

Webster County, Iowa

Comprehensive Development Plan 2008





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Table of Contents

INTRODUCTION.....	1
INTRODUCTION	2
COMPREHENSIVE PLANNING	3
PROFILE WEBSTER COUNTY.....	7
COUNTY ASSESSMENT.....	9
Demographic Profile.....	10
Housing Profile.....	17
Economic And Employment Profile	22
Agricultural Profile.....	36
COUNTY FACILITIES	39
Recreational Facilities	41
Educational Facilities	42
Fire Protection And Law Enforcement.....	46
County Buildings.....	47
Transportation Facilities.....	47
Registered Historic Sites	47
Communication Facilities	49
Public Utilities	50
Health Facilities.....	51
Libraries	52
Museums	52
EXISTING LAND USE	53
Introduction	54
Existing Land Use Analysis.....	56
Existing Residential Density.....	57
Existing Land Use Summary	59
ENVIRONMENTAL CONDITIONS.....	71
Introduction	72
Climate.....	72
Relief/topography	72
Wildlife And Wildlife Habitat	73
Wetlands	73
Soil Formation And Classification.....	77
Capability Grouping Of Soils	84
Soil Suitability	88
Water And The Impact On Webster County.....	99
Conclusions	107

ENVISION WEBSTER COUNTY109

TOWN HALL MEETINGS 111

GOALS AND POLICIES127

- Goal #1 – General Land Use131
- Goal #2 – Agricultural Land Use132
- Goal #3 – Commercial Land Use132
- Goal #4 – Industrial Land Use.....133
- Goal #5 – Residential Land Use134
- Goal #6 - Environment/water Resources135
- Goal #7 - Economic Development137
- Goal #8 - Public Facilities And Taxes.....138
- Goal #9 - Public Works.....139
- Goal #10 - Transportation139
- Goal #11 - Health And Safety141
- Goal #12 - Parks And Recreation.....141
- Goal #13 - Implementation, Evaluation, And Review ..142

ACHIEVE WEBSTER COUNTY143

COUNTY LAND USE MANAGEMENT PLAN 145

- Purpose Of Clump.....146
- Clump Process146
- Clump Concept146
- Policy Areas147

FUTURE LAND USE 149

- AP: Agriculture Preservation.....151
- TA: Transitional Agriculture152
- RE: Residential Estates153
- UR: Urban Residential154
- C: Commercial District.....155
- I: Industrial District156
- AG/I: Agricultural/Industrial District.....157
- ME: Mineral Extraction District.....158
- CONS: Conservation District160
- P/R: Parks And Recreation District.....161
- PUB: Public Use District162

TRANSPORTATION PLAN 165

- Introduction166
- Transportation Planning And Land Use166
- Transportation Financing Issues166
- Existing Transportation System166
- Jurisdictional Responsibility.....169
- Webster County’s Proposed Improvements169

WEBSTER COUNTY PLAN IMPLEMENTATION....171

ACTION AGENDA172

COMPREHENSIVE PLAN MAINTENANCE 173

Table of Tables

Table 1: Population Trends, Webster County And Communities, 1980 To 2005	11
Table 2: Migration Analysis, Webster County, 1990 To 2005	12
Table 3: Age-sex Characteristics, Webster County, 1990 To 2000	13
Table 4: Population Projection Series, Webster County And Communities, 2000 To 2030.....	17
Table 5: Community Housing Trends, Webster County, 1990 And 2000	18
Table 6: Housing Units By Community, Webster County - 2000	20
Table 7: Tenure Of Household By Selected Characteristics, Webster County, 1990 To 2000.....	20
Table 8: Selected Housing Conditions, Webster County, 1990 And 2000	21
Table 9: Household Income, Webster County, 1990 And 2000	23
Table 10: Household Income By Age (55 Years & Older) Webster County, 2000	23
Table 11: Housing Costs As A Percentage Of Household Income, Webster County, 2000.....	25
Table 12: Age 65 And Older Costs As Percentage Of Income, Webster County, 2000	25
Table 13: Income By Source, State And Webster County, 1970 To 2000	26
Table 14: Transfer Payments, State And Webster County, 1970 To 2000	27
Table 15: Employment By Industry, State And Webster County, 1970 - 2000.....	28
Table 16: Commuter Population Trends, Residents Of Webster County, 1970 To 2000.....	29
Table 17: Commuter Population Trends; Workers In Webster County, 1970 To 2000	30
Table 18: Travel Time To Work, Webster County, 1990 To 2000	31
Table 19: Basic/non-basic Employment By Occupation, Webster County, 2000	33
Table 20: Regional And State Labor Force Comparisons, Webster County, 2000	34
Table 21: Basic/non-basic Employment By Industry, Webster County, 2000	35
Table 22: Agricultural Profile, Webster County, 1987-2002.....	36
Table 23: Number Of Farms By Size, Webster County, 1987-2002	37
Table 24: Number Of Farms & Livestock By Type, Webster County, 1987 To 2002.....	37
Table 25: Number Of Farms And Crops By Type, Webster County, 1987 To 2002	38
Table 26: Webster County Golf Courses	42
Table 27: Webster County Schools By School District	42
Table 28: Sworn Officers, Webster County And Its Communities	46
Table 29: National Register Of Historic Places, Webster County.....	47
Table 30: Soil Capability	86
Table 31: Hydrological Characteristics	100
Table 32: Positive Aspects Of Webster County, Fort Dodge Library.....	113
Table 33: Improvements Of Webster County, Fort Dodge Library	114
Table 34: 20-year Vision For Webster County, Fort Dodge Library	114
Table 35: Achieve The Vision Of Webster County, Fort Dodge Library	115
Table 36: Positive Aspects Of Webster County, Dayton Community Center	116
Table 37: Improvements Of Webster County, Dayton Community Center	117
Table 38: 20-year Vision Of Webster County, Dayton Community Center	118
Table 39: Achieve The Vision Of Webster County, Dayton Community Center	118
Table 40: Positives For Webster County, Gowrie Council Chambers	119
Table 41: Improvements For Webster County, Gowrie Council Chambers	120
Table 42: 20-year Vision For Webster County, Gowrie Council Chambers	120
Table 43: Achieve The Vision Of Webster County, Gowrie Community Center	121
Table 44: Positive Aspects Of Webster County	122
Table 45: Improvements For Webster County	123
Table 46: 20-year Vision Of Webster County	124
Table 47: Achieve The Vision For Webster County.....	125
Table 48: Clump Policy Tiers	147
Table 49: Secondary Roads Program FY 2008-2012	169

Table of Figures

Figure 1: Population Trends And Projections, Webster County, 1900 To 2030.....	16
Figure 2: Age Of Existing Housing Stock, Webster County, 2000	18
Figure 3: School District Map	43
Figure 4: Fire And Rescue District Map	47
Figure 5: Existing Land Use, Webster County	60
Figure 6: Acreage Density Per Section	62
Figure 7: Acreage Density Per Quarter-section	64
Figure 8: Total Residential Density Per Section	66
Figure 9: Total Density Per Quarter-section	68
Figure 10: Riverine Wetland System	74
Figure 11: Lacustrine Wetland System	75
Figure 12: Palustrine Wetland System	76
Figure 13: General Soil Map.....	83
Figure 14: Percentage Of Slope.....	90
Figure 15: Prime Farmland	91
Figure 16: Dwellings With Basements	92
Figure 17: Dwellings W/out Basements.....	93
Figure 18: Onsite Wastewater Treatment Systems	96
Figure 19: Domestic Lagoons	97
Figure 20: Local Roads And Streets	98
Figure 21: Drainage By Association	103
Figure 22: Soil Permeability.....	104
Figure 23: Hydric Soils.....	105
Figure 24: Flooding Frequency.....	106
Figure 25: County Land Use Management Policies (CLUMP)	148
Figure 26: Future Land Use Plan Map	163
Figure 27: Existing And Future Transportation Plan.....	168



Introduction

Introduction

- Location
- Climate and Topography
- History

Comprehensive Planning

- Purpose of Comprehensive Planning
- Comprehensive Planning Process
- Comprehensive Planning Components
- Governmental and Jurisdictional Organization



Introduction

INTRODUCTION

LOCATION

Webster County, Iowa is located towards the northwest corner of Iowa. Neighboring Iowa counties include Calhoun and Pocahontas to the west, Humboldt to the north, Wright and Hamilton to the east, and Boone and Greene to the south. Webster County is dissected east and west by US Highway 20 and north and south by US Highway 169. The Des Moines River flows through the north-central portion of the county and converges with the Lizard River in Fort Dodge and the Boone River in the southwest corner of the county. The Iowa communities of Ames, Des Moines, and Waterloo are all within a two hour drive from Webster County.

There are 15 incorporated communities in Webster County including: Badger, Barnum, Callender, Clare, Dayton, Duncombe, Farnhamville, Fort Dodge, Gowrie, Harcourt, Lehigh, Moorland, Otho, Burnside, Stratford, and Vincent. The population ranges from 158 people in Vincent to 26,309 people in Fort Dodge, the county seat of Webster County. Other listed communities include Coalville, Lanyon, Roelyn, Slifer, and Tara. Webster County consists of 715.2 square miles, or 457,728 acres.

CLIMATE AND TOPOGRAPHY

The climate of Webster County is very similar to the average U.S. climate. Webster County receives an average of 32.8 inches of rainfall per year (about 4 inches less than the national average) and 36.3 inches of snowfall (about 11 inches more than the national average). The average high temperature in July is 85 degrees and the average low in January is 7.5 degrees Fahrenheit. The elevation of Webster County is 1,122 feet above sea level.

Fort Dodge History

In May of 1850 Brevet Major Samuel Wood and the men of Company E of the Sixth United States Infantry disembarked the steamboat Highland Mary at Muscatine, Iowa. They had been dispatched from Fort Snelling, Minnesota to assist with the removal of the Meaquakie tribe to reservation lands and then travel overland to the Des Moines River and begin construction of a new military post.

Arriving near the mouth of Lizard Creek in mid-summer, the troops pitched their tents on a table of ground overlooking the river valley. The site had many advantages to offer including good water, plentiful timber, the appearance of coal, and stone for building. From the beginning the officers foresaw the growth of a city and laid out the principal fort buildings in a line which could someday form a city street.

Under the direction of Brevet Major Lewis A. Armistead... civilian laborers were brought in to facilitate the construction of the new fort. By November 12 buildings had been completed and the troops were able to strike their tents and move inside for the winter. Originally christened Fort Clarke, the spring of 1851 found 21 major buildings completed and a name change to Fort Dodge...

Spring of 1853 brought orders for Fort Dodge to be abandoned and the troops sent north to establish Fort Ridgely, Minnesota and deal with mounting problems with the Sioux. William Williams, the post Sutler or civilian storekeeper, purchased the military reservation and buildings and in March of 1854, platted the town of Fort Dodge. A bronze plaque in downtown Fort Dodge marks the site of the original fort.

<http://www.fortmuseum.com/history.html>

HISTORY

- 1000-1400 A.D. The land that is now Webster County was occupied by mound-building Native Americans, including the Woodland and Oneota cultures. The predominant tribes included the Winnebago, Sac and Fox, and Sioux.
- 1835 The first recorded visit of European Americans is credited to the U.S. Dragoon led by Nathaniel Boone.
- 1845 The first settlers arrive in the Webster County area.
- 1850 A military post was established at the site of the City of Fort Dodge.
- 1851 The last of the treaties ceding land from the Sioux was signed.
- 1852 Citizens of both Yell and Risley county petitioned to combine the two counties. The merge occurred in December and the county was named after American Statesman, Daniel Webster.
- 1853 The county seat location was chosen in Homer. The military post at Fort Dodge was abandoned.
- 1854 The City of Fort Dodge was platted.
- 1855 The federal Land Office was located in the city of Fort Dodge. The great land speculation boom of 1855 to 1857 played a key role in the growth of the city.

- 1856 The county seat was moved to Fort Dodge. Illegal voting, ballot-box stuffing, and other disputes occurred over this decision.
- 1859 The cornerstone for the Webster County Courthouse was laid on May 8th.
- 1869 Fort Dodge became a key rail center after the completion of two railways.
- 1900 Webster County became Iowa's primary producer of clay products (brick, tile, and stoneware crockery) as well as a leader in the processing of gypsum.

COMPREHENSIVE PLANNING

THE PURPOSE OF COMPREHENSIVE PLANNING

The purpose of the Webster County Comprehensive Development Plan is to establish a guideline for orderly growth and development for the County into the next 20 years in order to protect the general health, safety, and welfare of the citizens of the county. The Comprehensive Development Plan serves as a source of information for the county, will provide policy guidelines to enable citizens and elected officials to make informed decisions about the future, and provide the means for public input to guide development of the county.

The Webster County Comprehensive Development Plan will provide for the location of future development within the planning jurisdiction of Webster County while encouraging the expansion of a strong economic base for the county so the goals of the county can be achieved. The plan will assist Webster County in evaluating all impacts of development, including; economic, social, fiscal, service and amenity provision, while encouraging appropriate land uses throughout the jurisdictional area of the County. The objective of planning is to provide a framework for guiding development toward orderly growth. The plan will assist the county in balancing the physical, social, economic, and aesthetic features as it responds to private sector interests.

Planned growth will make Webster County more effective in serving its residents, more efficient in using its resources, and strive to meet the standard of living and quality of life every individual desires.

THE COMPREHENSIVE PLANNING PROCESS

The planning process begins with the data collection phase. Data are gathered in order to provide a snapshot of past trends within Webster County and also establishes an account of the present conditions within the county. Analysis of data provides the basis for forecasting future land-use demands in the county.

The second phase of the planning process is the development of general goals and policies, based upon the issues facing the county. These are practical guidelines for improving existing conditions and guiding future growth. The Plan is a vision presented in text, graphics, and tables representing the desires of the county for the next twenty years.

The Comprehensive Development Plan represents a blueprint designed to identify, assess, and develop actions and policies in the areas of population, land use, transportation, housing, economic development, community facilities, environment, and utilities. The Comprehensive Development Plan contains recommendations that, when implemented, will be of value to the county and its residents.

The Plan acts as a tool to
"Develop a road map that
guides the community through
change"

Finally, the implementation of the Plan is what makes the Plan happen. A broad range of development policies and programs are required to implement the Comprehensive Development Plan. The Plan identifies the tools, programs, and methods necessary to carry out the recommendations. Nevertheless, the implementation of the development policies contained within the Comprehensive Development Plan is dependent upon the adoption of the Plan by the governing body and the leadership of the present and future elected and appointed officials of the County.

The Plan was prepared under the direction of the Webster County Planning and Zoning Commission, with the assistance and participation of the Webster County Board of Supervisors, the Comprehensive Plan Steering Committee, and citizens of Webster County. The planning time period for achieving goals, programs, and developments identified in this Plan was 20 years. However, the County should review the Plan annually and complete a detailed update of the document every ten to fifteen years, or when a pressing need is identified. Updating the Comprehensive Development Plan will allow the County to incorporate new ideas and developments unknown at the time of the present comprehensive planning process.

COMPREHENSIVE PLAN COMPONENTS

The Comprehensive Development Plan document consists of both graphic and textual materials. The Webster County Comprehensive Development Plan is comprised of the following chapters and sections:

- Introduction to Webster County
- Profile Webster County
 - County Assessment – Conditions and Trend Analysis
 - County Facilities
 - Existing Land Use
 - Environmental Conditions
- Envision Webster County
 - Town Hall Meeting Results
 - Goals and Policy Development
- Achieve Webster County
 - County Land Use Management Plan (CLUMP)
 - Future Land Use Plan
 - Transportation Plan
- Webster County Plan Implementation

Analyzing past and existing demographic, housing, economic, and social trends permits the projection of possible conditions in the future. Projections and forecasts are useful tools in planning for the future; however, these tools are not always accurate and may change, due to unforeseen factors. Also, past trends may be skewed or data may be inaccurate, creating a distorted picture of past conditions. Therefore, it is important for Webster County to closely monitor population, housing, and economic conditions that may impact the county as a whole. Through periodic monitoring, the County can adapt and adjust to changes at the local level. Having the ability to adapt to socio-economic changes allows the County to maintain an effective Comprehensive Development Plan for the future, to enhance the quality of life, and to raise the standard of living for all residents.

The Plan records where Webster County has been, where it is now, and where it may be in the future. Having this record in the Plan aids in providing information to County officials for making responsible decisions in the future. The Plan is an information and management tool for County residents to use in their decision-making process when considering future developments. It is not a static document and should evolve as changes in the land-use, population or local economy occur during the planning period. This information is the basis for Webster County's evolution as it achieves its physical, social, and economic goals.

GOVERNMENTAL AND JURISDICTIONAL ORGANIZATION

The Webster County government consists of a Board of Supervisors, which is a board of elected officials that performs the governmental functions for the county. The County government also includes the Webster County Planning and Zoning Commission and the Webster County Board of Adjustment. Each incorporated community in Webster County has elected officials and officers who oversee how their community is governed.

The planning and zoning jurisdiction of Webster County, pursuant to Iowa Code Ann. § 335.3, includes all of the portions of the County that lie outside of the corporate limits of a city. There is one limit, however, on the power to regulate land use, and that is that the regulations do not apply to any farm land or structures so long as the same are being used for agricultural purposes. (Iowa Code Ann. § 335.2).

Iowa Code also dictates how county and city zoning efforts interact in areas where they overlap. When cities enact zoning, they are empowered to extend their subdivision authority over any unincorporated areas within two miles of the city's limits, unless the County has already zoned the area. (Iowa Code Ann § 414.23). However, "Whenever a county in which this power is being exercised by a municipality adopts a county zoning ordinance the power exercised by the municipality and the specific regulations and districts thereunder shall be terminated within three months of the establishment of the administrative authority for county zoning, or at such date as mutually agreed upon by the municipality and county." (Iowa Code Ann. § 414.23)

Also, pursuant to Iowa Code Ann. § 335.24, if more than one statute, ordinance, or regulation conflict, the one that imposes the highest standards governs. However, there is one caveat to this general rule. Where a city has zoning regulations pertaining to subdivisions, those regulations can be authorized over the area within two miles of the city, even when the county has general jurisdiction over the area pursuant to Iowa Code Ann. § 414.23. Under authority of Iowa Code Ann. § 354.9, the city may pass an ordinance clearly establishing the area over which it will exercise subdivision review. In which case, the city must use the same standards it uses within its limits, and the city and county may enter into a 28E intergovernmental agreement on standards and conditions for review.



Profile Webster County

- County Assessment
- County Facilities
- Existing Land Use
- Environmental Conditions





County Assessment

- Demographic Profile
- Housing Profile
- Economic and Employment Profile
- Agricultural Profile



County Assessment

DEMOGRAPHIC PROFILE

Population statistics, both past records and projected trends, can aid decision-makers by developing a broad picture of Webster County. The majority of the population, housing, and employment information were collected from the U.S. Census Bureau, the Bureau of Economic Analysis, the Office of Social and Economic Trend Analysis in Iowa State University, and the U.S. Census of Agriculture. It is important for those involved with the development of Webster County to understand where it has been, where it is, and where it appears to be going.

Population is the driving force behind housing, local employment, economic, and the fiscal stability of the county. Historic population conditions assist in developing demographic projections, which, in turn, assist in determining future housing, retail, medical, employment, and educational needs within the county. Projections provide an estimate for the county to base future land-use and development decisions. However, population projections are only estimates and unforeseen factors may affect projections significantly.

POPULATION TRENDS AND ANALYSIS

The populations for the incorporated communities in Webster County, the unincorporated areas, and Webster County as a whole, between 1980 and 2005 estimates are listed in Table 1. This information provides an understanding of the past 25 years and present population trends and changes. Webster County's population in 2000 was 40,235 persons, which was a decrease of 107 persons, or -0.3%, from 1990 recorded population. The County's population in 2005 was estimated to be 39,003, a decrease of 1,232 persons, -3.1%, since 2000.

Webster County has had a net decrease of 6,950 persons, or -15.1% between 1980 and the estimated population for 2005 according to Table 1. Each community as well as the unincorporated areas of Webster County saw a population decline between 1980 and 2005 estimates. The communities with the largest decline between 1980 and 2005 estimates, each greater than -20%, were Lehigh, Moorland, Otho, and Vincent. The unincorporated area of Webster County declined by -19.7% from 12,017 persons to 9,647. This pattern is typical of many counties located in the agricultural region of the Midwest.

TABLE 1: POPULATION TRENDS, WEBSTER COUNTY AND COMMUNITIES, 1980 TO 2005

Community	1980	1990	% Change 1980 to 1990	2000	% Change 1990 to 2000	2005	% Change 2000 to 2005	% Change 1980 to 2005
Badger	653	569	-12.9%	610	7.2%	586	-3.9%	-10.3%
Barnum	198	174	-12.1%	195	12.1%	196	0.5%	-1.0%
Callender	446	384	-13.9%	424	10.4%	431	1.7%	-3.4%
Clare	229	161	-29.7%	190	18.0%	177	-6.8%	-22.7%
Dayton	941	818	-13.1%	884	8.1%	837	-5.3%	-11.1%
Duncombe	504	488	-3.2%	474	-2.9%	464	-2.1%	-7.9%
Farnhamville	461	414	-10.2%	430	3.9%	399	-7.2%	-13.4%
Fort Dodge	29,423	25,894	-12.0%	26,309	1.6%	25,493	-3.1%	-13.4%
Gowrie	1089	1028	-5.6%	1038	1.0%	1045	0.7%	-4.0%
Harcourt	347	306	-11.8%	340	11.1%	318	-6.5%	-8.4%
Lehigh	654	536	-18.0%	497	-7.3%	484	-2.6%	-26.0%
Moorland	257	209	-18.7%	197	-5.7%	184	-6.6%	-28.4%
Otho	692	529	-23.6%	571	7.9%	543	-4.9%	-21.5%
Stratford	806	715	-11.3%	746	4.3%	737	-1.2%	-8.6%
Vincent	207	185	-10.6%	158	-14.6%	153	-3.2%	-26.1%
Incorporated Areas	33,936	29,816	-12.1%	30,286	1.6%	29,356	-3.1%	-13.5%
Unincorporated Areas	12,017	10,526	-12.4%	9,949	-5.5%	9,647	-3.0%	-19.7%
Webster County	45,953	40,342	-12.2%	40,235	-0.3%	39,003	-3.1%	-15.1%

Source: U.S. Census Bureau, Census of Population and Housing, 2005 Population Estimates
Office of Social and Economic Trend Analysis, Iowa State University, Population 1980-2000

A total of 11 of the 15 incorporated communities exhibited a population increase between 1990 and 2000. The number of people in the unincorporated areas of Webster County decreased between 1990 to 2000 from 10,526 persons to 9,949 persons, a change of -5.5%. The total population of Webster County declined slightly from 40,342 to 40,235 between 1990 and 2000, a change of only -0.3%. This is indicating a positive trend for Webster County during coming decades.

MIGRATION ANALYSIS

Migration analysis allows a county to understand how specific dynamics influence population change. Migration indicates the population number that has migrated in or out of the county. The migration number is determined by subtracting the natural change in population (i.e., births minus deaths) from the total change in population. Table 2 shows the total change in population for Webster County from 1960-2003 and 2000-2005. A negative number in the “Total Migration” column indicates the number of persons who have left the county, while a positive number indicates the number of persons who have moved into the county. Unfortunately, this analysis is primarily available for the county as a whole. These data have limited availability for communities.

Migration analysis is important to understand since it offers an explanation of what has affected population changes over time. This analysis can determine how much of a population change was due to persons moving in or out of an area, and how much was due to births or deaths in the area. For example, assume an area had a total change of 100 persons during any given time period, but there were 15 more births than deaths during that same time period. Looking at the natural change only, the area should have grown by 15 persons. However, when the total change of 100 is taken into account, we need to subtract out those births in order to determine

what caused the remaining change. If the total change of 100 was an increase, then 85 people moved into the area (100 increase – 15 births that occurred in area = 85 additional people in area). If, however, the total change of 100 represented a loss, then 115 people moved out of the area (100 decrease + 15 births in the area that did not increase the population = 115 people moved out of the area).

TABLE 2: MIGRATION ANALYSIS, WEBSTER COUNTY, 1990 TO 2005

Time Period	Total Change (persons)	Natural Change (persons)	% Natural Change	Total Migration (persons)	% Migration
1960-1970	581	4814	8.3	-4233	-728.6%
1970-1980	-2438	2011	-0.8	-4449	-182.5%
1980-1990	-5611	1695	-0.3	-7306	-130.2%
1990-2000	-107	498	-4.7	-605	-565.4%
2000-2005	-1232	902	-0.7	-2134	-173.2%
Total	-5718	2193	-0.4	-7911	-138.4%

Source(s): Office of Social and Economic Trend Analysis, Iowa State University, 1960-2002
Iowa Department of Public Health, Vital Statistics Report(s), 2003-2005

The Migration Analysis displayed in Table 2 indicates births exceeded deaths in Webster County for each reporting period. Based upon this information and the migration analysis formula, the primary factor of Webster County’s decreasing population, with the exception of 1960-1970, is out-migration. It is important to note that both migration and the natural change for these periods were negative. This out-migration has been based on the departure of key industrial businesses during this time period.

AGE STRUCTURE ANALYSIS

Age structure analysis is an important component of population analysis. Analyzing age structure can determine which age groups (cohorts) within Webster County are being affected by population shifts and changes. Each age cohort affects the population in a number of different ways. For example, the existence of larger young cohorts (20-44 years) means that there is a greater ability to sustain future population growth than larger older cohorts. On the other hand, if the large, young cohorts maintain their relative size, but do not increase the population as expected, they will, as a group, tend to strain the resources of an area as they age. Understanding what is happening within the age groups of the County’s population is necessary to effectively plan for the future.

Table 3 exhibits the age cohort structure for Webster County in 1990 and 2000. Population age structure may indicate significant changes affecting the different population segments within the County. Realizing how many persons are in each age cohort, and at what rate the age cohorts are changing in size, will allow for informed decision-making in order to maximize the future use of resources. As shown in Table 3, changes between 1990 and 2000 occurred within a number of different age cohorts.

One method of analyzing cohort movement in a population involves comparing the number of persons aged between 0 and 4 years in 1990 with the number of persons in the same age cohort 10 years later, or aged between 10 and 14 years in 2000. For example, in Webster County, there were 2,949 children between the ages of 0 and 4 in 1990, and in 2000 there were 2,802 children between the ages of 10 and 14, a decrease of 147 children. A review of population by this method permits one to undertake a detailed analysis of which cohorts are moving in and out of the County. The negative change in this particular age cohort indicates out-migration.

TABLE 3: AGE-SEX CHARACTERISTICS, WEBSTER COUNTY, 1990 TO 2000

Age	1990		2000		1990-2000		1990-2000	
	Male and Female	% of Total	Male and Female	% of Total	Net Change	% Change	Cohort Change	% Change
0-4	2,949	7.3%	2,536	6.3%	-413	-14.0%	2,536	-
5-9	3,082	7.6%	2,697	6.7%	-385	-12.5%	2,697	-
10-14	2,897	7.2%	2,802	7.0%	-95	-3.3%	-147	-5.0%
15-19	2,724	6.8%	3,277	8.1%	553	20.3%	195	6.3%
20-24	2,334	5.8%	2,998	7.5%	664	28.4%	101	3.5%
25-29	2,797	6.9%	2,167	5.4%	-630	-22.5%	-557	-20.4%
30-34	3,090	7.7%	2,250	5.6%	-840	-27.2%	-84	-3.6%
35-44	5,429	13.5%	5,827	14.5%	398	7.3%	-60	-1.0%
45-54	3,854	9.6%	5,215	13.0%	1,361	35.3%	-214	-3.9%
55-64	4,073	10.1%	3,476	8.6%	-597	-14.7%	-378	-9.8%
65-74	3,735	9.3%	3,347	8.3%	-388	-10.4%	-726	-17.8%
75 & older	3,378	8.4%	3,643	9.1%	265	7.8%	-3,470	-48.8%
Total	40,342	100.0%	40,235	100.0%	-107	-0.3%	-107	-0.3%

Selected Characteristics	1990		2000		Total Change	
	Number	% of Total	Number	% of Total	Number	% Change
Under 18 years of age	10,483	26.0%	9,847	24.5%	-636	-6.1%
Total 65 yrs and older	7,113	17.6%	6,990	17.4%	-123	-1.7%
Median Age	36.6		37.7		1.1	
Total Females	21,081		20,092		-989	
Total Males	19,261		20,143		882	
Total Population	40,342		40,235		-107	

Source: U.S. Census Bureau, Census of Population and Housing, STF-1A, 1990; DP-1 2000

Webster County experienced growth in only four of its age cohorts. The 0 to 4 and 5 to 9 cohorts always indicate an increase, since the persons in that group were not born when the previous census was completed. Note that the cohorts represented in Table 3 differ from those listed below, due to the consolidation of the 25-29 and 30-34 cohorts from 1990 into a 35-44 cohort in 2000. The cohorts that increased between 1990 and 2000 were:

1990 Age Cohort	Number	2000 Age Cohort	Number	Change
NA	NA	0-4 years	2,536 persons	+ 2,536 persons
NA	NA	5-9 years	2,697 persons	+ 2,697 persons
5-9 years	3,082 persons	15-19 years	3,277 persons	+ 195 persons
10-14 years	2,897 persons	20-24 years	2,998 persons	+ 101 persons
Total Change				+ 5,529 persons

Without consideration for the 2000 age groups of 0-4 and 5-9 years, the greatest increases included the 5-9 (1990) and 15-19 (2000) age group, an increase of 195 persons. An important trend to note in Webster County is the increase into the 2000 cohorts of 15-19 and 20-24. Typically, in the more rural Midwestern areas, these cohorts decrease, due to the movement of high school graduates into other locations for employment or educational opportunities. That movement to post-secondary educational institutions is one reason why Webster County has seen an increase, since Fort Dodge, Iowa is home to Iowa Central Community College.

Decreases in the cohorts occurred in eight of age groups between 1990 and 2000, these cohort shifts were:

1990 Age Cohort	Number	2000 Age Cohort	Number	Change
0-4 years	2,949 persons	10-14 years	2,802 persons	- 147 persons
15-19 years	2,724 persons	25-29 years	2,167 persons	- 557 persons
20-24 years	2,334 persons	30-34 years	2,250 persons	- 84 persons
25-34 years	5,887 persons	35-44 years	5,827 persons	- 60 persons
35-44 years	5,429 persons	44-54 years	5,215 persons	- 214 persons
45-54 years	3,854 persons	55-64 years	3,476 persons	- 378 persons
55-64 years	4,073 persons	65-74 years	3,347 persons	- 726 persons
65+ years	7,113 persons	75 + years	3,643 persons	- 3470 persons
Total Change				- 5,636 persons

Eight of the age-cohorts that existed in 1990 and 2000 declined in number. The county population also decrease during this ten-year span, an analysis of where the changes took place will lead to an understanding of what services will be needed in the future.

Four age cohorts, from 2000, displayed negative change greater than 375 persons. These include the 25-29 age cohort, 55-64 age cohort, 65-74 age cohort, and the 75+ age cohort. The changes in the 75 years and older age cohort were most likely due to either deaths or people moving into elderly care facilities located outside of Webster County. The changes in the 20-24 age cohorts in 2000 is most likely related to persons completing their post secondary education and moving onto new careers outside of the County. The change in the latter cohort indicates that the County and communities need to focus on economic development strategies that attempt to capture a larger share of that age group as they finish their college education.

The median age in Webster County increased from 35.5 years in 1990 to 37.7 years in 2000. The proportion of persons less than 20 years of age decreased slightly in total population between 1990 and 2000, while those aged 65 years and older decreased by 1.8%, overall. The 10 to 14 year old age group of 2000 showed a decrease of 147 persons, which leads to the assumption that people with young families may be drawn out of Webster County, possibly due to a decrease in job availability.

Information from the Bureau of Economic Analysis, U.S. Department of Commerce shows that Webster County witnessed a decrease in manufacturing jobs of 45.9% from 1969 to 2000, a total 2,459 jobs. In addition, Webster County experienced a 45.1% decrease in farm employment from 1969 to 2000, a total of 926 jobs. These data provide a strong understanding of past decreases in population.

Webster County experienced a significant decline of in persons in two age cohorts for the year 2000. A decrease of 378 people ages 55-64 and a decrease of 726 people for the age cohort 65-74 years. These two age groups accounted for 19.5% of the total decline for Webster County from 1990 to 2000. Another considerable decrease in growth occurred in the 75+ age group in the 2000 age cohort of 3,470 people.

