, etc.).

As a result of the complexity of making population projections, they should be viewed with some caution.

Table 8. Total Population**MN Planning, 2003**

Age Group	2005	2010	2015	2020	2025	2030	2005 - 2030 % Change
0-4	1,220	1,230	1,250	1,240	1,210	1,190	-2.5
5-9	1,400	1,320	1,340	1,350	1,340	1,320	-5.7
10-14	1,290	1,360	1,290	1,300	1,320	1,320	2.3
15-19	1,560	1,390	1,430	1,370	1,370	1,400	-10.3
20-24	1,330	1,330	1,260	1,260	1,220	1,240	-6.8
25-29	1,240	1,360	1,360	1,300	1,260	1,240	0.0
30-34	1,300	1,300	1,400	1,390	1,340	1,300	0.0
35-39	1,300	1,270	1,270	1,350	1,350	1,300	0.0
40-44	1,500	1,200	1,160	1,160	1,240	1,240	-17.3
45-49	1,490	1,380	1,110	1,070	1,060	1,150	-22.8
50-54	1,560	1,600	1,500	1,220	1,170	1,180	-24.4
55-59	1,200	1,540	1,600	1,490	1,230	1,180	-1.7
60-64	840	1,210	1,560	1,630	1,540	1,270	51.2
65-69	690	830	1,190	1,530	1,600	1,520	120.3
70-74	550	600	730	1,050	1,360	1,440	161.8
75-79	570	490	540	660	950	1,210	112.3
80-84	460	460	390	450	550	790	71.7
85+	490	540	570	550	600	700	42.9
Total	19,990	20,410	20,950	21,370	21,710	21,990	10.0

Waseca County Population Projections, 2005-2030.



Land Use

Introduction

The natural resources found in any given area guide and shape land development and land use activity. Likewise, built land use patterns, the roadway system, the extent of public services and facilities, land ownership patterns, governmental jurisdictional boundaries, and local government codes and ordinances also guide and shape new development, positively and negatively.

Land use planning is concerned primarily with the accommodation of land development, that is, the existing or potential use of land. Planning and programming for optimal use of land is important for guiding county growth.

Land use studies are designed to provide basic information on land characteristics and the various activities that occupy land in some given area, usually a community, a neighborhood, or a highway corridor. This information is used in analyzing the current pattern

of development (existing land use) and serves as the framework for formulating policies, plans, and programs for future land use. (The land use policy recommended within this plan is found in the Implementation chapter.)

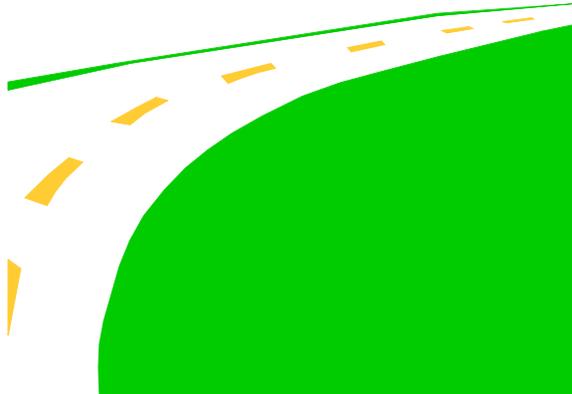


The land use plan then sets forth the proposed pattern of the physical environment for the activities of people and organizations within a planning area. Land use planning depends upon population and economic projections and an understanding of the interrelationship of land use types for living, livelihood, and leisure, including travel characteristics.

Closely related to land use studies are transportation/traffic studies, which provide data on the movement of people and goods. For purposes of land use planning, an understanding of the nature and characteristics of travel is desirable. Travel is to the transportation system what current is to an electrical network. The design of the system must be based not only on the characteristics and functions of

the conductor but also on the properties of that which passes through the conductor/system. Subsequently, the development characteristics of property abutting roadways are an integral part of an effective land use plan.

Improvements to the roadway and driveway system alone can do little to improve the orderly and safe movement of traffic when adjacent land uses have poorly located access, or when such land uses generate large increases in traffic volumes without regard to the traffic characteristics of area roadways.



The interrelationships of land use and the highway system make it necessary for the physical development of each to be balanced with the other. Types and intensities of land uses have a direct relationship to the traffic on roadways that serve those land uses. Intensely developed land often generates high volumes of traffic. If this traffic is not planned for properly, safety as well as

local traffic flows can be seriously impaired.

For example, conversion of farm or other rural land to residential or urban uses is often accomplished by the division of the larger parcels. This increases the number of land uses and parcels and usually creates new points of access to the existing highway network since each new parcel normally receives an outlet. Each new outlet forms an intersection with the existing highway, potentially causing a decrease in highway utility.

Furthermore, the traffic generated and attracted by any new land use can increase the volume throughout the highway system and increase congestion on the surrounding roadways, keeping property from reaching its full potential value. Even without the creation of new access points, changes in land uses can alter the capacity of the roadway because more, and possibly different, kinds of vehicles than before enter, leave, and add to the traffic flow.

Existing Land Use

Current land use in Waseca County is closely related to ownership, land cover, soils and lakes and rivers. According to the Minnesota Land Management Information Center, the land use descriptions, number of acres and percent of total acres is detailed below:

Waseca County Land Use and Cover, 1998-1990

DESCRIPTION	ACRES	% OF TOTAL ACRES
Urban & Industrial	2,673.4	1
Farmsteads-Rural Residential	4427.9	1.6
Rural Residential Development Complexes	372.6	0.1
Other Rural	401.2	0.1
Cultivated Ag Land	235,094.1	84.9
Transitional Ag	10.2	<0.1
Grasslands	13,342.1	4.8
Grass-Shrub-Tree (deciduous)	376.0	0.1
Grass-Shrub-Tree (coniferous)	5.8	<0.1
Deciduous Forest	11,858.6	4.3
Coniferous	0.0	0.0
Water	4307.6	1.6
Wetland	4016.4	1.5
Gravel Pits-Open Mines	51	<0.1
Bare Rock	0.0	0.0
Exposed Soil	2.3	<0.1
Unclassified-Unlabeled	0.0	0.0

2002 Waseca County Land Use and Cover Statistics

Description	Acreage	Percent of Total
Urban and rural development	7,832	2.8
Cultivated land	235,489	85.0
Hay/pasture/grassland	13,349	4.8
Brushland	374	0.1
Forested	11,507	4.2
Water	4,294	1.6
Bog/marsh	4,013	1.4
Mining	52	0.0
Total	276,910	100.0

2002, Minnesota Planning, *Datanet*

Approximately 92% of the County's 277,000 acres is in deeded farmland with 84.9 percent of the total acreage being cultivated. Based on the 2002 Spring Mini-Abstract, 83,469 acres, representing 32 percent of the county's cultivated agricultural land, is in the agricultural preservation program adopted by Waseca County in 1988.

There are more than 8,300 surface acres of water representing 24 named lakes and hundreds of miles of rivers, tributaries, streams and wetlands, all of which provide a water/land base for recreation and residential housing.

Waseca County attractions lie in part with its vast agricultural and water resources, image of vast open space by mid-western standards, and its close proximity to the Twin Cities Metro-area.



Public Lands

Public lands, which are administered by the federal, state, and county governments, provide various degrees of public land management policies and recreational opportunities, which, in itself, provide diversity to the landscape. Currently 98.8% of land in Waseca County is privately owned. The 1.2% accounts for University of Minnesota-Southern Minnesota Outreach Station and the Minnesota Agricultural Interpretive Center, Farm America.

Major Land Use Classifications

Waseca County currently separates land uses by nine (9) land use zoning districts. New districts are proposed and can be found in the Future Land Use plan chapter. The districts are as follows:

Agricultural District

The “A” Agricultural District is intended to provide a district that will retain suitable areas within the County in agricultural use; control scattered non-farm development and secure economy in governmental expenditures for public services, utilities and schools. Parcels in this district that are a minimum of 35 acres in size and designated for long term agriculture in the Waseca County Farmland Preservation Plan shall be eligible for the creation of exclusive agricultural use zones as prescribed in the 1984 Agricultural Land Preservation Policy Act, Chapter 40A, of the Minnesota Statutes.

Urban Expansion Residential District

The purpose of the “R-1” Urban Expansion Residential District is to conserve, for a period of time, land for farming and other open space land uses located adjacent to or in close proximity to existing incorporated urban centers within Waseca County where urban expansion is planned to take place in accordance with their adopted land use plans and capital improvement programs. It is the intent that urban density development is deferred in such areas until public utilities or an approved community utility system is available. It is intended that the status of all areas in this district be reviewed, jointly, by the appropriate planning bodies once per calendar year who shall determine whether there should be a transfer of all or any part of such area to some other appropriate land use, or to indicate any changes in the existing Land Use Plan for the particular political entity or change in the Capitol Improvement Program of the community affecting this district.

Highway Commercial District

The “B-1” Highway Commercial District is intended to provide a district allowing for the development of highway-oriented businesses and uses which require concentrations of automobile traffic closely related to existing urban areas or major transportation routes. The district is also intended to accommodate those commercial uses which may be incompatible with predominantly retail uses permitted in adjacent urban areas and other business districts, and whose service is not confined to any one neighborhood or community. This district shall also be known as the “Business District”.

General Industrial District

The "I" General Industrial District is intended to provide a district allowing general industrial, manufacturing, and processing uses, which due to their size, location and nature, would not conform to the Highway Commercial District.

Flood Plain District

The purpose of the Flood Plain District is to maintain the community's eligibility in the National Flood Insurance Program (NFIP) and to minimize potential losses due to periodic flooding including loss of life, loss of property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of tax base, all of which adversely affect public health, safety and general welfare.

Shoreland Overlay District

The purpose of the Shoreland Overlay District is to provide for the wise development of shorelands of public waters by establishing minimum lot size, width and water frontage for lots suitable as building sites; regulating the placement of structures in relation to shorelines and roads; regulating the type and placement of sanitary and waste disposal facilities; and the regulation of shoreland grading and filling.

Minnesota Agricultural Interpretive Center Protection District

The "A-2" Agricultural Interpretive Center Protection District is intended to protect the site of the Minnesota Agricultural Interpretive Center (MAIC) and adjoining properties from development that would be detrimental to the Center.

Current Land Use Analysis

For the purpose of current land use analysis and the identification of recent land use conversions between 1990 and 2002, the land use classes as used for assessment purposes are: Residential, Urban and Industrial, Agricultural, Shoreland/Wetlands. While these are not necessarily the same as zoning districts in all cases, they do provide a basis for land use conversion analysis.

Residential

- ✚ The county experienced a limited conversion of agricultural land to residentially developed land from 1990 to 2000.
- ✚ A majority of the residential development occurred within the cities of Janesville and Waseca.



- ✚ The majority of new residential acreage development that occurs outside the incorporated area is, in many cases, within the regulated shorelands of the County (1000 feet from lakes, ponds and flowages, and 300 feet of a river).
- ✚ The total net increase in residential acreage from 1990 to 2002 was less than six percent (6%) of the total residential parcels.
- ✚ The largest number of unincorporated residential parcels is in Woodville Township.

Commercial and Industrial

- ✚ Current assessed commercial and industrial lands account for less than five (5) percent or approximately 13,850 acres of the total County acreage.



- ✚ Between 1990 and 2002 the only significant change in commercial and industrial acreage occurred in the City of Waseca, which showed a limited increase of conversion acreage.
- ✚ Within the county, major commercial service centers are located within the cities of Waseca and Janesville.

Other commercial service centers include the cities of New Richland and Waldorf. These smaller retail

centers provide important commercial and informational services to their respective market areas.

Agricultural

- ✚ The 2002 assessed agricultural acreage was 253,940 acres or about 89 percent of the total land.



- ✚ In 1990, twenty-nine (29) sales of farmland were reported to average 116 acres in parcel size. Total sales encompassed 3,373 acres, 2,733 of which were classified as tillable. In 2001, fifteen (15) sales of farmland were reported averaging 79 acres in parcel size. Total sales encompassed 1,191 acres, 464 of which were classified as tillable.

- ✚ The largest number of farmland sales occurred in 1990 and the fewest occurred in 1996.

County	Year	Number of Sales	Average Parcel Size	Sum of Parcel Size	Minimum Parcel Size	Maximum Parcel Size	
Waseca	1990	29	116	3373	40	200	
Waseca	1991	14	96	1339	37	200	
Waseca	1992	17	103	1759	40	235	
Waseca	1993	19	107	2024	35	205	
Waseca	1994	23	84	1924	40	189	
Waseca	1995	26	82	2130	20	195	
Waseca	1996	12	100	1200	22	284	
Waseca	1997	27	88	2375	37	191	
Waseca	1998	17	106	1805	22	271	
Waseca	1999	21	91	1905	27	230	
Waseca	2000	13	86	1112	35	160	
Waseca	2001	15	79	1191	39	133	

County	Year	Number of Sales	Average Per-Acre Price	Sum of Per-Acre Price	Minimum Per-Acre Price	Maximum Per-Acre Price	
Waseca	1990	29	1238	35898	457	2076	
Waseca	1991	14	1320	18474	828	2088	
Waseca	1992	17	1323	22489	800	2100	
Waseca	1993	19	1423	27032	451	2500	
Waseca	1994	23	1581	36355	750	3217	
Waseca	1995	26	1411	36695	703	2636	
Waseca	1996	12	1585	19025	636	2043	
Waseca	1997	27	1757	47440	865	2326	
Waseca	1998	17	1742	29611	684	2724	
Waseca	1999	21	1796	37709	921	3556	
Waseca	2000	13	1738	22597	675	2344	
Waseca	2001	15	2248	33718	1308	3312	

County	Year	Number of Sales	Average Tillable Acres	Sum of Tillable Acres	Minimum Tillable Acres	Maximum Tillable Acres	
Waseca	1990	29	94	2733	0	198	
Waseca	1991	14	84	1182	0	176	
Waseca	1992	17	94	1596	38	228	
Waseca	1993	19	90	1718	21	193	
Waseca	1994	23	73	1676	29	168	
Waseca	1995	26	67	1731	0	189	
Waseca	1996	12	68	818	0	270	
Waseca	1997	27	48	1285	0	160	
Waseca	1998	17	41	689	0	160	
Waseca	1999	21	56	1175	0	240	
Waseca	2000	13	54	698	0	160	
Waseca	2001	15	31	464	0	118	



Economic and Employment Characteristics

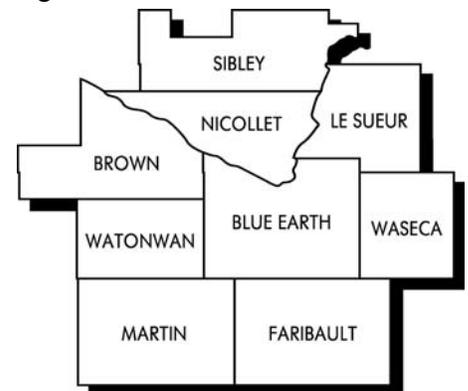
This chapter evaluates the economic status of Waseca County with respect to the Twin Cities Metropolitan region, Region Nine and internal to itself. It contains an overview of commercial and industrial growth as well as Census data about Waseca County resident's employment status and journey to work characteristics. The chapter presents a comparison of taxes payable in 2002 for different uses in the different school districts in Waseca County.

The Metropolitan Region

The Metropolitan region, defined here as Hennepin, Ramsey, Scott, Carver, Washington, Anoka and Dakota Counties, experienced greater job growth than population growth from 1970 to 1995. This was due, in part, to the growth of the adult population cohorts relative to the entire population, while birth rates declined, and to the increased number of women in the work force. Within the region, no county or city lost jobs or population. However, while Minneapolis in Hennepin County gained 3.8% more jobs between 1990 and 1996, Eagan in Dakota County realized a 37.2% increase in jobs during the same time period. The City of Woodbury in Washington County saw the greatest increase in population in the region (93.5%) between 1990 and 1998. As of 1998, Minneapolis remains the dominant economic force in the region with almost 300,000 jobs. However, this job share has not increased as rapidly as the newer, developing, suburbs in recent years with more of the region's economic base dispersing into the collar counties. It is projected this trend will continue, eventually impacting the residents of Waseca county. Job and population growth for the region is expected to continue through 2020 for all counties, and including the City of Minneapolis. Minneapolis suburbs are forecasted to gain the greatest percentage of jobs, while Scott County (138%), followed closely by Carver (118%) and Washington (98%) counties, will continue to gain the greatest percentage of population. Ramsey County is forecasted to gain the least population at a projected increase of 10.6%.

Region Nine

Region Nine is geographically defined as the following nine counties in south central Minnesota: Blue Earth, Brown, Faribault, Le Sueur, Martin, Nicollet, Sibley, Waseca and Watonwan. Region Nine experienced some growth from 1990-2000 with projected populations to increase in Waseca County as well as the counties of Blue Earth, Le Sueur, Sibley and Nicollet Counties over the next 30 years. Le Sueur County has experienced and will continue to experience the greatest increases in population growth as



the Twin Cities metropolitan growth continues to spill to the south. The City of Mankato in Blue Earth County has seen the greatest increase in the number of jobs in the past ten (10) years. These jobs have been primarily within the retail trade and service industry.

Waseca County Employment

Waseca County’s population growth has remained stable with its job growth. The County experienced the greatest employment and population growth in and adjacent to the City of Waseca as well as the City of Janesville. A decline in population was experienced in and adjacent to the City of Waldorf and the City of New Richland. Waseca County residents generally support increased local job growth. The 2002 citizen visioning meetings and community survey indicate a majority of attendees and respondents favor bringing more jobs to the Waseca County. However, while job growth clearly has its "upside," especially with regard to local property tax base, there are also negative repercussions, which residents also acknowledge, if indirectly. These include the rate of growth, traffic congestion, loss of environmental amenities, potential loss of productive agricultural land and the costs associated with providing new public facilities. The unsolved dilemma remains: How much growth, or at what rate, is necessary to sustain a vibrant economy? An addendum to the dilemma is: How might we achieve a more equitable distribution of the benefits of economic growth?

Subject	Number	Percent
Population 16 years and over	15,112	100.0
In labor force	10,023	66.3
Civilian labor force	10,008	66.2
Employed	9,761	64.6
Unemployed	247	1.6
Percent of civilian labor force	2.5%	X
Armed Forces	15	0.1
Not in labor force	5,089	33.7
Females 16 years and over	7,167	100.0
In labor force	4,656	65.0
Civilian labor force	4,656	65.0
Employed	4,541	63.4
Own children under 6 years	1,424	100.0
All parents in family in labor force	1,050	73.7

Occupation and Industry

Top Five Industries in Waseca County in 2000

Industry	Total Employees	Men	Women
Manufacturing	2,724	1,787	937
Retail Trade	1,108	582	526
Health Care and Social Assistance	1,008	91	917
Educational Services	703	217	486
Finance and Insurance	412	109	303

Manufacturing and retail numbers are down from 1990. Finance and Insurance numbers are up from 1990. Educational services numbers are down, while health services numbers are up significantly from 1990 numbers.

Of all persons 16 and older in Waseca County, 66.3 percent were employed in 1999. Over 26% of the labor force was in management and professional occupations. Following closely was the sales and office occupations and the production, transportation and material moving occupations consuming almost 25% each of the labor force for a total of 50% of the employed population in sales, office, production and transportation business.

Brown Printing is the largest employer with 1,300 employees. Other major employers in Waseca County include Itron, Inc., Waseca Public Schools, EF Johnson Company, Johnson Components, Federal Correctional Institution and Dean Foods, a Division of Bird's Eye. Of all jobs in Waseca County 27.9% are manufacturing related and 17.5 are institutional (social services, education, health care) with the exception of public administration. In 1997, the average weekly wage for a person in manufacturing was \$656.70. The average weekly wage for a person employed in education, social services or health services was \$253.64. The average weekly wage for a person employed by the federal government was \$766.17.

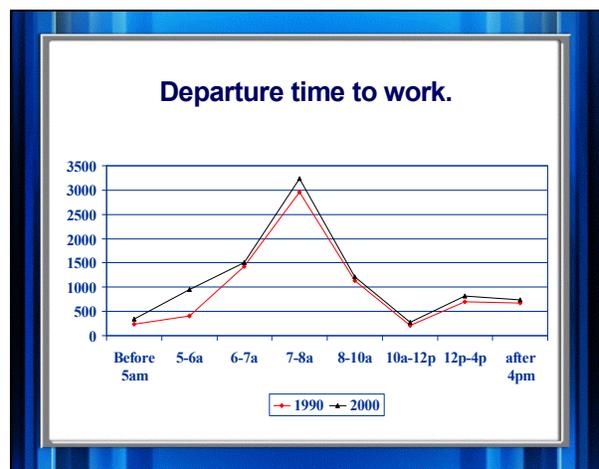
Subject	Number	Percent
Employed civilian population 16 years and over	9,761	100.0
Agriculture, forestry, fishing and hunting, and mining	507	5.2
Construction	585	6.0
Manufacturing	2,724	27.9
Wholesale trade	241	2.5
Retail trade	1,108	11.4
Transportation and warehousing, and utilities	393	4.0
Information	411	4.2
Finance, insurance, real estate, and rental and leasing	510	5.2
Professional, scientific, management, administrative, and waste management services	391	4.0
Educational, health and social services	1,711	17.5
Arts, entertainment, recreation, accommodation and food services	363	3.7
Other services (except public administration)	483	4.9
Public administration	334	3.4

Characteristics of the Labor Force, 2000 Census SF3: Waseca County

Employment and Commuting

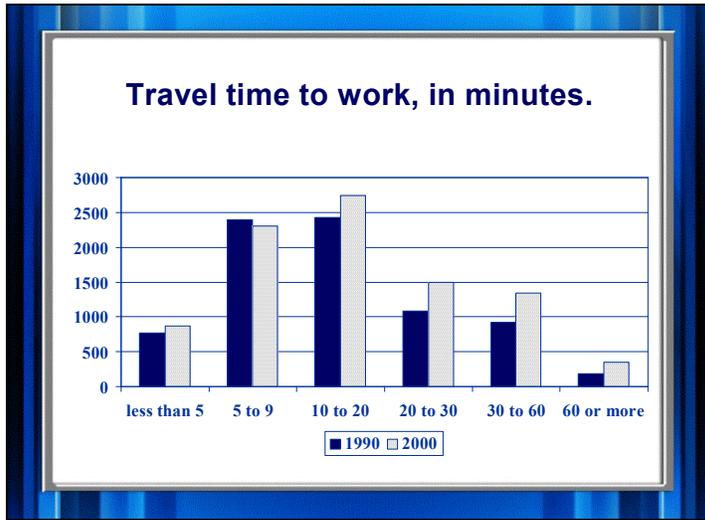
Longer commutes and earlier departures for work were more common in Waseca County in 2000. One possible reason for the longer commute times and earlier departures for work could be that fewer people live and work in Waseca County. In 2000, 69.7 percent of people both lived and worked in Waseca County, down from 80.5 percent in 1990.

In 2000, there was a 37.2 percent increase in those who travel 20-30 minutes to work over the numbers for



1990. There were even larger increases in the longer commute times. Waseca County residents traveling for 30 to 60 minutes increased 45.8 percent increase in 2000 and those traveling 60 minutes or more to work increased 89.7 percent.

Departure time to work was generally earlier in 2000 than in 1990. The biggest change was in the number of people leaving for work between 5:00 a.m. and 6:00 a.m., which jumped 128.2 percent from 1990 to 2000.



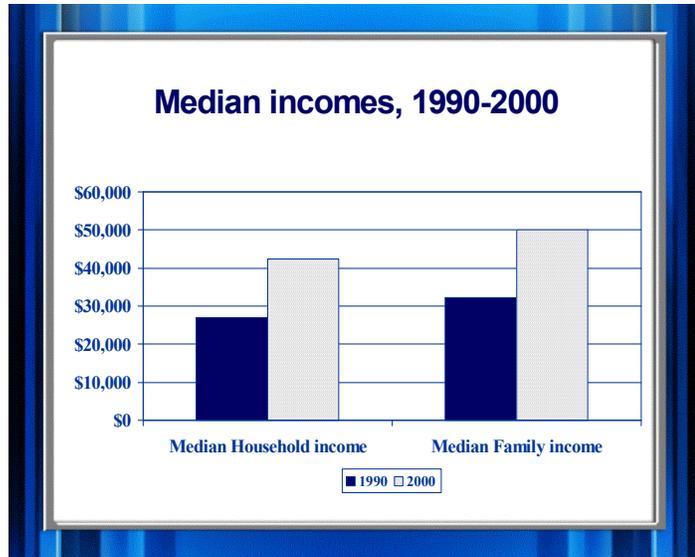
6:00 a.m., which jumped 128.2 percent from 1990 to 2000. The largest number of people (35.6 percent of all people who don't work at home) leave for work between 7:00 a.m. and 8:00 a.m. This time period also had the largest number of people in 1990. The number of people who reported that they drive to work alone in 2000 was 86.6 percent of workers, up from 82.7 percent in 1990.

The number of people who walked to work dropped 49.4 percent from 593 people in 1990 to 300 people in 2000.

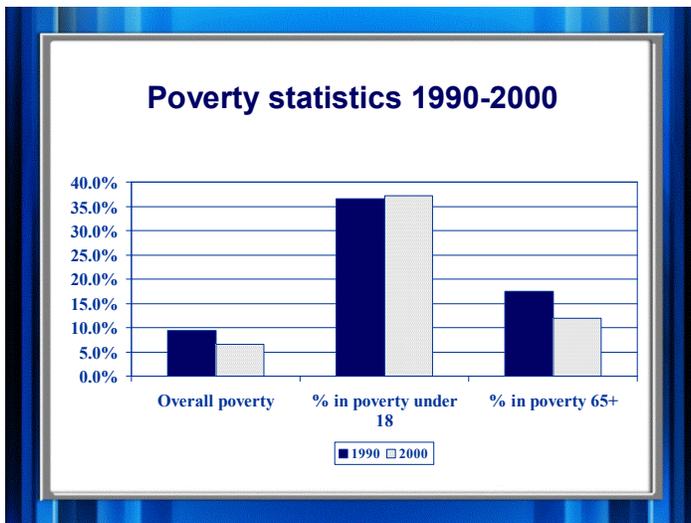
Subject	Number	Percent
Workers 16 years and over	9,652	100.0
Car, truck, or van - - drove alone	7,523	77.9
Car, truck, or van - - carpooled	1,162	12.0
Public transportation (including taxicab)	85	0.9
Walked	300	3.1
Other means	30	0.3
Worked at home	552	5.7
Mean travel time to work (minutes)	17.6	X

Income and Poverty

Generally, incomes rose and poverty dropped for Waseca County in 2000. The overall poverty percentage for the county dropped from 9.4 percent in 1990 to 6.5 percent in 2000. Within the population whose income was at or below the poverty level, the percent of those under 18 increased slightly from 36.5 percent in 1990 to 37.1 percent in 2000. However, the percentage that was 65 or older dropped from 17.4 percent in 1990 to 11.9 percent in 2000. While the percent of the population in poverty decreased, median household and family incomes increased.



Median household income in Waseca County increased 57.2 percent from \$26,992 in 1990 to \$42,440 in 2000 with 83 percent of households receiving their incomes through wages. At the same time, median family income increased 55.1 percent from \$32,282 to \$50,081. More than 1,800 households consisting of 25.9 percent of all households received income through Social Security.



The number of households/families in upper income brackets increased substantially from 1990 to 2000, while the number in lower income brackets dropped during the same time. Families with an income in the \$60,000 to \$99,999 range increased 252.1 percent in Waseca County from 1990 to 2000. While families with an income of \$100,000 numbered only 80 in the county in 1990, that had grown to 389 in 2000.

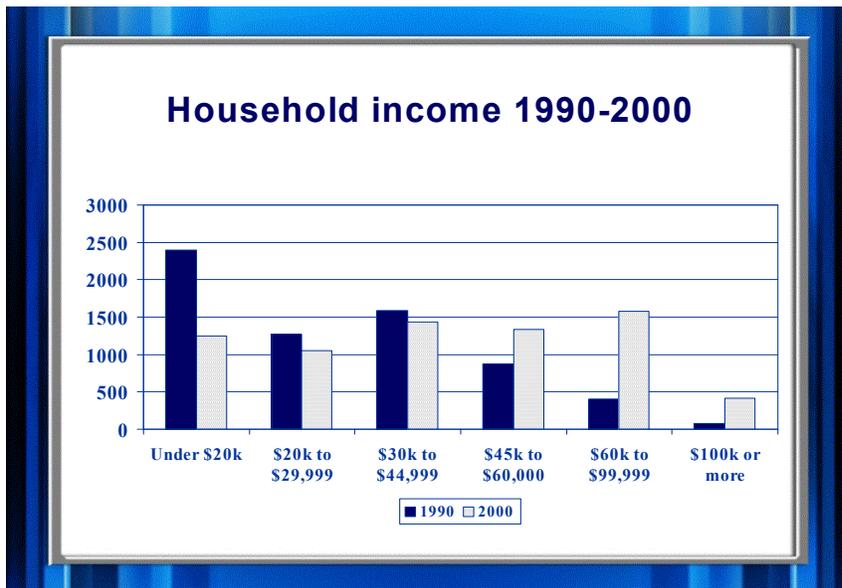
In 1999, the per capita personal income for Waseca County was \$18,631.00. This was nearly a 16.6 percent increase from \$15,985.00 in 1990 and a 3.1 percent decrease from \$19,222.00 in 1995. For comparison purposes, the per capita personal income for the non-metro portion of Minnesota was \$24,182.00 in 2000, \$18,566.00 in 1995 and \$15,736.00 in 1990. Approximately 4.5% of all families in Waseca County have incomes below poverty level with over half of these families having children under 5 years old.

Subject	Number	Percent
Households	7,055	100.0
Less than \$10,000	421	6.0
\$10,000 to \$14,999	429	6.1
\$15,000 to \$24,999	923	13.1
\$25,000 to \$34,999	1,073	15.2
\$35,000 to \$49,999	1,344	19.1
\$50,000 to \$74,999	1,784	25.3
\$75,000 to \$99,999	665	9.4
\$100,000 to \$149,999	292	4.1
\$150,000 to \$199,999	77	1.1
\$200,000 or more	47	0.7
Median household income (dollars)	42,440	X
With earnings	5,860	83.1
Mean earnings (dollars)	48,189	X
With Social Security income	1,830	25.9
Mean Social Security income (dollars)	11,238	X
With Supplemental Security Income	187	2.7
Mean Supplemental Security Income (dollars)	5,597	X
With public assistance income	260	3.7
Mean public assistance income (dollars)	2,971	X
With retirement income	769	10.9
Mean retirement income (dollars)	10,528	X

Family Income

Families	5,012	100.0
Less than \$10,000	135	2.7
\$10,000 to \$14,999	170	3.4
\$15,000 to \$24,999	493	9.8
\$25,000 to \$34,999	635	12.7
\$35,000 to \$49,999	1,066	21.3
\$50,000 to \$74,999	1,526	30.4
\$75,000 to \$99,999	598	11.9
\$100,000 to \$149,999	281	5.6
\$150,000 to \$199,999	65	1.3
\$200,000 or more	43	0.9
Median family income (dollars)	50,081	X
Per capita income (dollars)	18,631	X
Median earnings (dollars):		
Male full-time, year-round workers	34,380	X
Female full-time, year-round workers	22,630	X

2000 Census SF3: Waseca County



Poverty

Measuring the percentage of Waseca County residents who live in poverty gives an indication of how many residents are not financially able to maintain a minimum standard of living. The Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is poor. If a family's total income is less than that family's threshold, then that family, and every individual in it, is considered poor. The poverty thresholds do not vary geographically, but they are updated annually for inflation using the Consumer Price Index (CPI-U). The official poverty definition counts money income before taxes and does not include capital gains and noncash benefits (such as public housing, Medicaid, and food stamps). Poverty is not defined for people in military barracks, institutional group quarters, or for unrelated individuals under age 15 (such as foster children). They are excluded from the poverty universe--that is, they are considered neither as "poor" nor as "nonpoor."

Minnesota Poverty

The percent of Minnesotans in poverty decreased from 9.4 percent in 1990 to 6.5 percent in 2000. The rate was as high as 10 percent in the early 1990s, but fell below 7 percent during the strong economic boom of the late 1990s. The 2000 federal poverty threshold for a family of four was \$17,603. Many Minnesotans with incomes above the poverty line still have difficulty making ends meet. Minnesota has historically had lower poverty rates than the nation as a whole. In 2000, when the national rate was 12.4 percent, Minnesota's rate was 7.9 percent, or third in the nation. New Hampshire had the lowest poverty rate at 6.5 percent, while Mississippi had the highest at 19.9 percent.

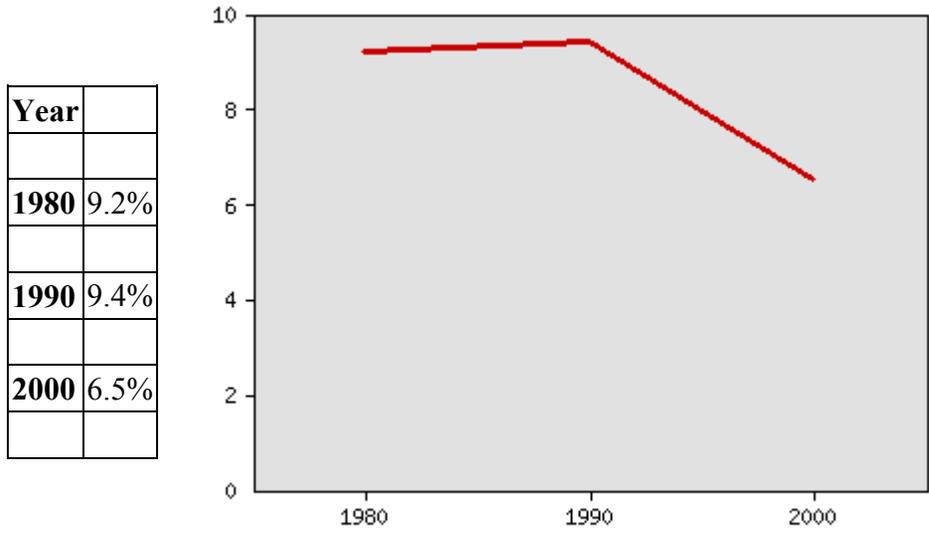


Because income at the federally determined poverty line affords only a minimal standard of living, critics have argued for a new self-sufficiency measure. Poverty is strongly related to other disturbing social and economic conditions such as poor health, decreased economic opportunity and higher crime rates.

Poverty Status in 1999

Subject	Number below poverty level	Percent below poverty level
Families	228	4.5
With related children under 18 years	142	-
With related children under 5 years	63	-
Families with female householder, no husband present	90	-
With related children under 18 years	73	-
With related children under 5 years	42	-
Individuals	1,182	-
18 years and over	743	-
65 years and over	141	-
Related children under 18 years	432	-
Related children 5 to 17 years	330	-
Unrelated individuals 15 years and over	337	-

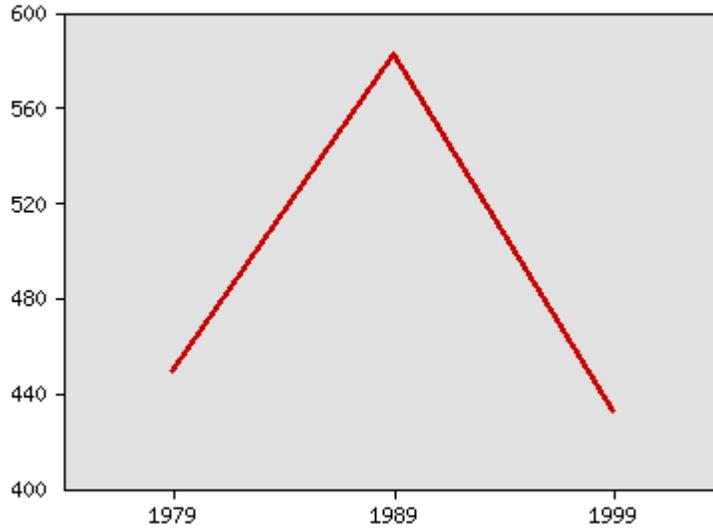
2000 Census SF3: Waseca County



Geographic Region: Waseca County, MN Planning

Children under 18 living in households below the federal poverty line
Geographic Region: Waseca County

Year	
1979	449
1989	582
1999	432



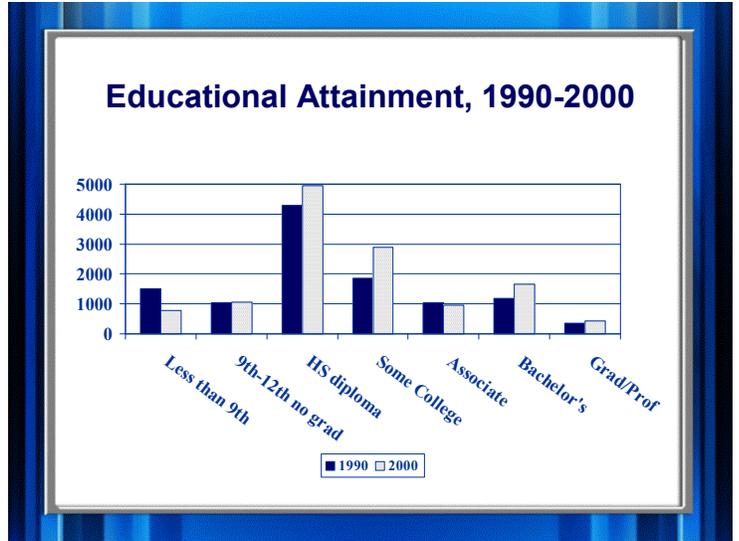
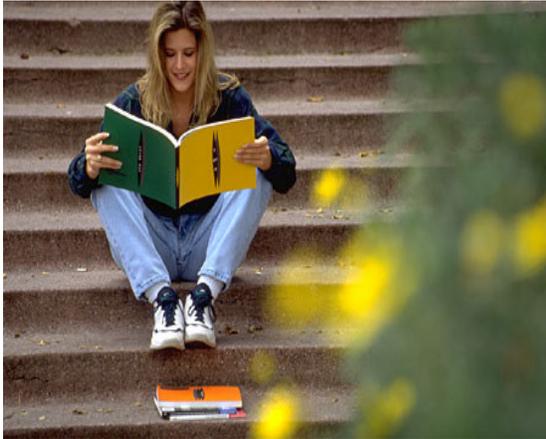
DESCRIPTION	NUMBER
Number of Children Receiving Special Education Services (1999)	693.0
Number of WIC Participants - Unduplicated Counts (1999)	724.0
Food Stamp Utilization-Average Monthly Households (1999)	289.0
Estimate of Number of Pregnant Females Below 200% Poverty (1999)	74.9
Estimate of Number of Pregnant Females Below Poverty (1999)	25.0
Estimate of Number of Children Ages 0-19 Below Poverty (1999)	649.5
Number of Substantiated Reports of Child Maltreatment (1998)	12.0
Number of Female-Headed Single Parent Households (1990)	292.0
Number of Male-Headed Single Parent Households (1990)	91.0



Medical Assistance Programs Average Monthly Enrollment, January 1999 - December 1999		NUMBER
DESCRIPTION		
Number of Children Under 1 Year Enrolled in MFIP-MA		31.0
Number of Children 1-5 Enrolled in MFIP-MA		109.0
Number of Children 6-14 Enrolled in MFIP-MA		133.0
Number of Children 15-19 Enrolled in MFIP-MA		49.0
Number of Females 15-19 Enrolled in MFIP-MA		29.0
Number of Females 20-49 Enrolled in MFIP-MA		118.0
Number of Females 15-49 Enrolled in General Assistance		17.0
Number of Children Under 1 Year Enrolled in Medical Assistance		53.0
Number of Children 1-5 Enrolled in Medical Assistance		124.0
Number of Children 6-14 Enrolled in Medical Assistance		152.0
Number of Children 15-19 Enrolled in Medical Assistance		69.0
Number of Females 20-49 Enrolled in Medical Assistance		110.0
Number of Children Under 1 Year Enrolled in MinnesotaCare		4.0
Number of Children 1-5 Enrolled in MinnesotaCare		30.0
Number of Children 6-15 Enrolled in MinnesotaCare		74.0
Number of Children 15-19 Enrolled in MinnesotaCare		53.0
Number of Females 20-49 Enrolled in MinnesotaCare		

Educational Attainment

A skilled and well-educated work force provides a business attraction. Minnesota has been leading the country in quality education. The schools serving Waseca



County are successful at preparing those students who continue for post-secondary education as well as fulfilling the need to ensure that those students who enter the work force full-time after high school are ready for the work place.

While the percentage of the population currently enrolled in some type of schooling dropped from 1990 to 2000 in Waseca County, the population was generally better educated in 2000 than it was 10 years prior. Overall enrollment in some type of schooling dropped from 28.8 percent of the county population older than 3 in 1990 to 25.9 percent of the population in 2000. However, the percentage of those enrolled in preschool increased significantly from 1990 to 2000 – 56 percent.

Those enrolled in elementary and high school increased slightly from 1990 to 2000. However, the percent of those enrolled in college/graduate school decreased substantially from 1,101 in 1990 to 582 in 2000.

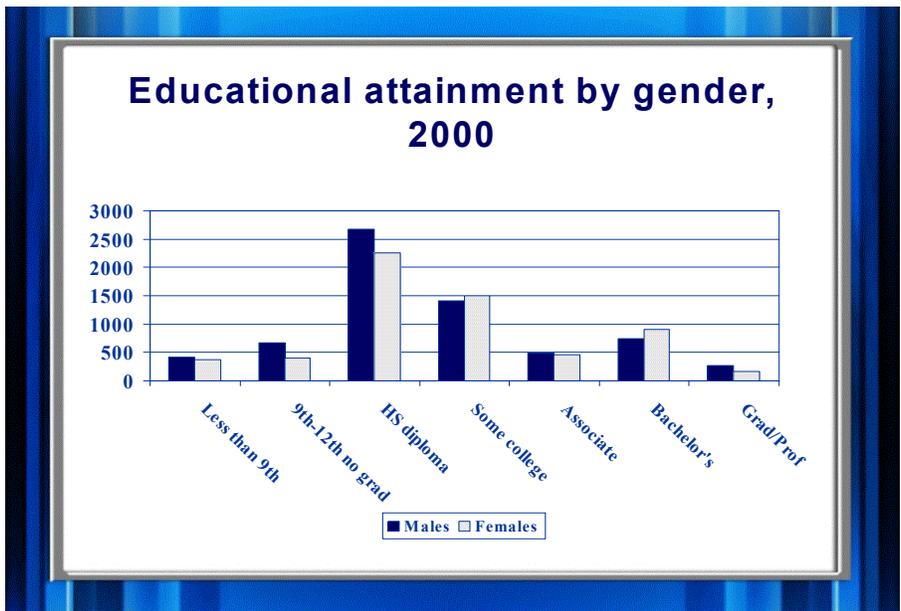
A greater percentage of the population was enrolled in private schools in 2000, as well. In 1990, 8.7 percent of those in school were attending private institutions, while in 2000, 11.4 percent of the total school population was attending private schools.

More Waseca County residents age 25 and older had graduated high school and college in 2000 than in 1990. The number of people reporting they had a high school diploma (including GED) was up 14.9 percent in 2000. Those who had a bachelor's degree increased 40.3 percent from 1990 to 2000 and the population who had a graduate or professional degree increased 20.6 percent. The largest

increase – 55.7 percent -- was in those who reported having attended some college, but who had not earned a degree.

At the same time, people who reported less than a 9th grade education dropped 47.6 percent from 1990 to 2000. There was also a slight decrease in the number of people who reported having an associate degree in 2000.

In 2000, men outranked women in educational attainment in all categories except some college and bachelor's degrees. Women held 55.0 percent of bachelor's degrees in the county and accounted for 51.6 percent of those who had attended some college but had not earned a degree.



Subject	Number	Percent
Population 3 years and over enrolled in school	4,864	100.0
Nursery school, preschool	399	8.2
Kindergarten	253	5.2
Elementary school (grades 1-8)	2,333	48.0
High school (grades 9-12)	1,297	26.7
College or graduate school	582	12.0

Employment and Land Use

Adequate space must be provided for economic growth and it must be located near major transportation routes.

Space must not only be provided for incoming industries, but also for in-place businesses to expand.



Waseca County currently has a good east-west transportation system facilitated by Highway 14. Planned road improvements and road alignment will provide for safer commutes and faster product movement to and from the region.

2002 Spring Mini-Abstract

From the abstract table, we find that more than 50 percent of the County's \$1,216,569,000.00 2002 estimated market value is farm-related; 42 percent of the total estimated

market value is residential; 1.4 percent is apartments, student housing and manufactured homes in mobile home parks; 3.7 percent is commercial land and buildings; and, 1.8 percent is industrial land and buildings. Of the County's total area (approximately 277,000 acres) 91.7 percent is



deemed farmland, which includes lowlands, wetlands and unbuildable lands, and 89.4 percent is deemed tillable farmland.

Waseca County Spring 2002 Mini-Abstract

Estimated Market Values:	Land (Including High Value Green Acres)	671,174,800
	Buildings and Improvements	545,394,200
	Total Estimated Market Value	1,216,569,000
Agricultural Data:	Number Acres Deeded Farm Land	253,940
	Number Acres Tillable Farm Land	247,693
	Total Tillable Farm Land (Low Value Green Acres)	494,704,100
	Farm-House, Garage, & 1 Acre	77,931,700
	Total Farm Land (High/Low Value Green Acres)	520,576,700
	Total Farm Buildings Including Residential	91,787,700
	Total Agricultural Preserve Acres	83,469
Agricultural Market Values:	Total Farm Homestead Market Value	477,418,072
	Total Farm Non-Homestead Market Value	134,946,328
	Total Farm Market	612,364,400
Non-Agricultural Market Values:	Residential Homestead	478,222,900
	Residential Non-Homestead	35,844,500
	Total Residential	514,067,400
	Apartment 4+, Land	13,120,300
	Student Housing	99,300
	Total Apartment	17,486,700
	Commercial Land & Building	44,856,100
	Industrial Land & Building	21,682,600
	Commercial Seasonal Recreational Residential	436,300
	All Other Property	598,529,100
Non-Farm: Land and Building Market Values	Non-Commercial Seasonal Recreational Residential Land	2,992,800
	Non-Commercial Seasonal Recreational Residential Buildings	2,682,700
	Residential Land	132,016,500
	Residential Buildings	382,050,900
	Commercial Seasonal Recreational Residential	436,300
	Commercial Land	10,928,000
	Commercial Buildings	33,928,100
	Industrial Land	1,667,300
	Industrial Buildings	20,015,300

**Waseca County Market Value of Agricultural Products Sold and Farms By North
American Industry Classification System**

	1997	1992	1987
Mkt val of agr prods sold, total sales (farms)	709	759	813
Mkt val of agr prods sold, total sales (\$1,000)	118,269	68,006	57,841
Mkt val, agr prds sd, tot sls, avg per fm (dollars)	166,811	89,600	71,145
Value of Sales			
Less than \$1,000 (farms)	63	28	27
Less than \$1,000 (\$1,000)	9	13	9
\$1,000 to \$2,499 (farms)	22	28	39
\$1,000 to \$2,499 (\$1,000)	36	47	62
\$2,500 to \$4,999 (farms)	20	33	48
\$2,500 to \$4,999 (\$1,000)	73	120	181
\$5,000 to \$9,999 (farms)	30	44	48
\$5,000 to \$9,999 (\$1,000)	219	322	362
\$10,000 to \$19,999 (farms)	49	80	113
\$10,000 to \$19,999 (\$1,000)	723	1,207	1,678
\$20,000 to \$24,999 (farms)	23	23	41
\$20,000 to \$24,999 (\$1,000)	508	509	928
\$25,000 to \$39,999 (farms)	80	87	97
\$25,000 to \$39,999 (\$1,000)	2,567	2,795	3,168
\$40,000 to \$49,999 (farms)	39	52	51
\$40,000 to \$49,999 (\$1,000)	1,731	2,305	2,297
\$50,000 to \$99,999 (farms)	112	149	149
\$50,000 to \$99,999 (\$1,000)	8,283	10,773	10,913
\$100,000 to \$249,999 (farms)	155	180	163
\$100,000 to \$249,999 (\$1,000)	25,600	28,559	24,915
\$250,000 to \$499,999 (farms)	76	44	32
\$250,000 to \$499,999(\$1,000)	27,257	14,376	10,472
\$500,000 or more (farms)	40	11	5
\$500,000 or more (\$1,000)	51,262	6,980	2,856
Sales by Commodity or Commodity Group			
Crops, incl nurs&grnhse crops (farms)	573	658	715
Crops, incl nurs&grnhse crops (\$1,000)	60,554	42,422	33,646
Crops, grains (farms)	546	641	678
Crops, grains (\$1,000)	55,819	38,897	30,893
Crops, grains, corn for grain (farms)	502	591	624
Crops, grains, corn for grain (\$1,000)	31,979	24,259	16,950
Crops, grains, wheat (farms)	19	50	154
Crops, grains, wheat (\$1,000)	69	169	233
Crops, grains, soybeans (farms)	501	568	605
Crops, grains, soybeans (\$1,000)	23,701	14,386	13,583
Crops, grains, sorghum for grain (farms)	-	-	-
Crops, grains, sorghum for grain (\$1,000)	-	-	-
Crops, grains, barley (farms)	1	-	2
Crops, grains, barley (\$1,000)	D	-	D
Crops, grains, oats (farms)	15	37	57
Crops, grains, oats (\$1,000)	D	33	D
Crops, grains, other grains (farms)	4	4	10
Crops, grains, other grains (\$1,000)	40	49	63
Crops, cotton and cottonseed (farms)	-	-	-
Crops, cotton and cottonseed (\$1,000)	-	-	-
Crops, tobacco (farms)	-	-	-
Crops, tobacco (\$1,000)	-	-	-
Crops, hay, silage & field seeds (farms)	77	80	86
Crops, hay, silage & field seeds (\$1,000)	601	308	D

**Waseca County Market Value of Agricultural Products Sold and Farms By North
American Industry Classification System *Continued***

	1997	1992	1987
Crops, vegs, swt corn, and melons (farms)	94	152	126
Crops, vegs, swt corn, and melons (\$1,000)	2,828	3,012	2,361
Crops, fruits, nuts, and berries (farms)	4	2	-
Crops, fruits, nuts, and berries (\$1,000)	D	D	-
Crops, nursery & grnhse crops (farms)	6	5	3
Crops, nursery & grnhse crops (\$1,000)	1,035	D	D
Crops, other crops (farms)	2	1	-
Crops, other crops (\$1,000)	D	D	-
Livestock, poultry, & their prods (farms)	347	414	448
Livestock, poultry, & their prods (\$1,000)	57,714	25,584	24,196
Poultry and poultry products (farms)	26	25	31
Poultry and poultry products (\$1,000)	13,211	816	559
Dairy products (farms)	56	86	115
Dairy products (\$1,000)	7,475	7,122	7,213
Cattle and calves (farms)	203	234	247
Cattle and calves (\$1,000)	3,757	3,720	3,535
Hogs and pigs (farms)	134	196	198
Hogs and pigs (\$1,000)	33,009	13,743	12,676
Sheep, lambs, and wool (farms)	45	55	79
Sheep, lambs, and wool (\$1,000)	168	134	156
Oth livestock & livestock prods (farms)	22	19	21
Oth livestock & livestock prods (\$1,000)	94	49	57
Farms by North American Industry Classification System			
Oilseed and grain farming (1111)	471	N	N
Vegetable and melon farming (1112)	13	N	N
Fruit and tree nut farming (1113)	2	N	N
Greenhouse, nursery, and floriculture production (1114)	4	N	N
Other crop farming (1119)	20	N	N
Tobacco farming (11191)	-	N	N
Cotton farming (11192)	-	N	N
Sugarcane farming, hay farming, and all other crop farming (11193, 11194, 11199)	20	N	N
Beef cattle ranching and farming (112111)	27	N	N
Cattle feedlots (112112)	17	N	N
Dairy cattle and milk production (11212)	36	N	N
Hog and pig farming (1122)	63	N	N
Poultry and egg production (1123)	9	N	N
Sheep and goat farming (1124)	21	N	N
Animal aquaculture&oth animal prod (1125, 1129)	26	N	N

@1Data are based on a sample of far

(-) = Represents Zero

(D) = Withheld to avoid disclosing data for individual farms.

(N) = Data not available or not published

cwt = Hundredweight



Strategic Plan for Economic Growth

Goal 1: Create and maintain family wage jobs by retaining, expanding and recruiting quality employers.

- Goal 2:** Encourage commercial and industrial growth in the tax base, thus minimizing increases in tax rates.
- Goal 3:** Strengthen the sense of identity and commitment to the established principles and visions developed for this plan by creating a strong partnership for growth between business, governments, labor, education and human services.
- Goal 4:** Retain the “rural” character complemented by the cities’ “urban” amenities.
- Goal 5:** Cultivate an outstanding K-12 and post-secondary educational system.
- Goal 6:** Promote economic diversification in Waseca County, which will provide for continued employment opportunities and reasonable access to a broad range of goods and services for community residents.
- Goal 7:** Promote a healthy economy, enhance the natural and built environments, and provide opportunities to area residents.

Policies:

- Waseca County will encourage the full development of regional, community and neighborhood convenience centers in the appropriate areas of the County and defines the function and limits of each.
- Waseca County will encourage commercial facilities that will promote a wide range of goods and services in community centers.
- Waseca County will discourage commercial development in areas of the community where transportation or other support services are inadequate or will become so when development occurs.
- Waseca County will discourage unplanned and strip commercial development that will have an adverse effect on existing transportation facilities and nearby residential areas.

- ✚ Waseca County will encourage planned industrial development in such a way as to enhance the tax base, increase employment opportunities, and place minimal demand on the environment setting.
- ✚ Waseca County will promote industrial development in areas of the County where adequate access, major transportation routes and necessary community facilities are or can be made available.

Implementation Strategies for the Future

Predicting the economic future is difficult. The strength of the national economy, energy prices, e-commerce, farm policies, immigration, retirement trends and many other factors affect the future. However, there are basic strategies to implement to weather the worst of times and enjoy the economic best of times. During the past thirty (30), years the economic make up of Waseca County has changed in important ways. The County has seen reductions in agricultural employment with strong increases in manufacturing employment. Service employment in recent years has seen a modest increase with some increase in retail employment. Between 1990 and 1997, Waseca saw increasing per capita income, exceeding the national average.

The New Economy

Today, Waseca and the rest of the country continue to see employment transition to a more global information based economy. This new economy has hit the two mainstays of the Waseca economy: manufacturing and agriculture.



However, Waseca County is in a good position for this economic evolution. Many of the fastest growing businesses are seeking out communities with a skilled labor force, venture capital, proximity to a university and research institution and high-speed Internet access. Waseca can build on the skilled

labor force through the educational institutions located in nearby counties such as the University of Minnesota Extensions, Minnesota State University, South Central College, Gustavus Adolphus, Bethany College, Rassmussen College and Concordia College. In addition, partnerships with the Workforce Center can meet the increasing demand for skilled labor. Venture capital can be acquired through public-private partnerships, multi-jurisdictional economic development initiatives, regional economic development collaborations and state and federal community and economic development grants. The City of Waseca already has high-speed Internet infrastructure in place.