POPULATION PROJECTIONS

Population Projections are estimates based upon past and present circumstances. Population projections allow Webster County to estimate what the population will be in future years by looking at past trends with current parameters. By analyzing population changes in this manner, the County will be able to develop a baseline of change from which they can create different future scenarios. A number of factors (demographics, economics, social, etc.) may affect projections positively or negatively. At the present time, these projections are the best crystal ball Webster County has for predicting future population changes. There are many methods to project the future population trends; the six projections used below are intended to give Webster County a broad overview of the possible population changes that could occur in the future.

Trend Line Analysis

Trend Line Analysis is a process of projecting future populations based upon changes during a specified period of time. In the analysis of Webster County, three different trend lines were reviewed: 1980 to 2005, 1990 to 2005, and 2000 to 2005. A review of these trend lines indicate Webster County will continue to decrease in population through 2030. The following projections summarize the possible decennial populations for Webster County through 2030.

Webster County Trend Analysis

Year	Trend: 1980 to 2005	Trend: 1990 to 2005	Trend: 2000 to 2005
2010	39,018 persons	39,790 persons	39,003 persons
2020	36,658 persons	38,909 persons	36,614 persons
2030	34,440 persons	38,048 persons	34,372 persons

Cohort Survival Analysis

Cohort Survival Analysis reviews the population by different age groups and sex. The population age groups are then projected forward by decade using survival rates for the different age cohorts. This projection model accounts for average birth rates by sex and adds the new births into the future population but not migration factors.

The Cohort Survival Model projection indicates Webster County’s population will increase each decade through 2030.

Webster County Cohort Survival Analysis

Year	Cohort Survival Model
2010	38,450 persons
2020	40,762 persons
2030	43,264 persons

Modified Cohort Survival Analysis

The Modified Cohort Survival Analysis reviews the populations generated by the cohort model and adjust the population for migration. The adjustments are based upon assumed levels of migration. For Webster County two different migration scenarios were selected, one for 2.5% in-migration per decade, and one for 2.5% out-migration per decade.

2.5% In-migration per decade

Year	Modified Cohort Survival Model
2010	39,411 persons
2020	41,781 persons
2030	44,346 persons

2.5% Out-migration per decade

Year	Modified Cohort Survival Model
2010	37,488 persons
2020	39,742 persons
2030	42,182 persons

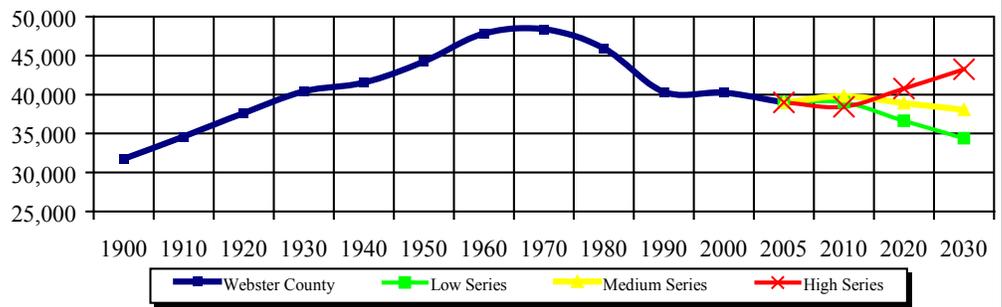
Summary of Population Projections

Using the modeling techniques discussed in the previous paragraphs, a summary of the six population projections for Webster County through the year 2030 is shown in the table below. Three population projection scenarios were selected and include (1) a Low Series; (2) a Medium Series; and, (3) a High Series. Two projections forecast a decrease in County population through the year 2030 while one, the cohort survival analysis, predicts an increase in County population. The following population projections indicate the different scenarios that may be encountered by Webster County through the year 2030.

Year	Low Series = 2000-2005	Medium Series = 1990-2005	High Series = Age Cohort
2010	39,003 persons	39,790 persons	38,450 persons
2020	36,614 persons	38,909 persons	40,762 persons
2030	34,372 persons	38,048 persons	43,264 persons

The above table reviews the population history of Webster County between 1900 and 2005, and identifies the three population projection scenarios into the years 2010, 2020, and 2030. Figure 1 indicates the peak population for Webster County occurred in 1970 with 48,391 people. Webster County has experienced a bell-shaped population curve since 1900. The population slowly increased until peaking in 1970. Since that time the population has slowly decreased, especially between 1980 and 1990. Two of the three population projections display a continued decline.

FIGURE 1: POPULATION TRENDS AND PROJECTIONS, WEBSTER COUNTY, 1900 TO 2030



Source: Office of Social and Economic Trend Analysis, 1900-2000

These population projections have been developed from census data and past trends, as well as present conditions. A number of external and internal demographic, economic, and social factors may affect these population forecasts. Webster County should monitor population trends, size and composition periodically in order to understand in what direction their community is heading.

Table 4 shows the population projection by series for each of the incorporated areas within Webster County. The population projections for the communities were found by determining the proportion of the total population that each community had in 2000 for the county and calculating that percentage for each series. This method of projection is helpful and gives an idea of where people are likely to live. This method does not consider the social issues that people use when choosing a place to live, which have the potential to alter population projections in any direction substantially.

TABLE 4: POPULATION PROJECTION SERIES, WEBSTER COUNTY AND COMMUNITIES, 2000 TO 2030

Community	2000 Census	Low Series			Medium Series			High Series		
		2010	2020	2030	2010	2020	2030	2010	2020	2030
Badger	610	591	555	521	603	590	577	583	618	656
Barnum	195	189	177	167	193	189	184	186	198	210
Callender	424	411	386	362	419	410	401	405	430	456
Clare	190	184	173	162	188	184	180	182	192	204
Dayton	884	857	804	755	874	855	836	845	896	951
Duncombe	474	459	431	405	469	458	448	453	480	510
Farnhamville	430	417	391	367	425	416	407	411	436	462
Fort Dodge	26,309	25,503	23,941	22,475	26,018	25,442	24,879	25,142	26,654	28,290
Gowrie	1038	1,006	945	887	1,027	1,004	982	992	1,052	1,116
Harcourt	340	330	309	290	336	329	322	325	344	366
Lehigh	497	482	452	425	492	481	470	475	504	534
Moorland	197	191	179	168	195	191	186	188	200	212
Otho	571	554	520	488	565	552	540	546	578	614
Stratford	746	723	679	637	738	721	705	713	756	802
Vincent	158	153	144	135	156	153	149	151	160	170
Incorporated Areas	33,063	32,051	30,087	28,245	32,697	31,973	31,266	31,596	33,496	35,552
Unincorporated Areas	7,172	6,952	6,527	6,127	7,093	6,936	6,782	6,854	7,266	7,712
Webster County	40,235	39,003	36,614	34,372	39,790	38,909	38,048	38,450	40,762	43,264

Source: Population projections, JEO Consulting Group, 2006

HOUSING PROFILE

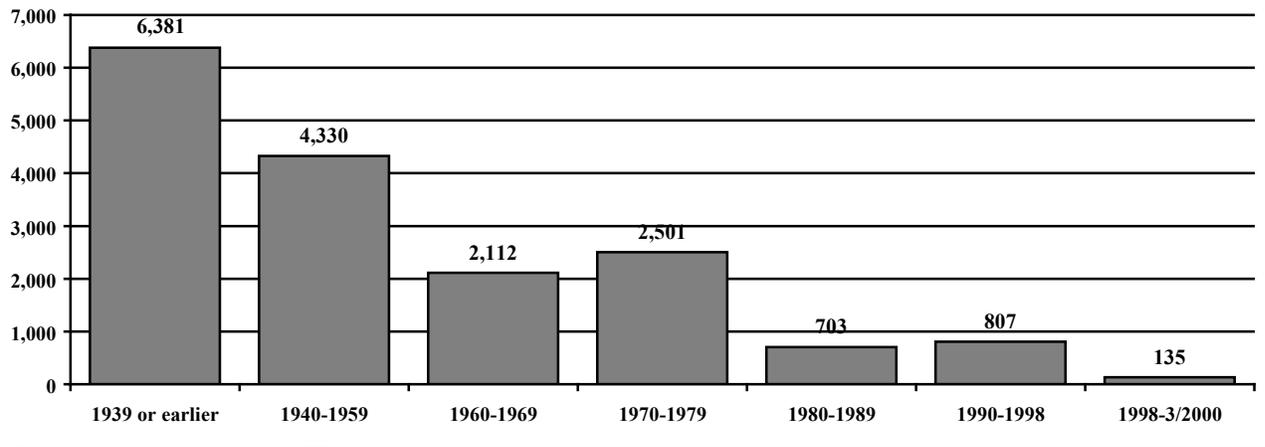
The housing profile in this Plan identifies existing housing characteristics and projected housing needs for residents of Webster County. The primary goal of the housing profile is to allow the County to determine what needs to be done in order to provide safe, decent, sanitary and affordable housing for every family and individual residing within Webster County. The housing profile is an analysis that aids in determining the composition of owner-occupied and renter-occupied units, as well as the existence of vacant units. It is important to evaluate information on the value of owner-occupied housing units, and monthly rents for renter-occupied housing units, to determine if housing costs are a financial burden to Webster County residents.

Projecting future housing needs requires that several factors be considered. These factors include population change, household income, employment rates, land use patterns, and residents' attitudes. The following tables and figures provide the information to aid in determining future housing needs and develop policies designed to accomplish the housing goals for Webster County.

AGE OF EXISTING HOUSING STOCK

An analysis of the age of Webster County's housing stock reveals a great deal about population and economic conditions of the past. The age of the housing stock may also indicate the need for rehabilitation efforts, or new construction within the county. Examining the housing stock is important in order to understand the overall quality of housing and the quality of life in Webster County.

FIGURE 2: AGE OF EXISTING HOUSING STOCK, WEBSTER COUNTY, 2000



Source: U.S. Census Bureau, Census of Population and Housing, SF3, 2000

Figure 2 indicates 6,381, or 37.6% of Webster County’s 16,969 total housing units, were constructed prior to 1940. There were 6,442 housing units, or 37.9% of the total, constructed between 1940 and 1969 or just over 200 houses every ten years. During the time period of 1970-1979 there were 2,501 houses constructed indicating a slightly stronger economy during this time. After 1979, the number of new houses dropped significantly to 703 during the 1980’s and 807 from 1990-1998. Over half, or 63.1% of Webster County’s housing units were built prior to 1959, which may indicate a need for a housing rehabilitation program to improve the quality and energy efficiency of these older homes. Additionally, demolition of dilapidated units that are beyond rehabilitation may be necessary.

HOUSING TRENDS

An analysis of housing trends can reveal a great deal about the different sectors of the population in the County. Housing trends may also indicate the potential demand for additional owner- or renter-occupied housing. Examining housing trends is important in order to understand the overall diversity of the population and their quality of life within Webster County.

TABLE 5: COMMUNITY HOUSING TRENDS, WEBSTER COUNTY, 1990 AND 2000

Selected Characteristics	1990	2000	Change	% Change 1990-2000
Population	40,342	40,235	-107	-0.3%
Persons in Household	38,956	37,763	-1193	-3.1%
Persons in Group Quarters	1,386	2,472	1086	78.4%
Persons per Household	2.44	2.38	0	-2.5%
Total Housing Units	17,063	16,969	-94	-0.6%
Occupied Housing Units	15,963	15,878	-85	-0.5%
Owner-occupied units	11,000	11,314	314	2.9%
Renter-occupied units	4,963	4,564	-399	-8.0%
Vacant Housing Units	1,100	1,091	-9	-0.8%
Owner-Occupied vacancy rate	1.2%	1.6%	0.4%	33.3%
Renter-Occupied vacancy rate	8.0%	7.4%	-0.6%	-7.5%
Median Contract Rent - 1990 and 2000				
Webster County	\$216	\$408	\$192	88.9%
Iowa	\$336	\$470	\$134	39.9%
Median Value of Owner-Occupied Units - 1990 and 2000				
Webster County	\$37,000	\$66,000	\$29,000	78.4%
Iowa	\$45,900	\$82,500	\$36,600	79.7%

Source: U.S. Census Bureau, Census of Population and Housing, STF-1A, 1990, DP-4 2000

Table 5 indicates the number of persons living in households decreased between 1990 and 2000 by 107 persons, or a difference of -0.3%, and the number of persons in group quarters increased by 1,086 persons, or 78.4%. In addition, the number of persons per household decreased from 2.44 to 2.38 persons. Nationally, however, the trend has been towards a declining household size, and Webster County appears to be experiencing a slight decrease in the household size.

Table 5 also indicates the number of occupied housing units decreased slightly from 15,963 in 1990 to 15,878 in 2000, or -.5% during this period, vacant housing units had a decline from 1,100 in 1990 to 1,091 in 2000, or -0.8%. Renter-occupied housing units decreased from 4,963 in 1990 to 4,564 in 2000, a decrease of 399 units, or -8.0%. The decrease in the number of housing units is likely due to the steady decline in manufacturing jobs in the County.

Median contract rent in Webster County increased from \$216 per month in 1990 to \$408 per month in 2000, or 88.9%. The State's median monthly contract rent increased by 39.9%. This indicates Webster County has seen contract rent increase at a greater rate than the state and has become more in line with the state's average. Comparing changes in monthly rents between 1990 and 2000 with the Consumer Price Index (CPI) enables the local housing market to be compared to national economic conditions. Inflation between 1990 and 2000 increased at a rate of 32.1%, indicating Webster County rent averages increased at a rate nearly three times faster than the rate of inflation. Thus, Webster County tenants were paying considerably higher monthly rents in 2000, in terms of real dollars, than they were in 1990, on average.

The median value of owner-occupied housing units in Webster County increased from \$37,000 in 1990 to \$66,000 in 2000 and represents an increase of 78.4%. The median value for owner-occupied housing units in Iowa showed an increase of 79.7%. Housing values in Webster County were still considerably less than the state average but still increased at a rate over two times greater than the CPI. This indicates housing values countywide exceeded inflation and were valued considerably higher in 2000, in terms of real dollars, than in 1990, on average.

In terms of real dollars, tenants in Webster County were paying greater contract rent. In addition, the residents in the county saw a substantial increase in housing costs. This trend is consistent with the state, as data show housing costs across Iowa have exceeded inflation. This trend has created a seller's market, it can also act as an incentive to property owners to update and rehabilitate housing units.

TABLE 6: HOUSING UNITS BY COMMUNITY, WEBSTER COUNTY - 2000

Community	Housing Units 2000	Occupied Housing Units 2000	Vacant Units 2000	Owner Occupied 2000	Renter Occupied 2000	Persons per Household 2000
Badger	232	227	5	185	42	2.69
Barnum	70	67	3	52	15	2.91
Callender	179	168	11	128	40	2.52
Clare	79	79	0	63	16	2.41
Coalville CDP	293	238	55	218	20	2.48
Dayton	379	354	25	261	93	2.38
Duncombe	196	192	4	151	41	2.47
Farnhamville	-	-	-	-	-	-
Fort Dodge	11168	10470	698	6951	3519	2.29
Gowrie	468	429	39	319	110	2.32
Harcourt	149	137	12	104	33	2.48
Lehigh	247	223	24	177	46	2.23
Moorland	83	81	2	68	68	2.43
Otho	245	240	5	183	183	2.38
Stratford	11	11	-	9	9	2.36
Vincent	71	67	4	59	59	2.36
Incorporated Areas	13870	12983	887	8928	4294	2.45
Unincorporated Areas	3099	2895	204	2386	270	-
Webster County	16969	15878	1091	11314	4564	2.38

Source: U.S. Census Bureau, Census of Population and Housing, SF1 - DP1 2000

Table 6 examines the housing units based upon the communities in Webster County, as well as the units in the unincorporated areas for 2000. The table indicates that the majority of the housing units (81.7%) are located in the communities. However, quantifying these numbers will allow the County to understand the conditions within the unincorporated areas of Webster County. Based upon Table 6, 18.2% of the housing units were located within the unincorporated area of Webster County. However, 18.7% of the vacant units were located in the unincorporated area. In regards to Renter Occupied Units, only 5.9% of the units were in the unincorporated area.

TABLE 7: TENURE OF HOUSEHOLD BY SELECTED CHARACTERISTICS, WEBSTER COUNTY, 1990 TO 2000

Householder Characteristic	1990				2000				O.O.	R.O.
	Owner-Occupied	% O.O	Renter-Occupied	% R.O	Owner-Occupied	% O.O	Renter-Occupied	% R.O	Percent Change	
Tenure by Number of Persons in Housing Unit (Occupied Housing Units)										
1 person	2,321	21.1%	2,135	43.0%	2,660	23.5%	2,155	47.2%	14.6%	0.9%
2 persons	4,217	38.3%	1,325	26.7%	4,377	38.7%	1,161	25.4%	3.8%	-12.4%
3 persons	1,692	15.4%	678	13.7%	1,655	14.6%	559	12.2%	-2.2%	-17.6%
4 persons	1,705	15.5%	506	10.2%	1,570	13.9%	383	8.4%	-7.9%	-24.3%
5 persons	785	7.1%	234	4.7%	723	6.4%	208	4.6%	-7.9%	-11.1%
6 persons or more	280	2.5%	85	1.7%	329	2.9%	98	2.1%	17.5%	15.3%
TOTAL	11,000	100.0%	4,963	100.0%	11,314	100.0%	4,564	100.0%	2.9%	-8.0%
Tenure by Age of Householder (Occupied Housing Units)										
15 to 24 years	204	1.9%	776	15.6%	266	2.4%	806	17.7%	30.4%	3.9%
25 to 34 years	1,556	14.1%	1,434	28.9%	1,185	10.5%	973	21.3%	-23.8%	-32.1%
35 to 44 years	2,159	19.6%	884	17.8%	2,297	20.3%	870	19.1%	6.4%	-1.6%
45 to 54 years	1,739	15.8%	438	8.8%	2,405	21.3%	621	13.6%	38.3%	41.8%
55 to 64 years	1,924	17.5%	399	8.0%	1,717	15.2%	369	8.1%	-10.8%	-7.5%
65 to 74 years	1,983	18.0%	412	8.3%	1,755	15.5%	337	7.4%	-11.5%	-18.2%
75 years and over	1,435	13.0%	620	12.5%	1,689	14.9%	588	12.9%	17.7%	-5.2%
TOTAL	11,000	100.0%	4,963	100.0%	11,314	100.0%	4,564	100.0%	2.9%	-8.0%

Source: U.S. Census Bureau, Census of Population and Housing, STF-1A, 1990 / SF4 2000

Table 7 shows tenure (owner-occupied and renter-occupied) of households by number and age of persons in each housing unit. Analyzing these data allow the County the ability to determine where there may be a need for additional housing. In addition, the County could target efforts for housing rehabilitation and construction at those segments of the population exhibiting the largest need.

The largest section of owner-occupied housing in Webster County in 2000, based upon number of persons, was two person households, with 4,377 units, or 38.7% of the total owner-occupied units. By comparison, the largest household size for rentals was the single person households which had 2,155 renter-occupied housing units, or 47.2% of the total renter-occupied units. Webster County was comprised of 10,353 one or two person households in 2000, or 65.2% of all households. Households having five or more persons comprised only 9.3% of the owner-occupied segment, and 6.7% of the renter-occupied segment. Countywide, households of five or more persons accounted for only 1,358 units, or 8.5% of the total.

When compared to 1990, three of the six owner-occupied household groups decreased in number. Owner-occupied household groups of six persons or more grew by the greatest number, increasing by 49 units, or 17.5%. The three, four, and five person households each decrease by -2.2%, -7.9%, and -7.9% respectively. However, the overall change from 1990 to 2000 for all owner-occupied households did increase by 2.9% while the total change for renter-occupied units decreased by -8.0%.

According to the 2000 data in Table 7, the largest groups of the owner-occupied units based on age of householder were the 35 to 44 years and 45 to 54 years. These age groups accounted for 20.3% and 21.3% of the total, respectively. The two groups combined totaled 41.6%. Tenure by age indicates 66.8% of owner-occupied housing units were comprised of persons aged 45 years and older, while 41.9% of renter-occupied units were comprised of persons aged 45 years and younger. Rental units in the possession of persons less than 34 years of age accounted for 38.9% of the total rental units. The largest category of renter-occupied units was the 25 to 34 age group, with 21.3% of the renter-occupied total; this was followed closely by the 15 to 24 age group with 17.6%.

TABLE 8: SELECTED HOUSING CONDITIONS, WEBSTER COUNTY, 1990 AND 2000

Housing Profile	Webster County		State of Iowa	
	Total	% of Total	Total	% of Total
1990 Housing Units	17,063		1,143,669	
1990 Occupied Housing Units	15,963	93.6%	1,064,325	93.1%
2000 Housing Units	16,969		1,232,511	
2000 Occupied Housing Units	15,878	93.6%	1,149,276	93.2%
Change in Number of Units 1990 to 2000				
Total Change	-94	-0.6%	88,842	7.8%
Annual Change	-9	-0.1%	8,884	0.8%
Total Change in Occupied Units	-85	-0.5%	84,951	8.0%
Annual Change in Occupied Units	-9	-0.1%	8,495	0.8%
Characteristics				
1990 Units Lacking Complete Plumbing Facilities	85	0.5%	9,771	0.9%
1990 Units with More Than One Person per Room	158	0.9%	5,354	0.5%
2000 Units Lacking Complete Plumbing Facilities	47	0.3%	9,790	0.8%
2000 Units with More Than One Person per Room	220	1.3%	20,538	1.7%
Substandard Units				
1990 Total	243	1.4%	15,125	1.3%
2000 Total	267	1.6%	30,328	2.5%

Source: U.S. Census Bureau, Census of Population and Housing, STF-3A, 1990, DP-4 2000

Table 8 indicates changes in housing conditions and includes an inventory of substandard housing for Webster County. The household occupancy rate in Webster County did not change from 93.6% from 1990 to 2000 even though the total number of houses decreased by 94 houses, approximately nine houses per year. Statewide, the annual change in occupied units from 1990 to 2000 increased 8.0%.

According to the U.S. Department of Housing and Urban Development (HUD) guidelines, housing units lacking complete plumbing or are overcrowded are considered substandard housing units. HUD defines a complete plumbing facility as hot and cold piped water, a bathtub or shower, and a flush toilet. HUD defines overcrowding as more than one person per room. When these criteria are applied to Webster County, there were 243 housing units, or 1.4% of the total units, were considered substandard in 2000. It should be noted, however, that this figure was reached by adding together the number of housing meeting one criterion to the number of housing units meeting the other criterion. However, the largest amount of substandard units was based on overcrowding.

What these data fail to consider are housing units that have met both criterion and any such housing units were counted twice, once under each criterion. Even so, the County should not assume these data overestimate the number of substandard housing. Housing units containing major defects requiring rehabilitation or upgrading to meet building, electrical, or plumbing codes should also be included in an analysis of substandard housing. A comprehensive survey of the entire housing stock should be completed every five years to determine and identify the housing units that would benefit from remodeling or rehabilitation work. This process will help ensure that a county maintains a high quality of life for its residents through protecting the quality and quantity of its housing stock.

ECONOMIC AND EMPLOYMENT PROFILE

Economic data are collected in order to understand area markets, changes in economic activity, and employment needs and opportunities within Webster County. In this section, employment by industry, household income statistics, transfer payments, and basic/non-basic analyses were reviewed for Webster County and the entire state of Iowa.

INCOME STATISTICS

Income statistics for households are important for determining the earning power of households in a county. The data presented here show household income levels for Webster County in comparison to the state. These were reviewed to determine whether households experienced income increases at a rate comparable to the state of Iowa and the Consumer Price Index (CPI). (Note that income statistics may exhibit different numbers than housing statistics.) Discrepancies of this nature are to be expected, and can be accounted for by the fact that these data were derived from different census survey formats.

Table 9 indicates the number of households in each income range for Webster County for 1990 and 2000. In 1990, the household income range most commonly reported was \$15,000 to \$24,999, which accounted for 23.1% of all households. By 2000, the income range reported most was the \$50,000 and over which accounted for 30.3% of the total. Those households earning less than \$15,000 decreased from 29.7% in 1990 to only 17.7% in 2000, nearly one-half of the 1990 total.

TABLE 9: HOUSEHOLD INCOME, WEBSTER COUNTY, 1990 AND 2000

Household Income Ranges	1990				2000			
	Webster County	% of Total	State of Iowa	% of Total	Webster County	% of Total	State of Iowa	% of Total
Less than \$10,000	2,865	18.0%	173,098	16.2%	1,510	9.5%	93,783	8.2%
\$10,000 to \$14,999	1,851	11.7%	111,561	10.5%	1,297	8.2%	77,333	6.7%
\$15,000 to \$24,999	3,666	23.1%	221,213	20.8%	2,595	16.4%	165,122	14.4%
\$25,000 to \$34,999	3,040	19.1%	194,997	18.3%	2,448	15.4%	168,713	14.7%
\$35,000 to \$49,999	2,720	17.1%	191,863	18.0%	3,200	20.2%	218,204	19.0%
\$50,000 and over	1,742	11.0%	172,511	16.2%	4,812	30.3%	427,042	37.1%
Total	15,884	100.0%	1,065,243	100.0%	15,862	100.0%	1,150,197	100.0%
Median Household Income	\$23,692		\$26,229		\$35,334		\$39,469	
Number of Households	15,884		1,065,243		15,862		1,150,197	

Source: U.S. Census Bureau, Census of Population and Housing, STF-3A, 1990 / DP-3 2000

The median household income for Webster County was \$23,692 in 1990, which was \$2,537 lower than the State average. By 2000, the median household income increased to \$35,334 or an increase of 67.0% and was \$4,135 lower than the state average. The CPI for this period was 32.1%, which indicates incomes in Webster County did exceed inflation. Webster County households were earning more, in real dollars, in 2000 than in 1990.

TABLE 10: HOUSEHOLD INCOME BY AGE (55 YEARS & OLDER) WEBSTER COUNTY, 2000

Income Categories	55 to 64 years	65 to 74 years	75 years and over	Households age 55 and over	Households age 55 and over	Total Households	% of Total Households age 55 & over
Less than \$10,000	207	241	317	765	11.8%	1,510	50.7%
\$10,000 to \$14,999	125	284	480	889	13.8%	1,297	68.5%
\$15,000 to \$24,999	335	491	626	1452	22.5%	2,595	56.0%
\$25,000 to \$34,999	265	448	266	979	15.1%	2,448	40.0%
\$35,000 to \$49,999	418	310	251	979	15.1%	3,200	30.6%
\$50,000 or more	735	358	307	1,400	21.7%	4,812	29.1%
Total	2,085	2,132	2,247	6,464	100.0%	15,862	40.8%

Source: U.S. Census Bureau, Census of Population and Housing, SF4 2000

Table 10 indicates household income for Webster County householders aged 55 years and over in 2000. The purpose for this information is to determine the income level of Webster County's senior households. Table 10 indicates 6,464 households meeting this criterion. Of the 6,464 households in Table 10, 3,106 or 48.0% had incomes less than \$25,000 per year. Furthermore, 1,654 of these households, or 25.5% of the total households, had incomes less than \$15,000 per year; in addition, these 1,654 households accounted for 57.7% of all households in the County earning less than \$15,000.

This information indicates many of these households could be eligible for housing assistance to ensure they continue to live at an appropriate standard of living. The number of senior households could easily continue to grow during the next twenty years. As the size of the 55 and over age cohort increases, these fixed income households may be required to provide their entire housing needs for a longer period of time. Also, the fixed incomes that seniors tend to live on generally decline at a faster rate than any other segment of the population, in terms of real dollars.

The last two columns of Table 10 indicate the total number of households in each income level and the proportion of those households that were age 55 years and older. Note that in the income level of less than \$10,000, 50.7% of all households were over the age of 55. By contrast, only 30.6% of all households in the \$35,000 to \$49,999 income range are over 55 years of age, and only 29.1% of all households in the \$50,000 or more income range were over 55 years of age. This indicates that those who are over 55 years of age in Webster County account for a disproportionate part of these income groups and appear to be increasing in line with all ages in these income groups. As noted above, the over 55 age group may increase faster than any other cohort in the next twenty years.

Table 11 shows owner-occupied and renter-occupied housing costs as a percentage of household income in 2000. In addition, the table identifies the number of households experiencing a housing cost burden. Note the total number of households is different, due to the use of a different survey form. A housing cost burden, as defined by the U.S. Department of Housing and Urban Development (HUD), occurs when gross housing costs, including utility costs, exceed 30% of gross household income, based on data published by the U.S. Census Bureau. Table 11 shows 11,293 households, or 82.6% of total households, paid less than 30% of their income towards housing costs. This means the remaining 2,385 households, or 17.4% of the total, were experiencing a housing cost burden.

There were 1,139 owner-occupied households and 1,246 renter-occupied households that experienced this housing cost burden. However, even though the total number of owner-occupied units exceeded the renter-occupied, only 11.8% of owner-occupied households had a housing cost burden, while 31.0% of renter-occupied households had a housing cost burden. The median rent in Webster County, which was \$325 in 2000 and was slightly less than the state median of \$383.

TABLE 11: HOUSING COSTS AS A PERCENTAGE OF HOUSEHOLD INCOME, WEBSTER COUNTY, 2000

Income Categories	Owner-Occupied Households	% O.O. Households	Renter-Occupied Households	% R.O. Households	Total Households	% of Total Households
Less than \$10,000						
Less than 30% of income	87	0.9%	201	5.0%	288	2.1%
More than 30% of income	303	3.1%	648	16.1%	951	7.0%
\$10,000 to \$19,999						
Less than 30% of income	858	8.9%	448	11.1%	1,306	9.5%
More than 30% of income	370	3.8%	485	12.1%	855	6.3%
\$20,000 to \$34,999						
Less than 30% of income	1,787	18.5%	1,127	28.0%	2,914	21.3%
More than 30% of income	280	2.9%	113	2.8%	393	2.9%
\$35,000 to \$49,999						
Less than 30% of income	2,076	21.5%	650	16.2%	2,726	19.9%
More than 30% of income	107	1.1%	0	0.0%	107	0.8%
\$50,000 or more						
Less than 30% of income	3,710	38.4%	349	8.7%	4,059	29.7%
More than 30% of income	79	0.8%	0	0.0%	79	0.6%
TOTAL	9,657	100.0%	4,021	100.0%	13,678	100.0%
Housing Cost Analysis						
Less than 30% of income	8,518	88.2%	2,775	69.0%	11,293	82.6%
More than 30% of income	1,139	11.8%	1,246	31.0%	2,385	17.4%
TOTAL	9,657	100.0%	4,021	100.0%	13,678	100.0%

Source: U.S. Census Bureau, Census of Population and Housing, SF 3 Table H73 and H97, 2000

TABLE 12: AGE 65 AND OLDER COSTS AS PERCENTAGE OF INCOME, WEBSTER COUNTY, 2000

Income Categories	Owner-Occupied Households	% O.O. Households	Renter-Occupied Households	% R.O. Households	Total Households age 65 and Over	% of Total Households
Housing Cost Analysis						
Less than 30% of income	2,392	87.7%	492	61.7%	2,884	81.9%
More than 30% of income	334	12.3%	305	38.3%	639	18.1%
TOTAL	2,726	100.0%	797	100.0%	3,523	100.0%

Source: U.S. Census Bureau, Census of Population and Housing, SF 3 Table H71 and H96, 2000

Table 12 shows owner and renter costs for householders age 65 and over. Similar trends are shown in Table 12 as were shown in Table 11. A housing cost burden affects 639 households age 65 and over. In 2000, there were 334 owner-occupied households age 65 and over with a housing cost burden or 12.3% of the total households with this burden. However, 305 renter-occupied households age 65 and over experienced a housing cost burden, or 38.3% of the total households with this burden. While only 17.4% of the county population as a whole experienced a housing cost burden, 18.1% of all households over age 65 experienced a housing cost burden. This finding is of particular importance because it shows that elderly households account for 26.8% of all the households indicating a housing cost burden; all while they continue to face increasing housing costs and fixed or decreasing incomes.

INCOME SOURCE AND PUBLIC ASSISTANCE

Table 13 shows personal income by source for Webster County and the State. Between 1970 and 2000, the CPI was 345.1%. Total income, non-farm income, and per capita income showed tremendous growth. Non-farm income increased from \$166,707,000 in 1970 to \$951,705,000 in 2000, or an increase of 470.9%, which is nearly one and a half times the CPI.

In 2000, farm income had decreased from \$14,683,000 to \$11,339,000, or -22.8%. Farm income was the only category of the three income factors to indicate a declining trend. However, the state of Iowa had an overall increase in farm income.

Per capita income increased from \$3,752 in 1970 to \$23,960 in 2000, or an increase of 538.6%, again far greater than the CPI. The rate at which non-farm income and farm income were changing suggests that farm related employment activities are being replaced by non-farm related jobs. These data indicate Webster County has been going through an economic transformation since at least 1970.

TABLE 13: INCOME BY SOURCE, STATE AND WEBSTER COUNTY, 1970 TO 2000

Income Characteristics	1970	1980	1990	2000	% Change 1970-2000	% Annual Change
Webster County						
Total Personal Income	\$181,390,000	\$462,624,000	\$653,023,000	\$963,044,000	430.9%	16.0%
Non-farm Income	\$166,707,000	\$433,314,000	\$629,985,000	\$951,705,000	470.9%	17.4%
Farm Income	\$14,683,000	\$29,310,000	\$23,038,000	\$11,339,000	-22.8%	-0.8%
Per Capita Income	\$3,752	\$10,083	\$16,186	\$23,960	538.6%	19.9%
State of Iowa						
Total Personal Income	\$10,931,457,000	\$27,929,932,000	\$48,357,991,000	\$77,762,743,000	611.4%	22.6%
Non-farm Income	\$9,737,226,000	\$27,258,964,000	\$46,123,917,000	\$76,124,449,000	681.8%	25.3%
Farm Income	\$1,194,231,000	\$670,968,000	\$2,234,074,000	\$1,638,294,000	37.2%	1.4%
State of Iowa Per capita income	\$3,865	\$9,585	\$17,389	\$26,554	587.0%	21.7%

Source: Bureau of Economic Analysis, Regional Economic Information System, 2000

The per capita income in Webster County increased at a rate greater than the state as a whole from 1970 to 1980, however, Webster County's per capita income has fell below the state's average during 1990 and 2000. The county appears to have a declining economic base meaning the county still needs to monitor and manage its resources and continue to develop its economic base so that it can sustain its per capita income growth rate.

Table 14 indicates transfer payments to individuals in Webster County from 1970 to 2000. Note transfer payments equal government payments to individuals plus payments to non-profit institutions plus business payments. The remaining categories listed in Table 15 are sub-parts of the 'government payments to individuals' category.

Total transfer payments between 1970 and 2000 showed an increase in each reporting period. Government payments, retirement and disability insurance benefits, and medical payments comprised the majority of total transfer payments. The largest percentage increase occurred within Medical Payments, which increased by over \$61,612,000 or 2,367.87%. Retirement, disability and insurance benefits also had considerable increases; increasing by \$73,726,000 or 755.47%. Income maintenance payments had the third largest increase; these payments, which include SSI, AFDC, and food stamps, increased by \$9,729,000, or 431.06%.

TABLE 14: TRANSFER PAYMENTS, STATE AND WEBSTER COUNTY, 1970 TO 2000

Payment Type	1970	1980	1990	2000	% Change 1970 to 2000	% Change Per Year
Webster County						
Government payments to individuals	\$16,887,000	\$56,213,000	\$107,549	\$168,590,000	898.34%	29.9%
Retirement, Disability & Insurance Benefits	\$9,759,000	\$31,776,000	\$60,858,000	\$83,485,000	755.47%	25.2%
Medical Payments	\$2,602,000	\$12,197,000	\$30,647,000	\$64,214,000	2367.87%	78.9%
Income Maintenance Benefits (SSI, AFDC, Food Stamps, etc)	\$2,257,000	\$5,494,000	\$8,706,000	\$11,986,000	431.06%	14.4%
Unemployment Insurance Benefits	\$502,000	\$3,264,000	\$2,425,000	\$2,916,000	-10.66%	-0.5%
Veteran's Benefits	\$1,674,000	\$2,613,000	\$2,841,000	\$2,960,000	76.82%	2.6%
Federal Education and Training Assistance	\$91,000	\$866,000	\$2,032,000	\$2,895,000	234.30%	11.7%
Payment to Non-profit Institutions	\$841,000	\$2,176,000	\$3,152,000	\$5,627,000	569.08%	19.0%
Business Payments	\$510,000	\$1,275,000	\$2,837,000	\$4,542,000	790.59%	26.4%
Total	\$18,238,000	\$59,664,000	\$113,538,000	\$178,759,000	880.15%	29.3%
Transfer Payments Per Capita	\$376	\$1,298	\$2,814	\$4,443	1081.6%	40.1%
Total Per Capita Income	\$3,752	\$10,083	\$16,186	\$23,960	538.6%	19.9%
Per Capita Transfer Payments as % of Per Capita Income	10.0%	12.9%	17.4%	18.5%	85.0%	3.1%
State of Iowa						
Total	\$992,236,000	\$3,405,442,000	\$6,609,056,000	\$10,787,153,000	987.16%	36.6%
Transfer Payments Per Capita	\$351	\$1,169	\$2,376	\$3,684	950%	35%
Total Per Capita Income	\$3,865	\$9,585	\$17,389	\$26,554	587%	22%
Per Capita Transfer Payments as % of Per Capita Income	9.1%	12.2%	13.7%	13.9%	52.8%	2.0%

(L) – Less than \$50,000, estimates are included in totals.

Source: Bureau of Economic Analysis, Regional Economic Information System, 2004

The trend for transfer payments per capita between 1970 and 2000 indicates payments increased significantly to individuals in Webster County, increasing by 880.15% in 30 years. However, transfer payments, as a percentage of per capita income, increased at a much lower rate between 1970 and 2000. In 1970, transfer payments comprised 10.0% of total per capita income, and in 2000, transfer payments were 18.5% of total per capita income. During this 30-year period, Webster County’s proportion increased more than the state which only saw 2.0% increase compared to 3.0% for Webster County.

In 1970, total transfer payments for Webster were \$18,238,000 compared to \$992,236,000 for the state of Iowa. Webster County had approximately 1.8% of the Iowa total. By 2000, total transfer payments for Webster County were \$178,759,000, or an increase of 880.15% compared to \$10,787,153,000 for the state. In 2000, Webster County accounted for 1.6% of the state’s total.

INDUSTRY EMPLOYMENT

Analyzing employment by industry assists a county in determining the key components of its labor force. This section indicates the type of industry comprising the local economy, as well as identifying particular occupations that employ residents. Table 15 indicates employment size by industry for Webster County and the state of Iowa between 1970 and 2000.

TABLE 15: EMPLOYMENT BY INDUSTRY, STATE AND WEBSTER COUNTY, 1970 - 2000

Webster County	1970	% of Total	1980	% of Total	1990	% of Total	2000	% of Total	% Change 1970 to 2000
Farm Employment	2052	9.9%	1963	8.3%	1466	6.8%	1128	4.6%	-45.0%
Non-farm Employment	20672	100.0%	23556	100.0%	21405	100.0%	24411	100.0%	18.1%
Ag. Serv, forestry, fishing, mining and other	166	0.8%	144	0.6%	235	1.1%	338	1.4%	103.6%
Construction	954	4.6%	1107	4.7%	918	4.3%	1135	4.6%	19.0%
Manufacturing	4684	22.7%	4520	19.2%	2762	12.9%	2899	11.9%	-38.1%
Transportation and Public Utilities	1369	6.6%	1488	6.3%	1351	6.3%	2106	8.6%	53.8%
Wholesale Trade	1041	5.0%	1307	5.5%	1165	5.4%	1142	4.7%	9.7%
Retail Trade	4092	19.8%	4523	19.2%	4568	21.3%	5032	20.6%	23.0%
Finance, Insurance & Real Estate	1193	5.8%	1403	6.0%	1179	5.5%	1297	5.3%	8.7%
Services	4623	22.4%	5860	24.9%	6247	29.2%	6976	28.6%	50.9%
Government and Government Enterprises	2550	12.3%	3204	13.6%	2980	13.9%	3486	14.3%	36.7%
Totals - Non-farm	20672	100.0%	23556	100.0%	21405	100.0%	24411	100.0%	18.1%
State of Iowa									
Farm Employment	170932	15.2%	161699	11.7%	130807	8.6%	109624	6.0%	-35.9%
Non-farm Employment	1123669	100.0%	1379345	100.0%	1515137	100.0%	1824453	100.0%	62.4%
Ag. Serv, forestry, fishing, mining and other	15318	1.4%	13297	1.0%	23317	1.5%	28801	1.6%	88.0%
Construction	63507	5.7%	74100	5.4%	71317	4.7%	98810	5.4%	55.6%
Manufacturing	221422	19.7%	249837	18.1%	242401	16.0%	266961	14.6%	20.6%
Transportation and Public Utilities	62033	5.5%	69388	5.0%	69125	4.6%	91574	5.0%	47.6%
Wholesale Trade	50191	4.5%	83066	6.0%	82511	5.4%	90846	5.0%	81.0%
Retail Trade	217964	19.4%	254670	18.5%	280114	18.5%	327569	18.0%	50.3%
Finance, Insurance & Real Estate	83713	7.4%	109213	7.9%	109038	7.2%	135113	7.4%	61.4%
Services	219180	19.5%	305028	22.1%	403725	26.6%	528528	29.0%	141.1%
Government and Government Enterprises	190341	16.9%	220746	16.0%	233589	15.4%	256251	14.0%	34.6%
Totals - Non-farm	1123669	100.0%	1379345	100.0%	1515137	100.0%	1824453	100.0%	62.4%

Source: U.S. Bureau of Economic Analysis, Regional Economic Information System, 2006

Between 1970 and 2000, Webster County experienced many changes within its industries. Overall, the non-farm workforce in Webster County increased by 3,739 jobs, or 18.1%. However, Webster County experienced a large decline in manufacturing jobs from 4,684 in 1970 down to 2,899 in 2000, a decrease of -38.1%. Farm employment also decreased from 2,052 in 1970 down to 1,128 in 2000, a decrease of -45.0%. The state of Iowa had an increase of 700,784 positions, or 62.4%, including a 20.6% increase in manufacturing jobs. Webster County's workforce increased at a considerably slower rate than the state.

Webster County industries with the greatest percent increases were:

- Agricultural Services, forestry, fishing, mining and other, with an increase of 172 jobs or an increase of 103.6%
- Transportation and Public Utilities with an increase of 737 jobs or 53.8%,
- Services with an increase of 2,353 jobs or 50.9%, and
- Government and Government Enterprises with an increase of 936 jobs or 36.7%

The state of Iowa's, in comparison, largest percent changes are as follows:

- Services with an increase of 309,348 jobs or 141.1%
- Agricultural Services, forestry, fishing, mining and other, with an increase of 13,483 jobs or an increase of 88.0%
- Wholesale Trade with an increase of 40,655 jobs or 81.0%, and
- Finance, Insurance and Real Estate (F.I.R.E) with an increase of 51,400 jobs or 61.4%



Increases in employment positions within Webster County occurred in all other industry categories except manufacturing and farm employment:

- Services + 2,353 jobs
- Retail Trade + 940 jobs
- Government and Government Enterprises + 936 jobs
- Transportation and Public Utilities + 737 jobs
- Construction + 181 jobs
- Ag. Services, Forestry, Fishing, Mining, Other + 172 jobs
- Finance, Insurance, and Real Estate + 104 jobs
- Wholesale Trade + 101 jobs

Decreases in employment positions within Webster County between 1970 and 2000 occurred in two industry categories:

- Manufacturing -1,785 jobs
- Farm Employment -924 jobs

Changes within Webster County are reflective of the move nationally for more service-related industries. Webster County, together with their economic development partners, need to continually work to identify the county and community assets. The County can play heavily on Fort Dodge and major transportation routes when recruiting new businesses and industry. As new jobs come to Webster County, so will the demand for residential development. As stated previously, a solid population base is reflective of all other aspects of the county's economic health.

COMMUTER TRENDS

Tables 16 and 17 show the commuter characteristics for Webster County. Table 16 indicates where the residents of Webster County work by county 1970 to 2000. A trend seen between 1970 and 2000 indicates the resident workforce employed in Webster County decreased by 1,046 residents. The total number of commuters increased by 1,702.

TABLE 16: COMMUTER POPULATION TRENDS, RESIDENTS OF WEBSTER COUNTY, 1970 TO 2000

County of Residence	Work County	1970	1980	1990	2000	Change 1970-2000	% of 1970 Total	% of 2000 Total
Webster County	Black Hawk County	0	34	40	0	0	0.0%	0.0%
	Boone County	22	8	74	91	69	0.1%	0.5%
	Buena Vista County	0	0	24	0	0	0.0%	0.0%
	Calhoun County	50	209	146	132	82	0.3%	0.7%
	Carroll County	0	28	15	14	14	0.0%	0.1%
	Cerro Gordo County	0	48	16	0	0	0.0%	0.0%
	Dallas County	0	0	26	50	50	0.0%	0.3%
	Greene County	12	26	47	48	36	0.1%	0.3%
	Hamilton County	138	244	782	1,375	1,237	0.8%	7.5%
	Hardin County	15	26	6	18	3	0.1%	0.1%
	Humboldt County	45	191	165	252	207	0.3%	1.4%
	Kossuth County	12	12	23	18	6	0.1%	0.1%
	Pocahontas County	25	0	0	26	1	0.1%	0.1%
	Polk County	68	26	42	140	72	0.4%	0.8%
	Story County	19	36	75	83	64	0.1%	0.5%
	Webster County	16,916	18,888	16,199	15,870	-1,046	96.3%	87.1%
	Wright County	19	45	68	102	83	0.1%	0.6%
	Elsewhere	222	168	117	0	-222	1.3%	0.0%
Total	17,563	19,989	17,865	18,219	656	100.0%	100.0%	
Total Commuter	647	1,101	1,666	2,349	1,702			
% Commuter	3.7%	5.5%	9.3%	12.9%	157.5%			

Source: Bureau of Economic Analysis, Regional Economic Information System, 2004

The majority of the outgoing commuter increase was to Hamilton County (Webster City), which had 1,237 of the 1,702 or 72.6% of the total increase in the commuter workforce. The total workforce commuting to Hamilton County for employment increased from 21.3% of the total in 1970, to 58.8% of the total in 2000. The percentage of Webster County residents working in Webster County decreased from 96.3% in 1970, to 87.1% in 2000. The remaining 18.6% of the 2000 workforce were scattered between at least 17 other counties in the region. Overall, the number of commuters in Webster County increased from 647 in 1970 to 2,349 in 2000, a change of 263%.

TABLE 17: COMMUTER POPULATION TRENDS: WORKERS IN WEBSTER COUNTY, 1970 TO 2000

Work County	County of Residence	1970	1980	1990	2000	Change 1970-2000	% of 1970 Total	% of 2000 Total
Webster County	Leon County, Florida	0	0	0	35	35	0.0%	0.2%
	Bureau County, Illinois	0	0	0	8	8	0.0%	0.0%
	Adams County	0	0	0	8	8	0.0%	0.0%
	Black Hawk County	0	38	5	0	0	0.0%	0.0%
	Boone County	52	38	97	44	-8	0.3%	0.2%
	Buena Vista County	0	21	18	44	44	0.0%	0.2%
	Butler County	0	0	0	12	12	0.0%	0.1%
	Calhoun County	473	595	641	1,065	592	2.6%	5.5%
	Carroll County	0	0	0	30	30	0.0%	0.2%
	Cerro Gordo County	0	24	30	0	0	0.0%	0.0%
	Chickasaw County	0	0	0	8	8	0.0%	0.0%
	Dallas County	13	0	0	8	-5	0.1%	0.0%
	Franklin County	0	0	0	14	14	0.0%	0.1%
	Greene County	49	62	78	111	62	0.3%	0.6%
	Guthrie County	0	0	0	8	8	0.0%	0.0%
	Hamilton County	358	377	267	443	85	2.0%	2.3%
	Hancock County	0	0	0	20	20	0.0%	0.1%
	Hardin County	25	25	7	59	34	0.1%	0.3%
	Humboldt County	159	331	409	764	605	0.9%	3.9%
	Keokuk County	0	0	0	8	8	0.0%	0.0%
	Kossuth County	7	23	35	98	91	0.0%	0.5%
	Linn County	0	0	20	0	0	0.0%	0.0%
	Marshall County	0	0	0	10	10	0.0%	0.1%
	Palo Alto County	0	4	20	41	41	0.0%	0.2%
	Pocahontas County	38	35	72	180	142	0.2%	0.9%
	Polk County	0	62	45	78	78	0.0%	0.4%
	Sac County	13	33	26	43	30	0.1%	0.2%
	Sioux County	0	0	0	27	27	0.0%	0.1%
	Story County	11	24	52	51	40	0.1%	0.3%
	Tama County	0	0	0	12	12	0.0%	0.1%
	Webster County	16,916	18,888	16,199	15,870	-1,046	93.1%	81.3%
	Winnebago County	0	0	0	14	14	0.0%	0.1%
Winneshek County	0	0	0	22	22	0.0%	0.1%	
Wright County	62	118	149	285	223	0.3%	1.5%	
Dakota County, Minnesota	0	0	25	0	0	0.0%	0.0%	
Freeborn County, Minnesota	0	0	0	20	20	0.0%	0.1%	
Koochiching County, Minnesota	0	0	0	8	8	0.0%	0.0%	
Mower County, Minnesota	0	0	0	12	12	0.0%	0.1%	
Macon, Missouri	0	0	0	23	23	0.0%	0.1%	
Vernon, Missouri	0	0	0	29	29	0.0%	0.1%	
		18,176	20,698	18,195	19,512	1,336	100.0%	100.0%
	Total Commuters	1,260	1,810	1,996	3,642	2,382		
	% Commuters	6.9%	8.7%	11.0%	18.7%	189.0%		

Source: Bureau of Economic Analysis, Regional Economic Information System, 2004

The number of Webster County residents employed in Webster County decreased by -1,046, while the number of workers commuting into Webster County increased by 2,382 between 1970 and 2000. The majority of the incoming commuter population came from Calhoun County to the west and Humboldt County to the north, which added 592 and 605 respectively. Although the number of commuters from both Calhoun County and Humboldt County for employment increased in number, the total percentage of commuters decreased from 50.1% of the total commuters in 1970, to 32.8% of the total in 2000. The percentage of Webster County workers living in Webster County decreased from 93.0% in 1970, to 81.3% in 2000. The remaining 18.7% of the 2000 workforce commute into Webster County from four other states and 32 other counties in the region.

During 1970, there were 647 workers living in Webster County who commuted elsewhere for employment. There were also 1,260 workers living elsewhere who commuted into Webster County for employment. By 2000, these numbers changed to 2,349 commuting out of Webster County, and 3,642 commuting into Webster County. These changes represent an increase of 94.7% in the number commuting out, and 189.0% in the number commuting into Webster County. The percentage of workers commuting into Webster County grew compared to those commuting out of the county. Overall, Webster County had a net increase of 1,293 persons commuting into the county.

The information in Tables 16 and 17 allows the County to identify how much money is leaving the County every day in the pockets of resident commuters. In addition, the County can get an idea of how much is coming into the County from non-resident commuters. By knowing how many residents are leaving the County for employment, Webster County can develop strategies to create jobs within the County that will attract and keep its own residents in the County, spending their money on goods and services provided by the County workforce.

Travel time to work is another factor that can be used to gauge where Webster County's workforce has been commuting. Table 18 shows how many residents of Webster County travel to work in each of several time categories.

TABLE 18: TRAVEL TIME TO WORK, WEBSTER COUNTY, 1990 TO 2000

Travel Time Categories	1990	% of Total	2000	% of Total	% Change
Less than 5 minutes	1,274	7.1%	1,155	6.3%	-9.3%
5 to 9 minutes	4,066	22.8%	4,226	23.0%	3.9%
10 to 19 minutes	8,050	45.1%	7,776	42.3%	-3.4%
20 to 29 minutes	1,914	10.7%	2,304	12.5%	20.4%
30 to 44 minutes	1,083	6.1%	1,439	7.8%	32.9%
45 to 59 minutes	258	1.4%	358	1.9%	38.8%
60 minutes or more	408	2.3%	550	3.0%	34.8%
Worked at home	812	4.5%	555	3.0%	-31.7%
Total	17,865	100.0%	18,363	100.0%	2.8%
Mean Travel Time (minutes)	18.5		16.0		-13.5%

Source: U.S. Census Bureau, Census of Population and Housing, STF-3A, 1990 – SF 3 Table P050 and P31, 2000

Table 18 indicates the workforce in 2000 spent 2.5 minutes less traveling to work than in 1990. The average travel time decreased from 18.5 minutes in 1990 to 16.0 minutes in 2000. The largest increase occurred in the 45 to 59 minute category, which increased by 100 persons, or 38.8 %. The next largest increase occurred in the 60 minutes or more category, which increased by 142 persons, or 34.8%. Finally, the 30 to 44 minutes category was the third largest increase with 356 more commuters or 32.9%. Increases in travel times are more likely due to the population commuting Hamilton County.

The number of persons working at home, less than five minutes, and the 10 to 19 minutes categories all had decreases. The number of persons working from home had a decrease of 257 people, or -31.7% from 1990 to 2000. The less than five minutes and 10 to 19 minutes categories decreased -9.3% and -3.4% respectively. This may be have been caused by the increase of Webster County residents traveling further distances to find better paying jobs, but also may be a result of a population that has fewer children to take care of at home, and is therefore able to work farther from home.

REGIONAL BASIC/NON-BASIC ANALYSIS

The following data examine six occupational areas established by the U.S. Census Bureau to evaluate trends in employment and the area economy. Basic employment and non-basic employment are defined as follows:

- Basic employment is business activity providing services primarily outside the area through the sale of goods and services, the revenues are directed to the local area in the form of wages and payments to local suppliers.
- Non-Basic employment is business activity providing services primarily within the local area through the sale of goods and services, and the revenues of such sales re-circulate within the community in the form of wages and expenditures by local citizens.

This analysis is used to further understand which occupational areas are exporting goods and services outside the area, thus importing dollars into the local economy. The six occupational categories used in the analysis are listed below:

- Management, professional, and related occupations
- Service occupations
- Sales and office occupations
- Farming, fishing and forestry occupations
- Construction, extraction, and maintenance occupations
- Production, transportation, and material moving occupations

A related concept to the basic/non-basic distinction is that of a basic multiplier. The basic multiplier is a number, which represents how many non-basic jobs are supported by each basic job. A high basic multiplier means that the loss of one basic job will have a large potential impact on the local economy if changes in employment occur. The rationale behind this analysis is that if basic jobs bring new money into a local economy, that money becomes the wages for workers in that economy. Finally, the more money generated by basic jobs within a county; the more non-basic jobs supported.

Table 19 indicates the occupation category, the percent of Webster County residents employed in each category, the percent of State residents employed in each category, and the basic and non-basic employment for that category in Webster County. The formula for determining the basic or non-basic nature of an occupation entails subtracting the State's percentage of workforce in a particular occupation from the percentage of the workforce in that occupation in the county. If the county has a lower proportion of its workforce employed in an occupation than the State as a whole, then that occupation is non-basic.

TABLE 19: BASIC/NON-BASIC EMPLOYMENT BY OCCUPATION, WEBSTER COUNTY, 2000

Occupation Category	Number of Webster County Workforce	% of Webster County Workforce	% of State Workforce	Webster County minus State of Iowa	Basic	Non-Basic
Management, professional, and related occupations	5,233	28.0%	31.3%	-3.3%	0.0%	28.0%
Service occupations	3,089	16.5%	14.8%	1.7%	1.7%	14.8%
Sales and office occupations	4,706	25.2%	25.9%	-0.7%	0.0%	25.2%
Farming, fishing, and forestry occupations	227	1.2%	1.1%	0.1%	0.1%	1.1%
Construction, extraction, and maintenance occupations	1,751	9.4%	8.9%	0.5%	0.5%	8.9%
Production, transportation, and material moving occupations	3,699	19.8%	18.1%	1.7%	1.7%	18.1%
TOTAL	18,705	100%	100%		4.0%	96.1%
Economic base multiplier	24.03					

Source: U.S. Census Bureau, Census of Population and Housing, DP-3, 2000

In Webster County, there are four basic occupation industries: 1) Service occupations, 2) Farming, fishing, and forestry occupations, 3) Construction, extraction and maintenance occupations, and 4) Production, transportation, and material moving occupations. Goods and services from these occupations are exported to markets outside of Iowa, which in turn generates an infusion of dollars into the local economy. Table 19 shows that 96.1% of the jobs in Webster County are non-basic, while only 4.0% provide goods and services outside of the County. If an economic downturn occurred in this area, it could have a major impact on the County's economy.

The basic multiplier for Webster County is 24.03. This number indicates that every basic job supports 24 non-basic jobs in Webster County. Every time Webster County loses a job in one of the four basic occupation industries listed above, the county potentially could lose 24 non-basic jobs. In order to decrease this potential, Webster County needs to accentuate the basic jobs by diversifying the employment base even more. Counties want a balance of basic and non-basic employment in their economy to ensure future economic stability.

Table 19 shows that one of the non-basic occupation categories, sales and office operations, are very close to the same percentage as the State, so it is possible that these categories could become basic, if additional jobs were created. If these occupational areas were to surpass the state percentage, they would start to contribute to the basic employment of the county, which in turn would lower the basic multiplier. However, as jobs are added to one occupation category, the percentages for all of the industries will change. This makes forecasting future basic and non-basic occupations complex and difficult.

Table 20 indicates the 2000 percentage of employment by occupational categories for residents of the State of Iowa, Webster County, and surrounding counties. Webster County has similar labor forces by percentage when compared to each occupational category. In only one case, farming, fishing, and forestry, does Webster County have the lowest percentage of employment. Interestingly, Webster County's Basic Multiplier is much higher than most of the surrounding counties.

TABLE 20: REGIONAL AND STATE LABOR FORCE COMPARISONS, WEBSTER COUNTY, 2000

Location	Occupation 1	Occupation 2	Occupation 3	Occupation 4	Occupation 5	Occupation 6	Base Multiplier
Iowa	31.3%	14.8%	25.9%	1.1%	8.9%	18.1%	NA
Boone County	27.3%	17.4%	25.8%	1.6%	11.6%	16.2%	16.92
Calhoun County	32.8%	17.4%	22.7%	1.7%	10.9%	14.6%	14.93
Greene County	31.7%	15.1%	20.1%	1.7%	10.7%	20.7%	17.25
Hamilton County	30.2%	13.8%	21.0%	2.3%	9.4%	23.2%	14.56
Pocahontas County	35.5%	15.2%	21.2%	2.5%	7.9%	17.8%	16.67
Webster County	28.0%	16.5%	25.2%	1.2%	9.4%	19.8%	24.03
County Averages	30.9%	15.9%	22.7%	1.8%	10.0%	18.7%	17.4

Occupation 1 = Management, professional, and related occupations
 Occupation 2 = Service occupations
 Occupation 3 = Sales and office occupations
 Occupation 4 = Farming, fishing, and forestry occupations
 Occupation 5 = Construction, extraction, and maintenance occupations
 Occupation 6 = Production, transportation, and material moving occupation
 Source: U.S. Census Bureau, Census of Population and Housing, DP-3, 2000

While the surrounding counties have a multiplier in the range of 14.56 to 17.25, Webster County’s multiplier is 24.03. The impact of such a high multiplier is that Webster County is much more sensitive to the loss of one basic position, compared to some of the neighboring counties, especially since nearly 85% of the basic employment is in two categories (Table 19). The reason for the higher multiplier is that the workforce is only 4.0% basic. This indicates a very small proportion of the workforce is responsible for generating the flow of new money into the county. The higher the basic percentage becomes the lower the Basic Multiplier will become. There is no perfect multiplier number; however, a balanced multiplier provides a more balanced economy.

One way for the county to increase the proportion of basic labor would be to increase the number of jobs in the existing basic categories, 1) Service occupations, 2) Farming, fishing, and forestry occupations, 3) Construction, extraction and maintenance occupations, and 4) Production, transportation, and material moving occupations. Another strategy would be for Webster County to diversify its employment opportunities and increase the strength and security of its workforce. To do this, Webster County must bring some of its non-basic jobs into the basic category.

TABLE 21: BASIC/NON-BASIC EMPLOYMENT BY INDUSTRY, WEBSTER COUNTY, 2000

Industry Categories	Webster County		State of Iowa		Webster County minus State of Iowa	Basic	Non-Basic
	2000	% of Total	2000	% of Total			
Agriculture, forestry, hunting and mining	788	4.2%	65,903	4.4%	-0.2%	0.0%	4.2%
Construction	928	5.0%	91,824	6.2%	-1.2%	0.0%	5.0%
Manufacturing	3,332	17.8%	253,444	17.0%	0.8%	0.8%	17.0%
Wholesale Trade	734	3.9%	53,267	3.6%	0.3%	0.3%	3.6%
Retail Trade	2,606	13.9%	179,381	12.0%	1.9%	1.9%	12.0%
Transportation and warehousing and utilities	1,113	6.0%	73,170	4.9%	1.0%	1.0%	4.9%
Information	442	2.4%	41,970	2.8%	-0.5%	0.0%	2.4%
Finance, Insurance, Real Estate and rental and leasing	697	3.7%	100,395	6.7%	-3.0%	0.0%	3.7%
Professional, scientific, management, administration, and waste management service	867	4.6%	90,157	6.1%	-1.4%	0.0%	4.6%
Educational, health, and social services	4,263	22.8%	324,142	21.8%	1.0%	1.0%	21.8%
Arts, entertainment, recreation, accommodation and food services	1,176	6.3%	98,819	6.6%	-0.3%	0.0%	6.3%
Other services (except public administration)	969	5.2%	66,286	4.4%	0.7%	0.7%	4.4%
Public Administration	790	4.2%	51,058	3.4%	0.8%	0.8%	3.4%
Total	18,705	100.0%	1,489,816	100.0%		6.6%	93.4%
Base Multiplier	14.06						

Source: US Census – 2000 DP-3

Table 21 offers another basic/non-basic analysis based upon industry categories instead of occupation categories. With the data presented in this Table, Webster County will have more detailed information to define where job growth needs to occur. Note the total percentage of basic and non-basic employment is calculated in this Table.

According to Table 21, the following industries are strong in Webster County and provide many of the basic jobs that are supporting non-basic employment. The amount each category is above the state average is in parenthesis.

- Manufacturing (0.8%)
- Wholesale trade (0.3%)
- Retail Trade (1.9%)
- Transportation and warehousing and utilities (1.1%)
- Educational, health, and social services (1.0%)
- Other Services - except public administration (0.8%)
- Public administration (0.8%)

The industries having the most room for growth are listed below. The amount each category is below the state average is in parenthesis.

- Agriculture, forestry, hunting, and mining, construction (-0.2%)
- Information (-0.4%)
- Finance, insurance, and real estate (-3.0%)
- Professional, scientific, management, administration, and waste management service (-1.5%)
- Arts, entertainment, recreation, accommodations (-0.3%)
- Food services (-0.3%)

Tables 19 and 21 combine to give Webster County a picture of the employment conditions. In order to boost the economy of the County, there must be a flow of money into the county from other regions. To do that, the County needs to offer goods and services to those other areas. The county could also diversify its economic structure, which will add strength and stability.

AGRICULTURAL PROFILE

The agricultural profile enables a county to evaluate the influence of the agriculture industry on the area economy. Since most Iowa counties were formed around county seats and agriculture, the agricultural economy, historically, has been the center of economic activity for counties. The U.S. Census Bureau - Census of Agriculture tracks agricultural statistics every five years. Since that frequency does not coincide with the decennial U.S. Census of Population and Housing, it is difficult to compare sets of census data.

AGRICULTURE TRENDS

Table 22 identifies key components affecting Webster County's agricultural profile. This table indicates the number of farms within Webster County decreased between 1987 and 2002, likely due to an agricultural sector that has operated with economic instability. The agricultural sector has also become more mechanically dependent resulting in larger sized farms and less numbers overall. The average size of farms increased from 337 acres in 1987 to 447 acres in 2002. The average value of land and buildings increased from \$432,253 per farm in 1987 to \$942,349 per farm in 2002 and from \$1,281 per acre in 1987 to \$2,206 per acre in 2002. The typical trend in the Midwest has been for the number of farms to decrease, but with increases in size and value. The number of acres committed to crops increased by less than 1.0% from 1987 to 2002 in Webster County, however, in the 15-year period the acres actually harvested had an increased 19.0%.