Leveraging Financial Capital

Facilitate capital flow by matching investors with entrepreneurs using a national program through the Small Business

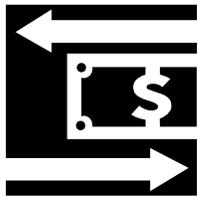
Administration called ACE-Net. Investors and business post information on the Internet to find potential matches. Although ACE-Net is only available to corporations and limited liability companies, the program could easily be replicated on a regional level.

Expand Uses for Revolving Loan Funds

\$102 million of the \$205 million available for revolving loans is currently unused in Minnesota. Revolving loan funds are administered through community based financial institutions that provide individuals, businesses and communities' with access to capital that they may not otherwise receive from private sources.

Nontraditional Venture Capital Firms & Community Development Corporations

MIN-Corp is a venture capital firm that is interested in return on investment and promoting prosperity in rural Minnesota. MIN-Corp focuses on new and existing companies with growth potential that may not be beneficiaries of other venture capital firms due to their size and location.

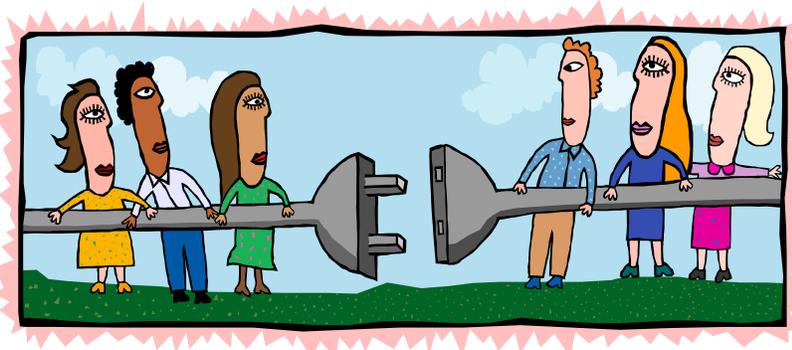


Rural equity capital needs are underserved and rural equity funds must be recognized as a double bottom line, a financial return and an overall economic boost to the local community. Because of this double bottom line and the demand for more business dollars in rural areas, there is a need for additional public-private partnerships.

Energizing the Business Spirit

With Waseca's current workforce population at 10,023, the idea of encouraging large businesses with hundreds of jobs is unrealistic. Waseca needs to grow from within. The one clear way to do this is change the way we traditionally look at employment and encourage entrepreneurship. With financing, good ideas, a quality workforce and innovative thinking, entrepreneurs will help the rural economy reach its potential.

In addition to creating an environment that encourages entrepreneurship, Waseca County must focus on retaining its existing businesses. Most employment will come from the businesses that are already in Waseca. Communities can work with businesses by anticipating infrastructure needs, planning accordingly and providing for affordable housing.



Business Networks and the Chamber of Commerce

Given the challenges of rural businesses, they can benefit from working cooperatively. Non-competing same industry businesses can benefit from developing industry clusters. A geographical concentration of interconnected business can create competitive advantages by sharing information and minimizing production costs. Sharing training, information and technology are only three ideas in which small and medium-sized businesses can significantly benefit.

Diversify Where Possible

To offset the fluctuations of individual industries and individual businesses, Waseca County must maintain a diverse economic base to protect its prosperity.

Value-Added Agriculture and New Agriculture

Value-Added is the process of taking an input and adding labor to produce a final product. When there exists an opportunity to bring value-added jobs with livable wages, Waseca County should try to retain and add value to raw materials rather than export them. As agricultural crops become more specialized there will be additional opportunities to capitalize on value-added processing.

The consolidation of the agricultural industry has coincided with an increase in genetically modified crops. More specialized crop production may benefit Waseca County farmers. Greater diversification of agricultural products in the market may provide opportunities for supply, processing and production hubs for these new products. Some of the specialized crops, being new, may face less competitive pressure

Enhancing the Work Force

Enhancing the skills of the existing workforce in Waseca County will allow individuals to move into higher wage positions in industries in need of more skilled workers. A skilled workforce is also an integral part of attracting new business into an area. The County needs to be actively involved in the school to work programs and the current regional economic vitality plan that will be underway in 2003.

Providing a Solid Infrastructure

Built capital such as roads, schools, sewers and houses is an integral component in community economic development. The upkeep and enhancement of infrastructure is vital to assessing a community's attractiveness to business and people. Adequate housing supply, good roads and access to high-speed telecommunications play significant roles in keeping both the community and businesses within that community competitive. Ideally, Waseca County and the cities of Waseca, Janesville, Waldorf and New Richland will find strategies together to maximize their economic and community well being. A coordinated plan and effort on a county, regional and state level will be necessary for an economic strategy to reach its potential.

Housing

Household Characteristics

Household Numbers

Demographic analysis of household types enables the county to address shifts in demand for housing, schools and other facilities. For example, the behavior and needs of households with children are very different from those of households without. People living alone may need different facilities and services than those living with others.

An increase in the County's population naturally means an increase in the number of households located in Waseca County. Knowing the total number of people and households is important; these numbers allow an average County household size to be established. Since 1980, the average household size in Waseca County has decreased from 2.85 people to 2.56 people per household. This trend is important because it shows that more housing units will be needed in the future to accommodate the County's increasing population.

Persons Per Household

On a national and state level, the number of people per household has decreased over the past twenty or more years. Waseca County follows that pattern.



For the households consisting of two (2) or more persons, most are married couple family households. Although the single parent or single caretaker householders are relatively few in the County, the incidence of this type of household is growing on a regional, state and national level. Due to the rising number of non-traditional families and the rising number of aging persons needing non-medical assistance and care, the County can expect single head of households with two (2) or more persons to increase.

A commonly misunderstood U.S. Census Bureau term is that of a family and non-family households. A family is a group of two (2) or more people (one of whom is the householder) related by birth, marriage, or adoption and residing together. A non-family household consists of a householder living alone (a one-person household) or where the householder shares the home exclusively with people to whom he/she is not related.

Household Profiles: Households by Persons SF1-18: Households by Persons in Household and Household Type

Household Composite	Number
One person households:	
Male householder	779
Female Householder	992
Two or more person households:	
Family households:	
Married couple family	4,164
Other family:	
Male householder, no wife present:	272
Female householder, no husband present:	554
Nonfamily households:	
Male householder	199
Female householder	99
• Total	7,059

The total number of housing units in Waseca County increased 5.9 percent from 1990 to 2000. Occupancy status was essentially unchanged from 1990 to 2000 at 95 percent.

Family households make up nearly seventy-one percent (71%) of the total of households in the county. The greatest number of households has a householder in the thirty-five (35) to fifty-four (54) year old age group. Interestingly enough, this age group is considered to be the prime wage earners. In other words, careers peak within this age group and these persons tend to account for the largest wages. In addition this age group is most stable. The behavior in regard to permanent residence location for twenty (20) year olds is nearly impossible to predict. However, the forty-five (45) to fifty-four (54) year old age group tends to stay in their location (the same city or geographical location). To clarify stability through the typical, they may change housing types within the same geography.

Thirty percent of the total households in the Waseca County are non-family households. Twenty-five percent of the non-family households consist of one person. It is important to note that there are 518 non-family households where the householder is seventy-five (75) years of age and older. In contrast, there are 417 family households in the same age category. How we address the issue of elderly persons living alone and their service needs will certainly become important as the median age in the county continues to rise.

Household Profiles: Household by Age of Householder

SF1-21: Household by Age of Householder		
Householder	Households	Percent
Total:	7,059	100.00
Family households:	4,990	70.69
Householder 15 to 24 years	191	2.71
Householder 25 to 34 years	810	11.47
Householder 35 to 44 years	1,299	18.40
Householder 45 to 54 years	1,125	15.94
Householder 55 to 64 years	624	8.84
Householder 65 to 74 years	524	7.42
Householder 75 to 84 years	361	5.11
Householder 85 years and over	56	0.79
Nonfamily households:	2,069	29.31
Householder 15 to 24 years	204	2.89
Householder 25 to 34 years	283	4.01
Householder 35 to 44 years	305	4.32
Householder 45 to 54 years	274	3.88
Householder 55 to 64 years	228	3.23
Householder 65 to 74 years	257	3.64
Householder 75 to 84 years	338	4.79
Householder 85 years and over	180	2.55

2000 Census SF3: Waseca County

Household Profiles: Household-by-Household Size and Race

SF1-26: Household by Size and Race of Householder

	All Races	Percent
Total:	7,059	100.00
Family households:	4,990	70.69
2-person household	2,191	31.04
3-person household	1,002	14.19
4-person household	1,079	15.29
5-person household	497	7.04
6-person household	147	2.08
7-or-more person household	74	1.05
Nonfamily households:	2,069	29.31
1-person household	1,771	25.09
2-person household	246	3.48
3-person household	30	0.42
4-person household	17	0.24
5-person household	4	0.06
6-person household	1	0.01
7-or-more person household	0	0.00

2000 Census SF3: Waseca County

Household Profiles: Relationship by Household Type and Race

SF1-27: Relationship by Household Type and Race

Universe: Total Population

Total:	19,526
In households:	18,086
In family households:	15,639
Householder:	4,990
Male	4,114
Female	876
Spouse	4,164
Child:	5,796
Natural-born or adopted	5,458
Step	338
Grandchild	136
Brother or sister	111
Parent	57
Other relatives	90
Nonrelatives	295
In nonfamily households:	2,447
Male householder:	978
Living alone	779
Not living alone	199
Female householder:	1,091
Living alone	992
Not living alone	99
Nonrelatives	378
In group quarters:	1,440
Institutionalized population	1,386
Noninstitutionalized population	54
2000 Census SF3: Waseca County	

Occupancy of Housing

The total number of housing units in Waseca County increased 5.9 percent from 1990 to 2000. Occupancy status was essentially unchanged from 1990 to 2000 at 95 percent.

The percentage of homeowners versus renters increased slightly from 77.3 percent in 1990 to 80 percent in 2000. Conversely, the percentage of renters dropped slightly from 1990 to 2000.

SF1-H5: Vacancy Status	
Vacant Housing Units	
Total:	368
For rent	108
For sale only	72
Rented or sold, not occupied	20
For seasonal, recreational, or occasional use	79
For migrant workers	0
Other vacant	89
2000 Census: Waseca County	

SF1-H4: Occupied Housing Units		
Status	Units	Percent
Owned	5,654	80.1
Rented	1,405	19.9
Total	7,059	100.0

2000 Census: Waseca County

SF1-H3: Occupancy Status		
Status	Units	Percent
Occupied	7,059	95.0
Vacant	368	5.0
Total	7,427	100.0

2000 Census: Waseca County

Age and Condition of Housing

Almost thirty-three percent (33%) of the residential structures in Waseca County were constructed prior to 1940. The 2000 U. S. Census provides only a basic inventory of the condition of residential structures in all local units of government in the country in terms of the units having complete kitchen or bathroom facilities.



It also inventories the type of home heating systems, source of water and sewage disposal. Beyond this data, more detailed information from the U.S. Census on the actual conditions of the housing stock in the community is not available. Local information sources such as assessor records can help provide

county leaders with some useful information in a more detailed housing study. With the considerable amount of older housing existing in Waseca County, the County should continue to vigorously address housing stock issues.

Year Structure Built

Subject	Number	Percent
Total housing units	7,427	100.0
1999 to March 2000	82	1.1
1995 to 1998	322	4.3
1990 to 1994	403	5.4
1980 to 1989	689	9.3
1970 to 1979	1,435	19.3
1960 to 1969	774	10.4
1940 to 1959	1,304	17.6
1939 or earlier	2,418	32.6

2000 Census SF3: Waseca County

Household Tenure

At the time of the 2000 Census, twenty six percent (26%) of householders indicated that they had moved into their house between 1995 and 1998. Seventeen percent (17%) of the householders indicated that they had been living in their house for ten or fewer years. Only twenty six percent (26%) of the householders indicated that they had been living in their home for 30 or more years. These numbers certainly correspond with the surge in population during the mid-1990's and the current dominant household age group.

Year Householder Moved into Unit

Subject	Number	Percent
Occupied housing units	7,059	100.0
1999 to March 2000	1,041	14.7
1995 to 1998	1,802	25.5
1990 to 1994	1,208	17.1
1980 to 1989	1,187	16.8
1970 to 1979	857	12.1
1969 or earlier	964	13.7

2000 Census SF3: Waseca County

Housing Units Lacking Plumbing or Kitchen Facilities or Telephone Service

Subject	Number	Percent
Occupied housing units	7,059	100.0
Lacking complete plumbing facilities	21	0.3
Lacking complete kitchen facilities	12	0.2
No telephone service	73	1.0

2000 Census SF3: Waseca County

Type of House Heating Fuel Used

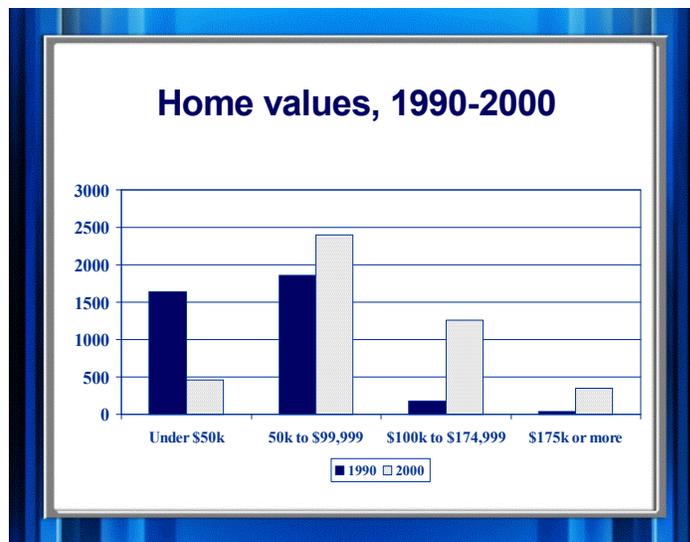
Subject	Number	Percent
Occupied housing units	7,059	100.0
Utility gas	4,386	62.1
Bottled, tank, or LP gas	1,439	20.4
Electricity	661	9.4
Fuel oil, kerosene, etc	394	5.6
Coal or coke	0	0.0
Wood	127	1.8
Solar energy	0	0.0
Other fuel	32	0.5
No fuel used	20	0.3

2000 Census SF3: Waseca County

Value of Owner Occupied Homes

Home values increased overall from 1990 to 2000. Median home value increased 64.5 percent from \$53,300 in 1990 to \$89,600 in 2000.

While the number of homes valued at \$50,000 or more increased from 1990 to 2000, specifically, homes in the upper values increased significantly.



In 1990, 5.8 percent of homes were valued at \$100,000 or more. In 2000, 36.0 percent of homes were valued at \$100,000 or more. In contrast, 44 percent of

homes were valued at less than \$50,000 in 1990 and in 2000 that number had dropped to 10.4 percent of homes.

In tax year 2002, the total estimated market value of residential homesteaded property in the Waseca County was \$478,222,900.00. The estimated market value of all residential properties in that year was \$514,067,400.00.

Value

Subject	Number	Percent
Specified owner-occupied units	4,467	100.0
Less than \$50,000	465	10.4
\$50,000 to \$99,999	2,396	53.6
\$100,000 to \$149,999	1,047	23.4
\$150,000 to \$199,999	373	8.4
\$200,000 to \$299,999	163	3.6
\$300,000 to \$499,999	21	0.5
\$500,000 to \$999,999	0	0.0
\$1,000,000 or more	2	0.0
Median (dollars)	87,700	X

Selected Monthly Owner Costs as a Percentage of Household Income in 1999

Subject	Number	Percent
Specified owner-occupied units	4,467	100.0
Less than 15.0 percent	1,885	42.2
15.0 to 19.9 percent	879	19.7
20.0 to 24.9 percent	697	15.6
25.0 to 29.9 percent	355	7.9
30.0 to 34.9 percent	260	5.8
35.0 percent or more	379	8.5
Not computed	12	0.3

Cost to Own Housing

Nearly seventy eight percent (78%) of those selected that were homeowners in Waseca County in 2000 reported spending less than twenty five percent (25%) of their household income in housing costs. Only fifteen percent (15%) reported spending more than the recommended thirty percent (30%) of household income towards housing.

Cost to Rent Housing

Those who were renting in Waseca County in 2000 were paying more than they did in 1990. Median gross rent was up 29.7 percent to \$402 in 2000, from 1990's \$310.

Gross Rent

Subject	Number	Percent
Specified renter-occupied units	1,348	100.0
Less than \$200	156	11.6
\$200 to \$299	184	13.6
\$300 to \$499	535	39.7
\$500 to \$749	354	26.3
\$750 to \$999	41	3.0
\$1,000 to \$1,499	4	0.3
\$1,500 or more	0	0.0
No cash rent	74	5.5
Median (dollars)	402.0	X

2000 Census SF3: Waseca County



Gross Rent as a Percentage of Household Income in 1999

Subject	Number	Percent
Specified renter-occupied units	1,348	100.0
Less than 15.0 percent	382	28.3
15.0 to 19.9 percent	234	17.4
20.0 to 24.9 percent	173	12.8
25.0 to 29.9 percent	156	11.6
30.0 to 34.9 percent	76	5.6
35.0 percent or more	243	18.0
Not computed	84	6.2

Household Projections

The number of households from a historic perspective and the annual housing trends combined with the number of persons per household are useful when projecting the number of future households in a community.

The information on the number of future households plays an important role in determining the amount of land needed for future land development in a community.



According to the State Demographer's Office, Waseca County, Region 9 and the State of Minnesota are expected to see an increase in the number of households over the next two decades. The rate of change for increased number of households is expected to be at a lower percentage than what was experienced during the 1970s, especially at the county and local levels.

Similar to population projections, the State Demographer's Office provides household projections down to the county level only. Each community should make local household projections in its planning process.

Household Projections

Household Type	1990*	1995	2000	2005	2010	2015	2020	1990-2020 % Change
Married-Couple Households	4,123	4,020	3,980	4,000	4,020	4,060	4,080	-1.04
Married Couples with Children	2,102	1,950	1,840	1,730	1,660	1,640	1,600	-23.88
Other Family Households	633	660	680	710	720	720	730	15.32
Other Families with Children	365	360	370	380	380	390	390	6.85
Male Householder	86	90	90	90	90	90	90	4.65
Female Householder	279	280	280	290	300	300	300	7.53
Nonfamily Households, Living Alone	1,636	1,680	1,740	1,800	1,840	1,870	1,930	17.97
Living Alone, 65+ Years Old	844	890	900	900	900	940	1,030	22.04
Other Nonfamily Households	257	270	300	310	310	290	280	8.95
TOTAL HOUSEHOLDS	6,649	6,640	6,710	6,810	6,890	6,950	7,010	5.43

* 1990 Census. MN Planning, 2003

Housing Goals and Policies



Goals:

- ✚ **Goal 1:** Provide for the orderly development of safe and efficient housing opportunities in Waseca County.
- ✚ **Goal 2:** Increase the ability of the private sector to provide housing to meet Waseca County's anticipated population and changing demographic trends.
- ✚ **Goal 3:** Provide affordable housing near employment centers.
- ✚ **Goal 4:** Provide the preponderance of housing in areas served by public infrastructure.

Policies:

- ✚ Waseca County will discourage development proposals promoting residential densities and design inconsistent with the Land Use Plan.
- ✚ Waseca County will establish zoning districts to provide for adequate and affordable housing near transportation and employment areas where soils are suitable for individual sewage treatment systems, community systems or where municipal sewer can be made available.
- ✚ Waseca County will encourage the use of the planned unit development, open space and cluster development techniques in appropriate areas of the County in order to provide for efficient use of the land and to protect agricultural and natural resource areas.

TRANSPORTATION

Introduction

Transportation is a vital component to Waseca County's growth in the next 20 years and beyond. "The Waseca County Community will have a transportation system that facilitates and strengthens its economic vitality and effectively moves people to and from required destinations."

The Waseca County Highway Department is responsible for the maintenance and construction of 383 miles of county state aid highways and county roads located within the county. In addition to the county road system, Waseca County is responsible to coordinate with Mn/DOT on the state highway system, along with the cities and numerous township roads. Coordination of the entire roadway system allows access from residential developments, commercial and industrial properties, along with regional access throughout the state of Minnesota and beyond, is crucial to the successful economic development of Waseca County in future years.

Waseca County population has seen an increase of about 8% from 1990 to 2000, which represented a total of 7,427 households in 2000. While the populations of the cities of Waseca and Janesville have increased by 14.6% and 7.71%, respectively, there has been a slight decrease in the populations of Waldorf and New Richland. The average daily traffic volumes throughout Waseca County have continued to increase approximately 1% per year, and the average household in 2000 represented approximately 2.56 people throughout Waseca County.

It is important to realize that traffic will continue to increase throughout Waseca County beyond the year of 2030 and that access by the transportation system to other regional centers, such as Mankato, Faribault, Rochester, Albert Lea, and Minneapolis/St. Paul, etc., is key to the economic development and sustainability of Waseca County. Promoting a transportation system, which allows for movement of goods, services and farm goods to markets in regional centers and providing good access to the grain ports of Winona and Shakopee is important. Coordination between the Minnesota Department of Transportation and the County for improvements of Trunk Highway 14, which provides vital east/west access to Mankato and more importantly, access to I-35, is very important in the development of Waseca County. Waseca County will need to continue to look at its existing roadway system and the correlation between the township and city road systems, to ensure that these roadway systems are developed properly and the necessary jurisdictional changes are made to improve safety and mobility, both for residents and business interests.

In order to accomplish this vision, Waseca County will need to establish achievable goals and objectives, and put policies in place to support them. The following sections of this Chapter outline the County's goals and objectives for the next 20 years, as well as the policies that will help achieve those goals.

Existing Transportation System

Existing Functional Classification System

The Functional Classification System is the creation of a roadway and street network, which collects and distributes traffic from neighborhood streets to collector roadways, to arterials, and ultimately to the Trunk Highway (principal arterial system). Roads are placed into categories based on the degree to which they provide access to adjacent land or provide mobility for through traffic. Ideally, roads are designed to perform a designated function and are located to best serve the type of travel needed.

The functional classification system used in Waseca County, as described below, conforms to the Mn/DOT Standards. The guide separates roadways into five street classifications including principal arterials, minor arterials, major collectors, minor collectors, and local streets. These classifications address the function of State, County, and local streets from a standpoint of safe and efficient movement of traffic through the County while providing satisfactory access for residents and businesses.

The following describes the functional classifications as they relate to Waseca County:

Principal Arterial roadways have the highest traffic volume and capacity. They are considered part of the State regional highway system. They are intended to connect metropolitan centers with one another and connect major business concentrations, important transportation terminals, and large institutional facilities. They are typically spaced 20 miles or more apart in agricultural and general rural areas. Interchanges on principal arterials are usually spaced at least one mile apart in urban areas and five miles in rural areas. In Waseca County, there is one principal arterial:

- Trunk Highway (TH) 14 – East-West Corridor connecting Waseca and Janesville to the regional centers of Mankato, Owatonna, and Rochester. TH 14 also provides critical access to I-35 for travel to Minneapolis/St. Paul and Albert Lea, etc.

Minor Arterial roadways connect important locations within the County with access points to the State Highway system and with other locations inside and outside the region. Minor arterial roadways and highways serve less concentrated traffic generating areas. Although the predominant function of minor arterial streets is the movement of through traffic, there is local traffic that

originates or is destined to points along specific corridors. There are four minor arterial roadways in Waseca County:

- TH 13 – North-South Corridor parallel to I-35 connecting the cities of New Richland and Waseca, and the Counties of Freeborn and Le Sueur
- TH 30 – East-West Corridor in Southern Waseca County through New Richland with connection to I-35 including Blue Earth and Steele Counties.
- TH 83 – Connector to TH 30 and Mankato in Southwestern Waseca County via Waldorf.
- CSAH 3 – North-South Corridor in Western Waseca County connecting TH 30, Waldorf, Janesville and TH 60.

Collector Streets (major and minor) provide direct service to residential areas, commercial and industrial areas. These streets are usually spaced at one-half mile intervals. This spacing allows for the collection of local traffic and the conveyance of that traffic to the higher-use streets. The collector roadways may also serve as local through routes. Parking and traffic controls are usually necessary to ensure safe and efficient through movements of moderate and low traffic volume. The roadways are usually included in the County's state aid system.

The following roadways are currently designated as major or minor collectors:

Major Collectors	Minor Collectors
▪ CSAH 5	▪ CSAH 24
▪ CSAH 17	▪ CSAH 35
▪ CSAH 2	▪ CSAH 10
▪ CSAH 13	▪ CSAH 22
▪ CSAH 4	▪ CSAH 18
▪ CSAH 7	▪ CSAH 14
▪ CSAH 9	▪ CSAH 33
▪ CSAH 21	▪ CSAH 26
▪ CSAH 24	▪ CSAH 5
▪ CSAH 29	▪ CSAH 16
▪ CSAH 11	▪ CR 55
▪ CSAH 1	▪ CSAH 20
▪ CSAH 8	▪ CSAH 23
▪ CSAH 15	▪ CSAH 15
▪ CR 62	▪ CSAH 12
▪ CR 67	▪ CSAH 28
▪ CR 57	▪ CSAH 4
▪ 375 th Avenue	

Local Streets are those not selected for inclusion in the minor arterial or collector street systems. They allow access to individual residences and

businesses and similar traffic destinations. Direct access to abutting land is essential for all traffic, which originates from or is destined to abutting land. Through traffic should be discouraged by using appropriate geometric designs.

Existing Jurisdictional Classification

Roadways are classified on the basis of which level of government owns or has jurisdiction over the road. The four levels of government involved in the County are the Minnesota Department of Transportation (Mn/DOT), Waseca County, Cities, and Townships. Mn/DOT maintains the Interstate and State Trunk Highway (TH) system. Waseca County maintains the County State Aid Highway (CSAH) and County Road (CR) system. The remaining streets and roadways located within the County are the responsibilities of individual Cities or Townships.

Existing Traffic Volumes

Average daily traffic volume (ADT) on major roadways in Waseca County for 1999 are shown in **Figure 5** for the entire County and **Figure 6** for the City of Waseca. The ADT volumes consist of the total traffic carrying on any particular roadway in a 24-hour period. The traffic volumes shown in these figures have been collected using mechanical counters by Mn/DOT, Waseca County, and the City of Waseca.

Access Policy Guidelines

Access to Waseca County's transportation system should be appropriately controlled in terms of driveway openings and street intersections. Access guidelines allow Waseca County to have discretion in negotiating authority regarding access decisions. For each type of County roadway, the spacing of

intersections and driveways should be limited according to type of facility, as well as the volume of traffic that is to intersect the County road. This would minimize the negative impact that intersecting roadways and driveways have on speed and level of service of the County roadways system.

The key challenge is adequately balancing access and mobility on the County highway system. Most roadways serve both functions to some degree, and this planned degree of access and mobility determines the road's functional classification. The four levels of functional classifications are:

Principal Arterial	Highest Mobility	No Direct Land Access
Minor Arterial	High Mobility	Limited Land Access
Collector Streets	Moderate Mobility	Some Land Access
Local Street	Low Mobility	Unrestricted Land Access
Reasonable		

In an efficient roadway network, these four types of roadways function together in a complementary fashion to serve the needs of the traveling public. Proper management of access, consistent with the roadway's function, can positively affect the existing roadway, and more importantly, its safety and mobility.