TABLE 22: AGRICULTURAL PROFILE, WEBSTER COUNTY, 1987-2002

Agricultural Characteristics	1987	1992	1997	2002	% Change 1987-2002
Number of Farms	1,235	1,059	988	932	-24.5%
Land in Farms (acres)	416,623	408,462	429,724	417,019	0.1%
Average size of farms (acres)	337	386	435	447	32.6%
Total land area for Webster County	459,500	459,500	459,500	459,500	0.0%
Percentage of land in farm production	90.7%	88.9%	93.5%	90.8%	0.1%
Total cropland (acres)	384,173	379,412	385,884	387,383	0.8%
Harvested cropland (acres)	312,048	357,814	374,565	371,464	19.0%
Estimated Market Value of Land & Bldg (avg./farm)	\$432,253	\$598,749	\$1,069,561	\$942,349	118.0%
Estimated Market Value of Land & Bldg (avg./acre)	\$1,281	\$1,636	\$2,330	\$2,206	72.2%

Source: U.S. Census of Agriculture, 1987 1992, 1997, 2002

The average size of farms in Webster County has increased by 32.6%. The period between 1987 and 2002 was one of great turmoil for the agriculture industry. Looking only at the period from 1987 to 2002, Table 22 shows the average value per farm increased by 118.0% and the average value per acre increased by 72.2%.



TABLE 23: NUMBER OF FARMS BY SIZE, WEBSTER COUNTY, 1987-2002

Farm Size (acres)	1987	1992	1997	2002	% Change 1987-2002
1 to 9	75	85	55	60	-20.0%
10 to 49	118	75	88	149	26.3%
50 to 179	300	249	192	194	-35.3%
180 to 499	459	348	316	247	-46.2%
500 to 999	223	226	178	147	-34.1%
1,000 or more	60	76	108	135	125.0%
Total	1,235	1059	937	932	-24.5%

Source: U.S. Census of Agriculture, 1992, 1997, 2002

Table 23 shows between 1987 and 2002 there was a mixture of change with regard to farm size. Those farms 1 to 9 acres in size experienced a -20.0 change while those 10 to 49 acres saw an increase of 26.3%. Furthermore, the number of farms between 180 acres and 499 acres decreased by 212 farms or -46.2%, which is similar to the decline in farms sized 500 to 999 acres which declined -34.1%. Finally, those farms over 1,000 acres increased by 125.0% in the 15-year period.

TABLE 24: NUMBER OF FARMS & LIVESTOCK BY TYPE, WEBSTER COUNTY, 1987 TO 2002

Type of Livestock	1987	1992	1997	2002	% Change 1987 to 2002
Cattle and Calves					
farms	231	208	208	129	-44.2%
animals	12,135	10,824	12,870	7,423	-38.8%
average per farm	53	52	62	58	9.5%
Beef Cows					
farms	157	156	154	107	-31.8%
animals	3,638	3,483	3,805	3,098	-14.8%
average per farm	23	22	25	29	24.9%
Milk cows					
farms	9	11	6	4	-55.6%
animals	198	413	292	216	9.1%
average per farm	22	38	49	54	145.5%
Hogs and Pigs					
farms	250	234	130	88	-64.8%
animals	95,799	116,958	149,935	146,614	53.0%
average per farm	383	500	1,153	1,666	334.8%
Sheep and lambs					
farms	62	49	36	18	-71.0%
animals	2,887	1,741	1,274	697	-75.9%
average per farm	47	36	35	39	-16.8%
Chickens (layers and pullets)					
farms	36	19	20	18	-50.0%
animals	D	D	D	D	-
average per farm	-	-	-	-	-

Source: U.S. Census of Agriculture, 1992, 1997, 2002

D - Information withheld

Table 24 indicates the number of farms and livestock by type for Webster County between 1987 and 2002. The predominant livestock operations are cow/calf operations, and hog operations. All livestock productions in Webster County showed large declines in the number of farms raising animals. During the 15-year period, hogs and pigs increased by 53.0% in numbers of livestock but a -64.8% decrease in number of farms producing hogs and pigs. The decline in farms is due to the strong movement in the development of confined animal feeding operations. The average number of hogs and pigs per farm increase 334.8% over the 15-year period.

Cattle and calve operations in Webster County decreased -44.2% from 1987 to 2002, however, the number of animals per farm increased 9.5% from 53 per farm in 1987 to 58 per farm in 2002. Overall, the number of animals decreased -38.8% from 12,135 head in 1987 to 7,423 head in 2002.

TABLE 25: NUMBER OF FARMS AND CROPS BY TYPE, WEBSTER COUNTY, 1987 TO 2002

Type of Crop	1987	1992	1997	2002	% Change 1987 to 2002
Corn for Grain					
farms	1,048	883	731	665	-36.5%
acres	138,143	181,453	115,938	187,455	35.7%
average per farm	132	205	159	282	113.8%
Corn for Silage					
farms	30	26	35	29	-3.3%
acres	773	967	916	1,527	97.5%
average per farm	26	37	26	53	104.4%
Oats					
farms	93	96	47	34	-63.4%
acres	1,798	2,085	1,182	648	-64.0%
average per farm	19	22	25	19	-1.4%
Soybeans					
farms	1,039	863	773	641	-38.3%
acres	170,666	173,398	186,828	178,461	4.6%
average per farm	164	201	242	278	69.5%
Alfalfa					
farms	244	219	176	155	-36.5%
acres	4,356	3,417	3,113	3,704	-15.0%
average per farm	18	16	18	24	33.9%

Source: U.S. Census of Agriculture, 1987, 1992, 1997, 2002
 Note: No information was listed for sorghum or wheat

Table 25 indicates the number of farms and crop by type for the period from 1987 to 2002. Information on sorghum and wheat was not included for Webster County. Corn, oats, soybeans, and alfalfa are the predominant crops produced within the county. Information included in the table indicates the total number of farms producing the specific crop and finally an average per farm.

Corn production in Webster County has increased from 138,143 acres in 1987 to 187,455 acres in 2002, an increase of 35.7%. Similar to other trends, the number of farms producing corn changed by -36.5% over 15 years from 1,048 farms down to 665 farms. However, the number of acres per farm increased 113.8% from 132 acres up to 282 acres per farm.

Soybean production in the county has remained somewhat steady since 1987 increasing only 4.6% to 178,461 total acres in 2002. The number of acres per farm increased 69.5% from 164 acres up to 278 acres. Similar to corn, the number of farms producing soybeans decreased from 1,039 to 641, a decrease of -38.3%.

County Facilities

- Recreational Facilities
- Educational Facilities
- Fire and Police Protection
- County Buildings
- Transportation Facilities
- Registered Historic Sites
- Communication Facilities
- Public Utilities
- Health Facilities
- Libraries
- Museums



County Facilities

State and local governments provide a number of goods and services for their citizens. The people, buildings, equipment and land utilized in the process of providing these goods and services are referred to in the public facilities plan.

Public facilities represent a wide range of buildings, utilities, and services that are built and maintained by the different levels of government. Such facilities are provided to insure the safety, well being, and enjoyment of the residents of a jurisdiction, in this case, Webster County. These facilities and services provide County residents with social, cultural, educational, and recreational opportunities, as well as law enforcement and fire protection services designed to meet area needs. It is important for all levels of government to anticipate the future demand for their goods and services if they are to remain strong and vital.

An important step is to first establish a list of services and facilities which are currently provided to citizens of the county. In some instances, there are a number of goods and services that are not provided by the local or state governmental body and thus are provided by non-governmental private or non-profit organizations in the county. These organizations are important providers of goods and services, especially in sparsely populated rural counties.

Webster County Facilities Inventory

The Facilities Inventory component of a Comprehensive Development Plan lists all the available services and facilities in Webster County. This inventory provides decision makers with a resource to evaluate future demands. The information for this inventory was gathered by JEO Consulting Group, Inc. staff, the steering committee, and Webster County staff.

The Facilities Inventory for Webster County is divided into the following categories:

- Recreational Facilities
- Educational Facilities
- Fire and Police Protection
- County Buildings
- Transportation Facilities
- Registered Historic Sites
- Communication Facilities
- Public Utilities
- Health Facilities
- Libraries
- Museums

RECREATIONAL FACILITIES

Located in north central Iowa, Webster County has a multitude of outdoor recreation facilities, many of which utilize the Des Moines River that runs through the county.

STATE RECREATIONAL FACILITIES

Webster County is home to two State Parks operated by the Iowa Department of Natural Resources (IDNR); Brushy Creek State Park and Dolliver State Park.

Brushy Creek is located approximately 15 miles southeast of Fort Dodge. The park is one of Iowa's largest tracts of public recreation land at over 6,000 acres encompassing a 690 acre lake and provides access to the Des Moines River. Brushy Creek is equipped



with picnic shelters, standard and equestrian camping, 50 miles of multipurpose trails, a shooting range, several boat ramps, and a swimming beach. The most popular activities at Brushy Creek are hunting and fishing. Hunters can pursue a variety of game species including pheasant, quail, white-tail deer, and wild turkeys. Anglers have the use of several boat ramps, fishing jetties, and a fishing pier on the lake, as well as access to both Brushy Creek and the Des Moines River.

Unlike Brushy Creek, Dolliver State Park is one of the oldest state parks in Iowa. Dedicated in 1925 the 457 acre park contains bluffs, canyons, the Des Moines River, Prairie Creek and Indian Mounds; all of which are very important to the natural and cultural history of Iowa. Dolliver State Park offers two lodges for day-use rental, several sleeping cabins, a large campsite with electrical hookups, modern restrooms, and hiking trails. Located along the Des Moines River Dolliver is a favorite put in-take out spot for canoeists and kayakers as well as providing anglers access to the river.

COUNTY RECREATIONAL FACILITIES

Webster County manages 18 different parks and conservation areas throughout the county.

- Becker Wildlife Area
- Bob Hay Memorial Conservation Area
- Carlson Recreation Area
- Deer Creek Area
- The Diggings
- Holiday Creek Area
- Lindquist Wildlife Sanctuary
- Liska-Stanek Prairie
- Lost Acres Wildlife Area
- Lundgren Church Nature Park
- Meier Memorial Marsh
- Miller Marsh
- Moorland Pond
- Prairie Pond Wildlife Area
- Rossow Prairie
- Skillet Creek Indian Mounds
- Whispering Wins Marsh
- John F Kennedy Memorial Park

Most of the County owned recreation sites are primitive conservation areas with little development on site; however there is public access for outdoor recreation on all the sites. The largest and most popular of the county parks is John F Kennedy Memorial Park. It consists of 395 acres containing the following amenities:

- 45 acre lake
- 100 Camping Sites
- Reception Center
- Nature Center
- Lodge
- Grills and Picnic shelters
- Hiking Trails
- Swimming Beach
- ADA Accessible Fishing Dock
- Boat Ramp
- Butterfly Garden
- Softball Field
- Lakeside Municipal Golf Course

The Gypsum City Off-Highway Vehicle Park, located in Fort Dodge, is a new 300-acre park is envisioned to one day encompass some 1,500 acres, possibly as soon as 2014. The park came about in a cooperative effort by government agencies and officials, state lawmakers, non-profit groups and four gypsum companies. The park had been in the works for five or six years.

The park is built on former mining land. It includes 15 miles of trails, a motocross track and a practice track for younger kids. The park is free, and the hours are from sunrise to sunset.

The park is being managed by the Webster County Wheelers club. Officials expect the park will pump some \$70,000 a weekend into the local economy, or about \$3 million a year. The Gypsum City Off-Highway Vehicle Park is located at 2390 Mill Road, south of Fort Dodge just off U.S. Highway 20.

Source: http://www.atvaonline.com/Ride/Gypsum_IA.asp



Source: http://www.atvaonline.com/Ride/Gypsum_IA.asp

GOLF COURSES

The following public and private golf courses serve the residents of Webster County:

TABLE 26: WEBSTER COUNTY GOLF COURSES

Name	Location	Type of Facility	Number of Holes	Season
Lakeside Municipal Golf Course	Fort Dodge	Public	18	April 1 to October 31
Fort Dodge Country Club	Fort Dodge	Private	18	April 1 to November 1
American Legion Golf & Country Club	Fort Dodge	Public	9	March 15 to October 31
Dayton Golf & Country Club	Dayton	Semi-Private	9	April 1 to October 15
Gowrie Golf & Country Club	Gowrie	Public	9	April 1 to October 15
Sunkissed Meadows Municipal Golf Course	Fort Dodge	Public	9	April 1 to November 1

Source: www.golfable.com

EDUCATIONAL FACILITIES

PUBLIC SCHOOLS

There are nine public school districts serving the residents of Webster County. The ability and opportunity for parents to provide their children with a quality education close to home has a major impact on where families locate. Areas experiencing population growth must also plan for an expanding school system. Specific information pertaining to the various school districts is given below in Table 27.

TABLE 27: WEBSTER COUNTY SCHOOLS BY SCHOOL DISTRICT

School District	School Name/Type and Location	Grades*	1995-96 Enrollment	2005-06 Enrollment	Percent Change 1995-96 to 2005-06
Fort Dodge Community School District	Butler Elementary Fort Dodge	K-4	248	342	38%
	Cooper Elementary Fort Dodge	K-4	300	259	-13.6%
	Duncombe Elementary Fort Dodge	K-4	405	311	-23%
	Feelhaver Elementart Fort Dodge	K-4	258	222	-14%
	Hillcrest Elementary Fort Dodge	K-4	211	178	-15.6%
	Riverside Elementary Fort Dodge	K-4	177	173	-2%
	Fair Oaks Middle School Fort Dodge	5-6	688	578	-16%
	Phillips Middle School Fort Dodge	7-8	693	641	-7.5
	Fort Dodge Senior High School Fort Dodge	9-12	1379	1261	-8.5%
	Gordon Willard Alternative Center Fort Dodge		NA	44	
Prairie Valley Community School District	Prairie Valley Elementary School Callender	K-4	307	255	-17%
	Prairie Valley Middle School North of Farnhamville	5-8	312	244	-22%
	Prairie Valley High School Gowrie	9-12	269	254	-5.5%

School District	School Name/Type and Location	Grades*	1995-96 Enrollment	2005-06 Enrollment	Percent Change 1995-96 to 2005-06
Southeast Webster/ Grand Community School District	Burnside/Grand Elementary Boxholm	3-6	142	167	17.6%
	Dayton Center Elementary Dayton	K-3	139	175	26%
	Southeast Webster Middle School Burnside	7-8	154	94	-39%
	Southeast Webster High School Burnside	9-12	165	132	-20%
	Iowa Central Charter High School		NA	79	
Stratford Community School District	Stratford Elementary	K-6	123	129	5%
Manson/Northwest Community School District	Manson Northwest Elementary School Manson	K-4	406	264	-35%
	Manson Northwest Middle School Manson	5-8	200	193	-3.5%
	Manson Northwest High School Manson	9-12	258	285	10.5%
Webster City Community School District	Riverview Early Childhood Center Webster City	Pre K	43	41	-4.7%
	Pleasant View Elementary School Webster City	K-4	279	276	-1%
	Sunset Heights Elementary School Webster City	K-4	351	295	-16%
	Webster City Middle School Webster City	5-8	428	528	23.4%
	Webster City High School Webster City	9-12	603	637	5.6%
Eagle Grove Community School District	Lela Howland Elementary Eagle Grove	K-1	160	120	-25%
	Lincoln Elementary Eagle Grove	2-4	216	206	-4.6%
	Robert Blue Middle School Eagle Grove	5-8	304	247	-18.7%
	Eagle Grove High School Eagle Grove	9-12	296	303	2.4%
Gilmore City/Bradgate Community School District & Twin Rivers School District	Gilmore City Elementary School Gilmore City	K-5	103	89	-13.6%
	Twin Rivers Elementary Bode	K-5	126	41	-67.5%
	Twin Rivers Middle School Bode	6-8	114	69	-39.5%
	Twin Rivers High School Bode	9-12	151	109	-28%
Humbolt Community School District	Mease Elementary School Humbolt	K-1	279	203	-27%
	Taft Elementary School Humbolt	2-5	438	334	-24%
	Humbolt Middle School Humbolt	6-8	358	322	-10%
	Humbolt High School Humbolt	9-12	351	438	25%

* Grade levels shown in table are those which were offered in 2005-2006.

POSTSECONDARY EDUCATION

There is a multitude of postsecondary institutions that serve the residents of Webster County. The following are some of Iowa's college's with campus locations in parentheses:

- University of Phoenix (Des Moines)
- Upper Iowa University (Fayette)
- William Penn University – College for Working Adults (Des Moines)
- Allen College (Waterloo)
- Asford University (Clinton)
- Briar Cliff University (Sioux City)
- Buena Vista University (Storm Lake)
- Central College (Pella)
- Clarke College (Dubuque)
- Coe College (Cedar Rapids)
- Cornell College (Mount Vernon)
- Dordt College (Sioux Center)
- Drake University (Des Moines)
- Grand View College (Des Moines)
- Grinnell College (Grinnell)
- Hawkeye Community College (Waterloo)
- Indian Hills Community College (Ottumwa)
- Iowa Central Community College (Fort Dodge)
- Iowa State University (Ames)
- Iowa Wesleyan College (Mount Pleasant)
- Iowa Western Community College (Council Bluffs)
- Kirkwood Community College (Cedar Rapids)
- Loras College (Dubuque)
- Luther College (Decorah)
- Maharishi University of Management (Fairfield)
- Morningside College (Sioux City)
- Mount Mercy College (Cedar Rapids)
- North Iowa Area Community College (Mason City)
- Northwest Iowa Community College (Sheldon)
- Northwestern College of Iowa (Orange City)
- Simpson College (Indianola)
- St. Ambrose University (Davenport)
- University of Dubuque (Dubuque)
- University of Iowa (Iowa City)
- University of Northern Iowa (Cedar Falls)
- Vennard College (University Park)
- Waldorf College (Forest City)
- William Penn University (Oskaloosa)

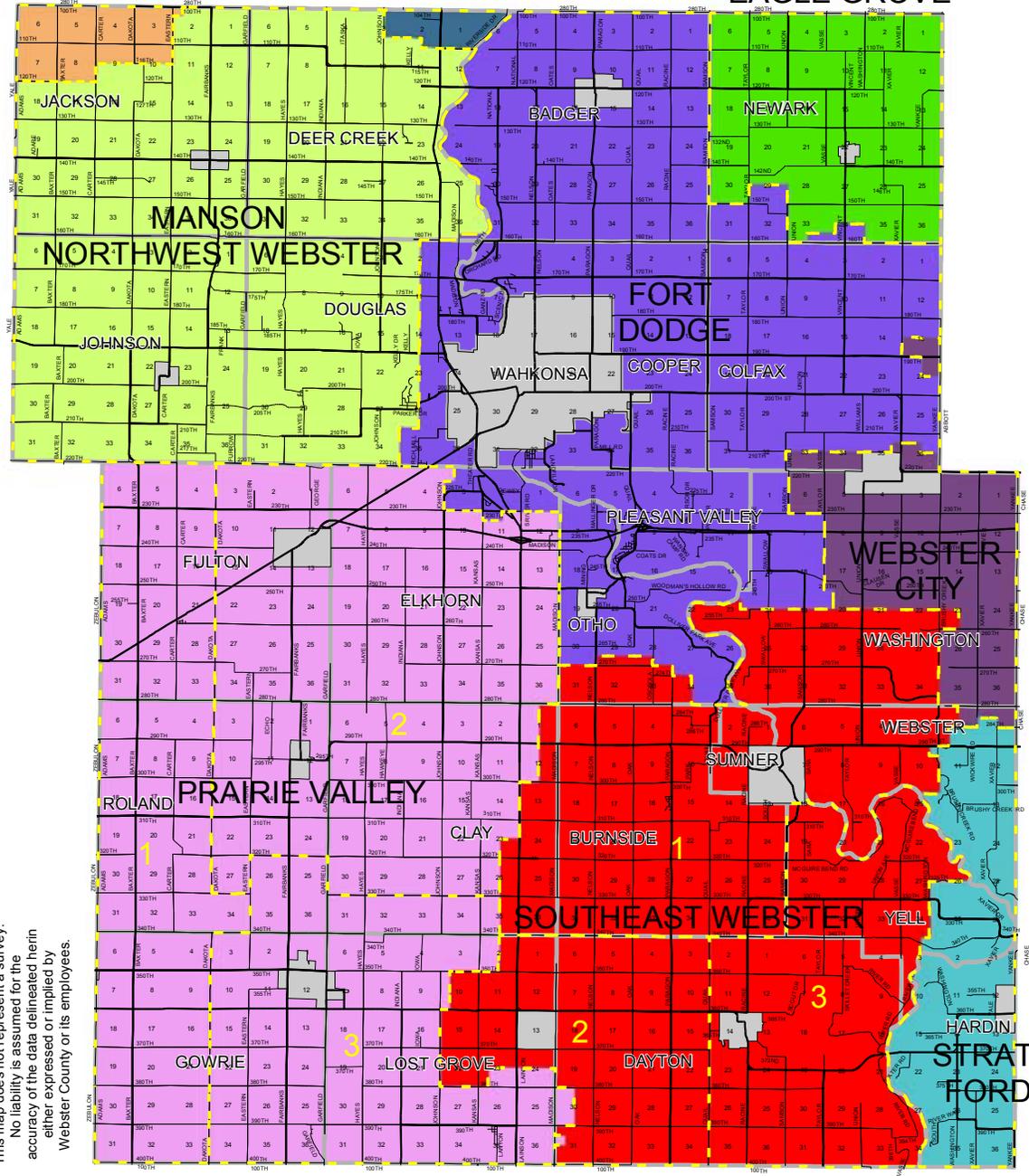
In addition to the institutions listed above, there are various other schools offering postsecondary education opportunities, such as vocational and business schools.

WEBSTER COUNTY SCHOOL DISTRICTS

GILMORE CITY
BRADGATE

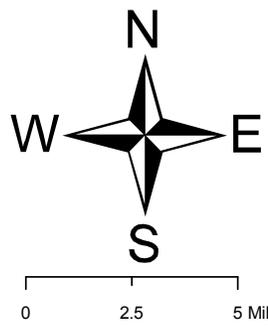
HUMBOLDT

EAGLE GROVE



This map does not represent a survey.
 No liability is assumed for the
 accuracy of the data delineated herein
 either expressed or implied by
 Webster County or its employees.

Webster County GIS Department
 Courthouse
 Fort Dodge, IA 50501
 Prepared: December 2004



- Legend**
- CITIES
 - EAGLE GROVE COMMUNITY SCHOOL DISTRICT
 - FORT DODGE COMMUNITY SCHOOL DISTRICT
 - GILMORE CITY-BRADGATE COMMUNITY SCHOOL DISTRICT
 - HUMBOLDT COMMUNITY SCHOOL DISTRICT
 - MANSON NORTHWEST WEBSTER COMMUNITY SCHOOL DISTRICT
 - PRAIRIE VALLEY COMMUNITY SCHOOL DISTRICT
 - SOUTHEAST WEBSTER COMMUNITY SCHOOL DISTRICT
 - STRATFORD COMMUNITY SCHOOL DISTRICT
 - WEBSTER CITY COMMUNITY SCHOOL DISTRICT
 - School District Boundary
 - Roads
 - Political Townships

FIRE PROTECTION AND LAW ENFORCEMENT

FIRE AND RESCUE

There are 16 fire districts and 7 rescue districts in Webster County. Each of the departments participates in a mutual aid program, which provides for backup of the initial respondent by the other departments including firefighters and equipment. Figure 4 shows the layout of the rural fire and rescue districts in the county.

LAW ENFORCEMENT

Law enforcement in Webster County is the responsibility of the Webster County Sheriff's Department. The Webster County Sheriff's office is located at 702 1st Avenue South in Fort Dodge. The Department has 16 sworn deputies (ILEA sworn peace officers). They provide law enforcement services for the entire County as well as contract law enforcement for 5 communities. The Sheriff's Office also staffs and maintains a 29-bed jail facility.

The District 7 office of the Iowa State Patrol is located in Fort Dodge. The office services a 7 county area including; Calhoun, Hamilton, Humboldt, Kossuth, Pocahontas, Webster and Wright Counties. There are 3 Sergeants and 14 Troopers working out of the District 7 office.

Several towns in Webster County have their own police force, below is a list of the towns and the number of officers they have on full-time staff.

- Fort Dodge – 37 Officers
- Gowrie – 1 Officer
- Badger – 1 Officer
- Dayton – 1 Officer

TABLE 28: SWORN OFFICERS, WEBSTER COUNTY AND ITS COMMUNITIES

Jurisdiction	2005		
	Sworn Officers	Estimated Populations	Officers per 1,000 Population
Webster County	16	39,003	.41
Fort Dodge	37	25,493	1.45
Gowrie	1	1,045	.96
Badger	1	586	1.71
Dayton	1	837	1.19

COUNTY BUILDINGS

Webster County Courthouse - located downtown Fort Dodge. The facility underwent a restoration in the mid-1990's to clean and replace cracked stones on the exterior and to renovate the interior as close as possible to the original architecture. The courthouse houses all of the offices for Webster County.

Webster County Health Department – located at 330First Avenue North, Suite L-2. This facility houses the public health programs, environmental health, and emergency preparedness programs.

Webster County Fairgrounds - located just south of Fort Dodge on Hwy 169.

Webster County Conservation Board – located five miles north of Fort Dodge on Highway P56 in John F. Kennedy Memorial Park.

TRANSPORTATION FACILITIES

AIRPORTS

Webster County is served by the Fort Dodge Regional Airport, located just north of Fort Dodge on Highway 413. The airport supports limited commercial flights and a number of charter services. It is equipped with two runways one measuring 6,547 ft long and 150 ft wide and the other being 5,301 ft long and 100 ft wide.

For major domestic and international airline service, the nearest airport serving Webster County is Des Moines International (DSM), located south of Interstate 235 on Fleur Drive. DSM supports the following airlines.

- Alegent Air
- American Eagle
- Comair – Delta Connection
- Continental Express
- Midwest Airlines
- Northwest Airlines
- United Airlines
- US Airways

REGISTERED HISTORIC SITES

The following information has been taken from the National Register of Historic Places, a division of the National Park Service, at www.cr.nps.gov/nr/.

TABLE 29: NATIONAL REGISTER OF HISTORIC PLACES, WEBSTER COUNTY

Registered Historic Site	Location	City	Year Placed on Register
Lorenzo S. Coffin Burial Plot	Northwest of Fort Dodge on Hwy 7	Fort Dodge	1977
Corpus Christi Church	416 N 8th St	Fort Dodge	1976
Dolliver Memorial State Park, Entrance Area (Area A)	North of Hwy 50 on Des Moines Rd	Lehigh	1990
Dolliver Memorial State Park, Entrance Area (Area B)	North of Hwy 50 on Des Moines Rd	Lehigh	1990
First National Bank Building	629 Central Ave	Fort Dodge	2003
Oak Hill Historic District	Between 8th - 12th Streets and 2nd and 3rd Aves	Fort Dodge	1977
Oakland Cemetary	1600 N 15th St	Fort Dodge	2000
Oleson Park Music Pavilion	1400 Oleson Park Ave	Fort Dodge	2003
Vincent House	824 3rd Ave S	Fort Dodge	1973
Webster County Courthouse	701 Central Ave	Fort Dodge	1981

Source: National Register of Historic Places, National Park Service, 2005



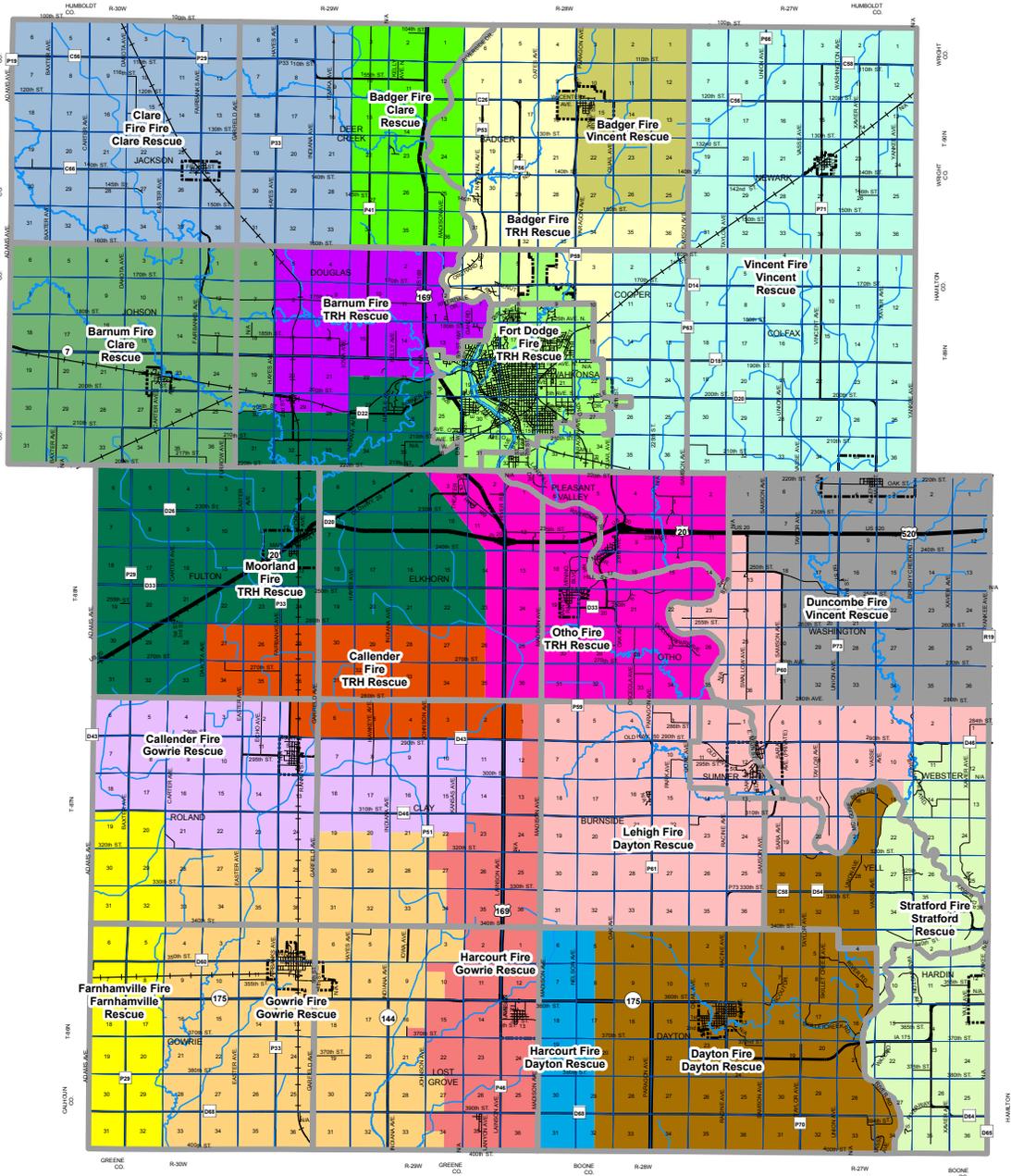
Webster County Courthouse
Source: <http://www.judicial.state.ia.us/wfdata/frame1759-1464/pressrel93.asp>



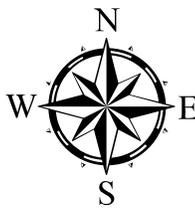
Webster County Health Department
Source: <http://webstercountya.org/HealthDepartment.htm>

FIGURE 4: FIRE AND RESCUE DISTRICT MAP

Webster County Fire and Rescue Districts



Prepared by MIS Department
 Courthouse
 Fort Dodge, IA 50501
 November 2007



0 2.5 5 Miles

- Badger Fire, Clare Rescue
 - Badger Fire, Trinity Regional Hospital Rescue
 - Badger Fire, Vincent Rescue
 - Barnum Fire, Clare Rescue
 - Barnum Fire, Trinity Regional Hospital Rescue
 - Callender Fire, Gowrie Rescue
 - Callender Fire, Trinity Regional Hospital Rescue
 - Clare Fire, Clare Rescue
 - Dayton Fire, Dayton Rescue
 - Duncombe Fire, Vincent Rescue
 - Farnhamville Fire, Farnhamville Rescue
 - Fort Dodge Fire, Trinity Regional Hospital Rescue
 - Gowrie Fire, Gowrie Rescue
 - Harcourt Fire, Dayton Rescue
 - Harcourt Fire, Gowrie Rescue
 - Lehigh Fire, Dayton Rescue
 - Moorland Fire, Trinity Regional Hospital Rescue
 - Otho Fire, Trinity Regional Hospital Rescue
 - Stratford Fire, Stratford Rescue
 - Vincent Fire, Vincent Rescue
- Corporate Limits
 - Railroads
 - Townships
 - Water

COMMUNICATION FACILITIES

TELEPHONE SERVICES

Webster County is provided telephone service from Frontier Communications, Lehigh Valley Telephone Coop, Mediacom, and Webster Calhoun Telephone Coop. Cellular Service is provided by US Cellular, Cellular One, Nextel, Sprint, Verizon Wireless, and Cingular Wireless.

INTERNET/WORLD WIDE WEB SERVICE PROVIDERS (ISP)

Internet service is provided to Webster County residents by Frontier Communications, Lehigh Valley Telephone Coop, Mediacom, and Webster Calhoun Telephone Coop.

RADIO STATIONS

There are several radio stations serving the people of Webster County they are listed below.

- KQWC 1570 AM
- KWMT 540 AM
- WHO 1040 AM
- WOI 640 AM
- KFGQ 1260 AM
- KXEL 1540 AM
- KFAN 1130 AM
- KPSZ 940 AM
- WCCO 830 AM
- KOIL 1020 AM
- WCTS 1030 AM
- KBGG 1700 AM
- KFAB 1110 AM
- KQWC 95.7 FM
- KMXD 100.3 FM
- WOI-FM 90.1 FM
- KLTJ-FM 104.1 FM
- KKEZ 94.5 FM
- KJYL 100.7 FM
- KSTZ 102.5 FM
- KIAQ 96.9 FM

TELEVISION STATIONS

There are several Television stations that serve the Webster County area they are listed below.

- KDIN-TV Channel 11 Des Moines (PBS)
- WOI-TV Channel 5 Aimes (ABC)
- WHO-TV Channel 13 Des Moines (NBC)
- KCCI-TV Channel 8 Des Moines (CBS)
- KDSM-TV Channel 17 Des Moines (FOX)
- KPWB-TV Channel 23 Ames (WB)
- KTIN Channel 21 Fort Dodge (PBS)

NEWSPAPERS

There are various newspapers serving the residents of Webster County, they are listed below:

- Belmond Independent
- Humboldt Independent
- Ames Tribune
- Webster City Daily Freeman-Journal
- Wright County Monitor
- Carroll Today
- Ogden Reporter

PUBLIC/PRIVATE UTILITIES

ELECTRICITY

Mid-American Energy Holdings Company and Corn Belt Power Cooperative supply Webster County residents with Electricity.

NATURAL GAS

Mid-American Energy Holdings Company supplies Natural Gas to Webster County residents within their service area. Ferrell gas and Heartland Coop supply propane to rural residents of Webster County.

PUBLIC WATER SUPPLY

The water supply throughout Webster County varies depending on where one is located. Typically, residents of the county living within the incorporated communities are served by a public water supply.

Those residents living in the rural areas of the county typically have individual wells that provide their domestic water needs.

SANITARY SEWER

The sanitary sewer system throughout Webster County varies depending on where one is located. Webster County residents within the incorporated communities of the county are typically served by a public community-wide sanitary sewer collection and treatment system.

Those residents living in the rural areas of Webster County have individual sanitary systems that may include septic tanks, absorption fields and individual lagoon systems.

HEALTH FACILITIES

HOSPITALS

There are several facilities in and around Webster County, which offer a large network of primary care physicians, surgeons, and specialists. These hospitals include:

Hospital	Location
Buena Vista Regional Medical Center	Storm Lake, IA
Hamilton Hospital	Webster City, IA
Humboldt County Memorial Hospital	Humboldt, IA
Pocahontas Community Hospital	Pocahontas, IA
Trinity Regional Medical Center	Fort Dodge, IA
Wright Medical Center	Clarion, IA
Boone County Hospital	Boone, IA
Green County Medical Center	Jefferson, IA
Iowa Methodist Medical Center	Des Moines, IA
Mercy Medical Center	Des Moines, IA
Mary Greeley Medical Center	Ames, IA

NURSING HOME FACILITIES

Nursing home facilities can range from fully staffed assisted-living arrangements to an apartment-like setting staffed by few persons, who may have only basic medical knowledge. These facilities accommodate persons in various health conditions in a setting that provides as much independence as possible to the resident.

The following is a listing of the facilities that are within Webster County:

Nursing Home Facility	Location
Rotary Ann Home	Eagle Grove, IA
Bickford Cottage	Fort Dodge, IA
Fort Dodge Villa Care Center	Fort Dodge, IA
Marion Home	Fort Dodge, IA
Tompkins Memorial Health Center	Fort Dodge, IA
USA Healthcare Fort Dodge	Fort Dodge, IA
Villa Cottages Assisted Living	Fort Dodge, IA
Manson Good Samaritan Center	Manson, IA
Crestview Senior Living	Webster City, IA
Southfield Wellness Community	Webster City, IA

LIBRARIES

Webster County has several public libraries through out the county offering a variety of services.

- Badger Public Library
- Callender Heritage Library
- Clare Public Library
- Dayton Public Library
- Duncombe Public Library
- Fort Dodge Public Library
- Gowrie Public Library
- Harcourt Community Library
- Lehigh Public Library

MUSEUMS

Webster County is home to the Fort Dodge Museum which allows its visitors to experience the frontier days first hand. The Museum is home to several historic buildings and facilities constructed to represent buildings of that time period including; a one room school house, the 1855 Carson-Richey Log House, and a log chapel that many people rent out for weddings throughout the year.

Existing Land Use

- Introduction
- Existing Land Use Analysis
- Existing Residential Density
- Existing Land Use Summary



Existing Land Use

Introduction

Evaluating the land uses that presently exist within Webster County is critical to the formulation of the Comprehensive Development Plan. The analysis of land including location, size, and characteristics of existing uses is an important process to understand the pattern of development, past land use trends, and other significant factors shaping the existing layout of Webster County. This analysis is essential to the preparation of the future land use plan. In order to realistically plan for future growth and development in Webster County, the starting point is the existing shape, form, and amount of land presently used to provide for county functions. It also assists in the formulation of workable zoning regulations to protect existing uses.

EXISTING LAND USE CATEGORIES

The existing land use map was created through visual interpretation of a county wide 2005 aerial photography using ArcGIS. In addition, information from the Iowa Department of Natural Resources, such as non-coal mining operations, major transportation routes, confined animal feeding operations, agricultural processing facilities, and conservation lands was used. Information created for the evaluation includes locations of non-farm residences and farmsteads, as well as areas of residential subdivisions. These locations were determined from the 2005 aerial photography and reviewed by the steering committee.

Farmstead locations were identified by the presence of other structures, such as grain bins and barns, adjacent to residences. Acreages were identified where stand alone residences were found. The majority of the features are identified as point features on the map instead of parcels. The location of each specific use of land is shown graphically on the existing land use map, Figure 5. The existing land uses of Webster County were classified under the following categories:

- Farm/Non-farm residential
- Conservation/recreational land
- Transportation, railroads, and utilities
- Residential subdivisions
- Mining operations
- Industrial
- Agricultural
- Confined animal feeding operations
- Corporate boundaries

Land use categories listed above are generally defined in the following manner:

Farmsteads

Uses in this category are residential dwellings that have adjacent operational agriculture buildings and/or family livestock operations. Residential units of this type are evenly distributed throughout the county.

Acreages

This use comprises residential dwellings that are not related to agriculture or feedlots and includes single residential dwellings located on county roads, highways, or private drives.

Residential Subdivisions

Areas with numerous residential structures specifically designed for occupancy of single family or multi-family occupancy which may share infrastructure with other similar structures.

Conservation/Recreational Land

This category consists of county and state recreational areas, hunting areas, and nature preserves. This category includes State Recreational Areas and/or Wildlife Management Areas, camping areas, and private hunting/recreational areas or camps owned and operated by clubs or organizations.

Agriculture

Row crop, alfalfa, pasture land and all grain crops are considered agriculture land uses. Webster County is largely an agricultural based county and the existing land use map verifies this.

Confined Animal Feeding Operations (CAFOs)

Feedlots, confinements of high production densities, and agricultural industries comprise the uses of industrial agricultural areas. These uses may be large or small, a family operation, or a standard operation. Also included in this category are commercial kennels and hog/cattle confinements or feedlots that are no longer in operation. These operations are scattered throughout the county.

Commercial

Uses in this category consist of convenient stores; entertainment facilities; feed, seed, automobile and machinery sales; petroleum sales; large home businesses such as mechanical and welding shops, etc. Commercial uses tend to be located near urban areas or in proximity to highways for accessibility.

Industrial

Land uses of this nature may include communication plants, commercial grain elevators, light manufacturing, commercial storage, industrial parks, large salvage yards, etc. These uses tend to be located near municipalities and major transportation routes for accessibility purposes.

Agricultural Processing Facility (Industrial)

This category includes locations of the two existing ethanol plants and the wet-mill plant currently under construction west of Fort Dodge.

EXISTING LAND USE ANALYSIS

PHYSICAL CHARACTER OF WEBSTER COUNTY

Land use development in any area is structured by the physical characteristics of the terrain. The physical character of Webster County is a mixture of rolling plains, woodlands, the Des Moines river valley, and minimal grasslands throughout the county. Agricultural development is dominant due to vast amount of prime farmland throughout the county. The Des Moines River valley provides scenic values to the county.

RURAL UNINCORPORATED LAND USES

Agriculture Development

According to the 2002 Census of Agriculture from USDA for Webster County, 417,019 acres of the total 459,706 acres, or 90.7%, are in farm land. The average farm size is 447 acres. The majority of the agricultural land, or 92.9%, is cropland.

Confined Animal Feeding Operations

Webster County has 37 CAFOs according to the Iowa Department of Natural Resources. CAFOs of varying sizes are scattered throughout the county, but mostly found in the south and southeast portions of the county. The existing operations, in most instances, are located a substantial distance from the urban areas of the county. These uses are indicated as red circles on the existing land use map. Generally, many of the CAFOs are located in areas where rural farmsteads are the predominant land use. The development of these uses in close proximity with farmsteads in the county has occurred for the same reasons original farmsteads were constructed; the availability of adequate water, supplies, higher crop production potentials, and the desire to have the confined feeding facilities located near the producers' farming or ranching operations.

Farmstead Development

Farmsteads are identified as dark-brown squares on the existing land use map. Farmsteads cover the entire rural area of the county. A total of 1,145 farmsteads were located from the aerial photography during the existing land use analysis some of which maybe abandoned. Examination of the land use pattern, with regard to farmstead development, reveals no specific pattern aside from the fact that the majority of farmsteads were developed in near a major transportation route.

Acreages

Non-farm rural residential development is a growing trend throughout the State of Iowa over the past two or three decades. Based upon the visual interpretation of the aerial photography, a total of 1,611 acreages, graphically displayed as light-brown squares, are located throughout the county. This trend is common and has been driven by market demand for larger parcels of land and larger homes in more scenic rural areas. In most instances, larger parcels of land are not available within the corporate limits of cities; as a result the development has occurred in rural areas.

This trend can be expected to continue to occur throughout the county in the future. It is important for the governing body of Webster County to acknowledge the potential increase in non-farm residents in the future and design regulations that adequately manage their impact on the existing uses within the county, especially gypsum mining and other industrial activities. In addition, regulations should require these types of development to have adequate services and access to transportation and be located adjacent to existing communities. Acreage development has occurred throughout the entire county; however, the areas southeast, east, and northwest of Fort Dodge have experienced the most dense non-farm rural development.

Single Family Residential

Single family residential development as noted before is similar to rural residential but many dwellings may share infrastructure. These developments are represented by yellow polygons on the existing land use map.

Commercial Development

Commercial development is very limited in the rural Webster County area.

Industrial Development

The majority of industrial development includes gypsum mining operations and three ethanol plants. The major industrial uses are located around Fort Dodge and north of Gowrie.

Conservation/Recreational Lands

Most of the conservation and recreational land in Webster County is in the southeast corner of the county adjacent to the Brushy Creek State Park and at the Des Moines River, Soldier Creek, and Lizard Creek confluence.

EXISTING RESIDENTIAL DENSITY

Residential density maps are developed to display the general trend of rural residential development across the entire county. Density maps assist decision makers on the establishment of rules to either control or promote similar development to areas of the county more suitable for residential development.

Note: Inaccuracies may exist in these maps due to continuous changes in residential land use such as new home construction, removal of older structures, or abandoned farmsteads and homes. These maps were based upon the best available information at the time of the planning process.

Residential density maps are created in response to the growing concerns of rural residential growth throughout the county. These maps display spatially where and how much rural residential development has been allowed to occur in the county ranging from very low density to high density. These maps can be utilized when making future land use decisions as well as future transportation decisions. Density maps can also assist in the development of zoning regulations which may limit the amount of non-agricultural residences located in areas of the county best suited for row-crop agriculture.

For example, if a particular section of land has been deemed a higher density area with rural residential properties then that specific section should be given a due amount of care when the future residential growth decisions are proposed. Additionally, when future transportation project decisions are visited at a county level, this particular area of the county should be given a higher priority when making these decisions to meet the needs of these county residents. Land use and transportation decisions, services and facilities also must be weighed depending upon the density of development in that area of the county. This allows the planning commission and the governing body of Webster County to fully analyze ratio of development and the services needing to be provided to residents in a specific area of the county.

ACREAGE DENSITY BY SECTION

Figure 6 displays the number of acreages by density per section (640 acres) for the unincorporated areas of the county. Acreage development does not include farms. The map displays density in five categories listed as very low, low, medium, medium-high, and high density.

Acreege development appears to have occurred mostly northwest and southeast of Fort Dodge. The map displays a number of sections with very low density southeast of Fort Dodge due to the presence of gypsum mining operations. Approximately 135 sections in the county, or about 20% of the total unincorporated area, are medium density or higher.

ACREAGE DENSITY BY QUARTER-SECTION

Figure 7 displays the total acreage development per quarter section (160 acres) within the unincorporated areas of Webster County. Acreage development does not include farmsteads. The map displays density in five categories listed as very low, low, medium, medium-high, and high density.

Acreage density is more accurately displayed by quarter section. Overall, 36.1% of the quarter sections have very low density, 43.1% are listed as low density, 19.4% are medium density, and 1.4% are medium-high to high density acreage development.

TOTAL RESIDENTIAL DEVELOPMENT BY SECTION

Total residential development by section (640 acres) includes both farmsteads and acreage development as interpreted by the 2005 aerial photography. The map displays density in the same five categories as the acreage development density maps; very low, low, medium, medium-high, and high density.

According to Figure 8, 19 sections have very low residential development within the unincorporated boundaries of Webster County. Similar to the trend, the majority of residential development has occurred generally around Fort Dodge, particularly to the northwest and southeast. Fewer than 80% of the county's sections are either low or medium density, according to the 2005 data. A total of 20% of sections are either medium-high or high density residential development.

TOTAL RESIDENTIAL DEVELOPMENT BY QUARTER-SECTION

Figure 9 displays total residential development by quarter-section (160 acres). Total residential development includes acreages and farmstead development. The map displays density in the same five categories as the acreage development density maps; very low, low, medium, medium-high, and high density.

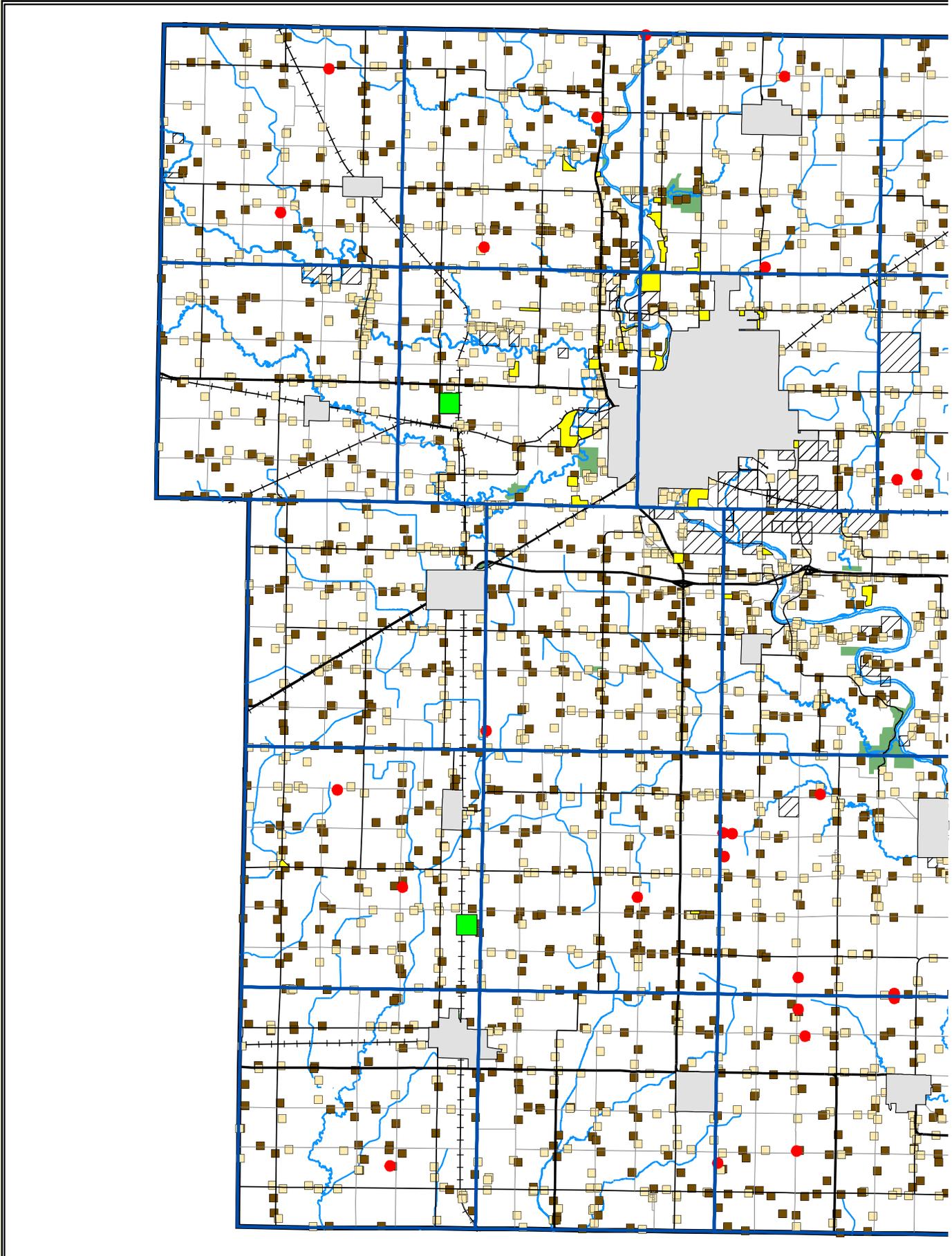
According to Figure 9, 35.6% of all quarter-sections are listed as very low residential density. Just over half, or 57.5% are low to medium density. Only 6.9% have a density of medium-high or high per quarter-section. Other than immediately surrounding Fort Dodge there is little residential development in Webster County.

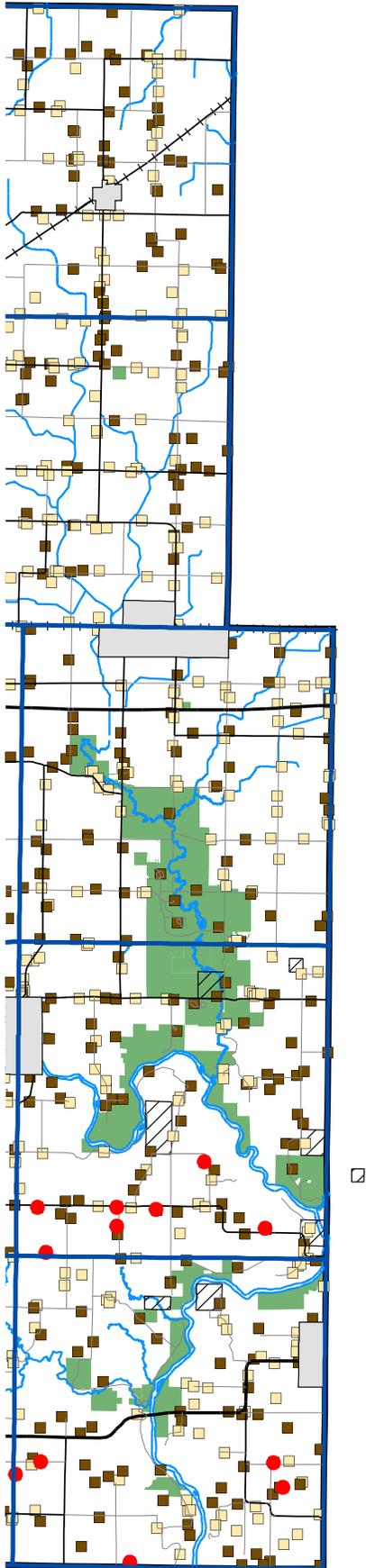
EXISTING LAND USE SUMMARY

The existing land use pattern in the unincorporated portions of the County will have implications on the development of land use in the future. There needs to be a place for each type of development (i.e. farming, non-farm residents, gypsum mining operations, and confined feeding operations) within the rural portions of Webster County, but locating these uses should be meticulously evaluated. If Webster County wants to discourage development and preserve areas of prime farmland it will be imperative to formulate a Future Land Use Plan and Zoning Regulations that effectively balance development and minimize conflicting land uses.

Overall, the existing land use pattern in Webster County is typical of most agriculturally rich counties in the Midwest. CAFOs in rural counties tend to have the most significant affect on establishing locations for additional developments due to issues with air and water pollution, noise, and odor. Numerous gypsum mining operations surrounding Fort Dodge will have an impact on where new development should occur as well in order for the two uses to coexist. Acreage development has become more dense surrounding Fort Dodge but has not grown out of control at the time of the planning period. Webster County should establish rural residential development standards as part of the Future Land Use Plan and Zoning Regulations that locates future non-agricultural residential development in areas where it will not inhibit the continued development of mining and agricultural operations.

FIGURE 5: EXISTING LAND USE, WEBSTER COUNTY

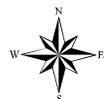




WEBSTER COUNTY, IOWA

Figure 5: Existing Land Use

-  Residential Subdivisions
-  CAFO
-  Corporate Limits
-  Highways
-  Major Road
-  Local Road
-  Ethanol Biodeisel Facilities
-  Acreage
-  Farm
-  Mines
-  Rivers/Streams
-  Railroads
-  Conservation/Recreation Lands



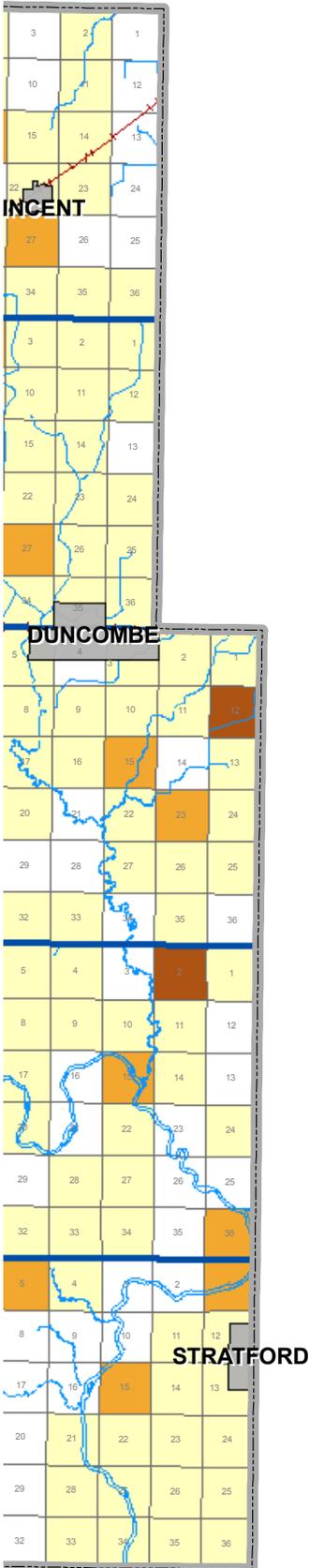
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 Source: GIS Process: ArcView 9.2

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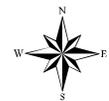
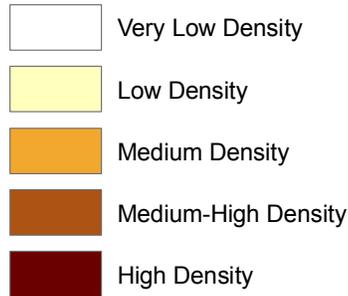
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WEBSTER COUNTY, IOWA



Acreage Density



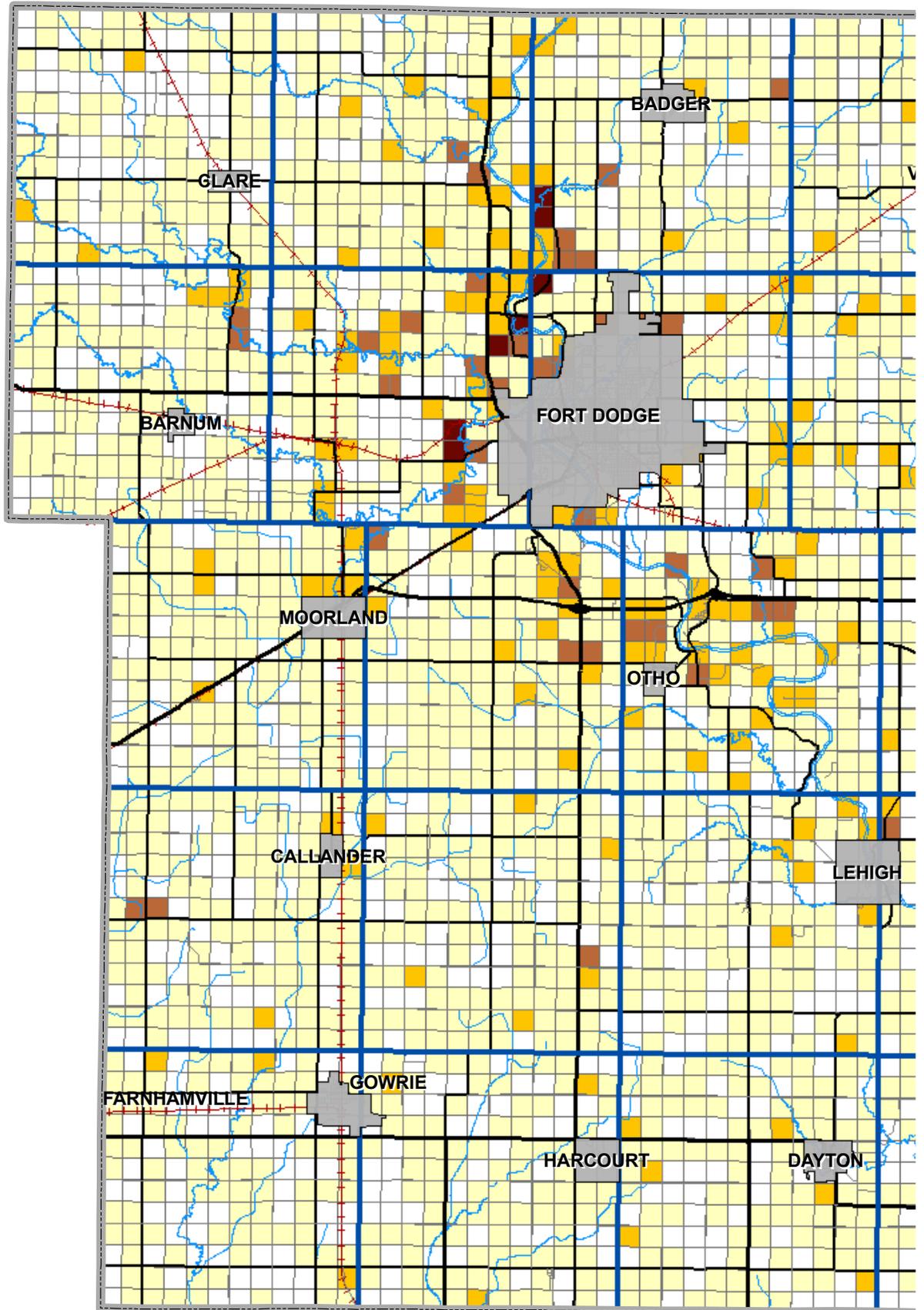
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FIGURE 7: ACREAGE DENSITY PER QUARTER-SECTION

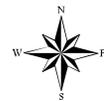
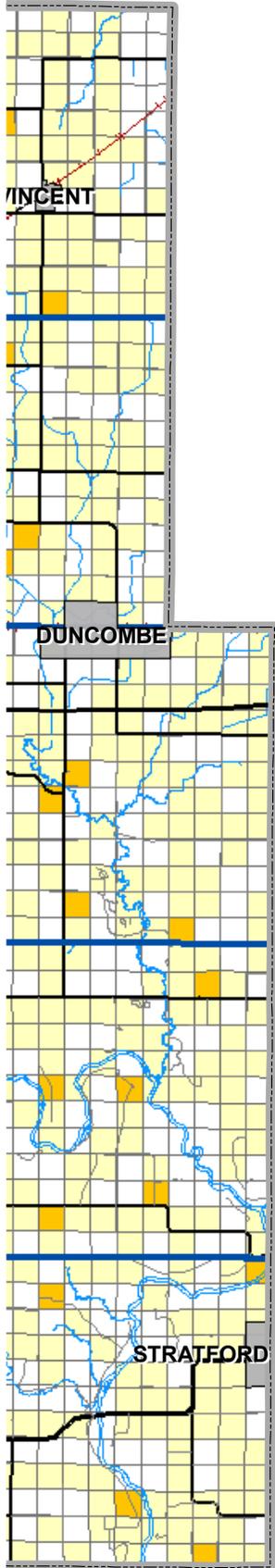
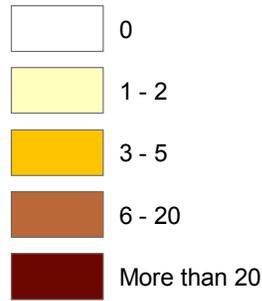




WEBSTER COUNTY, IOWA

Figure 7: Acreage (Non-ag) Density Per Quarter-Section

Acreage Density



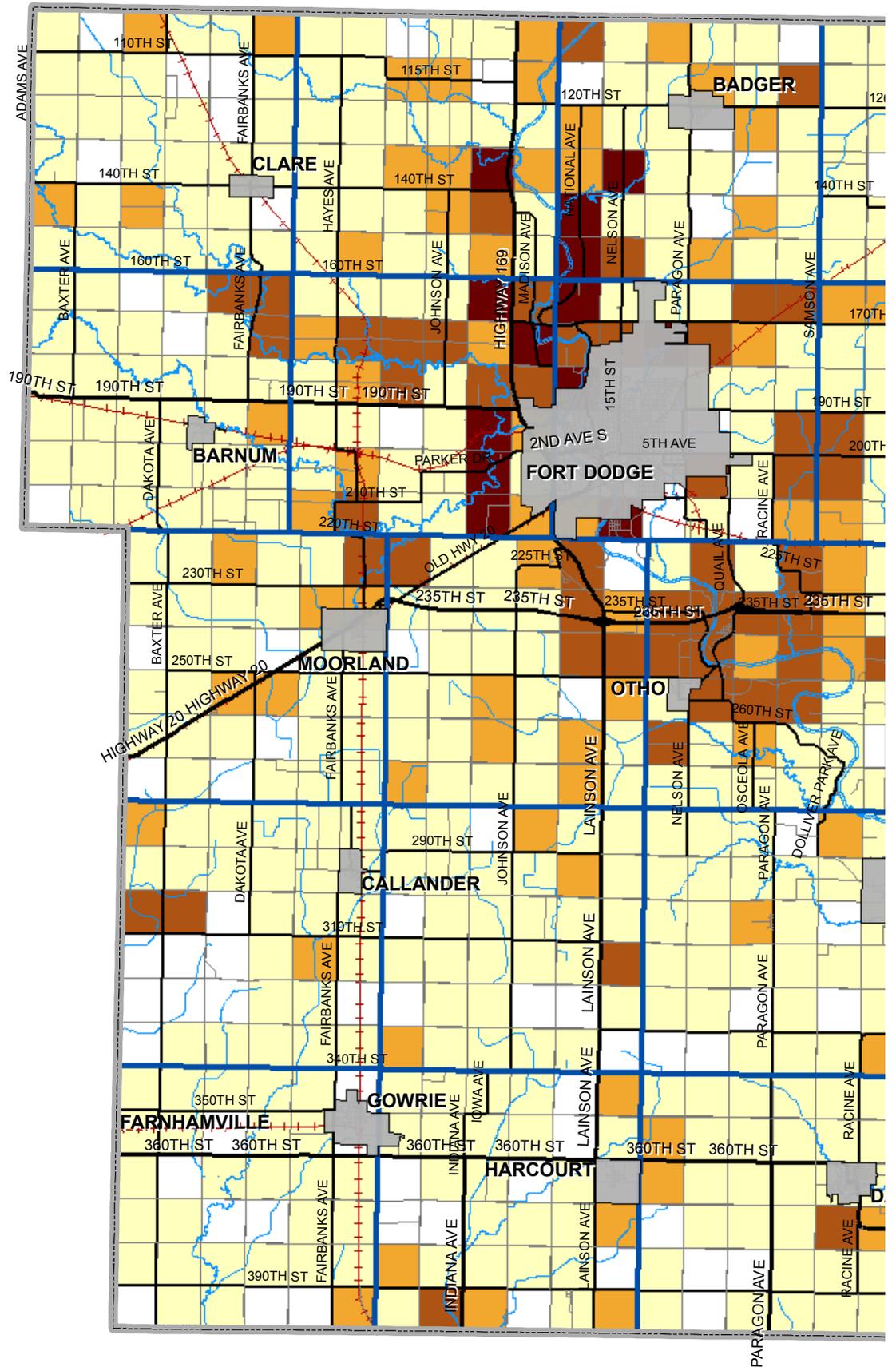
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FIGURE 8: TOTAL RURAL DENSITY PER SECTION