In addition to the impact access has on function of the roadway and its capacity, driveways also introduce conflicting traffic movements, which affect roadway safety. Right turns into and out of driveways have the least impact, acquiring only a speed change, a merge or diverge, and a turn, which may or may not cause encroachment on adjacent traffic lanes. Left turns cause more conflicts. They require a speed change, merge or diverge, and the crossing of opposing traffic.

Studies of crashes have indicated that a large percentage of the crashes on major streets involve driveway maneuvers. Therefore, it would appear to be in the County's best interest to have a policy, which accomplishes the following:

- ◆ Limits the number of driveways to each development to that which is actually needed to accommodate the safe movement of traffic. Access is preferred via public streets and township roads, which are adequately spaced.
- ◆ Provides adequate spacing between driveways to reduce the conflicts between adjacent driveways.
- ◆ Insures that each driveway is properly designed to minimize vehicle conflicts.

Waseca County will continue to manage access through its access guidelines.

Right-of-Way Guidelines

Building setbacks are necessary in areas designated for commercial, highway commercial, or industrial land use along principal and minor arterial routes. A 100-foot setback from the ROW line is recommended. This setback also aids in reducing noise impacts from highway traffic. Developed ROW and buildings are very expensive to acquire once established.

A County policy should be established which provides guidelines for right-of-way needs based on type of road, its rural or urban setting, and the level of traffic volume.

The design elements that should be considered in establishing right-of-way widths include:

- Basic roadway and lane traffic needs
- Vehicle parking needs
- Roadway turn-lane needs
- Traffic volume
- Safety needs
- Utility placement, drainage, and signage needs
- Bicycle accommodation needs
- Pedestrian accommodation needs
- Streetscape and landscaping needs

These guidelines are important for land acquisition on capital improvement projects and for the dedication of land along present or proposed future County roadway during platting. It is important that local Township roads and City streets are also reviewed if they are anticipated to serve as County roads in future.

Future Transportation Needs

Traffic Capacity

The ability of a street or highway to accommodate expected traffic volume is usually expressed in terms of Level of Service (LOS). Each roadway segment is ranked with an LOS of “A to F”; “A” representing a good or free traffic flow and “F” representing poor or forced traffic flow conditions. A brief description of LOS is provided in **Table 1**.

**TABLE 1
LEVEL OF SERVICE DESCRIPTIONS**

LEVEL OF SERVICE	DESCRIPTION
A	FREE FLOW: Speed controlled by driver's desires, speed limits, or physical roadway conditions.
B	STABLE FLOW: Operating speeds beginning to be restricted, little or no restriction on maneuverability from other vehicles.
C	STABLE FLOW: Speeds and maneuverability more restricted.
D	APPROACHING UNSTABLE FLOW: Tolerable speeds can be maintained but temporary restrictions to flow causes substantial drops in speed, little freedom to maneuver, comfort and convenience are low.
E	UNSTABLE FLOW: Volumes near capacity, speeds typically in neighborhood of 30 MPH, stoppages of momentary duration, ability to maneuver severely limited.
F	FORCED FLOW Low-operating speeds, volume below capacity, queues formed.

Source: Transportation Research Board (TRB) 2000 Highway Capacity Manual

As roadways begin to approach LOS D (i.e. at LOS C), transportation system planning should begin to determine the measures that could be enacted to minimize or eliminate pending delay and congestion. **Table 2** illustrates typical roadway capacities at LOS C and D as defined in the Transportation Research Board (TRB) 2000 Highway Capacity Manual. The LOS of a roadway can be lowered if appropriate access control at intersection spacing is not planned properly. The development of appropriate frontage and/or backage roads connecting properly spaced intersections can assist in maintaining capacity at LOS for the future traffic volumes as listed in **Table 2**.

**TABLE 2
TYPICAL ROADWAY CAPACITIES**

ROADWAY SECTIONS	RANGE OF AVERAGE DAILY TRAFFIC (ADT) CAPACITIES	
	LOS C	LOS D
2 LANE URBAN STREET WITH PARKING	5,000 to 7,000	6,000 to 8,000
2 LANE RURAL ROADS OR URBAN STREET WITHOUT PARKING	7,500 to 9,000	8,500 to 10,000
2 LANE URBAN STREET WITH TURN LANES	11,500 to 16,000	13,000 to 18,000
3 LANE URBAN STREET	11,500 to 16,000	13,000 to 18,000
4 LANE UNDIVIDED STREET	13,000 to 18,000	18,000 to 20,000
4 LANE DIVIDED STREET	20,000 to 25, 000	23,000 to 28,000
4 LANE DIVIDED STREET WITH TURN LANES	25,000 to 30,000	29,000 to 34,000

Source: Transportation Research Board (TRB) 2000 Highway Capacity Manual

Traffic Forecasts

Traffic forecasts are a method in which planned use, socioeconomic data (i.e., population and employment projections) and traffic volumes can be integrated to determine through the use of computer modeling, the extent of transportation needs now and in the future. Traffic forecasting for Waseca County was completed through the application of the current Mn/DOT State Aid approved traffic growth factor for Waseca County. This factor is established by the Mn/DOT based on historical traffic counts and anticipated future growth. The County's 20-year traffic growth factor is 1.3. The growth factor allows for approximately 1% annual growth in the traffic volumes.

Transportation Issues

There are several issues that do deserve further study within Waseca County. These issues have been identified as follows:

- **New Trunk Highway 14** – The construction of the new Trunk Highway 14 through Waseca County should include a review of the County and local road system to improve access and mobility in the area around the City of Waseca. Access to new Trunk Highway 14 is proposed via Trunk Highway 13 as a diamond interchange in the area of 345th Avenue. Access to the west of Trunk Highway 13 is then proposed via CSAH 2 as a diamond interchange. County Road 57 will be disconnected from access to Trunk Highway 14 and grade separations are being provided at CSAH 27 and CSAH 4.

Easterly of Trunk Highway 13 – Mn/DOT has proposed a grade separation at CSAH 5 and 178th Street. Access is then provided via an at-grade intersection at CSAH 33 in Steele County.

In further review of the access to the new Trunk Highway 14 on the easterly side of the City of Waseca, we are recommending that further study be given to the following:

- ◆ Providing an extended connection of CSAH 5, northerly from 345th Avenue across the DM&E Railroad to 5th Avenue Southeast with a continuation on Township Road 78 to Old Trunk Highway 14. The existing CSAH 5 corridor can be turned back to Woodville Township and the City of Waseca with the railroad crossing being closed at 143rd Street. Consideration should be given to the extension of 345th Avenue from the new CSAH 5 easterly to 160th Street as a fine road system, which could become part of the County State Aid Highway System.

- ◆ Analysis should be given to a possible access point of new Trunk Highway 14 and 160th Street as a folded diamond interchange, which would provide direct connection to the new CSAH 21 (extension of 345th Avenue and tied to the new CSAH 5 corridor for access to the City of Waseca). The proposed interchange access at 160th Street would be approximately two (2) miles east of the new Trunk Highway 13 interchange. Study of this access point should include discussions with Mn/DOT for possible inclusion along with funding scenarios for a future date.

- ◆ Consideration should be given to a connection of a new County State Aid Highway from CSAH 4 to CSAH 5 along 330th Avenue in Woodville Township. This corridor would provide for efficient east/west movement southerly of new Trunk Highway 14 and accommodate future development in this area.

- **Existing Trunk Highway 14** – Waseca County will need to review how old Trunk Highway 14 will function throughout Waseca County once the new Trunk Highway 14 is constructed. Waseca County will need to determine the jurisdiction of old Trunk Highway 14 along with what improvements will be required to maintain the functional compatibility with new Trunk Highway 14 and the existing transportation system. The new Trunk Highway 14 proposes access to Waseca via Trunk Highway 13 on the southerly side of the City. It seems that there will be continued traffic growth at the intersection of Trunk Highway 13 and old Trunk Highway 14 in the future. While traffic levels will decrease on old Trunk Highway 14 upon the opening of the new Trunk Highway 14, it is anticipated that at some point in the future, this intersection will continue to operate at a degraded LOS and still pose operational concerns. The successful operation of the existing Trunk Highway 14 corridor is dependent upon

how much traffic is reassigned to the new Trunk Highway 14 system and how much growth the City of Waseca continues to experience.

- **New CSAH 5** – Waseca County, along with the City of Waseca, should review the function of Township Road 78 north of Trunk Highway 14 to the existing CSAH 13 along with jurisdictional change of 143rd Street and 375th Avenue north of Clear Lake and east of Trunk Highway 13. CSAH 5 should be studied for continuation along Township Road 78 from south of existing Trunk Highway 14 north to CSAH 4 and continuing northwesterly along 143rd Street and 375th Avenue to the existing intersection of Trunk Highway 13 and CSAH 5. Existing CSAH 5, which currently follows 143rd Street and 5th Avenue Southeast, could be reverted to Township/City of Waseca’s jurisdiction.
- **Jurisdictional Changes – Table 5**, which is included in the Jurisdictional Classification System for the future, indicates numerous roadways, which should be considered to be switched from County State Aid Highway to County Road and/or Township and vice versa. A review of these roadway segments can play an important role in promoting the future transportation system throughout Waseca County. Consideration should be given to providing improved mobility for both north/south and east/west movements throughout Waseca County. While there may have been good reason to establish these roadways at a time during the development of Waseca County, it may make more sense for the future for some re-designation to occur. Any further analysis of the crash history on local roadway intersections throughout Waseca should be considered for operational and safety improvements. Consideration should be given for analysis in the areas of the Cities of Janesville, Waldorf, and New Richland, along with all higher volume intersections with the Trunk Highway and CSAH systems throughout the County of Waseca.

Functional Classification System

The Functional Classification System, as described previously, provides for collection and distribution of traffic from neighborhood streets to collector streets and to the metropolitan highway system. The Functional Classification System provides a network for efficient movement of people through the County. Roads are placed in categories based on the degree to which they provide access to adjacent land or provide mobility for through traffic.

Jurisdictional Classification System

The roadways in Waseca County are maintained by different governmental jurisdictions (i.e., Mn/DOT, and the Cities). As the County transportation system evolves, it is important that roadway jurisdictions be reviewed periodically to ensure that the appropriate level of government responsibility is evident. A number of roadway sections for potential jurisdiction/designation change in the future have been identified. The roadways that **should be considered** for jurisdictional/designation change in the future are indicated in **Table 5**.

**TABLE 5
JURISDICTIONAL / DESIGNATION CHANGES
WASECA COUNTY**

FROM	TO	LENGTH (MI.)	COMMENT
CSAH 31	CR 78	-3.5	
CSAH 11	CR 67	-1.5	
CSAH 28	CSAH 11	N.C. (1.5 mi.)	
CSAH 21	CR 79	-1.0	
CR 68	CSAH 33	+2.75	
CSAH 21	CSAH 33	N.C. (2.25)	
CSAH 21	CR 68	-2.75	
CR 79	CR 68	N.C. (2.25)	
CSAH 25	TWP	-2.5	
CR 64	CSAH 23	+4.0	
CR 57	CSAH 26	+1.75	CSAH 4 to CSAH 27
CR 57	CSAH 21	+1.3	CSAH 13 to New CSAH 26
330 Avenue	CSAH 21	+2.25 * Important	East/West Movement South of Bypass
CR 72	Township	N.C. (3.5)	
TWP (110 th Street)	CSAH 27	+2.75 (Key to TH 14 Bypass	
TH 14	CSAH/City?	?	
375 th Avenue	CSAH 5	+1.25	Bypass North/South Movement
143 rd Street	CSAH 5	+0.5	
CSAH 13	CSAH 5	N.C. (0.75)	
T-78	CSAH 5	+1.8	
No Road	CSAH 5	+1.0	New Railroad Crossing – Close Exit
No Road	CSAH 21	+1.1	South Frontage Road to New TH 14
CSAH 5	Woodville TWP / City of Waseca	-2.9	
160 th Street	County Road	+2	Access from new Trunk Highway 14 South to CSAH 16

Other

- Add interchange on new TH 14 expressway at 160th Street – discuss with Mn/DOT.
 - Extend 345th Avenue East one mile from CSAH 5 to 160th Street as CSAH 21.
- = Off CSAH System Mileage
 + = Add to CSAH System
 N.C. = No change in CSAH Mileage
 * = Important

Other Transportation Modes

Pedestrian Systems

Pedestrian and bicycle trails and sidewalks have an important role in providing for recreational and transportation needs within the County and specifically within the Cities of Waseca County. The public demand and function is likely to increase in the future throughout Waseca County.

Waseca County is currently working in partnership with the City of Waseca to develop a trail system around Clear Lake. In addition, there have been discussions of providing a connector from the City of Waseca north to the Sakatah Singing Hills State Trail, which extends as a multiple use facility for 39 miles from Mankato to Faribault.

A comprehensive trail system should be developed for Waseca County to provide connections to its park system, cities, and the local and state trail systems in the future years.

Transit System

Waseca County currently has no public transit system. Work should begin to look at establishing a public transit system to serve Waseca County. A transit system may benefit the population with an anticipated increase in residents' ages from 65 to 85+ years of age.

Aviation

The Waseca Airport currently provides a 4,000-foot paved and lighted runway and has 33 aircraft based on this facility. The Waseca Airport has a fixed based

operator which provides airframe and engine repair, along with flight instrumentation, rentals, and sales.

The Airport should be recognized as a tool to promote economic development and to provide access for industrial and commercial development in Waseca County.

Goals and Objectives

Goals and objectives provide direction and focus for the development of transportation policies that will serve the anticipated growth and projected travel needs of Waseca County residents and businesses over the next 20 years.

Goal 1 – Improve and manage the existing transportation system to maximize safety, cost, effectiveness and efficiency.

- Provide for roadway improvement and maintenance programs that promote general safety.
- Support City, Township, and County planning efforts that reduce the need for expanded transportation systems by combining or concentrating various land-use activities when and where feasible.
- Periodically review and update the County’s functional classification system and work with other agencies to develop a regional functional classification system for planning and funding purposes.
- Cooperate with affected units of government in identifying and implementing appropriate roadway jurisdictional changes.

- Strive to maintain appropriate spacing of intersecting local streets and driveways in accordance with the Waseca County Access Spacing Guidelines. Encourage Cities and Townships to include the County's access spacing guidelines in their land development regulations.
- Reserve roadway right-of-way based on transportation needs of the County.
- Preserve functional capacity of County roadways in order to carry traffic in a safe and efficient manner:
 - ◆ Allow direct access onto County roadways in conformation with the County's access spacing guidelines.
 - ◆ Assist Cities and Townships in planning for new local streets interrelated with County roadway system.
 - ◆ As opportunities arise, work with Cities to manage driveway access that is inconsistent with the County's access spacing guidelines.
 - ◆ Participate with Mn/DOT and other local jurisdictions in developing and implementing the recommendations of the TH 14 plan.

Goal 2 – Maintain a Transportation System that supports County goals and objectives.

- Provide access to recreational and tourism opportunities.
- Anticipate population, employment, and recreational growth to ensure necessary road system capacity.

- Ensure that the transportation system can support agricultural, recreational and industrial needs.
- Identify system improvements needed to accommodate development and improve service to growth areas.
- Ensure that the transportation system is sensitive to and enhances the natural environment.
- Promote use of alternative transportation modes.

Goal 3 – Expand alternative modes of transportation based on the needs of those who live, work, and travel in Waseca County.

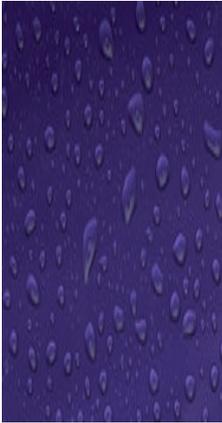
- Support the development of feasible public transit systems that will minimize the need for individual automobile travel.
- Support the provisions of pedestrian and bicycle facilities that are consistent with the safe and convenient circulation/recreational needs of pedestrians and bicyclists.
- Coordinate development of sidewalks and trails with Cities and Townships when opportunities arise.
- Cooperate with the regional transit agencies in efforts to create markets that introduce transit service on a local scale.

Goal 4 – Build cooperation and coordination among jurisdictions.

- Develop coordination strategies among agencies to facilitate implementation of the County Plan.

- Work with local jurisdictions to ensure that the County is given early notification of any development proposals involved in County highways.
- Provide integration with adjacent jurisdiction transportation systems, including access requirements and right-of-way preservation.
- Maintain productive relationships with local and regional agencies.

Natural Environment



Precipitation

Precipitation data is collected and distributed by the State Climatologist's Office, DNR Division of Waters. Two networks of observation stations are maintained by the National Weather Service (NWS) and a cooperative effort between the DNR and the Soil and Water Conservation Districts.

The Southern Experiment Station also provides data on precipitation to the NWS. Average annual precipitation reported from these sources show Waseca County receives approximately 30 inches annually. Nineteen inches (average) of those annual 30 inches fall during the growing season (May through September). In 1995, the growing season precipitation was 21.28 to 24.33 inches. This is one factor contributing to the successful agricultural industry in the County.

Geology and Water Resources

In Waseca County, ground water exists in unconsolidated glacial deposits and in the underlying bedrock. The bedrock aquifers are some of the highest yielding in the United States. The ground water supplies contained within the bedrock aquifers are adequate for present and foreseeable needs.

Ground water is obtained from four bedrock aquifer systems in Waseca County: Cedar Valley-Maquoketa-Galena, St. Peter-Prairie du Chien-Jordan, Franconia-Ironton-Galesville and the Mt. Simon-Hinckley. Confining layers of shale, dolomite and siltstone separated these bedrock aquifer systems. Ground and surface water are connected through the process of recharge and discharge.

Ground water can discharge through lakes and rivers and is evident by the flow even in periods of dry conditions.



Recharge occurs when surface water or precipitation percolates through the soil into the aquifers. About seventy-five percent of Waseca County is located in the LeSueur River Watershed. The remainder of the County is in the Cannon River Watershed. Discharge is occurring within these major river basins. The exact locations of discharge and recharge are not yet known. Estimates of annual recharge in the 39 major watersheds of

Minnesota were made by the MGS about 20 years ago in a study of ground water contributions to stream flow, low flow characteristics, and ground water hydrographs (now the State is divided into 81 major watersheds).

Unfortunately, there are no ongoing studies of recharge and discharge areas in the watersheds.

Soils

The soils of Waseca County have their origin relating to the deposition of glacial till. Glacial till is a mixture of sand, silt, clay, and cobbles. It is friable, calcareous (lime rich), and generally contains 23 to 26 percent clay, and 35 to 45 percent sand. In some areas of the County the glacial till was sorted by water, giving some soils a clayey or silty fine textured surface. For other soils, the clay and silt was washed away, leaving the soil to form in sands and gravels.

Waseca County is an area where the native vegetation was native prairie grasses or hardwood forest. Soils that formed under prairie vegetation have topsoil that is thick and dark colored (rich in organic matter). In contrast, forest influenced soils have a thin topsoil that is lower in organic matter, and a subsoil that has an accumulation of clay. To give an overview on the soils, references will be made to the general soils map from the 1965 soil survey report.



Soil association 1 is characterized by soils formed under hardwood forest vegetation. The landscape is characterized by flat top hills with a local relief of 20 to 50 feet. A clayey surface and subsoil of variable thickness (Kilkenny and Lerdal soils) with slow permeability, along with soils that are loamy throughout (Lester and LeSueur) and have moderate permeability, exist in close proximity in this association.

Soil association 2 and 5 are characterized by a low relief landscape and soils influenced by Glacial Lake Minnesota, and formed under prairie grasses. The soils (Marna and Guckeen) have a silty lacustrine mantle with slow permeability.

Soil association 3 is characterized by a gently rolling to nearly level landscape. The soils (Webster, Glencoe, and Nicollet) formed under prairie grasses are loamy. The surface soil is generally high in organic matter and friable, and permeability is moderate.

Soil association 4 is characterized by a gently rolling to rolling landscape where soils formed under prairie grasses. The soils (Clarion, Omsrud, Nicollet and Webster) are loamy, and have moderate permeability.

Soil association 6 is characterized by moderately rolling to rolling landscape with some flat top hills. The soils (Lester, LeSueur, and Cordova) formed under hardwood forests and are loamy. The permeabilities include moderate and moderately slow for the most part.

Soil association 7, in Otisco Township, has sandy and gravelly stratified soils with rapid and very rapid permeability (Wadena, Esterville, and Hawick) in close proximity to soils formed in loamy New Ulm till with moderate permeability.

Waterville Gas Storage

In 1966, CenterPoint Energy began operating an underground natural gas storage and production facility near Waterville in southern Minnesota. The facility is regulated by the Minnesota Department of Natural Resources, while the discharge of water at the facility is regulated by the Minnesota Pollution Control Agency.

The facility is located at the intersection of Waseca, Rice and LeSueur counties. The facility is used to store natural gas during the summer and withdraw gas during periods of high demand in the heating season. This is an aquifer storage site. The gas is stored about 800 to 900 feet underground under an inverted bowl shaped formation of non-porous rock. Below the non-porous rock is a natural aquifer. This formation is geologically referred to as the Mt Simon zone. The stored gas is held in place by the natural pressure (-300psi) of the water in the aquifer. In Waseca County there is approximately 3.5 square miles of area permitted for the storage of gas underground. Currently, gas is stored under portions of Blooming Grove Township sections 5, 6 and 7 and Iosco Township sections 1 and 12. The facility's compressor station is located in Blooming Grove Township section 6.

At the current time there is approximately 5,000,000 MCF (1,000 ft³) of base gas stored. This gas was injected during the initial construction of the storage field and is not used during seasonal operation. In addition the field holds 2,000,000 MCF of working gas; this is the gas that can be cycled each year for storage and production. CenterPoint Energy normally cycles between 1.0 BCF and 1.6 BCF on an annual bases depending on the weather and need for supplemental production.

The facility has a production capacity of approximately 50,000 MCF/Day. The gas is withdrawn from the storage field, compressed, dried and delivered to the Northern Natural Pipeline system at Medford, MN. Northern Natural delivers the gas to CenterPoint Energy's distribution system.

Surface Geology

Much of central and northeastern Waseca County has stagnant-ice deposits with pebbly loam with silt, sand and gravel in places. Wilton, western Freedom, and Byron Townships have till-plain deposits much like the stagnant-ice deposits.

The till-plain area has a more level topography without the flat round-topped hills in areas of stagnant-ice deposits. Northern Blooming Grove and Iosco Townships have ice-proximal deposits made up of mixed sediment (till, lacustrine

silt and clay, and sand). These three parent materials are deposits from ice or glaciation.

Both Glacial Lake and organic deposits are lake deposits. Western Alton, Freedom, and Vivian Townships have deposits left from Glacial Lake Minnesota with silty loam to clay loam over pebbly loam till. Throughout the county there are scattered organic deposits made up of peat and muck. Some areas are drained and some are not. The organic deposits are common in low areas of all three types of ice deposits.

The last category is stream deposits including alluvial, outwash, and till-mantled outwash deposits. Along the LeSueur River, Boot Creek, Iosco Creek, Bull Run Creek, Little Cobb and Cobb Rivers there are alluvial deposits of silt and clay with channels of coarse sand and gravel.

Townships have till-mantled outwash made up of sand and fine gravel covered with a thick (30 feet) layer of till. Most outwash deposits made up of sand gravel are in Otisco Township, north of the Little LeSueur River. There are a few other scattered areas in the County.

Original Vegetation

The natural vegetation of Waseca County was primarily upland prairie with prairie wetlands, areas of Maple and Basswood forest, and Oak forest and brushlands.

General Topographical Relief

The highest elevation, about 1,190 feet mean sea level, is located in the north-central portion of the County. The lowest elevation, about 1,000 feet mean sea level, is located on the west central edge of the County where the LeSueur River leaves Waseca County to the west.

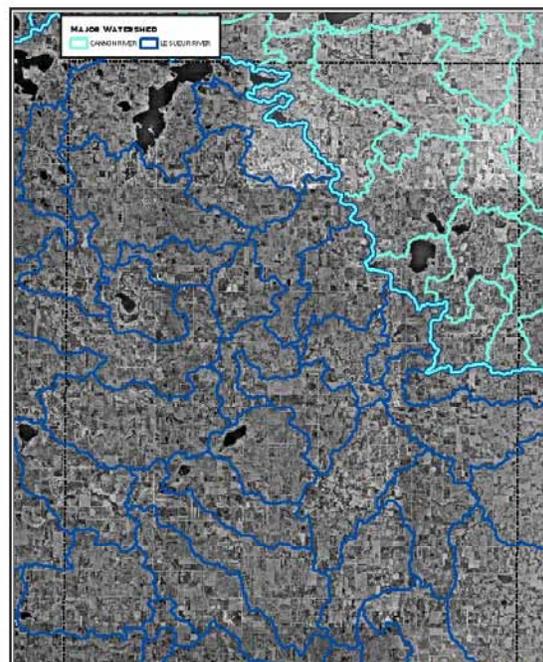


The maximum total relief is approximately 190

feet. The nature of the topography of Waseca County was created by continental glaciers that left surficial materials or drift.

LeSueur River Watershed

Recessional moraines exhibiting rolling steep hilly landscape relief ranging from 10 to 50 feet cover the northern part of Waseca County. In the northern moraine area, the hills are circular with flat tops, exhibiting a



rolling landscape. Lowlands separate the hills serving as drainage ways and contain lakes and other wetlands.

The southwestern part of the County contains a nearly level to gently rolling ground moraine that exhibits a local relief of 5 to 25 feet. The relief may be as much as 50 feet in central Waseca County where the LeSueur River has carved a valley into the nearly level uplands. Many nearly flat areas of the ground moraine are artificially drained to improve agricultural conditions. (Waseca County Surface Water Hydrology, Water Resources Center, MSU, 1993).

The Cannon River Watershed

Eastern parts of Waseca County are covered by recessional moraines that exhibit rolling steep hilly landscape relief ranging from 10 to 50 feet. The northeast corner of the County has primarily the circular flat top hills with some irregularly shaped hills east of the City of Waseca. (Waseca County Surface Water Hydrology, Water Resources Center, MSU, 1993).

Surface Water Quantity

Waseca County has over 8,200 acres of surface water area making up about 3 percent of the total area (1989 Land Use Data). There are 24 lakes, a major river with its tributaries, many drainage ditches, streams, and wetlands. Thirty-two water basins, 31 watercourses, and 25 wetlands have protected status. Waseca County has eleven lakes with established ordinary high water marks (OHW) for regulatory purposes. Any work done below the OHW is within the beds of public waters or wetlands and is therefore subject to the permit authority of the DNR. Two streams have protected flows: 1cfs for JD#5 and 12 cfs for the Little LeSueur River. There is no data available for high, mean and low flows on streams.

There are currently 23 DNR Division of Waters appropriation permits. Of the 23, 6 are for withdrawals from surface waters. These permitted withdrawals are used for golf course irrigation, crop irrigation, and washing sand and rock. There are no reported water use conflicts.

DNR Statewide Water Use Data System (SWUDS) data from 1988 lists eleven permits for withdrawals from surface waters in Waseca County. Of these, two are from lakes, one is from a stream, six are from sloughs, one from a ditch, and one from a gravel pit.

Ground Water Quantity

Waseca County generally does not have a ground water availability problem now. Ground water can be obtained from glacial deposits and four bedrock aquifer systems. They are the Cedar Valley-Maquoketa-Galena, St. Peter-Prairie due Chien-Jordan, Franconia-Ironton-Galesville and the Mt. Simon-Hinckley.

MN DNR water appropriation permits are required for withdrawals greater than 10,000 gallons per day, 1 million gallons per year, or for domestic use serving more than 25 people. There are 23 MN DNR water appropriation permits in Waseca County. Seventeen of the 23 permits are for ground water withdrawals. The purposes of the ground water permits include municipal waterworks, private waterworks and irrigating golf courses.

Waseca County has no USGS observation wells. There have been no well interference problems or water use conflicts reported involving appropriation permits in Waseca County.

Surface Water Quality

The Minnesota Pollution Control Agency has a set of classifications and standards for the protection of the quality and purity of the waters of the State. These classifications are used to determine the need for water quality management. The following are the classifications used: 1 = domestic consumption, 2 = aquatic life and recreation, 2A = trout waters, 2B = cool or warm water sport fish, 2Bd = subgroup of 2B also protected for drinking water, 2C = small streams with limited habitat for fish, 2D = wetlands, 3 = industrial consumption, 4 = agriculture and wildlife, 4C = wetlands protected (for erosion control, storm water detention, ground water recharge, low flow augmentation), 5 = aesthetic enjoyment and navigation, 6+ other uses, and 7 = limited resource value. The letter following the number indicates the range allowable for various substances and characteristics like pH, dissolve oxygen, turbidity, odor, etc. For a more detailed description of the classification criteria, see MPCA Minnesota Rules, Chapter 7050.

<u>Classified Waters</u>	<u>Township, Range, Section</u>	<u>Class</u>
Boot Creek (excluding 7 segment)	T.105, 106, R.22, 23	2C
Little Bull Run Creek	T.106, R.24, 25	2C
Big Cobb River	T.105, R.24	2C
Little Cobb River	T.105, 106, R.23, 24	2C
Iosco Creek	T.108, R.23	2C
Little LeSueur River	T.106, R.22	2C
Crane Creek	T.107, 108, R.20, 21, 22	2C
Boot Creek (New Richland)	T.105, R.22, S.6, 7	7
	T.105, R.23, S.12, 13, 24	
Unnamed Ditch (New Richland)	T.105, R.22, S.17, 18, 19	7
	T.105, R.23, S.24	7
Unnamed Ditch (Waldorf)	T.106, R.24, S.34	7
Unnamed Ditch (Waseca)	T.107, R.23, S.14, 23	7
Janesville County Ditch No.6	T.107, R.24, S.4, 8, 9,	
	17, 18	7
Waseca County Ditch No. 12	T.107, R.23, S.22, 23	7

2C designate limits fish and recreation while 7 represents a limited resource value water. No surface waters of Waseca County were rated as an outstanding resource value water. All other waters of Waseca County are classified as 2B, 3B, 4A, 4B, 5, and 6 class waters according to Minnesota Rules Chapter 7050.0470.

The MPCA completed assessments of stream and lake water quality for the 1994 MN 305 (b) Report to the Congress of the United States. Information for the reports was gathered from monitoring sites and from a 1991 survey of local resource managers. **The data from the monitoring was collected from October 1, 1993 to September 30, 1993.** All lakes and 99 percent of rivers in Minnesota are classified for fishable, swimmable use. Rivers are also classified for agricultural, navigational and industrial use. Each use has a specific set of water quality standards that must be maintained in order for the waterbody to support that particular use. If these standards are not met, the waterbody is said to be not supporting or partially supporting the use. Ten of the 15 lakes in Waseca County are rated as impaired (show definite signs of degradation) according to respondents to the Non-point Source Survey of local resource managers. Two lakes, Clear and St. Olaf, are rated as threatened (fully supporting, but threatened) from monitoring data. Reeds, Loon and Lake Elysian are rated as impaired (signs of degradation) from monitoring data.

<u>Lake ID</u>	<u>Name</u>	<u>Acres</u>	<u>Rated</u>	<u>Ecoregion</u>	<u>HUC</u>
81-0083	Buffalo	895	Impaired/Survey	W Corn Belt Plains	7020011
81-0014	Clear	611	Threat/Monitoring	W Corn Belt Plains	7040002
81-0018	Gaiter	85	Impaired/Survey	W Corn Belt Plains	7040002
81-0016	Goose	370	Impaired/Survey	W Corn Belt Plains	7040002
81-0092	Hoffman	31	Impaired/Survey	NC Hardwood Forests	7020011
81-0095	Elysian	2462	Impair/Monitoring	NC Hardwood Forests	7020011
81-0067	Lily	118	Impaired/Survey	NC Hardwood Forests	7040002
81-0015	Loon	119	Impaired/Monitoring	W Corn Belt Plains	7040002
81-0076	Mott	115	Impaired/Survey	W Corn Belt Plains	7020011
81-0055	Reeds	229	Impaired/Monitoring	NC Hardwood Forests	7020011
81-0022	Rice	412	Impaired/Survey	W Corn Belt Plains	7040002
81-0044	Silver	415	Impaired/Survey	W Corn Belt Plains	7020011
81-0003	St. Olaf	85	Threatened/Monitoring	W Corn Belt Plains	7020011
81-0058	Toners	127	Impaired/Survey	W Corn Belt Plains	7020011
81-0013	Watkins	148	Impaired/Survey	W Corn Belt Plains	7040002

6222 TOTAL ACRES

1996 sampling of Clear, Reeds, and St. Olaf Lakes by the MPCA:

<u>Water Quality</u>	<u>Clear</u>	<u>Reeds</u>	<u>St. Olaf</u>	<u>WCBP</u>	<u>NCHF</u>
Total Phosphorus (µg/L)	208	30	25	65-150	23-50
Chlorophyll (µg/L)	58	27	12	30-80	5-22
Secchi Disk Transparency (m)	0.8	1.3	2.6	0.5-1.0	1.5-3.2

WCBP (Western Corn Belt Plains) and NCHF (North Central Hardwood Forest) are ecoregions and ranges have been developed for each. Clear and St. Olaf

Lakes are in the WCBP and Reeds Lake is in the NCHF. By using the ecoregion ranges, the data for the lakes can be assessed. Both Reeds and St. Olaf Lakes exhibited good water quality and are considered reference lakes for their perspective ecoregions. Clear Lake did not have good water quality. Clear Lake has had better quality in the 1980's following extensive management activities.

The assessment of stream water quality evaluated the stream uses, the causes of contamination limiting uses, and possible sources of contamination. None of the reaches studied are in the Waseca County boundaries, but there are two sites in the LeSueur River watershed and four in the Cannon River watershed. Waseca County is drained by these two major watersheds and land use activities affect water quality downstream.

LeSueur River Watershed

5.2 miles of the LeSueur River (HUC-segment: 07020011-001), from the Blue Earth River to the Maple River, is listed as not supporting of aquatic life and overall use, partially supporting for swimming use, and fully supporting for agriculture/wildlife use.

Threatened aquatic life is attributed to low dissolved oxygen, nutrients, and suspended solids. Other causes of impaired water quality include ammonia/nitrogen, high/low pH, and fecal coliform. The source of contamination is listed as non-point sources. 2.5 miles of Providence Creek (JD 49) (HUC-segment: 07020011-202) near Amboy is listed as fully supporting for industrial, agriculture/wildlife, and limited resource uses. Overall, uses for aquatic life habitat and swimming are not considered attainable.

Cannon River Watershed

Just over 20 miles of the Cannon River (HUC: 0704002-001 & 002) (in two separate segments) were fully supporting for industrial and agriculture/wildlife use, partially supporting for overall and swimming use, and supporting but threatened for aquatic life. Causes are attributed to fecal coliform, nutrients, suspended solids and turbidity. 4.7 miles of the Straight River (HUC: 0704002-021) and 22.8 miles of the Prairie Creek (HUC: 0704002-033) were determined to be fully supporting for agriculture/wildlife and industrial use, supporting but threatened for aquatic life, and not supporting for overall and swimming use. Causes suggested are fecal coliform, nutrients and suspended solids coming from non-point sources.

LeSueur River Watershed

Three streams in Waseca County have fisheries classifications. The Little LeSueur River is a Class IV (rough fish-forage fish) stream. The Cobb River was surveyed in 1984. It was given an ecological classification of Class II (warm water gamefish) having channel catfish and northern pike present. The LeSueur River is Class II with smallmouth bass and channel catfish, but with poor adult

survival rates. Brown trout were stocked in the Little LeSueur River from 1969-1981. Though the program was popular, it was discontinued because stream temperature was too high for trout survival. The fisheries for all three rivers are limited by low summer flows, rapid water level fluctuations and bank erosion.

Iosco Creek Watershed was a primary project site for the DNR through the Blue Earth River Team (BERT). Iosco Creek is a principal tributary of Lake Elysian and the watershed contains over 13,000 acres of Janesville and Iosco Townships. The purpose of the project was to improve the environmental function of the watershed by restoring wetlands, establishing stream bank buffers, restoring access for spawning (northern pike), and reestablishing a representative community of native stream fishes. The Iosco Creek Watershed is a priority area for implementation in the county.

Ground Water Quality

The Environmental Health Department annually collects non-community water samples from six LeSueur/Waseca Board of Health licensed establishments serving transient communities. These samples are sent to the MDH testing laboratory.

The MPCA has three monitoring wells in Waseca County from which they compiled ground water data starting in 1983. Two wells were monitored once in 1993. This information is old and infrequent. MPCA has suggested Waseca County likely will be an area where the Groundwater Monitoring and Assessment Program will be expanding its baseline monitoring. The Centers for Disease Control (CDC) along with the MDH conducted a sampling of wells in the nine-state area to determine effects of the 1993 flooding on drinking water. Since Waseca County was not severely harmed by the flood, the results of the study were not conclusive for the County. One point of interest to come out of the CDC study was the detection of trace amounts of arsenic in a few Waseca County wells.

The Department of Natural Resources conducts periodic lake surveys. The following is a summary of available lake water monitoring data and lake management information:



**CANNON RIVER WATERSHED
LOON LAKE
C219281-0015-00
T.107N, R.22W. S.7, 18**

All 122 acres of Loon Lake is considered littoral (less than 15 feet in depth) with a maximum depth of 9 feet. The lake has

many tile and storm sewer inlets and outlets to Clear Lake. Loon Lake lies within the Cannon River Watershed. Located on the west side of the City of Waseca, the City owns a concrete public access structure on the south side of its 2 miles of shoreline. The initial survey was done in 1983. It was surveyed again in 1986 and 1993. Population assessments were done in 1995, 1992, 1991, 1990 and 1988.

Loon Lake has historically suffered from high levels of organic nutrients, frequent winterkills, and a large black bullhead population. The large Canadian goose population is a major contributor to the high levels of organic contaminants. The summary of data from the 1995 population assessment indicates Loon Lake has produced good angling for bluegill, crappie, and largemouth bass following the 1984 reclamation and installation of an aeration system. The 1995-96 winterkill set the fishery back. Test netting in the spring of 1996 showed few game fish and very high levels of bullhead. The lake was reclaimed in the fall of 1996 and will be restocked in the spring of 1997.

CLEAR LAKE
C254082-0014-00
T.107N, R.22W, S.8, 9, 16, 17



Clear Lake covers 652 acres within the Cannon River Watershed. It has a maximum depth of 34 feet. The City of Waseca lies to the west and south of the lake, with residential subdivisions to the north and east. There are four inlets and one outlet. The City of Waseca has two concrete public access structures. One is located on the north shore and the other is a plank ramp on the southeast shore. A public beach is on the north side and a paved walking path along the west shore of the lake. There are 4 miles of shoreline. The initial survey was in 1951 with re-surveys completed in 1998, 1993, 1986, and 1984. Population assessments have been done in 1996, 1995, 1994, 1992, 1990, 1985, 1983, 1982, and 1955. Creel surveys were conducted in 1994, 1993, and 1979.

In 1963, the City of Waseca started a series of activities to improve the water quality that included: installing a rough fish barrier, developing a northern pike spawning area, dye testing septic systems, chemical reclamation, stocking the fisheries and using a treatment marsh for nutrient removal.

On August 2, 1995, the water from surface to 28.5 feet (bottom depth) varied in temperature from 77 to 68 degrees F and the dissolved oxygen from 9.4 to 0.2 ppm. The watercolor reported to be green with 55% classified as littoral (less than 15 feet in depth). Bluegill and crappie from 1988 cohort are finally beginning to provide angling opportunities. Bluegills are dominated by 6.0 to 7.5-

inch fish, while black crappies are 7 to 8 inches. Largemouth bass are abundant, with many fish exceeding 12 inches and up to 6.5 lbs. Northern pike are found in moderate numbers, with fish up to 16 lbs. The primary management species are bluegill and crappie with secondary species of largemouth bass and northern pike.

TONERS LAKE

81-0058-00

T.108N, R.23W, S.16

The surface area of Toners Lake is 127 acres. It has a maximum depth of 3.5 feet. The lake has various inlets from field tiles and drainage ditches. It has one outlet. There was a test netting in 1982 that yielded a moderate black bullhead population and no carp.

Historically, management of Toners Lake has been minimal, but the DNR has used it as a walleye-rearing pond. Winterkills are frequent. The lake has no public access structures.

LESUEUR RIVER WATERSHED

LAKE ELYSIAN

B0430 81-0095-00

T.108N, R.24W, S.1, 2, 10, 15

Lake Elysian is 1,902 acres with a maximum depth of 13 feet within the LeSueur River Watershed. There are seven inlets and one outlet to the LeSueur River. The City of Elysian is to the north and the City of Janesville to the south. The lake has 13 miles of shoreline with two concrete public access structures. One is owned by the City of Janesville on the south and the other by the DNR on the north shore. Population surveys have been conducted in 1995, 1992, 1991 and 1985. Additional surveys were done in 1994, 1992, 1991 and 1985.

Lake Elysian has had ongoing problems with winterkills, large rough fish populations, poor water quality and a lack of submerged aquatic vegetation. The 1994 population assessment was completed in response to concerns expressed by local residents regarding possible significant downstream migration of walleye. The status of the fishery states walleye continue to thrive, with good numbers of 15 to 20 inch fish present. Northern pike may be increasing, with younger fish beginning to recruit. Bluegill and crappie are present in fair numbers and appear to be suppressed by the large bullhead and carp populations.

REEDS LAKE

81-0055-00

T.108N, R.23W, S.4, 5

Reeds Lake is 187.2 acres with a maximum depth of 58 feet and 2.77 miles of shoreline. Thirty-two percent is littoral. Reeds Lake is in the LeSueur River Watershed, has no inlets and drains into an unnamed creek leading to Lake Elysian. At the outlet to the creek, there is an eleven-foot concrete structure with a stop log dam owned by the state. A steel panel fish barrier exists on the dam. There is a County owned public access on the southwest shore. Surveys were conducted in 1989, 1984, 1979, 1966, 1951, and a creel survey in 1987.



In July of 1989, the temperature from the surface to a depth of 50 feet decreased from 80.6 to 45 degrees F and the dissolved oxygen was 8.6 to 1.6 ppm over the same depth. A secchi disc measurement was 4.8 feet and the color of the water described as a clear/green due to the moderate alga bloom. The status of the fishery notes an abundance of northern pike especially 17 to 22 inches long, small bluegills, black crappies, white crappie, walleye, yellow perch, largemouth bass, black bullhead, yellow bullhead, green sunfish and hybrid sunfish. The primary species for management is blue gill with largemouth bass and northern pike as secondary.

LILY LAKE

81-0067-00

T.108, 109N; R.23, 24W; S.6, 31; 1, 36

Lily Lake is 59.2 acres having a maximum depth of 23 feet and 1.25 miles of shoreline. Lily Lake is also in the LeSueur River Watershed and has a public access owned by the state on the north shore. There is no inlet or outlet. Surveys were done in 1994 and 1991. The following additional surveys were completed: panfish survey in 1992, a population assessment in 1981, game surveys in 1962 and 1959, and bass electrofishing in 1983.

Historically, Lily Lake has suffered from periodic winterkills and large black bullhead populations. In August of 1992, a secchi disc was seen at 7 feet and the color of the lake water described as green. The temperature and dissolved oxygen from the surface to 6.5 meters varied from 21.5 to 15 degrees C and 8.7 to .5 ppm. Because Lily Lake winterkills frequently, it is difficult to maintain good sport fishing. Eighty-seven percent of the area of the lake is less than 15 feet deep. Adult bluegill and black crappie were stocked in 1990 at 10 lbs/acre. The following species are found in Lily Lake: bluegill, black bullhead, yellow perch, yellow bullhead, northern pike, pumpkinseed and black crappie. Lily Lake's primary species for management is northern pike and the secondary is yellow perch.

ST. OLAF LAKE
81-0003-00
T.105N, R.22W, S. 13

St. Olaf Lake is 99 acres with a maximum depth of 33 feet and 1.6 miles of shoreline. Fifty-two percent of the lake is littoral. This lake is also in the LeSueur River watershed and has a public access on the north shore owned by the City of New Richland. St. Olaf Lake has two inlets and one outlet. There is a City beach park to the east of the access. Investigations and surveys have been done in 1996, 1990, 1989, 1984, 1981, 1979, 1970, 1954 and 1947.

The DNR annually operates a northern pike spawning area. The status of the fish populations from a 1990 survey show a decline in black crappie, an unchanged abundance of pumpkinseed, decrease in northern pike, increase in bluegill, yellow perch, and golden shiner. Small samples of white sucker, carp, sugar and pumpkinseed hybrid were found. The primary species of the management plan is bluegill and the secondary includes largemouth bass and northern pike.

There are no DNR trout lakes or streams in Waseca County. For more detailed information on the lakes of Waseca County and their fisheries, contact the Waterville Area Fisheries Headquarters, P.O. Box 86, Waterville, MN 56096.

Related Land Resources

Wetlands

About 7% of Waseca County's wetlands are in the National Wetlands Inventory.

There are seven DNR water basin drawdown permits in Waseca County. Both Goose Lake (81-16) and Buffalo Lake (81-83) have active permits. Moonan Marsh was lowered in 1996 and future drawdowns are scheduled according to the management plan. Future drawdowns are also possible on Rice Lake (81-



22), Watkins Lake (81-13), Silver Lake (81-44), and Lake Elysian (81-95).

From 1980 through 1988 there were 43 United States Corps of Engineers, section 404 permits affecting Waseca County. The COE completed 52 more reviews under section 404 from 1991 through 1996. About 22 of the

projects reviewed were authorized under existing nationwide permit. COE regulates placement of dredge and fill in all waters including wetlands. Some of these permits were for activities like: dredging, bridge and culvert replacement, beach and wildlife enhancement, and riprap.

The Waseca County SWCD Office administers the Wetland Conservation Act. Wetlands provide essential habitat for fish, waterfowl and other animals, and provide recreational opportunities for residents and visitors.

By acting as a shoreland buffer, wetlands protect against erosion from waves and water movement. Wetlands filter pollutants, nutrients, and sediments, thereby protecting the water quality of lakes and wells. Wetlands reduce flooding by storing runoff from heavy rains and snowmelt. They provide beautiful open spaces, an enhancement to quality of life, private property values, and tourism.



Flood Plains

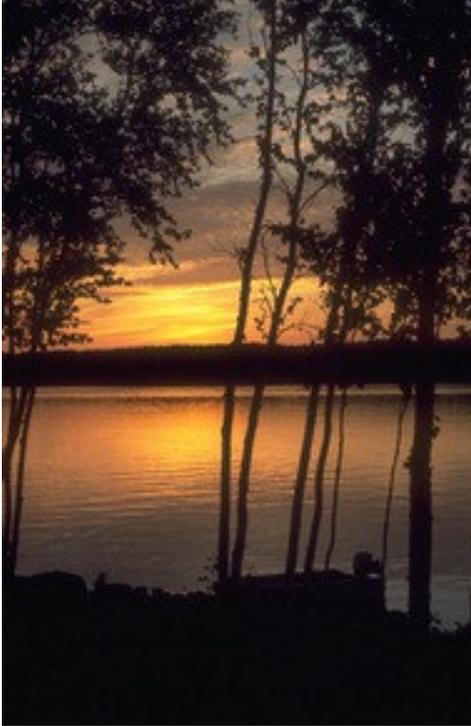
Waseca County participates in the National Flood Insurance Program (NFIP) and adopted a Floodplains Ordinance in 1985. The Floodplains Ordinance is administered through the County Planning and Zoning Office. Federal, State and insurance agencies require counties and municipalities to have floodplain regulations in areas where flooding is anticipated. Local governments participating in the regular phase of NFIP include Janesville, Waseca, Waldorf and New Richland. For information on the floodplains, contact the Waseca County Zoning Office or local municipal governments. The following waters and 100-year floodplains have been identified by inventoried FEMA maps for known and potential flood risk:

Boot Creek	Buffalo Lake	Bull Run Creek	Goose Lake
Knutsen Lake	Lake Elysian	L. Cobb River	L. LeSueur R.
LeSueur River	Mott Lake	Reeds Lake	Reese Lake
Rice Lake	Sibert Lake	Silver Lake	Toners Lake
Trenton Lake	Watkins Lake		

Forty-six percent of Waseca County's land has the potential for flooding. There are no average annual flood damage numbers recorded by the county or the state, but flood damages are reported by disaster through local and state emergency services. Waseca County received \$88,209 in federal funding to correct road problems caused by the 1993 flood. This money was used to repair washed out roads, replace culverts and rebuild embankments.

Shorelands

The Minnesota Shoreland Act of 1969, as amended in 1973 and 1989, provides for land use management in shoreland areas of Minnesota. Shoreland is defined in the statute as land within 1,000 feet of the ordinary high water level of all protected water basins and 300 feet from all protected watercourses. Waseca County has a shoreland ordinance that is part of the County Zoning Ordinance No. 75 administered through the County Planning and Zoning Office. City of Waseca also has a shoreland ordinance.



The purpose of the Shoreland Management Overlay District is to provide for the wise development of public water shorelands. This is done by establishing minimum lot size, width and water frontage for lots suitable as building sites; regulation of the placement of structures in relation to shorelands and roads; regulating the type and placement of sanitary and waste disposal facilities; and the regulation of shoreland grading and filling.

The State's classification system of lakes and streams is used to designate land use and compatible activities for basins (of 25 acres or more) and for streams with drainage areas of two square miles (or more). The public water classifications of Waseca County are consistent with the criteria found in Minnesota Regulations, Part 6120-3300 and Protected Waters Inventory Map for Waseca County.

The classifications are:

Natural Environment: those waters needing significant protection from development

Recreational Development: those waters that can support additional development and recreational use

General Development: those waters that will support high-density development and multiple uses and have significant existing development

Of the 32 protected water basins classified under the shoreland ordinance, 26 are natural environment, four are recreational development and two are general development.

Besides the protected water basins, there are 31 protected watercourses. Two are classified as agricultural rivers and 29 as tributary rivers.



Water-Based Recreation Lands

Water-based recreational activities generally fall into the following categories: swimming, boating, hunting, fishing, hiking and camping. There are 16 points of access to lakes (only eight are recommended by the DNR), eight swimming beaches, eight hunting areas, 22 city parks, 12 county parks, four archeological sites, two historical sites, three miles of biking trails, 8.5 miles of hiking trails, two miles of horseback riding trails, 99 miles of snowmobile trails and 4.8 miles of cross country skiing trails.

Waseca County has four county parks with facilities available to the public. One county park, Courthouse Park, has primitive camping sites.

Two additional private campgrounds have pools and RV hookups. Both private campgrounds are near lakes for water-based recreation, but the one county park with camping facilities is not near a lake. Instead, Courthouse Park is on the LeSueur River.

There are also three golf courses in Waseca County (Lakeside, Riverview, and Prairie Ridge). The heaviest water-based recreation occurs on Clear, Elysian and St. Olaf Lakes in the summer months for boating, fishing and swimming.

There is no state or federal designated wild and scenic rivers nor state designated canoe and boating routes in Waseca County. Both the Cannon and Straight Rivers in the Cannon River Watershed have state-designed canoe and boating routes, but neither extend into Waseca County. The main stem of the Cannon River is designated as a state wild and scenic river, but this area is not in the county.

Forested Lands

Before settlement, about two-thirds of the county was dominated by tall grass prairie. The other one-third was Oak groves and Oak savanna that occupied a band from the north central to the southeastern part of the county. Bottomland forests and Oak groves were associated with the principal



rivers, namely the LeSueur River in Waseca County. The northeastern region of the county was part of the Big Woods of the present. Frequent prairie fires helped maintain the species composition of the area. Waseca's forests have undergone dramatic changes in the decades since settlement. Only about 10 percent of the pre-settlement forest area exists today. Several surveys conducted by the U.S. Department of Agriculture Forest Service and the DNR show a general decline in forest area over time with some small gains in the last 20 years.

	Pre-settlement	1953	1962	1977	1990
Forest Area (acres)	*100,000	14,000	12,300	5,000	10,100
% Forested	35%	5.5%	4%	2%	3.7%

* Pre-settlement estimates from the Marshner map and includes forest and woodland areas.



Estimates of current forestland are compiled from U.S. Forest Service inventory and show about 3.7 percent of the land of Waseca County is forested. The composition of forests includes maple-basswood, oak, elm-ash-soft maple, and aspen in declining order of importance. USGS topographic maps and

aerial photographs show the LeSueur River Valley contains the greatest concentration of forests in the county. Ninety-five percent of the forests in the county are owned privately with the remaining 5 percent owned by the public sector.

Fish and Wildlife Habitat

There are currently eleven Wildlife Management Areas (WMA) in Waseca County. The DNR manages these areas by manipulating water levels and planting food plots.

The following is a list of Wildlife Management Areas and locations:

<u>WMA</u>	<u>Township</u>	<u>Section</u>	<u>Acquired Project Acres</u>	<u>Acres</u>
Findley	Woodville	3	348.3	264.1
Kanne	St. Mary	19	182.5	78.1
Lundquist	Alton	26	100.0	41.4

McGuire	Iosco	25	121.4	0.0
Moonan	Woodville	1	1,062.0	850.76
Mueller	Freedom	23	122.8	122.8
Pawek	Blooming Grove	24	80.0	78.0
Senn-Rich	Otisco	5	290.5	100.0
Teal	New Richland	13	75.2	75.2
Tom Cliff Jr. Mem.	Woodville	3	(53.0)	0.0
Waseca	Woodville	13	<u>251.3</u>	<u>251.3</u>
		Totals	2,634.00	1,862.66

The Tom Cliff Jr. Memorial WMA is posted closed to hunting for its 53 acres. Besides the WMA's, there is three Waseca County Lakes listed as Wildlife Management Lakes: Goose with 370 acres and Buffalo with 895 acres. Goose Lake is in Woodville Township and Buffalo Lake is in Alton Township. There is one existing statutory game refuge the Blooming Grove Game Refuge with 1,600 acres. This game refuge is closed to hunting. For more specific information on individual WMA's, contact the DNR.

The DNR also has two designated wildlife management lakes in Waseca County. Both Buffalo and Goose lakes are managed for waterfowl. Goose Lake is 458 acres and has a history of fluctuating water levels (dry to 5 feet deep). This lake is traditionally good for waterfowl in the early part of the hunting season and can be good for furbearers when the water level has been low. Buffalo Lake has been drawn down in the past but has had an average depth of 2.9 feet (1979). Buffalo Lake was a mecca for waterfowl and furbearers in the early part of the 20th century, but the habitat quality has greatly decreased because of land development.



Waseca County is in Region 9 for the Statewide Comprehensive Outdoor Recreation Plan (SCORP). The 1984 SCORP Handbook supported by public opinion reported a need for more hunting areas in Region 9.

Minnesota County Biological Survey

The Minnesota County Biological Survey (MCBS) is a systematic, county-by-county inventory of Minnesota's rare biological features. The survey is a critical planning tool for protecting quality habitats for future generations. Twenty-five counties have completed surveys and 16 more are to be done in the summer of 1996. Waseca County has not completed the survey.