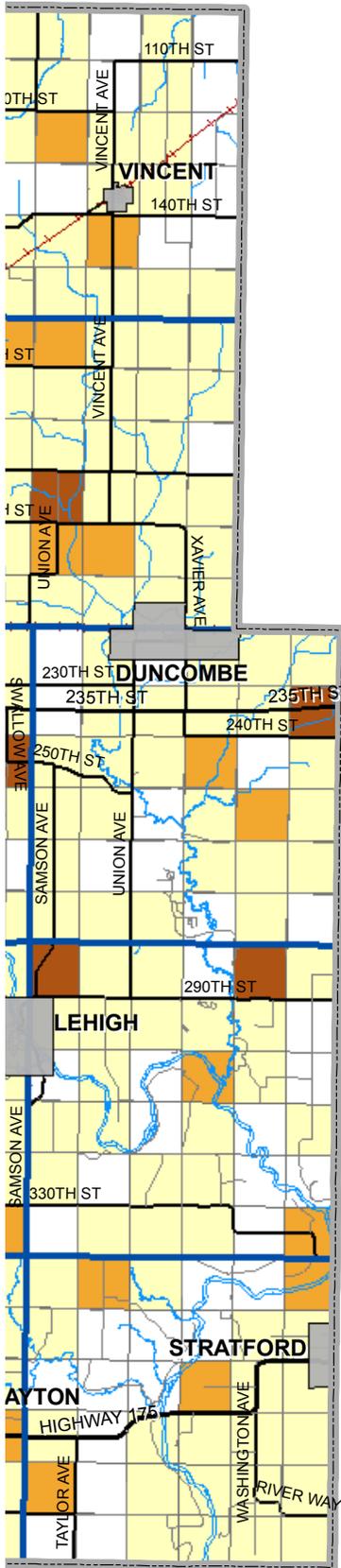


WEBSTER COUNTY, IOWA

Figure 8: Total Rural Density Per Section

Total Rural Density

-  Very Low Density
-  Low Density
-  Medium Density
-  Medium-High Density
-  High Density



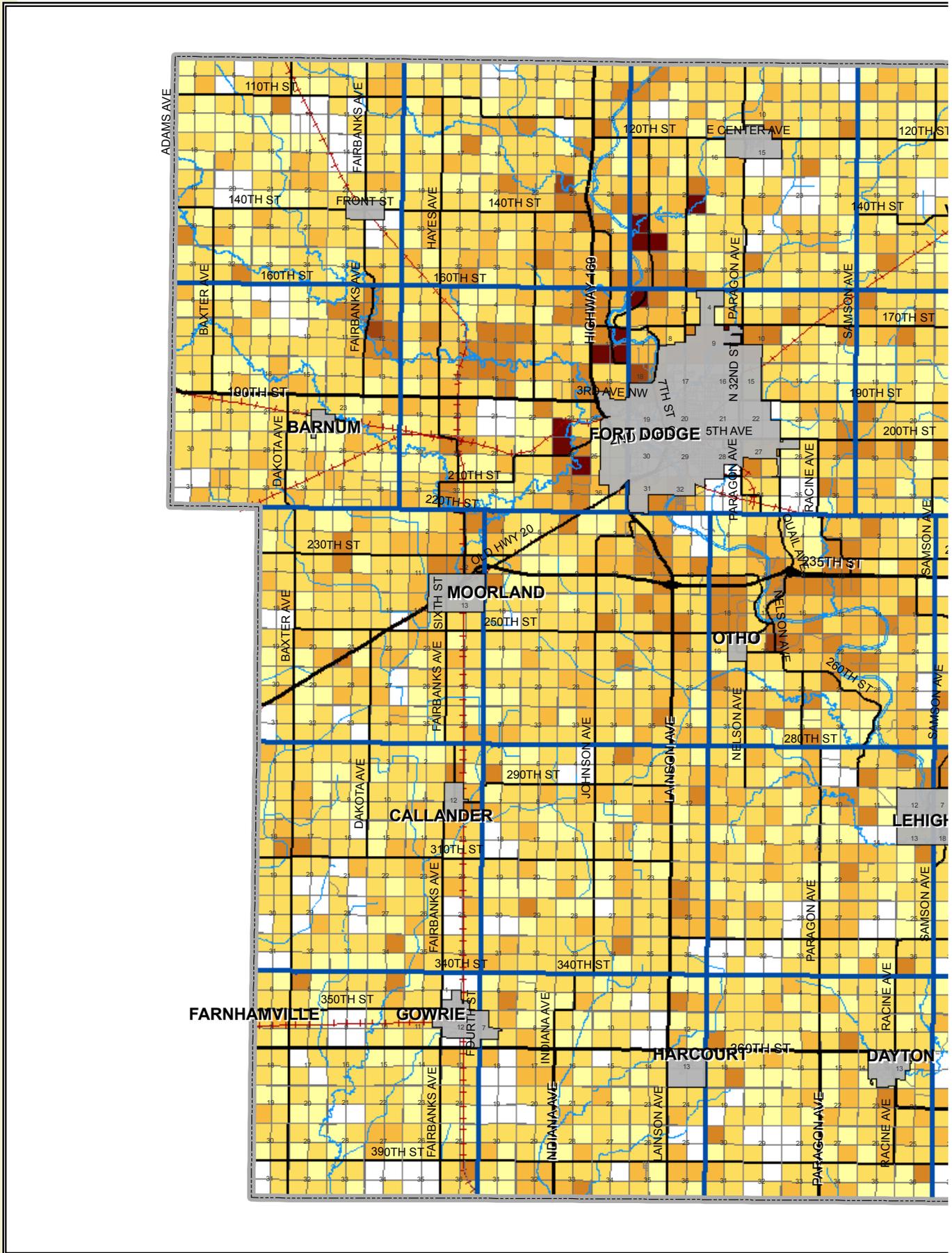
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FIGURE 9: TOTAL RURAL DENSITY PER QUARTER-SECTION

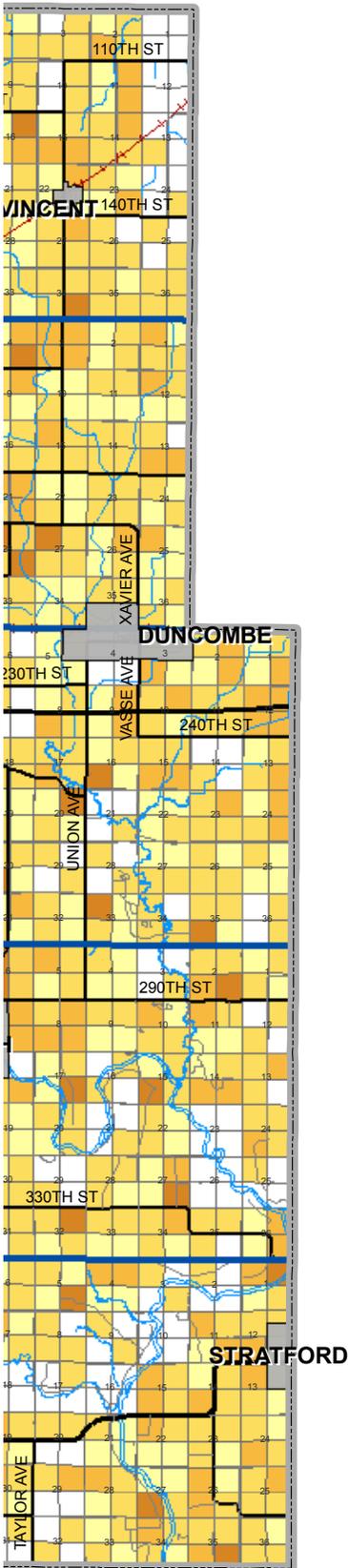


WEBSTER COUNTY, IOWA

Figure 9: Total Rural Density Per Quarter-Section

Total Rural Density

-  Webster_County
-  Very Low
-  Low
-  Medium
-  High
-  Very High
-  Extremely High



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Environmental Conditions

- Introduction
- Climate
- Relief/Topography
- Wildlife and Wildlife Habitat
- Wetlands
- Soil Formation and Classification
- Capability Grouping of Soils
- Soil Suitability
- Water and the Impact on Webster County



Environmental Conditions

Introduction

In order to formulate a truly valid and “comprehensive” plan for the future development of Webster County, it is first necessary to evaluate the natural environment and the affect it might have on future land use in the County. This component of the Webster County Comprehensive Development Plan provides a general summary of the natural environment as well as identifying and quantifying the characteristics of individual areas that directly or indirectly impact future land use in the County.

NOTE: Information provided in this chapter is not intended to be a determining factor of whether development should or should not occur in a specific location. A specific site review should occur prior to a development occurring. Maps are displayed according to the information provided to JEO from the USDA. The majority of the maps indicate that development may not be suitable based upon environmental constraints such as elevated groundwater levels across the county or other factors.

This section of the plan will be divided into these subsections: (The majority of information for this section comes from the Webster County Soil Survey Book, issued by the US Dept. of Agriculture Soil Conservation Service in March, 1975)

- Climate
- Relief/Topography
- Wildlife and Wildlife Habitat
- Wetlands
- Soil Formation and Classification
- Capability Grouping of Soils
- Soil Suitability
- Water and the Impact on Webster County

Climate

Webster County sees a great deal of variation in their climate throughout the seasons. Temperatures can range from average lows of 10 degrees Fahrenheit in the coldest months of winter to 87 degrees Fahrenheit in the warmest months of summer. On average the temperature will exceed 90 degrees about 23 days of the year, and will drop below 32 degrees about 127 days a year.

Precipitation totals for the county average 30.2 inches a year, with the majority of precipitation coming from April through September in the form of rain. Snowfall accounts for approximately 13 percent of Webster County’s total precipitation averaging 40 inches a year.

Relief/Topography

Relief influences soil formation through its effect on drainage, runoff, and erosion. The amount of water that moves into the soil depends partly on relief. Generally, the steep soils receive less water than the gently sloping soils and lose more soil material do to erosion. Areas where the soil is level or has a depression generally receive extra water from higher lying areas. Because of this additional water, the upper layers of the soil profile are gray or mottled and are thicker. Runoff is slowed on the level soils, and more water can percolate through the soil or pond on it. Most of the soils in Webster County are nearly level, gently sloping or moderately sloping; except in the case of the areas surrounding the Des Moines River and its tributaries. The vast majority of the county is within the Des Moines River Watershed meaning all the water runoff in the county will eventually lead to the Des Moines River. Many of the rivers tributaries have been artificially altered to allow the runoff to flow faster providing flood protection to surrounding residents and crop land.

Wildlife and Wildlife Habitat

The major game species in Webster County are bobwhite quail, pheasant, gray partridge, whitetail deer, turkey, and several species of waterfowl.

Non-game species of wildlife in the County are numerous because of the diverse number of habitat types. Cropland, woodland, and grassland are intermixed throughout the study area. These habitat types create the desirable “edge” effect that is conducive to many species. Each type provides a home for a particular group of species.

Furbearers are common in and along the Des Moines River and its tributaries. Trapping is permitted on a limited basis by Iowa DNR. Stock-water ponds, the Des Moines River, and several lakes provide good to excellent fishing. Species commonly caught are bass, crappie, bluegill, channel catfish, and bullhead catfish.

Soils affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the construction of water impoundments. The kind and abundance of wildlife depend largely on the amount and distribution of food, cover, and water. Wildlife habitat can be created or improved by planting appropriate vegetation, by maintaining the existing plant cover, or by promoting the natural establishment of desirable plants.

Wetlands

Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of the year. Water saturation (hydrology) largely determines the soil development and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils. Wetlands vary widely because of regional and local differences in soils, topography, climate, hydrology, water chemistry, vegetation, and other factors, including human disturbance.

Wetlands found in Webster County are most common on floodplains along rivers and streams (riparian wetlands), in isolated depressions surrounded by dry land (for example, playas, basins, and “potholes”), along the margins of lakes and ponds, and in other low-lying areas where the groundwater intercepts the soil surface or where precipitation sufficiently saturates the soil (vernal pools and bogs). The term wetlands includes marshes and wet meadows dominated by herbaceous plants, swamps dominated by shrubs, and wooded swamps dominated by trees. Many of these wetlands are seasonal (dry one or more seasons every year). The quantity of water present and the timing of its presence in part determine the functions of a wetland and its role in the environment. Even wetlands that appear dry at times for significant parts of the year -- such as vernal pools-- often provide critical habitat for wildlife adapted to breeding exclusively in these areas.

The federal government protects wetlands through regulations, economic incentives and disincentives, cooperative programs, and acquisition. Beyond the federal level, a number of states have enacted laws to regulate activities in wetlands, and some counties and towns have adopted local wetlands protection ordinances or have changed the way development is permitted. Iowa has adopted a “Protected Wetlands Law.” This law requires the Iowa Department of Natural Resources (IDNR) to inventory existing wetlands and make a preliminary designation of the protected wetlands in each county. Once designated a protected wetland the landowner is prohibited from draining that wetland without first obtaining a permit from IDNR. Education of the public and efforts in conjunction with states, local governments, and private citizens are helping to protect wetlands and to increase appreciation of the functions and values of wetlands.

In some areas watershed partnerships have formed among federal, state, tribal, local governments, nonprofit organizations, and private landowners. The goal of these partnerships is to cross political boundaries in order to implement cohesive, comprehensive, and effective watershed management. A watershed approach recognizes the inter-connection of water, land, and wetland resources resulting in comprehensive solutions that address all of the factors that can cause wetland degradation, and poor water quality.

Wetlands play an important role in the ecology of Webster County. They are home to many species of wildlife that live only in wetland areas. They also provide flood protection by catching and retaining flood waters. These waters are then slowly drained as surface water, or end up recharging groundwater supplies. Wetlands also help regulate stream flows during dry periods.

The U.S. Fish and Wildlife Service (FWS) produce information on the characteristics, extent, and status of the Nation’s wetlands and deepwater habitats. This information has been compiled and organized into the National Wetlands Inventory (NWI). Maps produced by the NWI are available through their website or national office.

Wetlands are categorized in several classifications, each more detailed and specific than the previous. The NWI uses five systems; marine, estuarine, riverine, lacustrine, and palustrine. Within each system, there are subsystems, classes, subclasses, and dominance types to describe different wetland characteristics. The system classification refers to wetlands that share similar hydrologic, geomorphologic, chemical, or biological factors. Following are definitions and examples of three of the five systems used to describe wetlands. The Marine and Estuarine wetland systems are located in and near the open ocean; therefore, they do not occur in Iowa. For further information go to the NWI on USFWS website or contact a local office.

The following figures depict common ways in which these three systems develop. These figures were produced by the United States Fish and Wildlife Service, and are taken from their 1979 publication entitled “Classification of Wetlands and Deepwater Habitats of the United States.” Figures 10,11, and 12 depict common examples of the riverine, lacustrine, and palustrine wetlands, respectively. Figure 13 shows the occurrence of wetlands in Webster County.

FIGURE 10: RIVERINE WETLAND SYSTEM

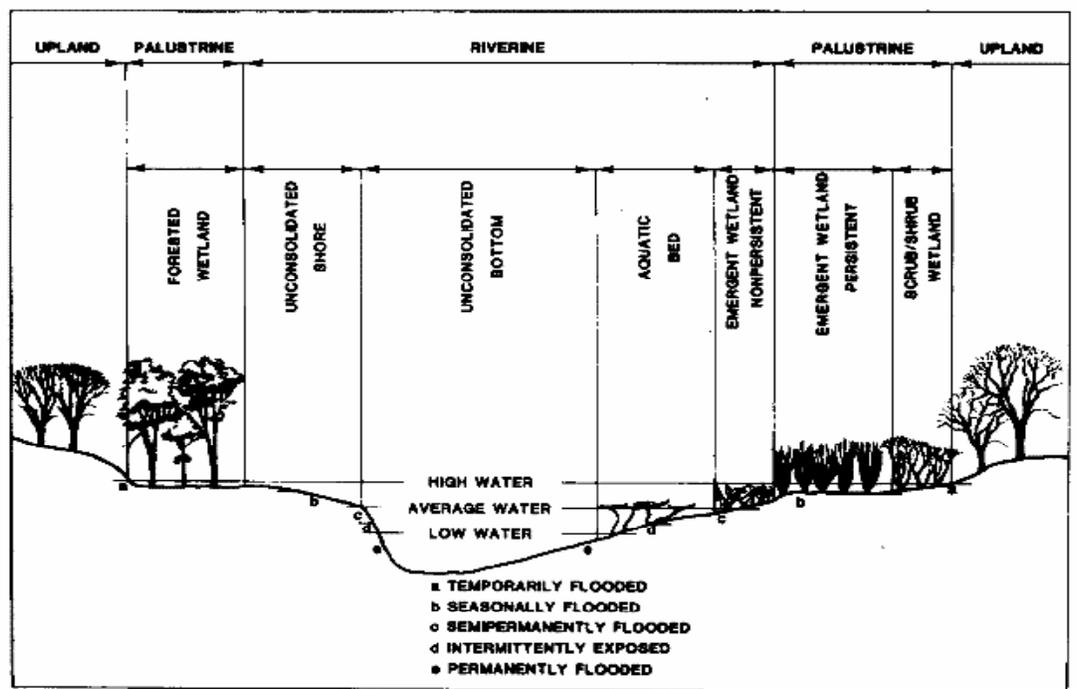
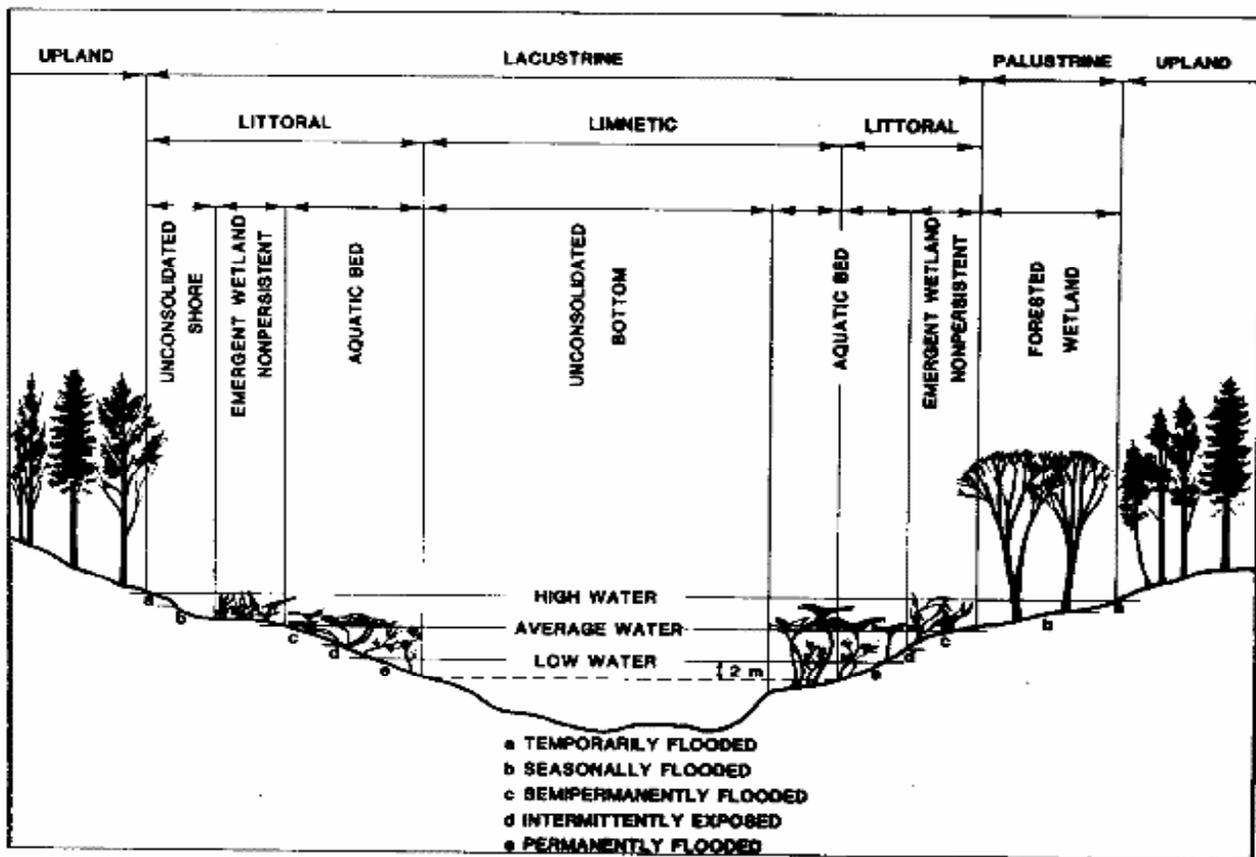


Figure 10 shows the riverine system which includes all wetlands that occur in channels, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean derived salts in excess of 0.5%. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water. Therefore, water is usually, but not always, flowing in the riverine system.

Springs discharging into a channel are also part of the riverine system. Uplands and palustrine wetlands may occur in the channel, but are not included in the riverine system. Palustrine Moss-Lichen Wetlands, Emergent Wetlands, Scrub-Shrub Wetlands, and Forested Wetlands may occur adjacent to the riverine system, often in a floodplain.

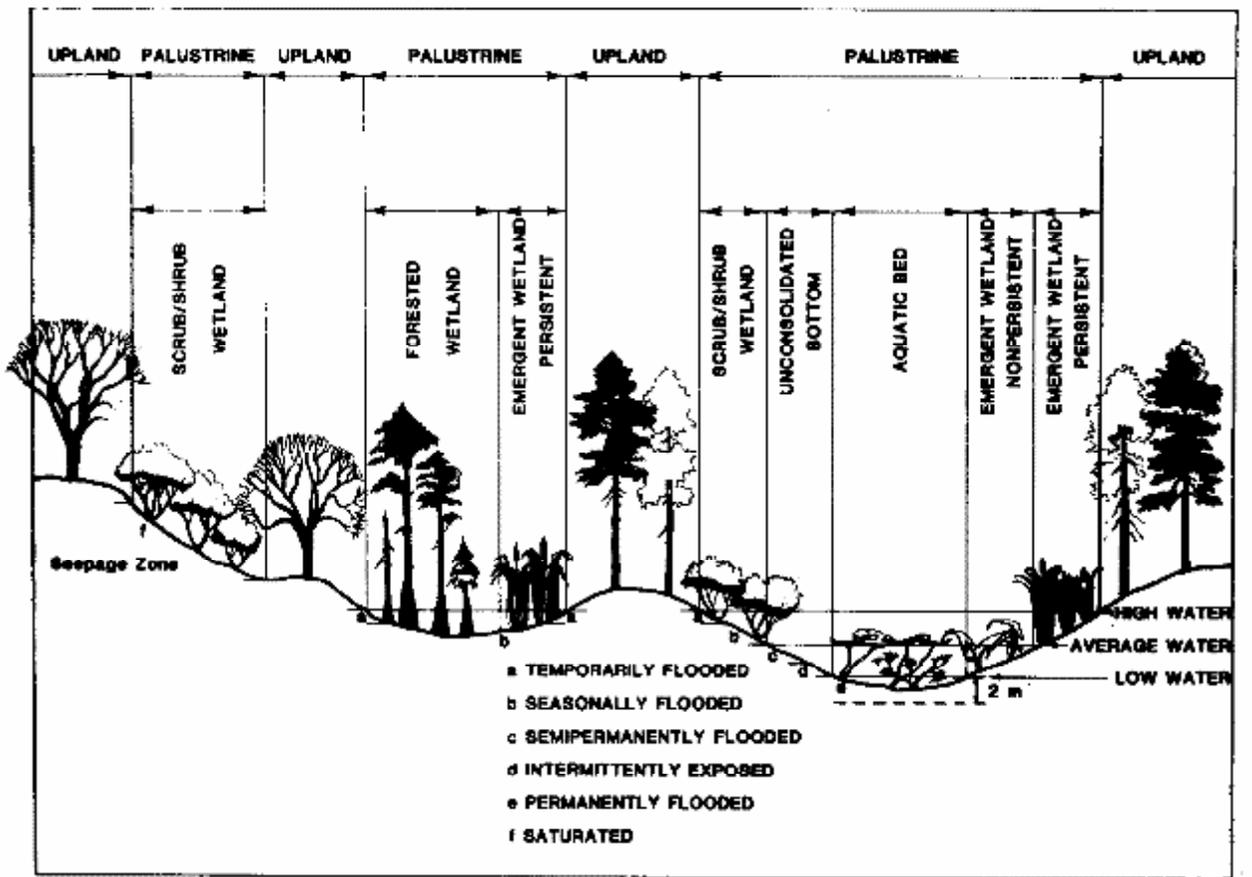
FIGURE 11: LACUSTRINE WETLAND SYSTEM



The Lacustrine System includes all wetlands with all of the following characteristics: (1) situated in a topographic depression or a dammed river channel; (2) lacking trees, shrubs, persistent emergents, emergent moss or lichens with greater than 30% area coverage; and (3) total area exceeds 20 acres. Similar wetland areas totaling less than 20 acres are also included in the Lacustrine System if an active wave-formed or bedrock shoreline feature makes up all or part of the boundary, or if the water depth in the deepest part of the basin exceeds 6.6 feet (2 meters) at low water.

The Lacustrine System includes permanently flooded lakes and reservoirs (e.g. Lake Superior), intermittent lakes (e.g. playa lakes), and tidal lakes with ocean-derived salinities below 0.5% (e.g. Grand lake, Louisiana). Typically, there are extensive areas of deep water and there is considerable wave action. Islands of Palustrine wetlands may lie within the boundaries of the Lacustrine System.

FIGURE 12: PALUSTRINE WETLAND SYSTEM



The Palustrine System includes all non-tidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5%. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 20 acres; (2) lacking active wave-formed or bedrock shoreline features; (3) water depth in the deepest part of basin less than 6.6 feet (2 meters) at low water; and (4) salinity due to ocean-derived salts less than 0.5%.

The Palustrine System was developed to group the vegetated wetlands traditionally called by such names as marsh, swamp, bog, fen, and prairie, which are found throughout the United States. It also includes the small, shallow, permanent, or intermittent water bodies often called ponds. These wetlands may be situated shoreward of lakes, river channels, or estuaries; on river floodplains; in isolated catchments; or on slopes. They may also occur as islands in lakes or rivers.

SOIL FORMATION AND CLASSIFICATION

FACTORS OF SOIL FORMATION

Soil is produced through an interaction of materials that have been deposited or accumulated by geologic process. The characteristics of the soil at any given point are determined by (1) the physical and mineralogical composition of the parent material; (2) the climate under which the soil material has accumulated and existed since accumulation; (3) the plant and animal life on and in the soil; (4) the relief, or lay of the land; and (5) the length of time the forces of soil development have acted on the soil material.

Climate and vegetation are active factors of soil genesis. They act on the parent material that has accumulated through the weathering of rocks and slowly change it into a natural body with genetically related horizons. The effects of climate and vegetation are conditioned by relief. The parent material also affects the kind of profile that can be formed, and in extreme cases, determines it almost entirely. Finally, time is needed for the changing of the parent material into a soil profile. It may be much or little, but some time is always required for horizon differentiation. Generally, a long time is required for the development of distinct horizons.

The five factors of soil genesis are so closely interrelated in their effects on the soil that few generalizations can be made regarding the effect of any one factor unless conditions are specified for the other four. Many of the processes of soil development are unknown.

SOIL ASSOCIATION

(The Soil Association data was taken directly from the Webster County Soil Survey developed by the United States Department of Agriculture, Soil Conservation Service, in 1975)

1. Marna-Gukeen Association

Nearly level to gently sloping, poorly drained and some-what poorly drained, loamy and clayey soils on uplands.

This association is in the southern part of Webster county. It is mainly in the bottom tier of townships, but one area, southwest of the town of Callender, is in the second tier of townships north of the county line. The soils are mainly nearly level or gently sloping, but they are steeper in some places, mostly near streams. A few small rivers and creeks extend into this association, but the drainage pattern is not well established in most places. Some areas contain closed depressions.

This association occupies about 8 percent of the county. Marna soils make up about 56 percent of the association; Gukeen soils, about 25 percent; and minor soils, the remaining 19 percent.

The nearly level Marna soils are poorly drained. The slopes are long and in most places are slightly convex. These soils have a surface layer of black heavy silty clay loam about 14 inches thick. The subsoil is mainly olive gray. It is firm or very firm silty clay or clay in the upper part and is friable or firm clay loam or loam in the lower part.

The Gukeen soils have slopes of 1 to 3 percent and are somewhat poorly drained. These soils are on rises, generally at a slightly higher elevation than the Marna soils. They have a black surface layer, about 16 inches thick, that is clay loam in the upper part and silty clay or clay in the lower part. The subsoil is mainly firm, dark grayish-brown light clay in the upper part and is firm, mottled, light olive-brown, olive-gray, yellowish-brown, and light-gray clay loam in the lower part.

Both the Marna and Guckeen soils formed partly in lacustrine sediment and partly in the underlying glacial till.

Minor soils in this association are mostly the Kamrar, Canisteo, Harps, Okoboji, Lanyon, and Rolfe soils, but they include a few areas of Muck. The Kamrar soils are gently sloping and area on knobs and rises upslope from the Marna and Guckeen soils. The Guckeen, Kamrar, and Marna soils formed in similar material, but the Guckeen soils are somewhat poorly drained, the Kamrar soils are moderately well drained, and the Marna soils are poorly drained. The Canisteo soils are nearly level and are in shallow swales. The Harps soils are on the narrow rims of closed depressions in most places, and they surround the soils that are in depressions. The Okoboji and Lanyon soils, both very poorly drained, and the few areas of Muck are in depressions that are commonly called potholes. The Rolfe soils generally are in small areas, typically within areas of Marna soils.

Artificial drainage is needed for many of the soils in this association. In most places tile drains are used to remove excess water, buy open ditches are used in some places. Erosion is a hazard, mainly on the Kamrar soils, in a few sloping areas near streams and on a few of the longest slopes and steepest areas of Guckeen soils. In places contour tillage is used to help control erosion. Terraces are generally not built.

This association is used mostly for field crops. Corn and soybeans are the main crops, buy oats, alfalfa, and alfalfa grass mixtures are also grown to some extent. Much of the grain is sold for cash, but some farmers keep livestock, mainly hogs and beef cattle, and they use at least part of the grain they produce for livestock feed.

2. Le Sueur-Luther-Hayden Association

Nearly level to moderately sloping, somewhat poorly drained and well drained, loamy soils on uplands.

This association occupies a number of small areas on uplands near the valley of the Des Moines River. These areas are south of Fort Dodge. The topography of the association is undulation. This association consists of nearly level to moderately sloping soils on convex rises or on low hills and in numerous swales. The swales connect with deep gullies that extend form the sides of the valley of the Des Moines River. Some steep soils are along the drainageways and gullies that extend into areas of this association in places.