Unique Features and Scenic Areas

Waseca County has several rare plant and animal species and a few are listed below:

Plants: *Asclepias sullivantii*, Sullivan's milkweed, *Cacalia plantaginea*, Tuberous Indian-plantain, *Cypripedium candidum*, Small white lady's slipper, *Eryngium yuccifolium*, Rattlesnake-master, *Valeriana edulis* spp. *Ciliata*, Valerian

Mammals: *Spilogale putorius*, Eastern spotted skunk

All of the prairie plants listed are considered significant and the list changes frequently. Many of these species are protected by the Federal Endangered Species Act of 1973.

The Minnesota County Biological Survey will locate occurrences of these species and the information will be available on maps for land use decision-making. The maps would show possible location of where the endangered or threatened species may exist. (The DNR does not allow publication of the exact locations of rare or endangered species in planning documents as comprehensive as a county water plan to protect the species from public collection or tampering.)

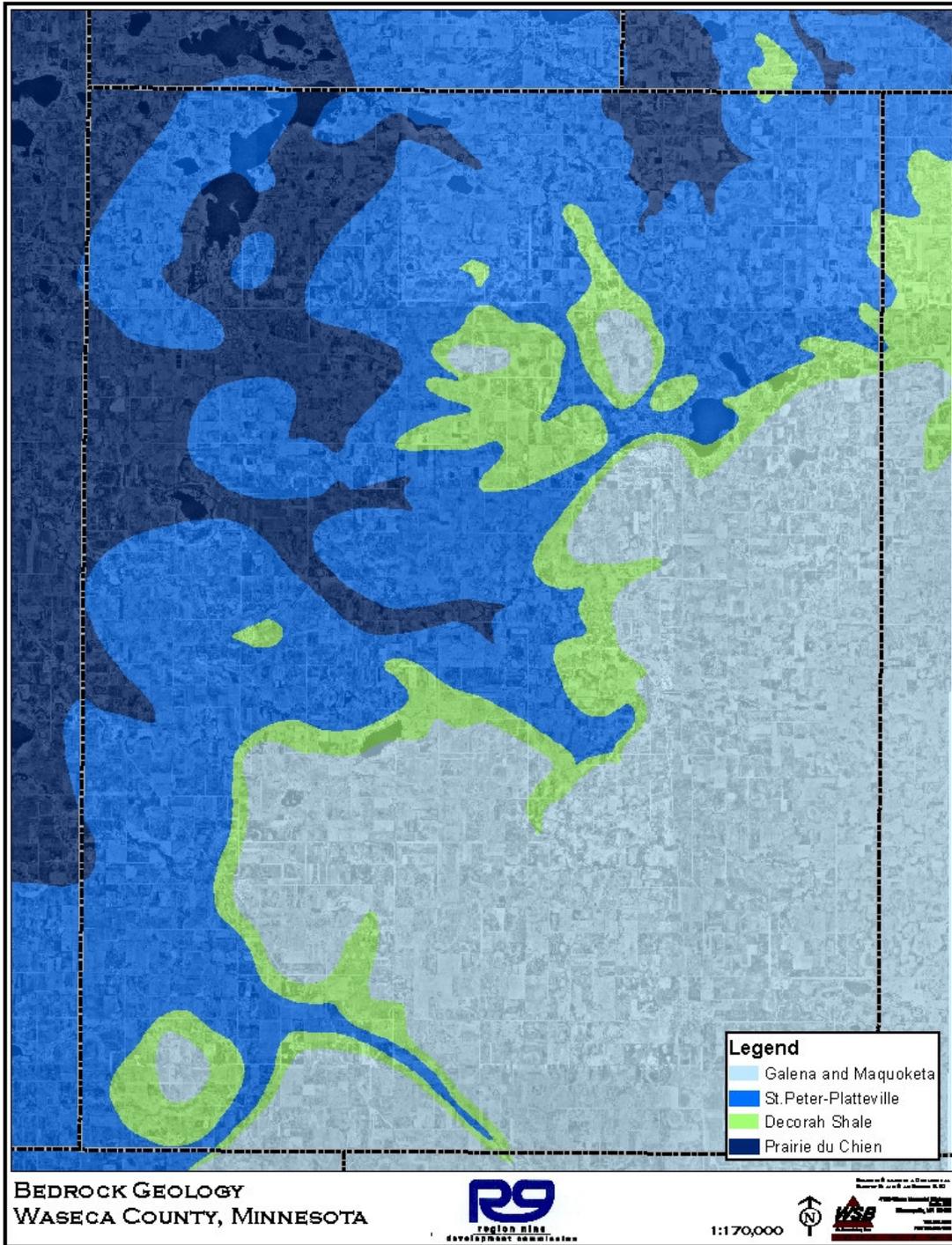
The Department of Natural Resources produced Public Recreation Information Maps (PRIM) with funds from the Legislature Commission on Minnesota Resources (LCMR).

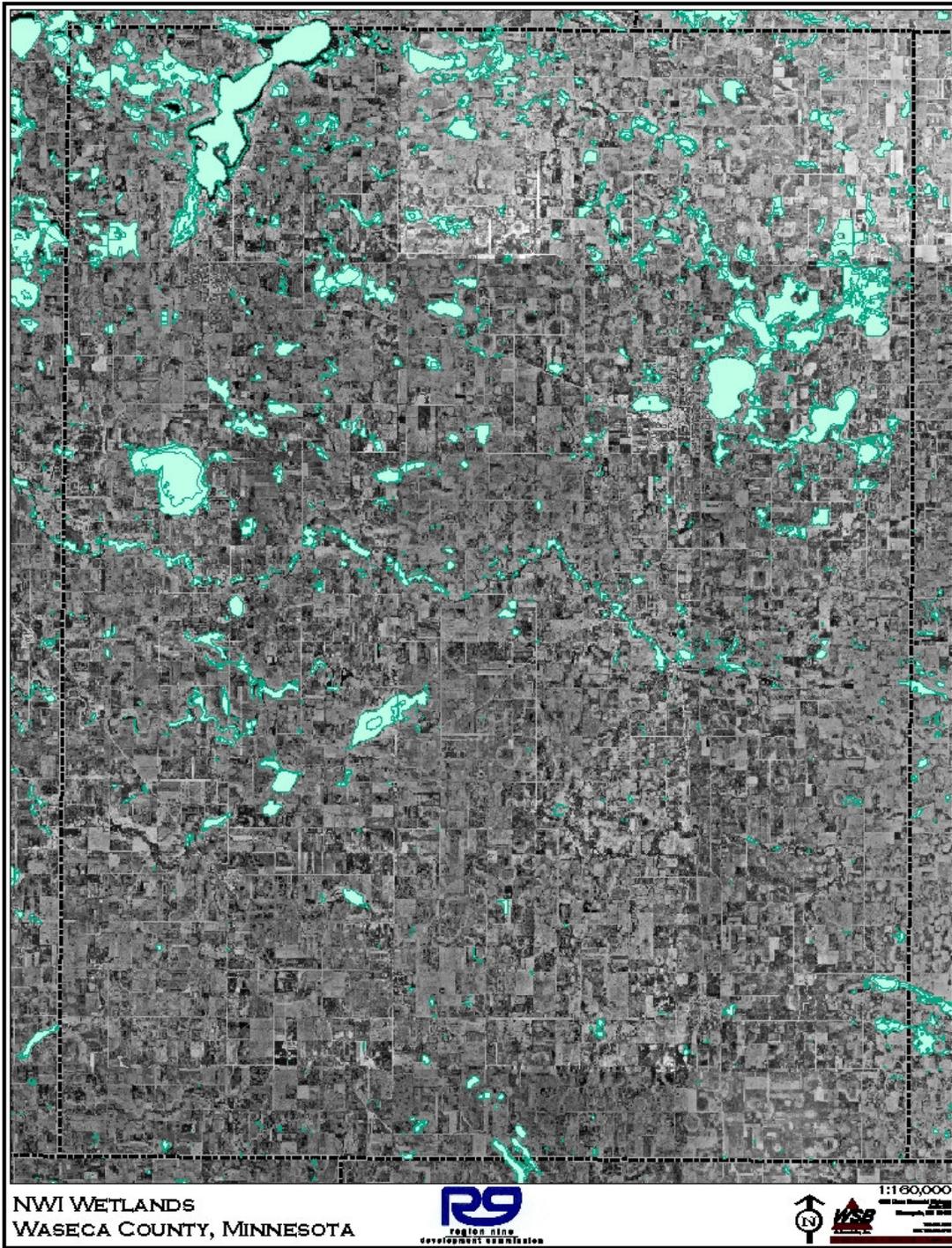
PRIM maps show federal, state and county recreational facilities such as: designated trout streams, water access sites, fishing piers, campgrounds, canoe and boating routes, historic sites, and rest areas.

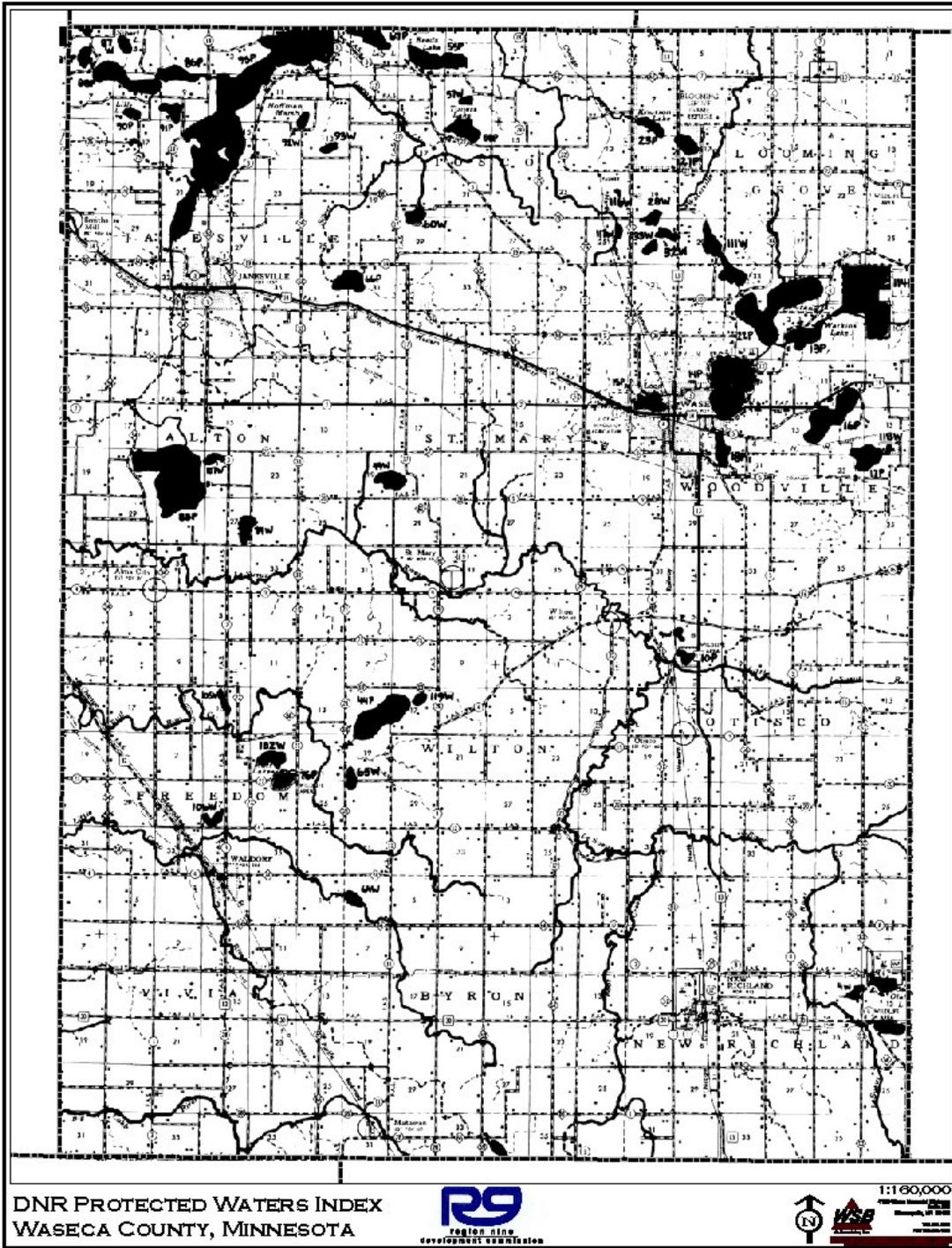
Northern Waseca County is in the Faribault Area map and the southern half is in the Albert Lea Area map. The Albert Lea Area map is not yet in publication (1996). The PRIM maps do not show the numerous private and local sites of attraction in the area, so the public should contact local chambers of commerce or the State Office of Tourism.

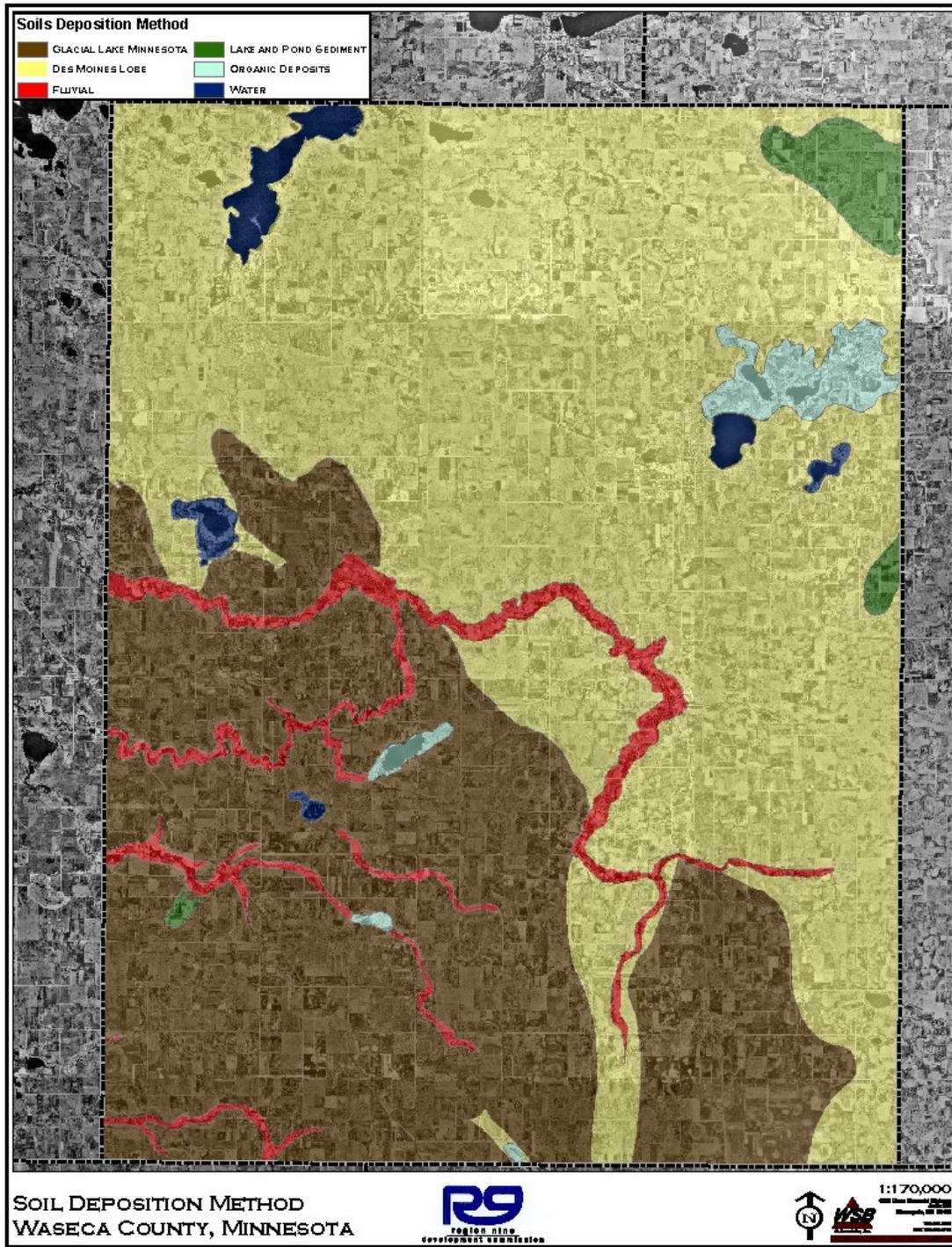
There are two historical sites designated by Farmamerica located in St. Mary Township and the Phelps farmhouse (1869). Farmamerica is open to the public select weekends in the early fall where life on a farm in the late 1800's to current day is reenacted. The Phelps farmhouse is not open to the public.

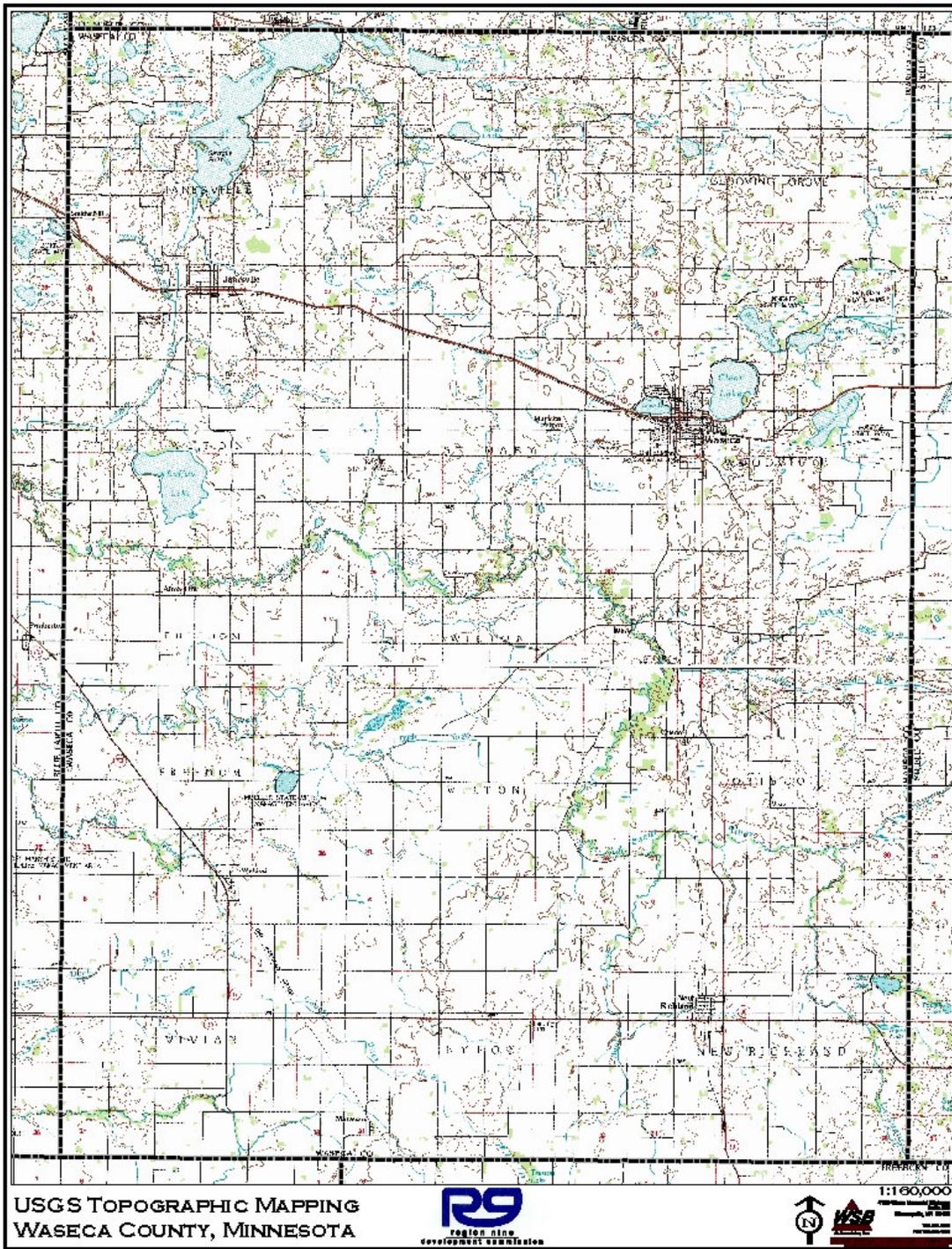
Four archaeological sites consisting of Native American burial mounds are located in Waseca County. Two sites are in Janesville Township and two are in Woodville Township.

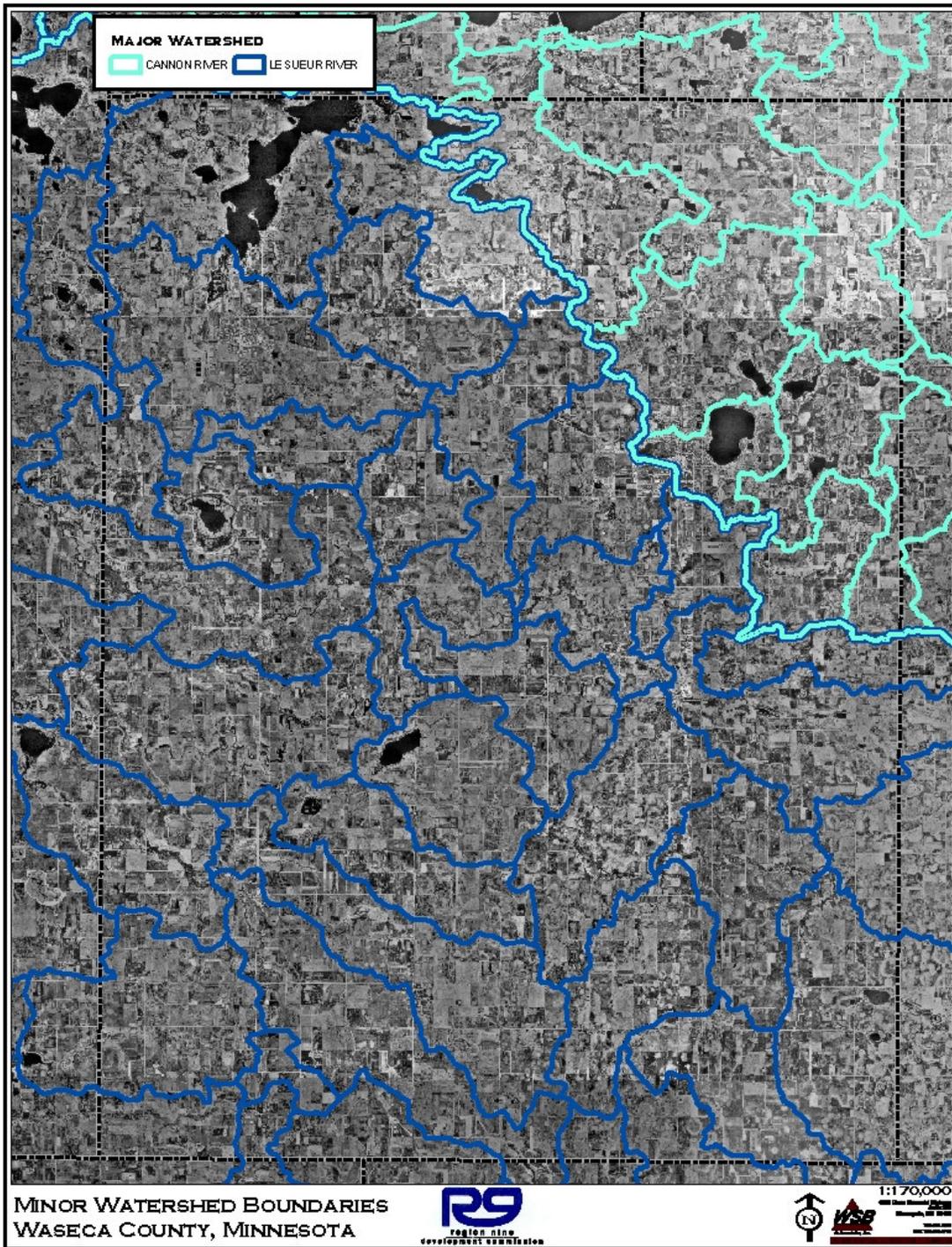










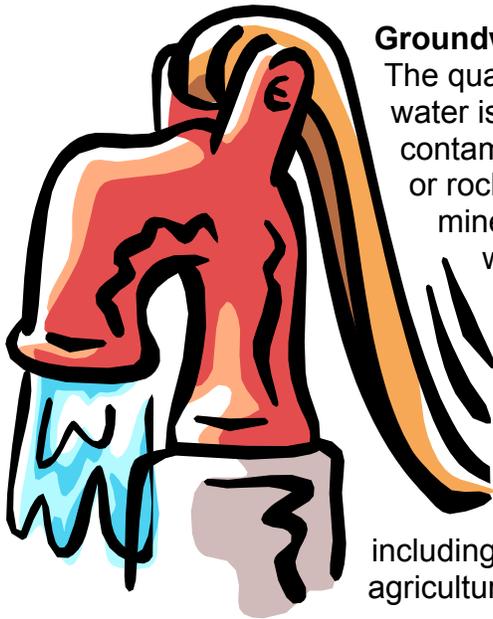


Potable Water, Wastewater

Potable Water

Individual, private wells provide the main source of drinking water in the County. This drinking water comes from groundwater derived from the aquifer.

In Waseca County, most farm and domestic wells draw water from glacial deposits and the uppermost bedrock aquifer that is locally available. In the southeastern half of the county, the upper bedrock aquifers consist predominantly of Galena limestone. The St. Peter sandstone and Prairie due Chien dolomite represent the uppermost bedrock aquifers in the northwest.



Groundwater

The quality of groundwater depends on the length of time water is in contact with geologic materials, whether any contaminants are present, and the type of soil, sediment, or rock through which the water is moving. Gases, minerals, and other chemicals may dissolve into the water as it moves underground.

The soils and surface geology are important factors that need to be identified in order to understand the occurrence and movement of groundwater and its relation to the aquifer in the county. Present soil features are an important consideration affecting land use decisions, including on-site sewage treatment systems design, agricultural and irrigation practices.

As discussed previously in this plan, soils in the county range from excessively well drained to very poorly drained. Excessively well-drained soils are areas where the sensitivity to the aquifer contamination is the highest. These soils are considered to have severe soil restrictions and to be unsuitable for on-site sewage systems, as they have poor filtering capacity in the soils, which contributes to increased groundwater contamination.

Evaluation of soil suitability as it relates to on-site sewage treatment systems is also dependent upon the level of the water table in the area; a high water table will accentuate the circumstances, whereas a lower water table could reduce the impact of less suitable soils on potential groundwater contamination.

Well Construction

A well is basically a hole in the ground, held open by a pipe (or casing) that extends to an aquifer. A pump draws water from the aquifer for distribution through the plumbing system. The depth to which wells are constructed is determined by factors such as 1) depth to groundwater, 2) the groundwater quality, and 3) the geologic conditions at the well site.

Wells can range in depth from 15 feet to over 1,000 feet. Wells that are drilled very near each other often have similar depths. However, the depth of wells in glacial deposits can vary greatly – even if they are located next door to each other.

Minnesota's rules governing well construction, which were first adopted in July 1974, are administered by the Minnesota Department of Health. The rules are based on the idea that a properly located and constructed well should provide safe drinking water and also protect the groundwater from contamination.

Well Location

A well must be located so that it meets the minimum required isolation distances indicated in Minnesota Rules, Chapter 4725.

These distances are between the well and utilities, buildings, and potential sources of contamination on the property or neighboring properties. Before construction begins, the best location on the property should be identified by considering the land elevation and the location of proposed or existing buildings, buried gas or power lines, and potential sources of contamination.

Ideally, the well should be at a higher elevation than contamination sources such as septic systems. New wells are not allowed to be constructed in basements, well pits or in buildings other than a well house.

The isolation distances are based on the ability of soil and bedrock to remove certain types of contaminants from the groundwater before they reach the well. A well may be more susceptible to contamination if its watertight casing extends less than 50 feet below the soil surface – or if it passes through less than 10 feet of a confining layer.

A confining layer is a layer of sediment or rock that slows or prevents the downward movement of water – a thick layer of clay is an example of a confining layer. These more vulnerable wells must be located at least twice as far as other wells from sources of contamination that leach contaminants to the soil, such as septic system drainfields.

Water Testing

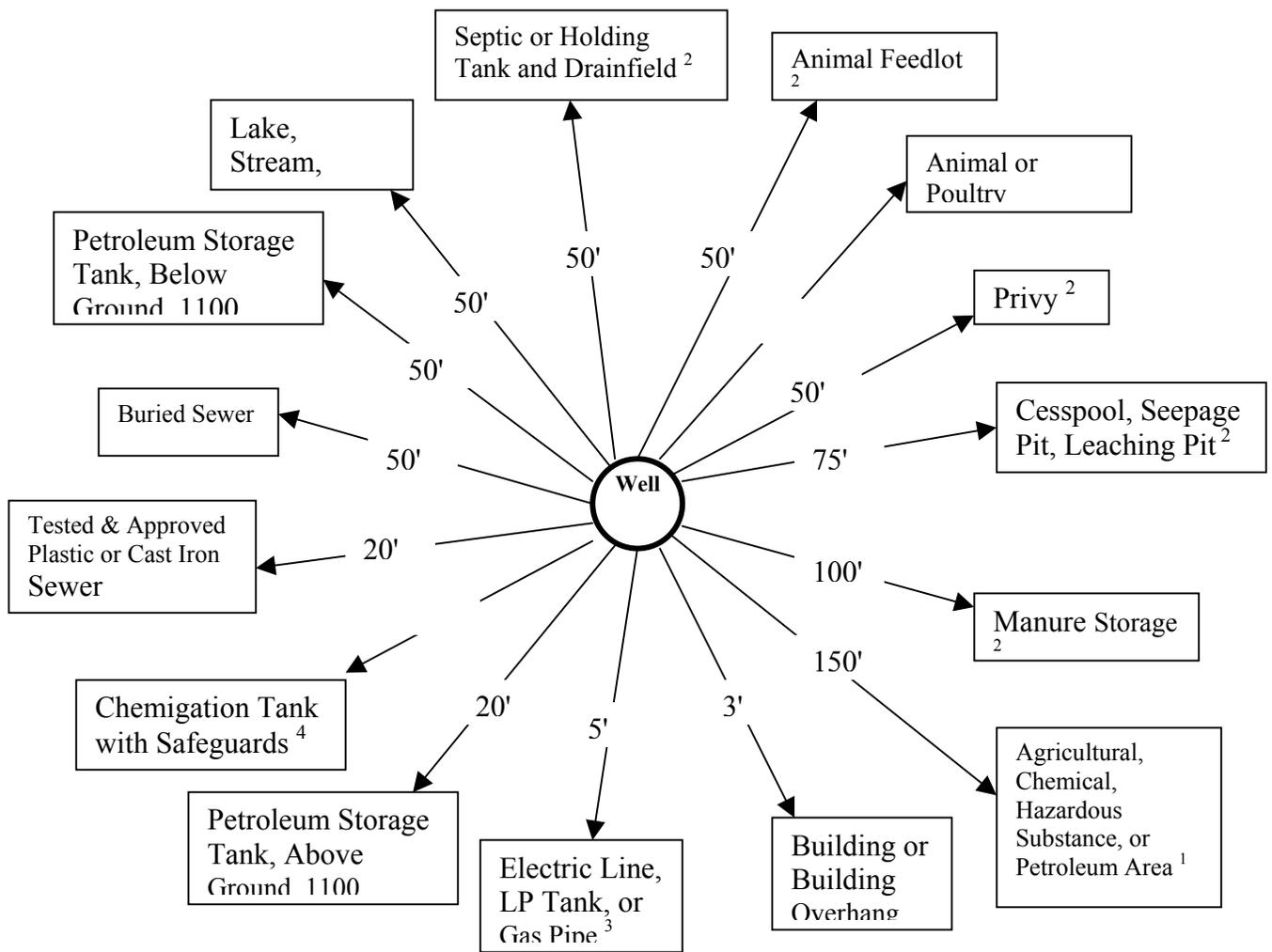
Surveyed Waseca County residents have cited preserving the purity of drinking water as an important goal. Since the County's drinking water is supplied by ground water, it is crucial to monitor its quality and educate the public about potential sources of contamination.

Waseca County has a delegation agreement with the Minnesota Department of Health to administer a well permitting and well inspection program. This program is carried out by the County Environmental Health Department. There were approximately 226 permitted wells drilled in Waseca County from 1990 through 1995. In the same period, about 300 wells were sealed. Many of the wells sealed were funded with state cost-share grants from BWSR. Waseca County has an inventory of 443 unsealed wells. The MDH's Groundwater Protection Act (MN Stat. Sec. 1031.235) requires the disclosure of all wells on property sold or transferred.

Of water samples tested, about 6% indicate coliform present, less than 4 percent with nitrate-nitrogen greater than 1ppm and less than 10 ppm, and only .4 percent with nitrate-nitrogen levels 10 ppm and greater. Any coliform present suggests the well needs disinfecting and retesting. Ground water with nitrate-nitrogen levels 10 ppm or greater exceed the Safe Drinking Water Act Standards and an alternate water source is necessary.



High nitrates are harmful and potentially fatal for infants developing methemoglobinemia or "blue-baby syndrome." Most of the wells with coliform contamination or nitrate-nitrogen are shallow (less than 50 feet) wells, tile or dug wells, or wells using a cistern or other out-dated water storage system.



1. If safeguards are provided the minimum distance may be shortened. Consult Minnesota Rules, Chapter 4725.
2. A water supply well which has less than 50 feet of watertight casing or which is not cased through a confining layer, such as a clay layer, at least 10 feet thick, must be located at least twice the indicated distance from the potential contaminant source.
3. A well between 5 and 10 feet of an electrical transmission line, gas pipe, or LP tank must be placarded and work must not be performed on the well unless the line is deenergized and grounded or shielded, and the gas pipe or LP tank does not contain flammable gas.
4. The 20-foot distance applies to only irrigation wells and chemigation tanks protected with safeguards meeting the requirements of the Minnesota Dept of Agriculture.

Source
 Well Owners Handbook
 MN Dept. of Health

Wastewater

Wastewater in Waseca County is exclusively being treated by individual sewage treatment systems (ISTS). An ISTS can provide a high degree of sewage treatment if properly designed, constructed and maintained. An ISTS treats sewage through a combination of biological, physical and chemical processes.

An ISTS typically consists of a septic tank and some type of a soil treatment system, such as a mound, trench or at-grade distribution system. The preferred type of soil treatment system depends on local soil and ground water conditions. Soil treatment is a proven method of controlling negative environmental effects of sewage.

However, planned sewer treatment facility capacities and sewer line extensions are crucial determinants of the region's ability to accommodate anticipated population and employment growth. And, above and beyond the growth projections, sewer capacity itself directly affects the extent, rate and location of growth and density and intensity of land use.

There are several reasons for the greater attractiveness to developers of sewered property. First, it can be developed far more intensively, and at higher densities, than unsewered property. Second, and corollary to the first, there is an economic component; the higher densities possible on sewered land allow developers to realize a much higher return on their investment.

However, when poorly planned, the provision of new sewer service to undeveloped areas can spur more development at a faster rate than may be desired. This often has unintended adverse impacts on other infrastructure networks, natural systems and the overall quality of life, including increased traffic generation, longer commutes, sprawling leap-frog development and depletion of open lands.

Will sewer capacity by neighboring communities be adequate to meet future growth needs? Chances are there will be a shortfall in capacity and this presents an option for the county: greater use of alternative systems for community sewerage.

This option only should be used to serve those new and existing developments of such type and intensity as are appropriate to the planning district and are consistent with the housing, economic development and natural resource protection goals of this plan.

The availability of wastewater land treatment technology shall not be considered a justification for overly intensive or premature development to encroach into predominantly rural areas. In addition, wastewater land treatment systems should be designed and located so as to maximize the open space or agricultural conservation benefits afforded by the application field.

Public Health and Land Use

Land-use planning and zoning have their roots in a desire to protect the public's health. As far back as 1926, the U.S. Supreme Court, in *Village of Euclid vs. Ambler Realty Co.*, cited public health protection as one of the basic responsibilities of local governments, thus giving them a legal mandate to restrict or control land-use decisions in a community.



In this chapter, we address some of these land-use decisions, discuss how they affect our health, and offer some suggestions on how public health professionals can collaborate with their colleagues in land-use planning and urban design to help ensure the health and quality of life of the people in their communities.

In recent years, public health organizations have emphasized that public health agencies and programs must not only control disease, but also work to prevent it. The World Health

Organization (WHO) has defined health as “a state of complete physical, mental, and social well-being, not just the absence of disease or infirmity.” The National Academy of Science’s Institute of Medicine has asserted that the public health system should “fulfill society’s interest in assuring conditions in which people can be healthy.” Environmental public health initiatives have historically been among the most effective approaches for assuring healthy living conditions.

In 1854, Dr. John Snow was credited with taking bold action when he suspected that contaminated water from a public pump on Broad Street was causing a deadly cholera outbreak in London. As a result of this discovery and Dr. Snow’s actions to remove the handle on the pump, the cholera outbreak ended. Much of the improvement in disease death rates in the last century can be attributed to basic environmental public health actions such as Dr. Snow’s that resulted in improved sanitation, cleaner air and water, injury prevention, and protection of citizens from dangers posed by industrial pollution in their communities.

Applying public health criteria to land-use and urban design decisions could substantially improve the health and quality of life of the American people. Therefore, in this chapter, we focus mainly on the following:



The relation of land-use decisions to air quality and respiratory health:

- ✚ The built environment (including all man-made physical components of human settlements such as buildings, streets, open spaces, and infrastructure) in terms of whether it promotes or discourages physical activity;
- ✚ The impact of urban design on the number of pedestrian injuries and deaths, particularly among children;
- ✚ The choices communities make about the built environment that improve mobility and the quality of life for their elderly and disabled residents; and
- ✚ The ways that various land-use decisions affect community water quality, sanitation, and the incidence of disease outbreaks.

A brief summary of other health impacts of urban sprawl is also included, with a final section that describes some steps that both the planning community and the public health community can take to ensure that public health concerns figure prominently in decisions made about the built environment.

Land-use and Its Effects on Air Quality and Respiratory Health

Sprawl — uncontrolled, poorly planned, low-density, and single-use community growth — depends on individual motor vehicles to flourish. As people move farther and farther from cities, they inevitably will travel longer distances to work, shop and play. From 1960 through 1990, the percentage of workers with jobs outside their counties of residence increased by 200 percent, while the proportion of workers commuting within their counties of residence declined. This trend contributed to an increase in the number of vehicle miles traveled in passenger cars — an increase of more than 250 percent (915 billion miles) from 1960 through 1997. This dependence on the automobile has only accelerated in recent years. For instance, according to the Sierra Club, the average American driver spends 443 hours each year behind the wheel — the equivalent of 55 nine-hour days or 11 workweeks.

The increase in driving time results in an increase in air pollution and in the incidence of respiratory diseases. Despite tremendous progress in reducing U.S. air pollution since the passage of the Clean Air Act almost 30 years ago, cars and trucks are still a major source of pollution, because even though individual cars pollute less, the number of cars and trucks and the number of miles people drive increases. According to a recent report completed by the Congressional Research Service, in 1997, on-road vehicles accounted for about 58 percent of carbon monoxide (CO) emissions in the United States, nearly 30 percent of nitrogen oxides (NO_x), roughly 27 percent of volatile organic compounds (VOCs), and about 9 percent of particulate



matter (PM). NO_x and VOCs contribute to ground-level ozone pollution, which is known as smog.

Research presented on the impact of automobiles and the transportation sector on human health at the Third Ministerial Conference on Environment and Health held in London in 1999 indicated the following: Motor vehicle traffic is the main source of ground-level urban



concentrations of air pollutants with recognized hazardous properties. In Northern Europe, this traffic contributes practically all CO, 75 percent of NO_x, and about 40 percent of the particulate matter (PM₁₀) concentrations. Approximately 36,000 to 129,000 adult deaths a year can be attributed to long-term exposure to air pollution generated by traffic in European cities.

Also presented at the conference were results from a recent study of the health effects of air pollutants from traffic in Austria, France and Switzerland, and their related costs. This study, using comparable methods, found that air pollution caused 6 percent of total mortality in the three countries, more than 40,000 deaths per year. About half of all mortality caused by air pollution was attributed to motorized traffic.

This corresponds to about twice the number of deaths due to traffic accidents in these countries. When researchers analyzed the data from the study they found that automobile-related pollution was responsible for more deaths than traffic accidents. The economic burden of the health impact of automobile pollution was estimated at more than EUR 27 billion (approximately \$23.8 billion in U.S. dollars).

Air pollution contributes to negative health outcomes such as asthma. The President's Task Force on Environmental Health Risks and Safety Risks to Children reports that: "Many common air pollutants, such as ozone, sulfur dioxide, and particulate matter are respiratory irritants and can exacerbate asthma. Air pollution may also act synergistically with other environmental factors to worsen asthma. For example, some evidence suggests that exposure to ozone can enhance a person's responsiveness to other inhaled allergens. Whether long term exposure to these pollutants can actually contribute to the development of asthma is not yet known."

For instance, in the summer of 1997, smog pollution was responsible for more than 6 million asthma attacks, 159,000 visits to emergency rooms for treatment of asthma attacks, and 53,000 asthma-related hospitalizations. Results of a study conducted by the Centers for Disease Control and Prevention (CDC) during the 1996 Olympic Games in Atlanta, at which time vehicular traffic was kept at artificially low levels by city authorities, showed that the peak daily ozone concentrations decreased 27.9 percent and peak weekday morning traffic counts dropped 22.5 percent; at the same time the number of asthma emergency medical events dropped by 41.6 percent. Non-asthma medical events did not drop during the same time period.

Results that support the Atlanta findings were found in a 1999 study of adverse health effects associated with ozone in the eastern United States. This study, conducted by ABT Associates, found that during a single ozone season, asthma attacks that were directly attributed to excessive ozone pollution numbered approximately 86,000 in Baltimore, 27,000 in Richmond, and 130,000 in Washington, D.C.

Children with asthma are believed to be particularly sensitive to air pollution. As many as 25 percent of children in America live in areas that regularly exceed the U.S. Environmental Protection Agency's (EPA) limits for ozone, more than 25 percent of which comes from auto emissions. Asthma rates among children in the United States more than doubled from 1980 through 1995, from 2.3 million to 5.5 million. Reducing children's exposure to environmental pollutants such as ozone will reduce the frequency and severity of their asthma attacks, will reduce their dependence on medication for asthma management, and will improve their overall lung function.

The significant contribution of automobile use to the overall air pollution problem seems clear. As the American population drives longer distances, these problems most likely only will worsen. Therefore, it seems imperative that new transportation options be developed and implemented in order to help alleviate the public health problems related to worsening air quality in the United States.



The Built Environment and Physical Activity

People who participate in regular physical activity reap substantial health benefits. According to the Surgeon General, the most significant are as follows:

- ✚ Lower mortality rates for both older and younger adults. Even moderate increases in activity are helpful;

- ✚ Lower risk for heart disease and stroke;
 - ✚ Prevention or delay of the onset of high blood pressure and actual lowering of blood pressure among people with hypertension;
 - ✚ Decreased risk for colon cancer;
 - ✚ Lowered risk for non-insulin dependent diabetes;
 - ✚ Weight loss and redistribution of body fat and increase in muscle mass;
 - ✚ Relief of the symptoms of depression and anxiety and improvement of mood; and
 - ✚ Apparent improvement in health-related quality of life by enhancing psychological well-being and by improving physical functioning among people with poor health.

The built environment presents both opportunities for and barriers to participation in physical activity, thereby influencing whether or not we exercise. According to a recent survey about research studies, one of the more important determinants of physical activity is a person's immediate environment (one's neighborhood).

One study examined environmental variables, such as the presence or absence of sidewalks, heavy traffic, hills, street lights, unattended dogs, enjoyable scenery, frequent observations of others exercising, and high levels of crime.

Positive environmental determinants of physical activity included enjoyable scenery (presence associated with more activity), whereas the greatest perceived barrier was the lack of a safe place to exercise. Research by CDC and others also has indicated that two of the main reasons given for not exercising are lack of structures or facilities (such as sidewalks and parks) and fears about safety. Overall, CDC reports that higher levels of perceived neighborhood safety are associated with higher levels of physical activity, with the differences being greatest among racial or ethnic minorities and people older than 65 years of age. Thus, people are more likely to use parks, paths, and bikeways when they are easy to get to and are safe and well maintained.



Conversely, people tend to get less exercise as outlying suburbs are further developed and the distances between malls, schools, and places of employment and residence increases. Many theories have attempted to explain the radical changes in the health status of American society, but one of the strongest theories is the significant decline in activity levels among Americans today compared with levels from 50 or 100 years ago. According to the U.S. Surgeon General's Report on Physical Activity in America, changes in our lifestyles and communities have played the greatest role in the decline of activity levels among Americans.

Millions of Americans drive to and from work and use a car to run almost every errand. In 1977, children aged 5 to 15 years walked or biked for 15.8 percent of all their trips; by 1995, children made only 9.9 percent of their trips by foot or bicycle — a 37 percent decline. Results of a study in South Carolina showed that students are four times more likely to walk to schools built before 1983 than to those built more recently. This would seem to point to some basic change in the “walk ability” of newer schools, possibly because these schools aren't as geographically close to the students they serve or because the school's property and its environs were designed to meet the needs of automobiles rather than the needs of pedestrians and bicyclists.

In addition, many different types of urban design encourage sedentary living habits. For example, parking lots are built as close as possible to final destinations in order to increase convenience and safety for motorists. While older cities and towns were planned and built based on the practical idea that stores and services should be within walking distance of residences, the design of most new residential areas reflects the supposition that people will drive to most destinations. Work, home, school and shopping are often separated by distances that not only discourage walking but also may necessitate the use of a car in order to reach any destination safely.

Sedentary living habits also contribute to poor health outcomes because they are a significant factor in the incidence of being overweight and obesity. From 1976 through 1994, the prevalence of U.S. adults who were overweight or obese rose from 47 percent to 56 percent, and by 1999 had risen to 61 percent. More disturbing, however, was the fact that the prevalence of overweight children and adolescents almost doubled during this same period. Some researchers have estimated that as many as 300,000 premature chronic disease deaths each year are due to obesity.

Major health care costs are also associated with the lack of physical activity and concomitant rises in obesity rates. In 1995, the direct health care costs of obesity were estimated at \$70 billion. Adding to that figure the estimated direct health care costs of physical inactivity (\$37 billion), we can conservatively attribute an overall health care burden of more than \$100 billion to obesity and low levels of physical activity in the United States each year.

Urban Design and Pedestrian and Bicyclist Safety

Another important issue is the impact of urban design on a number of injuries involving pedestrians and bicyclists. According to a recent report by the Surface Transportation Policy Project, in 1997 and 1998, 13 percent of all traffic fatalities — 10,696 people were pedestrians. Approximately 1,500 of these victims were children, while 22 percent were older than 65 years of age, even though only 13 percent of the population is elderly.

Although Americans make fewer than 6 percent of their trips on foot, 13 percent of all traffic fatalities occur among pedestrians; of the pedestrian deaths for which information is recorded, almost 60 percent occurred in places where no crosswalk was available. The report concluded that the most dangerous metropolitan areas for walkers were newer, sprawling, southern and western communities where transportation systems are more focused on the automobile at the expense of other transportation options.



There are several potentially modifiable environmental risk factors for injury to child pedestrians. Particularly strong associations were found between the risk for pedestrian injuries and high traffic volume. The risk for injury to children living in neighborhoods with the highest traffic volumes was 13 times that of children living in the least-busy areas. Restricting curb parking at specific crossing points may be an effective approach to reducing children's injuries in this arena.

Several regulatory and design strategies can be applied to make communities safer for both child and adult pedestrians and bicyclists. These strategies include (1) setting and enforcing lower speed limits in residential areas; (2) protecting pedestrians in crosswalks by using traffic signals; (3) instituting and enforcing

“traffic-calming” measures, such as traffic circles or speed bumps; (4) providing sidewalks and pedestrian walkways; (5) providing crossing guards and bike paths in areas where most pedestrians are children, (e.g., near schools, parks, and playgrounds) and (6) providing overpasses, underpasses or tunnels for pedestrians and bicyclists to bypass particularly dangerous roads and intersections. Inherent in each strategy is a refocusing of design goals toward pedestrians and, to a degree, away from motorists.

The Impact of Uncontrolled Growth on Water Quality

Uncontrolled growth and the loss of green space that often accompanies it can drastically affect both surface and groundwater quality. Between 1970 and 1990, central Puget Sound experienced a 38 percent increase in population, while the amount of land developed in that same period rose by 87 percent. This large-scale alteration of the natural landscape had profound effects on water resources and quality. Under natural conditions, rainfall is either intercepted by vegetation or percolates slowly through the soil to receiving waters. In urbanized areas, rainfall that once filtered slowly downhill becomes surface runoff. It flows across compacted earth and impervious man-made surfaces (e.g., asphalt, concrete, rooftops often covered with oil and other pollutants) and is channeled into storm drains.

This disruption of the natural hydrologic cycle causes stormwater runoff to reach streams and rivers more quickly than these water bodies can absorb it and also before it has had an adequate chance for filtration of pollutants through the ground (the flush of auto contaminants from malls and other large parking areas that runs into surface water bodies during the initial period of a heavy rainfall contributes significantly to the non-point source loading of pollutants entering streams). Undisturbed forested lands generally have the highest capacity to absorb water and subsequently the lowest rates of stormwater runoff. In contrast, impervious surfaces have the highest runoff rates. The volume of stormwater that washes off one-acre parking lots is about 16 times greater than that of a comparably sized meadow.

According to research published in 2001 by Johns Hopkins University, more than 50 percent of waterborne disease outbreaks between 1948 and 1994 were preceded by extreme rainfall events. Outbreaks due to surface water contamination were most strongly and most immediately related, while outbreaks due to groundwater contamination were most often delayed by a month or two.

These findings can, in some part, be attributed to the increase in impervious surfaces in areas of population concentration, thereby rendering the land incapable of absorbing and filtering the amount of water that falls during these extreme weather events. An additional threat to water quality posed by sprawling uncontrolled growth is the overuse of septic systems in low-density suburban and rural residential development that results in groundwater contamination. For instance, according to the 1990 United States Census, approximately 26 percent

of Florida's population was served by individual sewage treatment systems (ISTS). More than 1.8 million systems were estimated to be in use statewide. Since 1990, approximately 40,000 new systems have been installed each year. By comparison, in 1998, the Department of Health only issued 3,651 ISTS abandonment permits where establishments were being connected to a central sewer system. It is estimated that ISTS discharge 450 million gallons per day of partially treated, non-disinfected wastewater.

Professionals Can Make a Difference

The challenge facing those with responsibility for assuring the health and quality of life of Americans is clear. We must integrate our concepts of "public health issues" with "urban planning issues." Urban planners, engineers, and architects must begin to see that they have a critical role in public health. Similarly, public health professionals need to appreciate that the built environment influences public health as much as vaccines or water quality.

In a recently published list of the 10 most important public health challenges for the new century, CDC Director Jeffrey Koplan, MD, included at least four that are significantly linked to some of the land-use and urban design issues. They are: (1) integrating physical activity into our daily lives; (2) cleaning up and protecting the environment; (3) recognizing the contributions of mental health to overall health and well being; and (4) reducing the toll of violence in society.

Specific actions from the public health sector to address these issues might include the following:

Supporting research to determine the impact that changes in the built environment can have on public health, such as the addition of green space, sidewalks, and bike paths, and the reduction in impervious surfaces.

Planners, Architects, Engineers, and Public Health



Just as traffic studies are completed to ensure that road capacity can support new growth, so too should the public health community conduct research to determine the air quality impacts that increasing numbers of automobiles in use in a community have on its air quality. Just as engineers use data that have been collected over time in other places to determine the diameter of sewer pipe needed to serve a section of a community, so too should public health officials use data on pedestrian injury patterns to create new urban design techniques.

Participating in local planning processes, such as comprehensive planning meetings, zoning hearings, and urban planning workshops known as charrettes

(intense, community-based, local planning and problem-solving workshops where local leaders and decision-makers develop consensus vision of the desired future of their community) is vital. Just as the developers, the neighbors, the school board, and the planners have their say in land-use decisions, so too should physicians and public health officials have the opportunity to provide input. It is their role to ask the questions such as “Why aren’t there any sidewalks in a new subdivision?” or “What is the air quality impact that is expected from a widening of the local highway?” and to press for evidence to substantiate any claims upon which any new growth and development are based.

Planners and other land-use professionals need to work together to provide them with the strong public health arguments they need to support “smart-growth” designs and initiatives. The public health and medical community must play an active role in the land-use and development decisions made in their community. It is their role to make policy makers and planners aware of the health impacts of the decisions they make. It is also critical that when they find that no data or analyses exist to answer the questions that they raise, they push researchers and policy makers to collect the information they need and conduct the research to ensure that all of the impacts of various land-use decisions are known before irrevocable actions are taken. Just as there is an expanded role for health care workers and public health professionals in making land-use planning decisions, so too is there an expanded role for urban designers and planners to begin to view themselves as a previously untapped force for public health. It is time for the planning community to remember its roots in public health protection — to remember that in the beginning many, if not most, land-use decisions were made to separate people from land-uses and industrial processes that posed a threat to their health or safety.

To reclaim their role as public health protectors, the planners and urban designers might take the following actions:

-  Balancing the potential public health consequences of their choices with other considerations.

“Smart growth” doesn’t mean “no growth,” but it does mean planned, controlled growth. The health impacts of land-use decisions need to receive at least as much consideration in development decision-making processes as economic impacts.

-  Designing communities around people rather than around automobiles. Reviving the concept that the end result of urban design should be improved quality-of-life and that where people live as it relates to where they work, shop or go to school can have a dramatic impact on their health and quality of life.



Changing existing zoning codes to encourage multiuse land-development patterns that make it possible to work, shop and go to school within walking distance of people's homes.

The influence of last century's community designers on our communities and on the behavior choices that we make every day was seriously underestimated. The obesity epidemic in the United States was never imagined by those who made it difficult, if not impossible, to walk to the grocery store and to school and who also made it far easier to drive to the shopping mall or the movie theater across town than to walk to such neighborhood establishments.



Adopting building codes to encourage building and site design that is accessible to people who have various degrees of mobility.

It is a clear, if largely unrealized fact that the more each member of society is able to participate and contribute, the better off society is. (Not only would those who were previously hampered by the inaccessibility feel better, but they also need less help to participate in society and be more able to contribute to their communities.)

All of this could be possible if appropriate design choices are made which, in most cases, would not cost appreciably more or negatively affect others. This includes encouraging green space development promotes community, reduces violence, and improves mental health. The mental and physical health benefits of community parks and other green spaces have been demonstrated. The question that remains is whether communities want to spend money up front to create an environment that prevents violence and increases psychological well-being or whether they want to spend money after the fact to address the violence and stress which results from communities without parks and communal areas.

Public health professionals and those in architecture, urban design, and planning have much in common. The challenge now is for each profession to learn from each other how best to address the needs of the communities they serve, to determine what answers each has that the other needs, to create a common language and to initiate the opportunities to use it.