This association occupies about 3 percent of the county. The Le Sueur soils make up about 33 percent of the association; Luther soils, about 33 percent; Hayden soils, about 22 percent; and minor soils, the remaining 12 percent.

The Le Sueur soils are somewhat poorly drained and mainly have slopes of 1 to 3 percent on slight rises. These soils have a surface layer of very dark gray loam about 7 inches thick. The subsurface layer is very dark grayish-brown loam about 5 inches thick. The subsoil is dark grayish-brown and grayish-brown, firm clay loam. These soils formed in glacial till under grass and trees.

The Luther soils are somewhat poorly drained and mainly have slopes of 1 to 3 percent on slight rises but are also on some slightly concave areas. These soils have a surface layer of very dark grayish-brown loam about 6 inches thick. The subsurface layer is dark grayish-brown and brown, firm clay loam in the upper part and olive-gray, friable loam in the lower part.

The gently sloping to moderately sloping Hayden soils are well drained and are on the more abrupt rises in the association. These soils have a surface layer of very dark gray loam about 3 inches thick. The subsurface layer is dark grayish-brown to brown loam about 7 inches thick. The subsoil is mainly dark yellowish-brown and yellowish-brown firm clay loam.

Both Luther and Hayden soils formed in glacial till under trees.

Among the minor soils in this association are Cordova and Dundas soils in swales. The gently sloping to moderately sloping Lester soils are on rises and low knolls in association with the Le Sueur soils.

Erosion is a hazard on the sloping soils in this association. Contour tillage is the most common method used to control erosion. Providing drainage for the poorly drained soils in the swales is the most important concern in managing the soils in this association for crops. Tile drains are used and outlets generally are readily available.

Some areas of these soils are used for crops. Corn, soybeans, oats and hay are the main crops. Other areas are in permanent bluegrass pasture or timbered pasture. A few areas are wooded and are used for wildlife habitat. The use of these soils generally depends, at least in part, on whether they are adjacent to steep soils on the valley sides or near intensively farmed, nearly level soils farther from the stream valley. Some areas are inaccessible because of gullies that extend into this association.

Many farms in this association consist partly of steeper soils near the river or partly of undulating soils on uplands some distance from the stream valley. This generally influences the type of farming practiced some farms are of the cash-grain type, but most have livestock. Cow-calf herds are kept on some farms. Feeding beef cattle and raising hogs are also important enterprises. Poultry or sheep are raised on some farms, or dairying is practiced.

3. Storden-Hayden-Wadena Association

Nearly level to very steep, well-drained, loamy soils on bottom lands, benches, and valley sides.

This association is mainly along the Des Moines River, but it extends along some of the larger tributaries, in and also a short distance along a few smaller streams. This association consists mainly of very steep soils on valley sides, nearly level to gently sloping soils on benches, and nearly level soils on bottom lands. The very steep soils have many ravines and gullies that cut back into the upland. A distinct feature of the association is the contrast in relief between the valley sides and the adjacent benches and bottom lands.

This association occupies about 11 percent of the county. Storden and Hayden soils are closely intermingled and make up about 40 percent of the association; Wadena soils about 10 percent; and minor soils, the remaining 50 percent.

The very steep Storden and Hayden soils occupy most of the valley sides. These soils occur together in intricate patterns on the landscape. Storden soils have a surface layer of very dark grayish-brown loam about 7 inches thick. The underlying material is yellowish-brown to light olive-brown, friable loam. These soils are calcareous throughout. Hayden soils have a surface layer of very dark gray loam about 3 inches thick. The subsurface layer is dark grayish-brown to brown loam about 7 inches thick. The subsoil is mainly dark yellowish-brown and yellowish-brown firm clay loam. These soils formed in glacial till.

The nearly level to moderately sloping Wadena soils are well drained and are on benches along the streams. These soils have a surface layer of very dark brown loam about 12 inches thick. The subsoil is mainly dark yellowish-brown and brown loam that, in places, grades to sandy loam in the lower part. Wadena soils are underlain by sand and gravel at a depth of 24 to 40 inches.

Among the minor soils in this association are the Hanlon and Buckney soils and Sandy alluvial land on bottom lands and generally fairly close to the streams. Also on bottom lands are the Dorchester, Spillville, Colo, and Calco soils. The Biscay, Cylinder, and Estherville soils are on benches and are underlain by sand and gravel. The Ankeney, Spillville, Terril, and Turlin soils are on low benches and foot slopes. In places the Gosprot and Boone soils are on the lower parts of the valley sides. The Gosport soils formed in material weathered from shale, and the Boone soils formed in material weathered from sandstone.

Erosion is a hazard on the sloping soils in this association. Contour tillage and, in places, terraces are used to control erosion. Many of the soils that are underlain by sand and gravel have limited available water capacity. Some areas of the soils are wet because of seepiness or a high water table and need artificial drainage if cultivated. Some areas of the soils on bottom lands are subject to flooding when streams overflow. Some farmers leave a strip of trees and brush between the Des Moines River and cultivated land to lessen flooding. Other attempt to stabilize the river bank by using rubble, and the grow crops to the edge of the river bank.

A large part of this association is wooded. It generally is used for pasture rather than as woodland, but a few areas are managed as woodland, and wood products are the major source of income. Other soils in this association are used for field crops or permanent bluegrass pasture. Corn, soybeans, oats, and hay, generally alfalfa or alfalfa grass mixtures, are the main crops. A few truck gardens and apple orchards are also in the association. Some areas are a source of sand and gravel for roads and construction. A plant for the manufacture of clay products is near Lehigh.

Some farms are wholly in this association, but many consist partly of areas in the association and partly of areas on adjacent uplands. The farms differ widely. Some are general farms that generally have beef cattle or cow-calf herds to use the pasture. On others hogs, poultry, or sheep are raised or dairying is practiced. A number of people own homesites and small farms or acreages in this association. Many of these commute to jobs in nearby Fort Dodge. The output of these small farms is varied; apples are grown, and turkeys, mink, horses, and ponies are raised.

4. Webster-Clarion-Nicollet Association

Nearly level to moderately steep, poorly drained, well-drained, and somewhat poorly drained, loamy soils on uplands

This association is mainly in the northern two-thirds of the county, but it is also in the southern and southwestern parts. The topography of much of this association is undulating. The well-drained and somewhat poorly drained soils in this association are nearly level to moderately sloping and are on convex rises, knolls, and low hills. The poorly drained or very poorly drained soils are nearly level and are on flats and in swales and depressions. In these areas the natural drainage system is not well established. In places drainage ditches have been dug to provide outlets for tile drains. In other places creeks and small streams extend into this association. Here the natural drainage pattern is better established, and in many places soils are steeper, especially in areas adjacent to the streams.

This association occupies about 56 percent of the county. Webster soils make up about 26 percent of the association; Clarion soils, about 24 percent; Nicollet soils, about 15 percent; and minor soils, the remaining 35 percent.

The poorly drained Webster soils are mainly in swales and draws that are generally slightly concave. Some areas are on flats. These soils have a surface layer of black, gritty silty clay loam about 18 inches thick. The subsoil is mainly olive-gray loam. It is firm in the upper part and friable in the lower part. These soils formed in glacial till and in sediment from glacial till.

The well-drained Clarion soils are mainly gently sloping and are on knolls and rises, but they are also moderately sloping to moderately steep in some areas. These soils have a surface layer of very dark brown loam about 11 inches thick. The subsoil is dark-brown, brown, and dark yellowish-brown, friable loam.

The somewhat poorly drained Nicollet soils mainly have slopes of 1 to 3 percent and are on convex rises. These soils have a surface layer of black heavy loam and light clay loam about 15 inches thick. The subsoil is mainly very dark grayish-brown and dark grayish-brown, friable light clay loam.

Both Clarion and Nicollet soils formed in glacial till.

Among the minor soils in this association are the Canisteo soils that are poorly drained and calcareous throughout. These soils occupy positions on the landscape similar to Webster soils and are the most extensive of the minor soils. Okoboji and Wacousta soils and Muck, shallow, are in the closed depressions. Harps soils are highly calcareous and are mainly on narrow rims around the depressions. Talcot and Biscay soils are nearly level and are in valley or basin-like areas drained by small streams. The Storden soils are calcareous. In many places in this association, they are moderately sloping to steep.

Erosion is a hazard on the sloping soils in this association. The irregular pattern and short length of many slopes complicate the application of such conservation practices as contour farming or terracing, but these practices are used. The poorly drained and very poorly drained soils need artificial drainage. Tile lines and drainage ditches are used.

Most of the acreage in this association is used for crops. Some areas are in permanent pasture. Corn, soybeans, oats, and hay are the main crops. The hay is generally alfalfa, alfalfa grass mixtures, or clover. Most areas of the nearly level to gently sloping soils are used for row crops.

A large amount of grain is sold for cash in this area, but most farms are diversified and have livestock. On these farms, part of the grain and most of the forage produced is fed to livestock. Raising and fattening hogs and feeding beef cattle are the most important livestock enterprises. Beef cow-calf herds, dairying, and the raising of sheep and poultry are less important. On a few farms turkeys are raised as a major enterprise.

5. Webster-Nicollet Canisteo Association

Nearly level, poorly drained and somewhat poorly drained, loamy soils on uplands.

This association occupies a large acreage in the southern part of the county. The topography is mainly nearly level, but it is slightly undulating in many places. Most of this association consists of nearly level soils in wide, very shallow swales or on flats, but there are many slight convex rises and many large and small depressions. The natural drainage pattern in most of the association is indistinct and not well established. In places, however, small sluggish streams in indistinct valleys extend into the association. In places drainage ditches have been dug in these valleys to provide outlets for tile drains. The ditches generally begin in a large depression and eventually empty into larger, well-defined streams.

This association occupies about 22 percent of the county. Webster soils make up about 35 percent of the association; Nicollet soils, about 30 percent; Canisteo soils, about 15 percent; and minor soils, the remaining 20 percent.

The poorly drained Webster soils have a surface layer of black gritty silty clay loam about 18 inches thick. The subsoil is mainly olive-gray clay loam. It is firm in the upper part and friable in the lower part.

The somewhat poorly drained Nicollet soils mainly have slopes of 1 to 3 percent and are on slight convex rises. These soils have a surface layer of black heavy loam and light clay loam about 15 inches thick. The subsoil is mainly very dark grayish-brown and dark grayish-brown, friable light clay loam. These soils formed in glacial till.

The poorly drained Canisteo soils are similar to the Webster soils in most profile characteristics but are calcareous at the surface and throughout the profile. Webster and Canisteo soils formed in glacial till and in sediment from glacial till, and they are in wide swales and on flats. Canisteo soils generally are at a slightly lower elevation than Webster soils.

Among the minor soils in this association are the gently sloping to moderately sloping Clarion soils on knolls or low hills and sides of stream valleys. The highly calcareous Harps soils are on narrow rims around depressions. The very poorly drained Okoboji and Wacousta soils and Muck, shallow, are in these depressions.

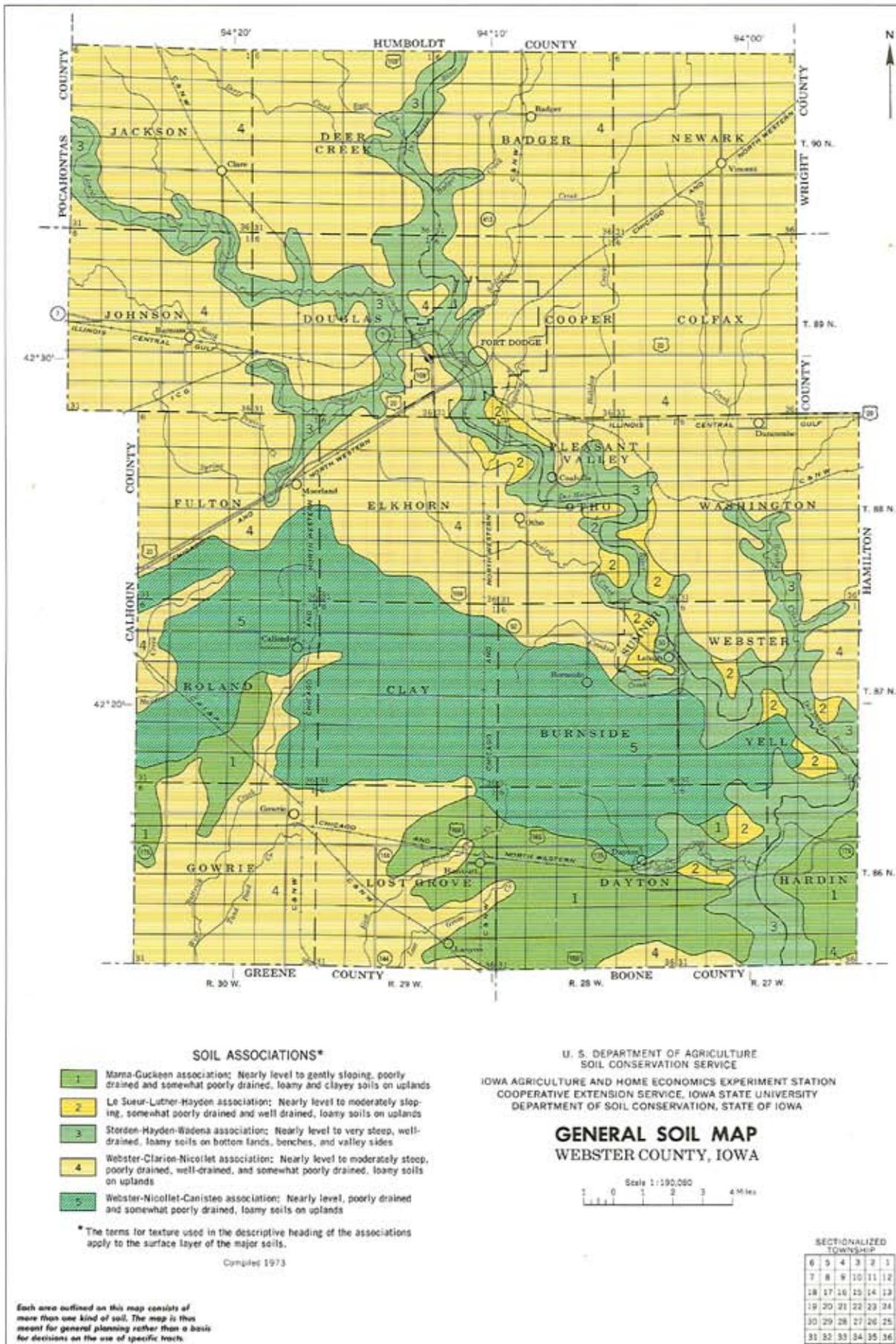
Much of this association needs artificial drainage. Most areas are drained by tile lines, but shallow drainage ditches are used to drain some depressions, and large drainage ditches are used in places.

Water erosion is a hazard in a few areas. These soils commonly are plowed in fall, and large areas are then left bare. If the surface is dry in spring and other weather conditions are right, soil blowing is a serious hazard in places. Soil blowing causes road ditches on the windward side of some fields to fill with soil, and clearing these ditches generally is expensive.

The soils of this association are mainly used intensively for corn and soybeans. Oats and hay, generally alfalfa, alfalfa grass mixtures, or clover, are also grown, but the acreage is minor compared to that used for row crops.

Many farmers in this association derive most of their income from the sale of corn and soybeans, but others also keep livestock and feed part of the corn and all of the forage they produce to livestock. Raising and fattening hogs and feeding beef cattle are the most important livestock enterprises. Only a few farmers keep such other types of livestock as sheep, poultry, or dairy herds.

FIGURE 13: GENERAL SOIL MAP



Capability Grouping of Soils

The capability classification is a grouping that shows, in a general way, how suitable soils are for most kinds of farming. It is a practical grouping based on limitations of the soils, the risk of damage when they are used, and the way they respond to treatment.

In this system, all the kinds of soil are grouped at three levels, the capability class, subclass, and unit. The eight capability classes in the broadest grouping are designated by Roman numerals I through VIII. Class I soils have few limitations, the widest range of use, and the least risk of damage when they are used. The soils in the other classes have progressively greater natural limitations. In class VIII are soils and landforms so rough, shallow, or otherwise limited do not produce worthwhile yields of crops, forage, or wood products.

The subclasses indicate major kinds of limitations within the classes. Within most of the classes there can be up to four subclasses. The subclass is indicated by adding a small letter, e, w, s, or c, to the class numeral, for example, "IIe". The letter "e" shows the main limitation risk is erosion unless close-growing plant cover is maintained. A "w" means that water in or on the soil will interfere with plant growth or cultivation (in some soils wetness can be partly corrected by artificial drainage). An "s" shows the soil is limited mainly because of shallow, droughty, or stony. Finally, a "c" when used, indicates that the chief limitation is climate that is too cold or too dry.

In Class I there are no subclasses, because the soils of this class have few or no limitations. Class V can contain, at the most, only subclasses "w", "s", and "c", because these soils have little or no susceptibility to erosion but have other limitations limiting their use largely to pasture, range, woodland, or wildlife.

Within the subclasses, there are additional capability units. These groups of soils are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity and other responses to management. Thus, the capability unit is a convenient grouping for making many statements about management of soils. Capability units are generally identified by numbers assigned locally, for example, IIe-1 or IIIe-1.

Soils are classified in capability classes, subclasses, and units in accordance with the degree and kind of their permanent limitations. This is done without consideration to major and expensive land forming that would change the slope, depth, or other characteristics of the soil; and without consideration of possible but unlikely major reclamation projects.

The eight classes in the capability system and the subclasses and units in this county are described in the list that follows.

Soil Capability System, Webster County, Iowa

- Class I Soils that have a few limitations that restrict their use. These soils are suitable for intensive cultivation over long periods and do not require special practices other than those used for good farming. (No subclasses).
- Class II Soils that have moderate limitations that reduce the choice of plants or require moderate conservation practices. They are suitable for tilled crops, pasture, or woodland.
- Class III Soils that have severe limitations that reduce the choice of plants, require special conservation practices, or both. These soils are suitable for tilled crops, pasture, woodland, or wildlife habitat.
- Class IV Soils that have very severe limitations that reduce the choice of plants, require very careful management, or both. They are suited to tilled crops, but need intensive management. They are also suited to pasture, woodland, or wildlife habitat.

Class V Soils are not likely to erode but have other limitations, impractical to remove, that limit their use largely to pasture, range, woodland, or wildlife habitat.

Class VI Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture or range, woodland, or wildlife habitat.

Class VII Soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife.

Class VIII Soils and landforms have limitations that preclude their use for commercial plants and restrict their use to recreation, wildlife, or water supply, or to esthetic purposes.

Class I through Class III soils, even with some limitations are the best soils in a county. Any soil rated higher, typically, will present some significant limitations, thus having an impact on the actual use of the land. The following table lists the different soils and their rating.

Table 30 indicates the soil symbol, the soil type, the percent slope, and the soil classification. There are 86 different soil types identified in the Soil Survey. Of these soil types, seven have been rated Class I. Class II accounted for 29 of the soil types, and 31 soils are Class III. Most of the subclasses present in the Soil Survey were “e” and “w” indicating that the soils in Buena Vista County have strong characteristics based upon erodability and wetness.

TABLE 30: SOIL CAPABILITY

Map Symbol	Mapping Unit	Capability Unit
6	Okoboji silty clay loam	IIIw
21	Muck, shallow	IIIw
21D	Muck, shallow, 5 to 14 percent slopes	VIIw
27C	Terril loam, 5 to 9 percent slopes	IIIe
27D	Terril loam, 9 to 14 percent slopes	IIIe
34A	Estherville sandy loam, 0 to 2 percent slopes	IIIs
34B	Estherville sandy loam, 2 to 5 percent slopes	IIIe
34C	Estherville sandy loam, 5 to 9 percent slopes	IIIe
34D	Estherville sandy loam, 9 to 14 percent slopes	IVe
55A	Nicollet loam, 1 to 3 percent slopes	I
55B	Nicollet loam, benches, 3 to 6 percent slopes	Ile
62C2	Storden loam, 5 to 9 percent slopes, moderately eroded	IIIe
62D2	Storden loam, 9 to 14 percent slopes, moderately eroded	IIIe
62E2	Storden loam, 14 to 18 percent slopes, moderately eroded	IVe
62F2	Storden loam, 18 to 25 percent slopes, moderately eroded	VIe
62G2	Storden loam, 25 to 45 percent slopes, moderately eroded	VIIe
90	Okoboji mucky silt loam	IIIw
95	Harps clay loam	IIw
96B	Turlin loam, 2 to 5 percent slopes	Ile
107	Webster silty clay loam	IIw
107B	Webster silty clay loam, benches, 0 to 3 percent slopes	IIIw
108A	Wadena loam, moderately deep, 0 to 2 percent slopes	IIs
108B	Wadena loam, moderately deep, 2 to 5 percent slopes	Ile
108C	Wadena loam, moderately deep, 5 to 9 percent slopes	IIIe
133	Colo silty clay loam	IIw
136A	Ankeny fine sandy loam, 0 to 3 percent slopes	IIIs
138A	Clarion loam, 0 to 2 percent slopes	I
138B	Clarion loam, 2 to 5 percent slopes	Ile
138C	Clarion loam, 5 to 9 percent slopes	IIIe
138C2	Clarion loam, 5 to 9 percent slopes, moderately eroded	IIIe
138D2	Clarion loam, 9 to 14 percent slopes, moderately eroded	IIIe
138E2	Clarion loam, 14 to 18 percent slopes, moderately eroded	IVe
158	Dorchester silt loam	IIw
168B	Hayden loam, 2 to 5 percent slopes	Ile
168C	Hayden loam, 5 to 9 percent slopes	IIIe
202	Cylinder loam, moderately deep	IIs
203	Cylinder loam, deep	I
210G	Boone loamy fine sand, 25 to 45 percent slopes	VIIe
214B	Rockton loam, 2 to 5 percent slopes	Ile
236B	Lester loam, 2 to 5 percent slopes	Ile
236C	Lester loam, 5 to 9 percent slopes	IIIe
236D	Lester loam, 9 to 14 percent slopes	IIIe

Map Symbol	Mapping Unit	Capability Unit
236E	Lester loam, 14 to 18 percent slopes	IVe
236F	Lester loam, 18 to 35 percent slopes	VIe
259	Biscay clay loam, deep	IIw
274	Rolfe silt loam	IIIw
307	Dundas silt loam	IIIw
308A	Wadena loam, deep, 0 to 2 percent slopes	I
308B	Wadena loam, deep, 2 to 5 percent slopes	IIe
313G	Gospport silt loam, 25 to 45 percent slopes	VIIe
315B	Alluvial land, 2 to 5 percent slopes	Vw
323B	Terril loam, sandy substratum, 2 to 5 percent slopes	IIe
325A	Le Sueur loam, 1 to 3 percent slopes	I
355A	Luther loam, 1 to 3 percent slopes	I
356G	Storden-Hayden loams, 25 to 70 percent slopes	VIIe
383	Marna silty clay loam	IIw
385A	Guckeen clay loam, 1 to 3 percent slopes	I
386	Cordova silty clay loam	IIw
387B	Kamrar clay loam, 2 to 5 percent slopes	IIe
444A	Jacwin loam, 1 to 3 percent slopes	I
478G	Rock land and Steep sandy land, 20 to 40 percent slopes	VIIe
485A	Spillville loam, 0 to 2 percent slopes	IIw
485B	Spillville loam, 2 to 5 percent slopes	IIe
506	Wacousta silt loam	IIIw
507	Canisteo silty clay loam	IIw
536A	Hanlon fine sandy loam, 0 to 3 percent slopes	IIs
551B	Calamine silty clay loam, 2 to 5 percent slopes	IIIw
551D	Calamine silty clay loam, 5 to 14 percent slopes	IVe
558	Talcot clay loam, moderately deep	IIw
559	Talcot clay loam, deep	IIw
566C	Terril loam, thin surface variant, 5 to 9 percent slopes	IIIe
566D	Terril loam, thin surface variant, 9 to 14 percent slopes	IIIe
566E	Terril loam, thin surface variant, 14 to 18 percent slopes	IVe
583	Minnetonka silty clay loam	IIw
585B	Colo-Spillville complex, 2 to 5 percent slopes	IIw
606	Lanyon silty clay	IIIw
636A	Buckney fine sandy loam, 0 to 2 percent slopes	IIIs
636B	Buckney fine sandy loam, 2 to 6 percent slopes	IIIs
715	Sandy alluvial land	Vw
733	Calco silty clay loam	IIw
775B	Billett fine sandy loam, 1 to 5 percent slopes	IIIs
775C	Billett fine sandy loam, 5 to 10 percent slopes	IIIe
777B	Wadena loam, thin surface variant, moderately deep, 2 to 5 percent slopes	IIe
778B	Wadena loam, thin surface variant, deep, 2 to 5 percent slopes	IIe
815	Dorchester silt loam, frequently flooded	IIIw

Source: United States Department of Agriculture, Natural Resources Conservation Service, March 1975.

SOIL SUITABILITY

The characteristics of soils play a major role in determining the potential compatibility of certain uses on the land. The ability to absorb liquids such as water and wastewater are different for certain soils. In addition, as noted in the capabilities section, how sensitive an area is to erosion or how shallow the soils are in an area can have a major impact on the ability to develop a specific area of Webster County. These conditions have an impact on a soils ability to support certain types of uses. This ability to support certain uses is referred to as limitations.

SOIL LIMITATIONS

The interpretations are based on the engineering properties of soils and test data for soils in the survey area. Ratings are used to summarize limitations or suitability of the soils for certain purposes. Soil limitations are indicated by the ratings slight, moderate, and severe. Slight means that soil properties are generally favorable for the rated use, or in other words, that limitations are minor and easily overcome. Moderate means that some soil properties are unfavorable but can be overcome or modified by special planning and design. Severe means that soil properties are so unfavorable and so difficult to correct or overcome as to require major soil reclamation, special designs, or intensive maintenance.

Conventionally, the septic tank-absorption field system has proven satisfactory for many areas when properly designed, installed, and maintained. However, conditions do exist where this system is not suitable. Areas of seasonal high groundwater tables, bedrock in close proximity to the soil surface, or soils having very fast or very slow percolation rates are not suited for the septic tank-absorption field system. Other limitations for this system include topography, small lot size and proximity to water supplies used for drinking or recreation.

SLOPE

The slope of the soil also has an impact on the ability to use a piece of land for specific uses. The natural slope is somewhat determined by the type of soil association. Slope is a major determining factor in soil suitability with regard to septic absorption, sewage lagoons, prime farmland, and dwelling units.

Figure 14 indicates the percent slope of the land within Webster County. The data was taken from the United States Department of Agriculture – Natural Resources Conservation Service (USDA-NRCS). The map was generated using SSURGO soil data from this agency. The data is tied to actual soil types and associations and then mapped based upon the specific locations of these soil types.

The map in Figure 14 indicates that the majority of Webster County has slight to moderate slopes. However, slopes are steepest along the Des Moines River and other waterways. The slopes in these areas of the County range from 9% to 75%.

PRIME FARMLAND

The prime farmland classification identifies map units as all areas with either, farmland of statewide importance, prime farmland if drained, or prime farmland if protected from flooding. Farmland classification identifies the location and extent of the most suitable land for producing food, feed, fiber, forage, and oilseed crops (USDA, 2004)

In general, prime farmland has an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, acceptable sodium content, and few or no rocks. They are permeable to water and air. Prime farmland is not excessively erodible or saturated with water for a long period of time, and they either do not flood frequently or are protected from flooding.

Webster County does not have an abundance of prime farmland. The majority of it could be if it was drained, this can be seen in Figure 15. The prime farmland that is present is located throughout the county, with higher concentrations in the North. Due to the importance of prime farmland the County may want to add special protection to these areas identified.

DWELLINGS WITHOUT BASEMENTS AND DWELLINGS WITH BASEMENTS

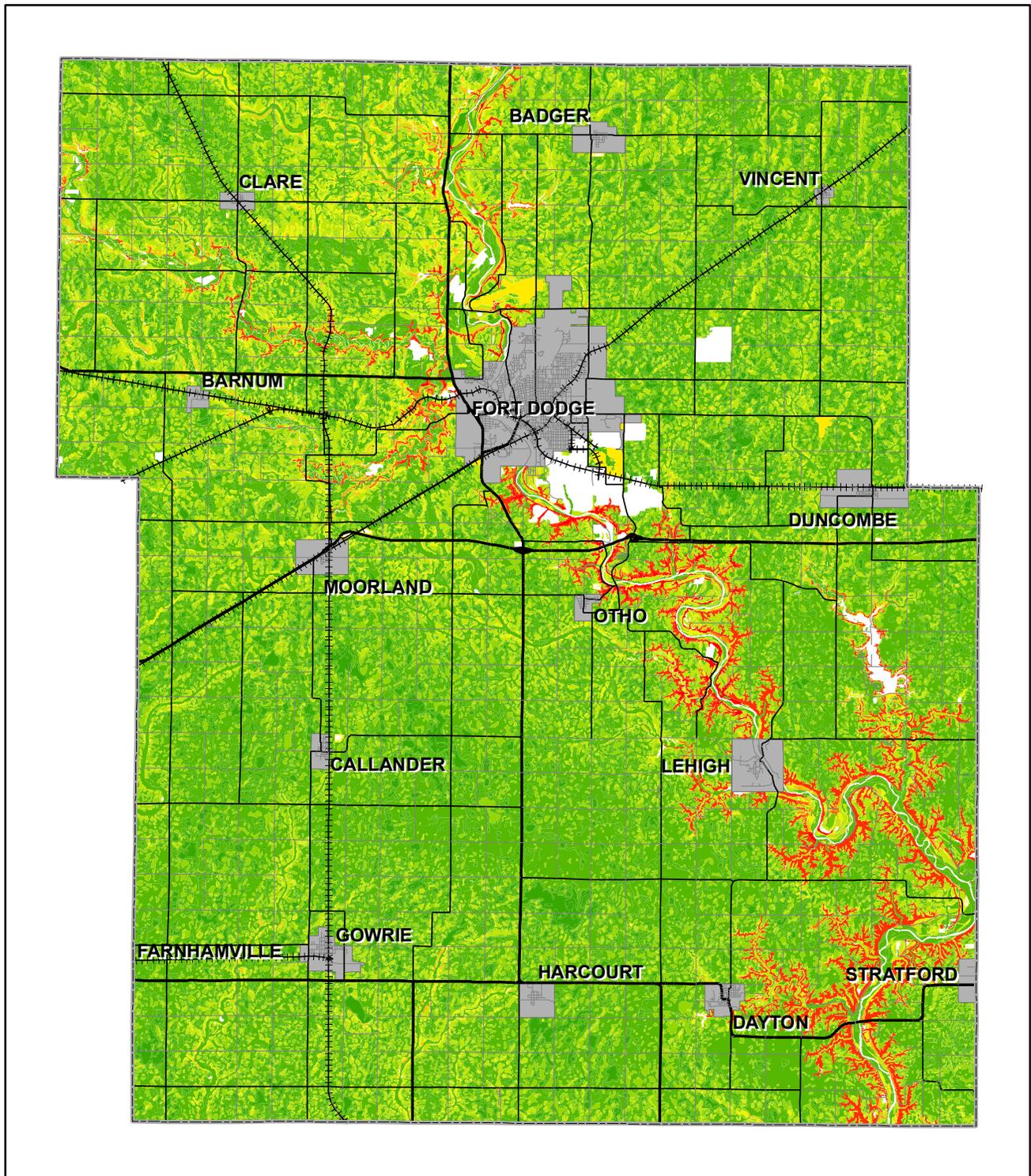
The ability for soils to handle different structural uses such as residential dwellings is dependant upon a number of conditions. It is these conditions that determine the level of suitability of the soil for this specific use. Based upon the data in the Soil Survey of Webster County, there are a number of factors that influence the suitability of the soil. These factors are:

- wetness,
- flooding,
- shrink-swell capacity of the soil,
- slope of the soil,
- low strength

The soils for this category are rated Not Limited, Somewhat Limited, and Very Limited. Any one of these factors can play a significant role in the type of construction methods that will need to be employed in constructing a residence in Webster County. Thus, land rated “Very Limited” does not necessarily disqualify the use, but merely indicates that special circumstances exist and these need to be accounted for in the design of the structure. Figure 16 and 17 indicate the level of suitability for these uses throughout Webster County.