To meet these challenges, we need a broader view of those factors influencing public health and a much better understanding of the interdisciplinary nature of the problem. We need a collaborative and concerted effort to influence both public health policy and other public policy on these issues in order for positive changes to take place that will improve the health and quality of life for all citizens.

IMPLEMENTATION

To achieve the goals and objectives set forth in this planning process will require a number of actions related to this plan and its multiple recommendations.

The following section includes a number of general policies for actions and the development of other plans, policies and activities or products required to meet the goals of the planning process.

The adoption of this plan and accompanying recommendations should not be considered the end of the process but instead is a symbol of commitment to keep the process intact and continually maintain the process and products in response to the changing needs of the County and its citizens.

Planning Policies

-  Adopt the accompanying land use plan and its recommendations recognizing the goals, policies and strategy statements as overriding planning guidelines.
-  Partner and work with individual cities in the development of land use plans for their communities.
-  Comprehensively amend the Waseca County Zoning Ordinance to reflect the goals and strategies of this plan.
-  Adopt and implement a Highway 14 Overlay District Ordinance.
-  Authorize the development and publication of other plan related documents including a shoreland development guide, property development guide, planning process summary map, summary booklets and a long range educational plan.
-  Authorize the creation of a multi-jurisdictional planning committee referred to as a Land Use Committee to aid in the process of land use regulation and assist with regional development issues.
-  Authorize a full codification of all land use related ordinances and regulation.
-  Coordinate County planning activities with cities, as well as State and Federal government, to ensure that development is appropriately located.

-  Acknowledge State, Federal and locally approved plans for projects such as corridors, facility service areas, sanitary districts and other activities, and participate to the extent necessary to ensure consistency with the County plan.

-  Consider the development of a Transfer of Development Rights plan for those resources in need of additional protection. This program might be applied to such resources as prime agricultural lands or shoreland buffer zones.

Land Use Plan

This land use plan provides basic guidelines for development as well as ways to maintain the rural character of Waseca County. Because the plan is generally broad in focus and there are many ways to implement the desired plan objectives, it is recommended that detailed town and village plans with more specific guidelines be prepared also using the countywide plan as a base.

The generalized land use guide should be revisited and reviewed periodically as new public utility facilities and transportation networks are expanded or if regional growth trends change dramatically. It is important that this guide be integrated and used in conjunction with background information and recommendations contained in the plan document.

Through all this, it is important to remember Waseca is a rural agricultural county with a diverse landscape rich in history and endowed with vast natural resources. Maintaining this rural agricultural character is an important element of this plan. In conjunction with the public land, privately owned farm, forest and open space lands are positive financial contributors to the local tax base. While typically these lands may generate less revenue than residential land, they also require little public infrastructure. The economic contributions inherent with agricultural production provide jobs and a support system. Furthermore, the working landscape instills positive values that are hard to quantify, including quality of life, cultural heritage, wildlife habitat, water quality and open space protection.

Across the country, Cost of Community Services (COCS) studies are being done to determine the impact of farmlands to the local tax base. This valuable tool provides a financial snapshot of the community by comparing revenues and expenditures from different land use sectors. While these studies do not predict the impact of future decisions, they offer us the benefit of hindsight as we navigate the future.

In several studies, it was determined that farm and open lands more than pay for themselves. In fact, these lands frequently support residential services. For each dollar of revenue raised in the residential sector, the towns studied spent an average of \$1.11 on residential services. From each farm and open land dollar,

towns spent only \$0.34 on public services. The remaining \$0.66 was then used to offset other County expenses.

Growth is inevitable and important for Waseca County. But if it is not balanced and sensible, communities pay a high price and ultimately lose intrinsic values.

A generalized land use plan for Waseca County is presented in the following narrative and the accompanying set of maps (Future Land Use Map). The plan identifies various land use categories, each with different land use/development objectives, and arranged in such manner as to bring about the result desired in the goal statements. In summary, the land use plan relates to the goal statements in the following ways:

-  Provides opportunity for economic development in ways compatible with Waseca County's natural and built environment.
-  Encourages high-density development away from sensitive environmental areas.
-  Strives to protect and maintain Waseca County's natural resources, especially lakeshore, farmland, animal life and scenic areas.
-  Encourages placing high-density development within communities and growth areas with well-defined boundaries where such development more easily can be serviced by public infrastructure and facilities.
-  Encourages provisions for the continuance of active agricultural uses.
-  Maintains rural and open landscape character, particularly by avoiding high-density development in rural areas.
-  Preserves and promotes Waseca County's visual resources.
-  Encourages placing commercial development in established or planned business areas, which limits commercial sprawl.

Land Use Plan Recommendations

Primary Communities and Industrial Areas

Primary Community and industrial areas consist of the built-up communities of Waseca, Janesville, Waldorf and New Richland, and already contain a variety of commercial, residential, governmental or industrial uses. Public sewer exists in all four cities. Generally, future high-density development should be directed to these areas.

-  Encourage and maintain downtown commercial core areas by planning in coordination with the cities.
-  Encourage higher density residential to locate in these communities where public sewer treatment systems exist.
-  Maintain a distinct community entrance or edge by avoiding highway strip development and by directing commercial use into the communities.
-  Encourage a strategy of infill rather than sprawl.

Rural Communities

These small growth areas have historically been crossroad communities that provide rural retail service to farm and lake recreation areas. Public sewer probably will not be provided to these small crossroad communities in the near future.

-  Recognize existing development of higher intensity commercial and residential within the County as growth nodes. The development of additional growth nodes is not encouraged.
-  Encourage maintaining the small community character by avoiding developments that would alter their character.
-  Encourage limited commercial and residential growth within or directly adjacent to these areas.
-  If desired by the townships, encourage maintaining or establishing individual community identities through coordinated signage or graphics.

Shoreland Residential

These areas consist of the major (see shoreland map) shorelands adjacent to lakes, rivers, wetlands and streams in Waseca County. This zone extends one-half of mile from the high water watermark on recreational lakes and 1,000 feet for all other water bodies identified above. Many of the shorelands are significantly developed with both full-time and seasonal residences. Residential development is regulated by the lakes and rivers classification development standards and existing shoreland ordinances.

-  Encourage local establishment of and participation in lake property owners associations to further protect the County's water and wetland resources.

-  Encourage restoration of developed shoreland buffer zones through volunteer programs or mitigation tied to permitted property improvements.
-  Establish an incentive program for development of shoreland buffer zones.
-  Revisit lakes and stream classification and shoreland development standards periodically.

Rural Open Space

Rural residential activity has been significant as the off lake property becomes more in demand. This area includes marginal or abandoned farmlands that have become attractive for rural residences.

-  Promote a residential/open space zoning option, created through three proposed zoning districts, which would provide higher density incentives for dedicated or deed restricted open space. This would be accomplished through open space zoning provisions or rural clustering of residential units.
-  Promote low-density residential parcels with incentives for higher densities using cluster or open space zoning provisions.

Open space zoning provisions are a variation of cluster development and planned unit developments that refer to an array of tools and techniques. They are implemented through county zoning for the preservation of open space and natural character in rural areas while allowing for residential development. Sometimes called rural clustering, open space zoning requires that dwelling units be clustered or grouped on a select area of the parcel, leaving a significant portion of the parcel as dedicated open space.

Open space zoning uses a variety of land use tools and techniques. Larger setback provisions, buffering and screening and dedicated open space provisions can be used to screen dwelling units from roadways. Restricting the location of rural cluster development projects, establishing minimum and maximum project size, limiting development density, and regulating lot area dimensions and clustering of dwelling units ensure that development is consistent with maintaining rural character.

-  Promote planned residential development as a means of achieving efficient site design and preserving open spaces adjacent to existing primary community areas, where higher residential densities may be tolerated.

-  Encourage commercial activity that is compatible with lower density residential development such as golf courses or home businesses.
-  Maintain the integrity of wetlands, woodlands and other natural features located within these regions.
-  Promote and encourage private woodland management practices that help maintain the rural open space character.

Agricultural/Open Areas

These areas cover the majority of the County and consist of fairly stable agricultural lands with the better agricultural soils. This area provides consistency with the County designated farmland preservation areas and establishes the farmland character of this part of the County. Planning for this area should provide for preservation and protection of prime or exclusive agricultural lands and for agricultural/open land residential development.

-  Maintain prime farmlands and those in exclusive agricultural zoning for future agricultural use.

Highway Commercial Corridors

The Highway 14 corridor has been identified as being under significant development pressure. These areas need special recommendations to control access and encourage such options as clustering of services and implementing a County highway beautification plan. The Highway 14 corridor is an important transportation element to Waseca County and should be maintained as a high speed arterial.

-  In designated highway commercial corridors encourage through local planning and zoning efforts controlled access, use of front or rear access, roads and clustering of new commercial development.
-  Develop design standards for highway commercial clusters that will aid in controlling unlimited highway access points.
-  Promote the separation of communities by avoiding a continuous highway strip development pattern.
-  Maintain rural/open space character by requiring adequate setbacks and sufficient screening or landscaping for developments that occur, particularly for large buildings and parking or storage areas.
-  Discourage the proliferation of large billboards in favor of smaller advertising signs and directional signs.

-  Maintain "county entrance" corridors as a reflection of the natural agricultural landscape.

Natural Resource Corridors

This classification includes all public lands, wetland corridors, and lakes, rivers and streams.

-  Encourage management coordination of public lands.
-  Promote maintenance of these natural areas through continued private stewardship and public ownership or, if necessary, through acquisition of easements or additional public lands.
-  Promote the network and scale of public lands as a unique natural recreation resource.
-  Encourage new development adjacent to public lands to reflect the natural large-scale character of these lands.

Airport Areas

Waseca County has a significant airport area that plays an important transportation function. Encourage land use that positively impacts the viability of these airports.

Waseca County Future Land Use Map

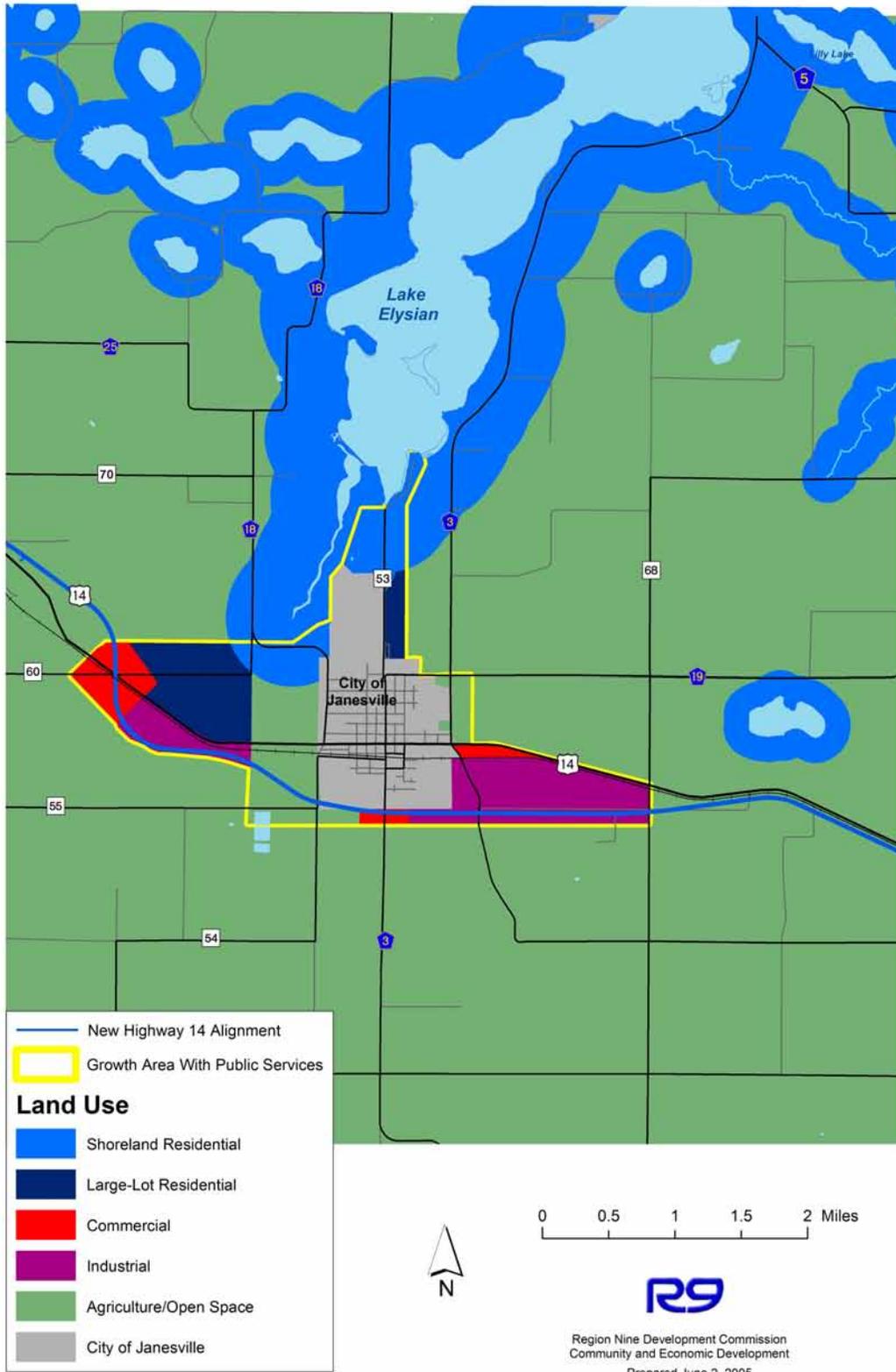
DRAFT



Land Use		0 ————— 5 Miles	
	Shoreland Residential		
	Large-Lot Residential		
	Commercial		
	Industrial		
	Agriculture/Open Space		
	City		
	 New Highway 14 Alignment		Region Nine Development Commission Community and Economic Development Prepared June 2, 2005
	 Growth Area With Public Services		

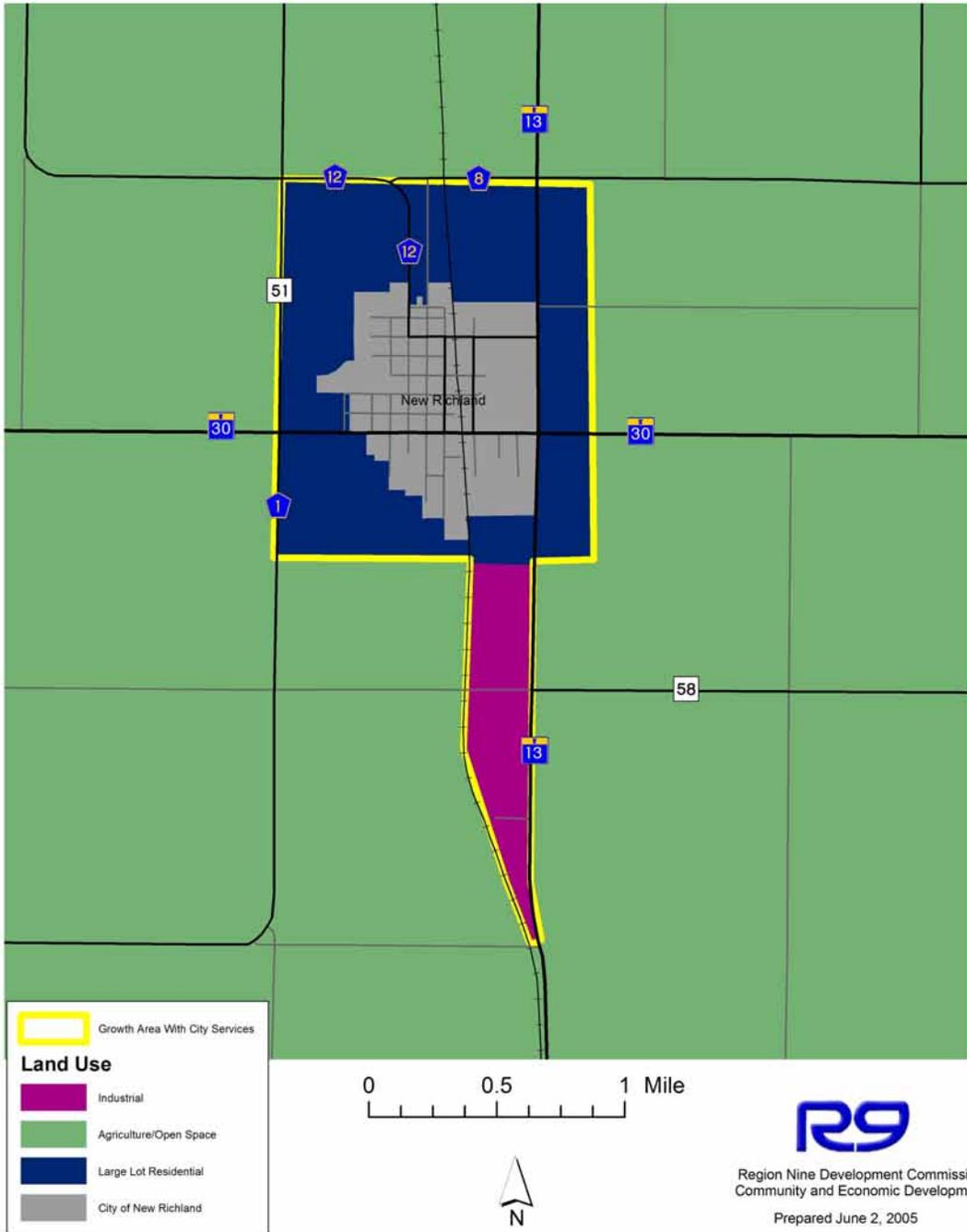
Janesville Area Future Land Use Map

DRAFT



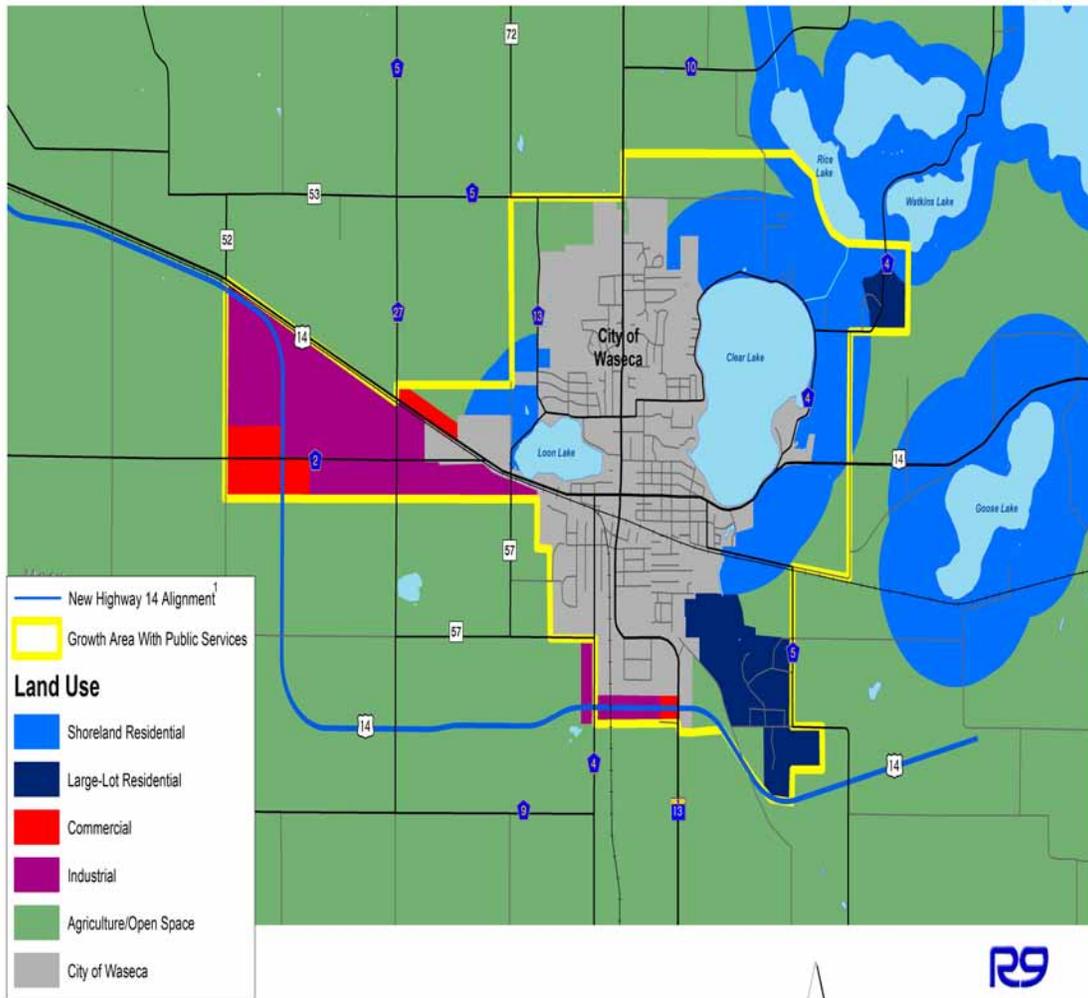
New Richland Area Future Land Use Map

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Waseca Area Future Land Use Map

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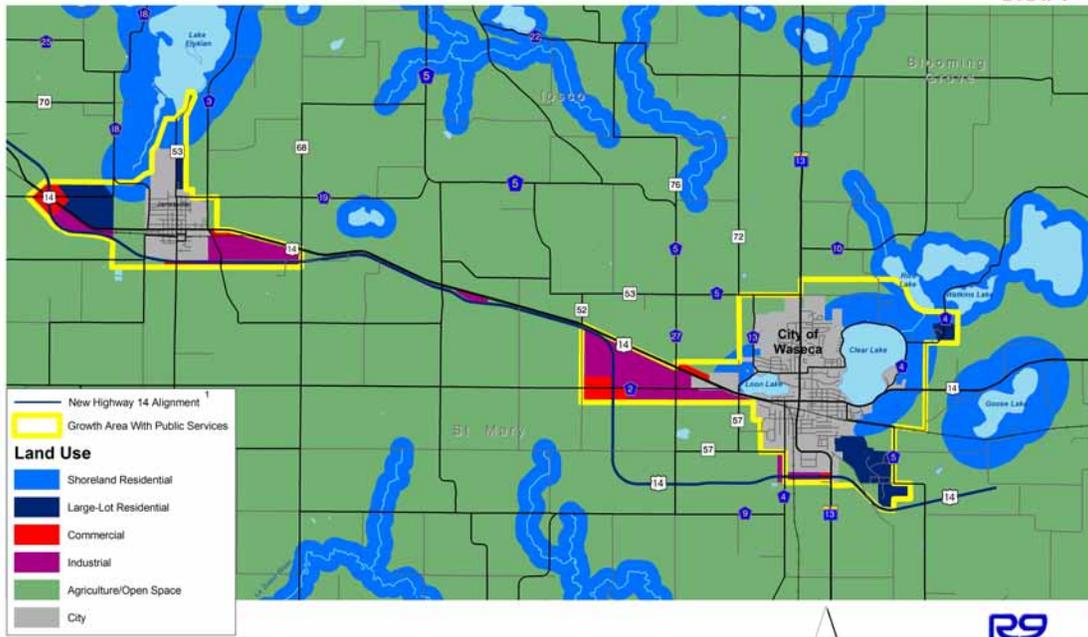
¹ Highway 14 Alignment east of the City of Waseca to be determined



Region Nine Development Commission
Community and Economic Development
Prepared June 2, 2005

Highway 14 Corridor Future Land Use Map

DRAFT



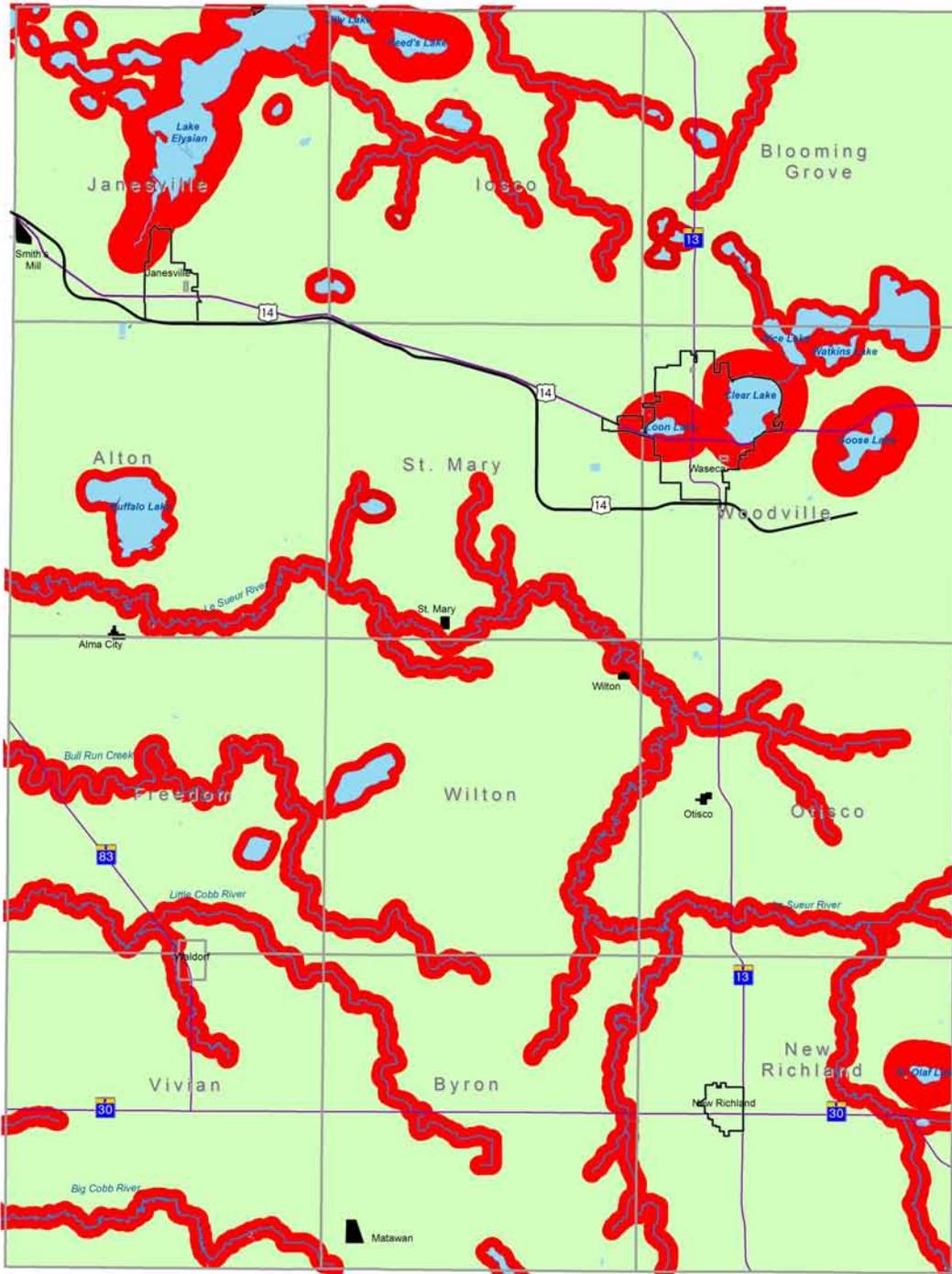
¹ Highway 14 Alignment east of the City of Wasasca to be determined

0 0.5 1 1.5 2 Miles



Region Nine Development Commission
Community and Economic Development
Prepared June 2, 2005

Waseca County Shoreland Residential Zone Concept **DRAFT**



- Shoreland Residential Zone
- Rural Townsite
- City
- Township
- New Highway 14 Alignment ²
- US or MN Highway

² Alignment east of the City of Waseca to be Determined



Region Nine Development Commission
Community and Economic Development

Prepared June 2, 2005