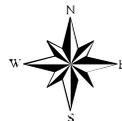
The limitations in Webster County’s soils for both uses are very limited in most areas of the county particularly the southern half. However, in the northeastern portion of the County there are many areas where basements are only somewhat limited and dwellings without basements are not limited. There is not a solid distinction between the three categories. This will require, in some cases, more detailed information to be collected as a dwelling unit is proposed and constructed.

FIGURE 14: PERCENTAGE OF SLOPE



PERCENT SLOPE: FIGURE 14
Soil Classofacation by Percent Slope

 0 to 1 percent	 1 to 5 percent	 9 to 14 percent
 0 to 2 percent	 2 to 5 percent	 14 to 18 percent
 0 to 2 percent	 5 to 9 percent	 18 to 25 percent
 0 to 3 percent	 0 to 14 percent	 25 to 70 percent
 1 to 3 percent	 5 to 14 percent	 25 to 75 percent
	 Not Rated	

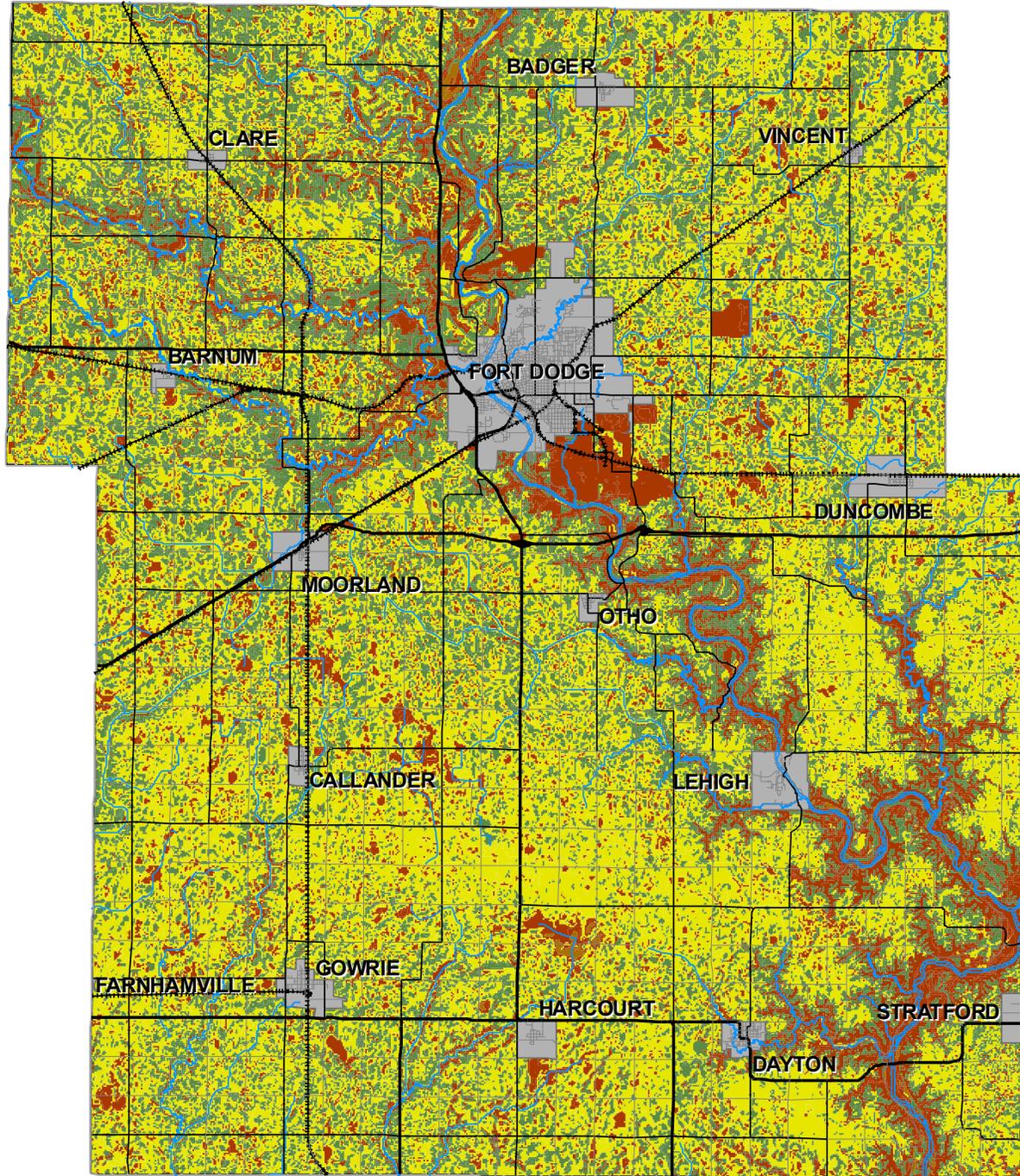


WEBSTER COUNTY, IOWA

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Soils Data: Soils Survey Geographic (SSURGO) Data
USDA, National Resources Conservation Service
GIS Platform: ArcView 9.3
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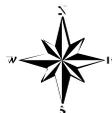
FIGURE 15: PRIME FARMLAND



PRIME FARMLAND: FIGURE 15

Prime Farmland by Soil Classification

- All Areas are Prime Farmland
- Farmland of Statewide Importance
- Prime Farmland if Drained
- Prime Farmland if Protected From Flooding, Or not Frequently Flooded During the Growing Season
- Not Rated as Prime Farmland



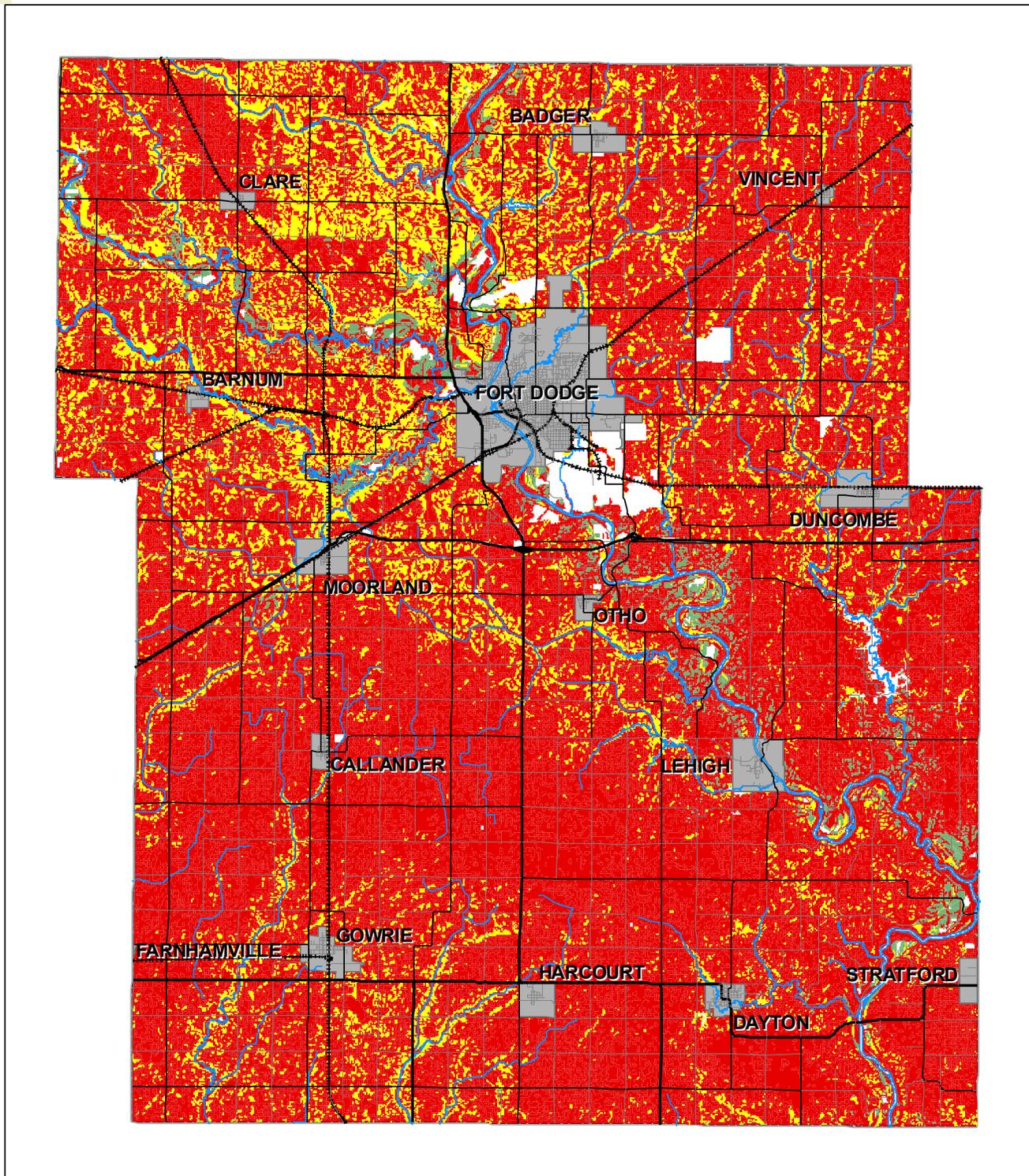
WEBSTER COUNTY, IOWA



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 Sourced Data: GeoEye, GeoEye, Inc., (IRS/GeoEye)
 USDA, National Agricultural Statistics Service
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FIGURE 16: DWELLINGS WITH BASEMENTS



DWELLINGS WITH BASEMENTS: FIGURE 16

Dwellings With Basements
Soil Suitability

- NOT LIMITED
- SOMEWHAT LIMITED
- VERY LIMITED
- NOT RATED

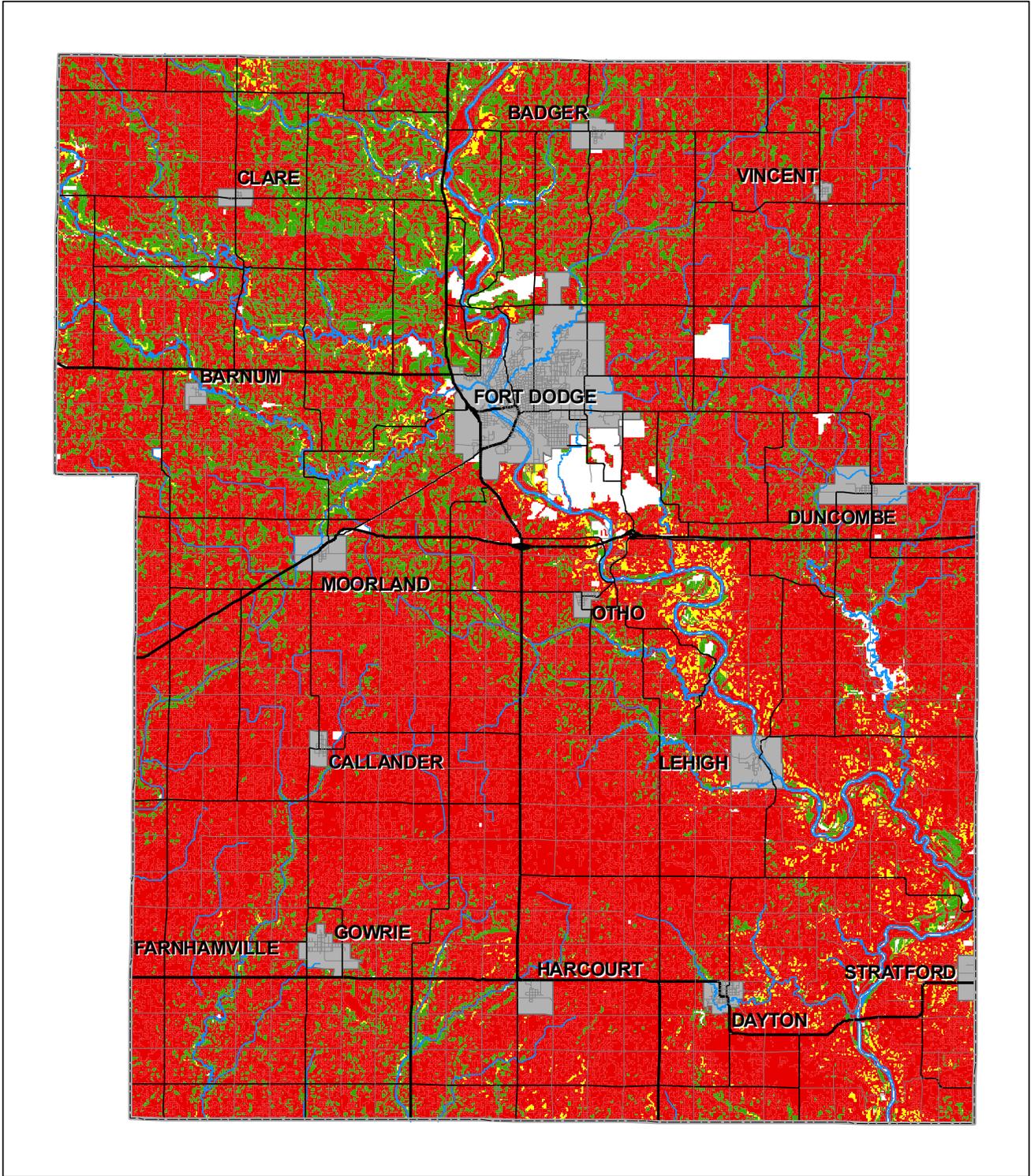


WEBSTER COUNTY, IOWA



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Soil Data Source: National Wetlands Inventory Data
USDA, National Resources Conservation Service
GIS Project: 04/07/08
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DWELLINGS WITHOUT BASEMENTS: FIGURE 17

WEBSTER COUNTY, IOWA

- Dwellings Without Basements**
Soil Suitability
- NOT LIMITED
 - SOMEWHAT LIMITED
 - VERY LIMITED
 - NOT RATED



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 Soils Data: National Soil Survey Geographic (SSURGO) Data
 USDA - National Agricultural Center for Conservation
 GIS Services, Inc. 2007
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ONSITE WASTEWATER TREATMENT SYSTEM ABSORPTION FIELDS

The typical onsite wastewater treatment system-absorption field consists of two major components – the septic tank and the absorption field. In the septic tank, solids are separated from the liquid, undergo anaerobic digestion and are stored as sludge at the bottom of the tank. The liquid (septic tank effluent) flows to the absorption field where it percolates into the soil. The soil acts as a final treatment by removing bacteria, pathogens, fine particles, and some chemicals.

Absorption fields are subsurface systems of tile or perforated pipe that distribute effluent from a septic tank into natural soil. The soil material between depths of 18 inches and six feet is evaluated. The soil properties considered are those that affect both absorption of effluent and construction and operation of the system. Properties that affect absorption are:

- wetness of the soil
- flooding
- percolation rate of the soil
- poor filter characteristics
- slope of the soil

Slope affects difficulty of layout and construction and also the risk of erosion, lateral seepage, and down slope flow of effluent. The other properties impact the use in a manner that the system will not operate properly, thus creating problems within the overall system and even with the environment.

The soils in Webster County regarding septic tank absorption fields are shown in Figure 18. The soils are rated as somewhat limited, very limited, and not rated. The soils in Webster County appear to be predominately very limited with areas of somewhat limited in the northeastern portion of the county.

Again, these conditions will need to be addressed when designing and constructing a septic tank and absorption field. In a number of situations, these conditions may be overcome by special designs; however, some of the conditions impacting the construction of this system will completely halt the ability at certain sites.

SEWAGE LAGOONS

Although not commonly used in Iowa, the domestic lagoon system is an effective method of home sewage treatment and is well-suited for larger lot areas having very slow soil percolation rates. This system generally discharges domestic sewage directly into the lagoon. Properly designed and sized lagoons use evaporation for dewatering. Both aerobic and anaerobic decomposition occur in lagoon treatment of home sewage. Anaerobic treatment generally occurs at and near the bottom of lagoons where settled solids and sludge accumulate. This treatment is similar to the anaerobic treatment that occurs in septic tanks. Aerobic treatment occurs in the presence of oxygen and usually occurs near the lagoon surface. Aerobic treatment aids in reducing the odors released during anaerobic treatment and also provides additional treatment of domestic sewage. Wind movement aids in mixing oxygen into the lagoon surface and helps to increase evaporation.

Proper lagoon sizing and construction is essential for holding and treating home sewage. The surface area of a lagoon must meet specific requirements of the Iowa Department of Natural Resources and should be designed to meet the number of people living in the home. In addition, these criteria can be applied to the development of livestock confinement facilities in Webster County. As with the residential uses, the lagoons must be designed for a specific capacity and waste management program. These standards have been established by the Environmental Protection Agency and the Iowa Department of Natural Resources.

Webster County's ability to use domestic lagoons is similar to septic systems as a portion of the County is rated as Very Limited with some Somewhat Limited areas in the northeastern portion of the county.

The soils in Webster County are defined as one of two ways: Somewhat Limited and Very Limited. Specific issues contributing to the rating of the soils in this manner regarding lagoons are:

- wetness
- flooding
- slope
- seepage
- depth to rock

Again, these conditions will need to be addressed when designing and constructing a sewage lagoon. In a number of situations, these conditions may be overcome by special designs; however, some of the conditions impacting the construction of this system will completely halt the ability at certain sites.

LOCAL ROADS AND STREETS

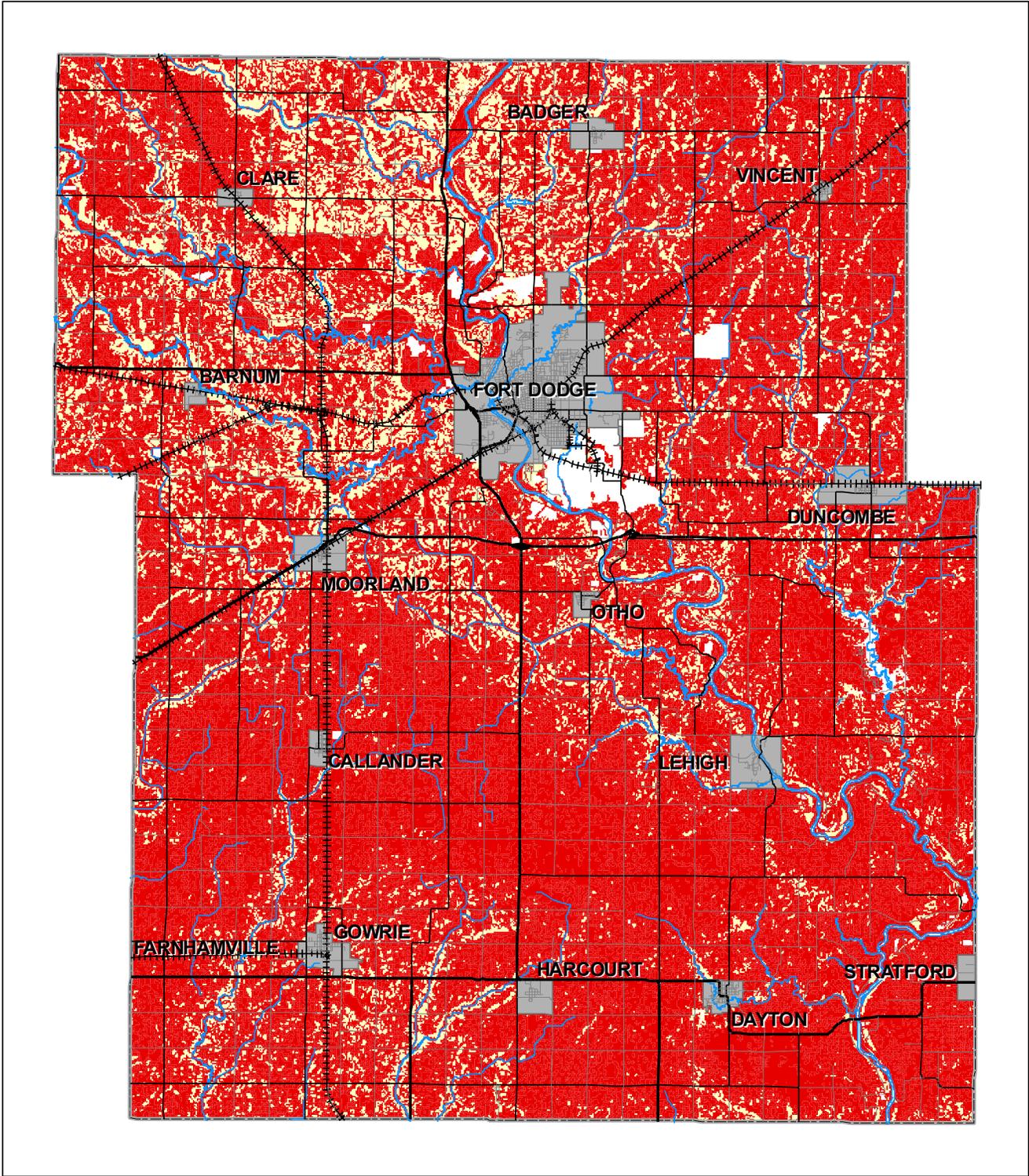
Local roads and streets have an all-weather surface that is expected to carry automobile traffic year round. There is a subgrade of underlying soil materials – a base consisting of gravel, crushed rock, or soil material stabilized with lime or cement – and a flexible or rigid surface, commonly asphalt or concrete. These roads are graded to shed water and have ordinary provisions for drainage. They are typically built from soils at hand. Soil properties that most affect design and the construction of roads and streets are the load supporting capacity, the stability of the subgrade, and the workability and quantity of cut and fill material available. Design and capacity of roads and streets should follow the AASHTO and Unified classifications of the soil materials.

The soils in Webster County are defined as one of three ways: Not Limited, Somewhat Limited, and Very Limited. The majority of the County is considered to be very limited. These conditions are based upon a varying number of reasons including:

- wetness
- low strength
- floods
- frost action
- slope
- shrink-swell properties

Again, these conditions will need to be addressed when designing and constructing roads and streets within Webster County. In a number of situations, these conditions may be overcome by special designs; however, some of the conditions impacting the construction will completely halt the ability at certain sites.

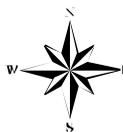
FIGURE 18: ONSITE WASTEWATER TREATMENT SYSTEMS



SEPTIC TANKS: FIGURE 18

Septic Tank Soil Suitability

- SOMEWHAT LIMITED
- VERY LIMITED
- NOT RATED



WEBSTER COUNTY, IOWA

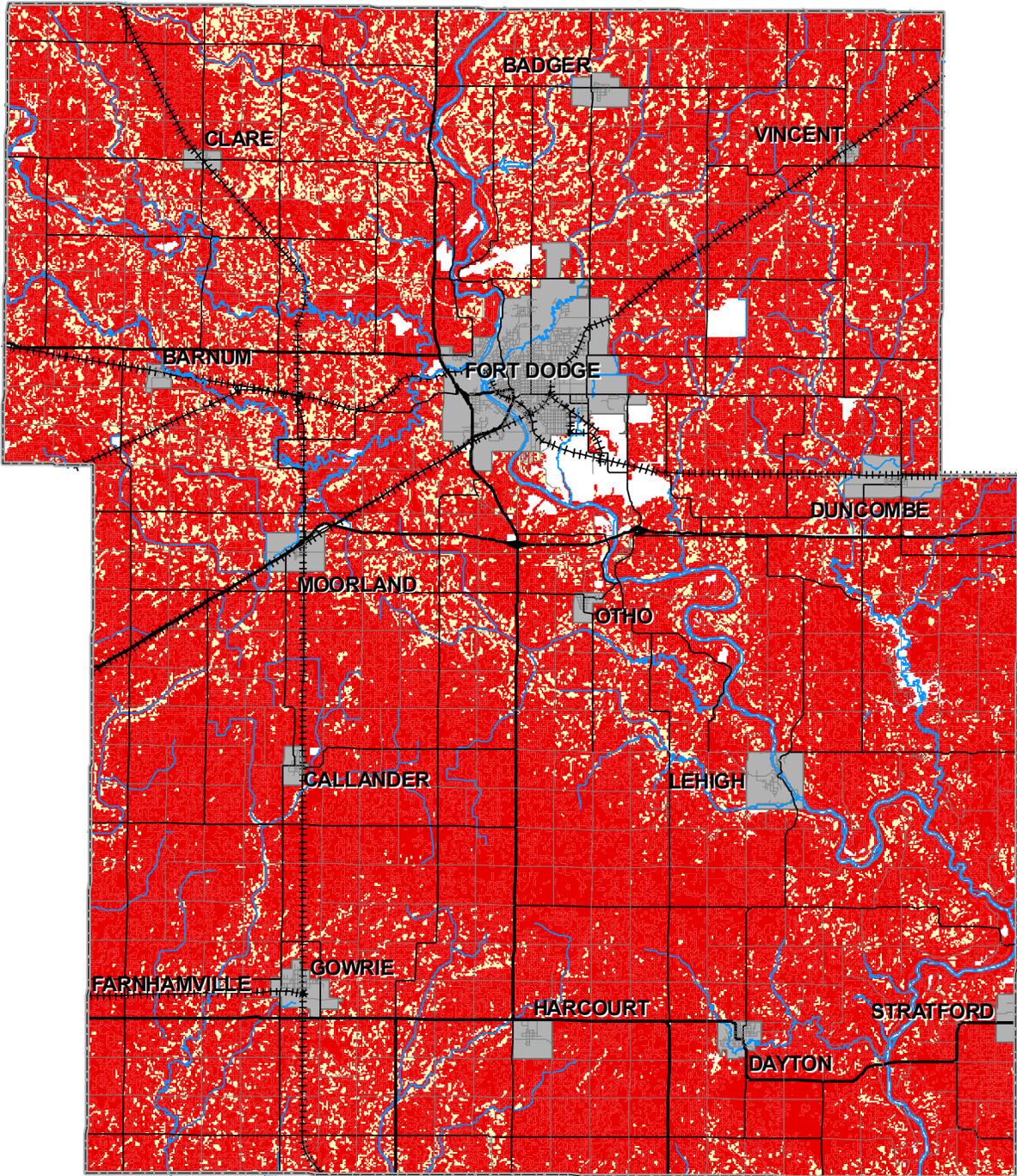


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 Soils Data from: National Engineering Geology Data
 USDA - National Engineering Geology Service
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SEWAGE LAGOONS: FIGURE 19

Sewage Lagoon Soil Suitability

- SOMEWHAT LIMITED
- VERY LIMITED
- NOT RATED



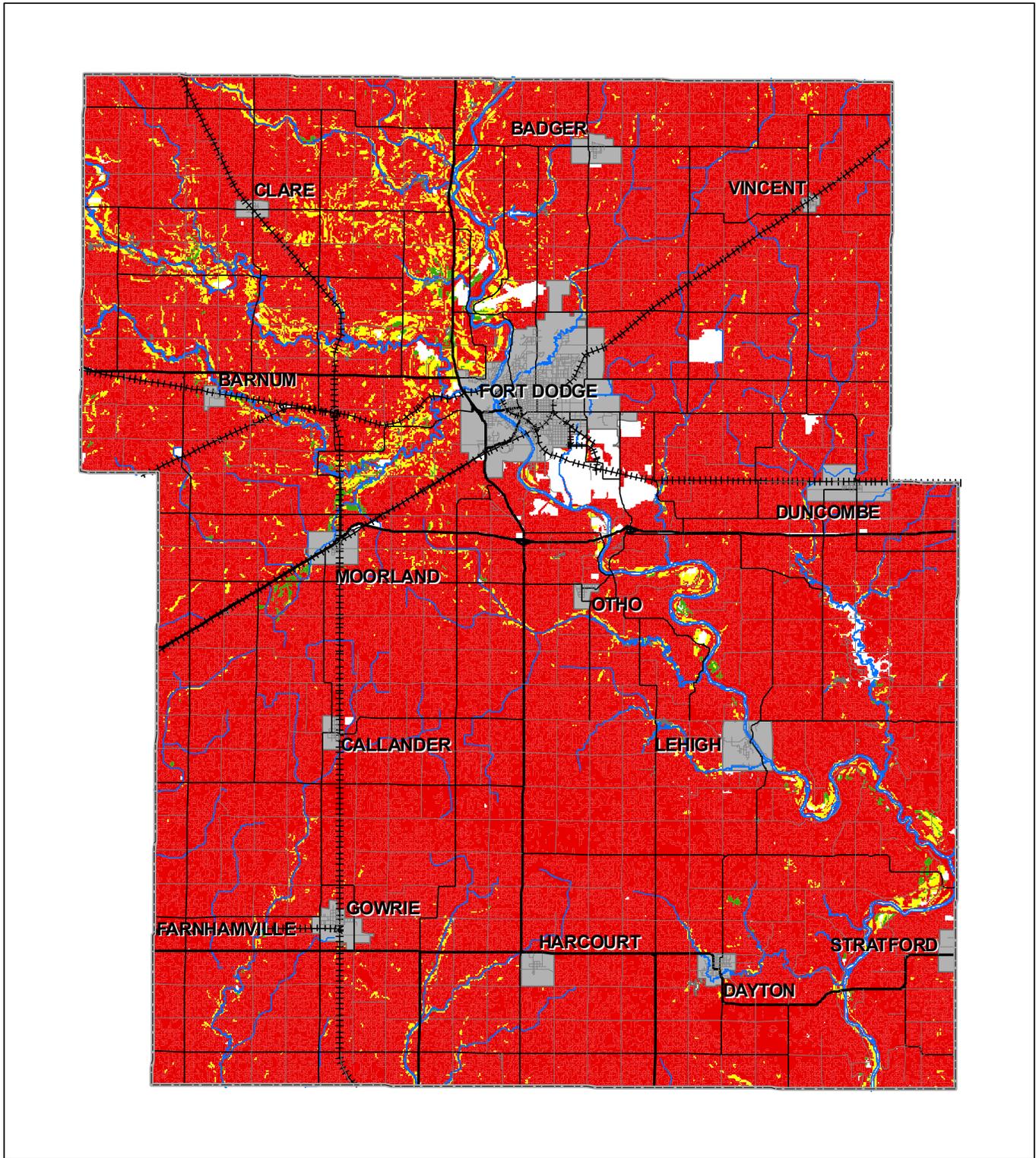
WEBSTER COUNTY, IOWA



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 Soils Data: Soils Survey Geographic (SSURGO) Data
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FIGURE 20: LOCAL ROADS AND STREETS



LOCAL ROADS AND STREETS: FIGURE 20
Local Roads and Streets Soil Suitability

- Not Limited
- Somewhat Limited
- Very Limited
- Not Rated



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Soil Data from: Survey of Topsoil (SR) (NO) Data USDA - National Resource and Conservation Service
GIS Project: ArcView 9.3

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Water and the Impact on Webster County

Water, along with the soil conditions discussed in this section are the two most restricting environmental conditions facing land use planning in the future. Damaging either one of these two elements will impact the residents of a County for years to come. As with the soil descriptions and conditions, it is important to discuss the water factors impacting Webster County during the present and the coming planning period. Water in this section will apply to two different topics, surface water and ground water.

Surface Water Surface water applies to any water running across a surface that eventually runs into a minor or major drainage area, eventually ending up in a major waterway such as the Des Moines River. However, a certain portion of surface water can be and is absorbed by the soil in order to support plant life, including corn, soybeans and grass lawns. In addition, this absorption is critical to recharging aquifers and wetland areas. Figure 21 indicates the ability of specific soils to drain. These areas are defined as:

- Excessively drained
- Somewhat excessive - Well drained
- Well drained
- Moderately well drained
- Moderately well - Somewhat poorly drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained

A mixture of drainage levels exist throughout Webster County. There does not appear to be a single classification that dominates the County. The only place any one category dominates is within the County's extensive watershed network, with the majority of the soils being classified as Well drained or Somewhat excessive – Well Drained. There is also a complex of Very poorly drained soils just north of the city of Harcourt.

PERMEABILITY

Permeability rates as shown in Figure 22 indicate the rate at which water will transfer through soils. This is also known as the Percolation Rate. This process is important since the transfer rate of water through the soil can greatly impact the ability of aquifers and water tables to be recharged. One factor that will greatly impact the permeability of soil is the amount of clay in the soil type. The higher the clay content the lower the permeability. Data in the Soil Survey is based upon the percentage of clay less than two millimeters in thickness.

A low permeability rate typically means that groundwater in that area is going to be difficult to recharge via surface water and the rain and snow cycle, while higher rates allow the water to be absorbed at greater rates into the groundwater system. Figure 22 reviews the Permeability Rates for Webster County, the rates were derived straight from data developed by the United States Department of Agriculture, Natural Resources Conservation Service. The classes for these data are:

- Rapid
- Moderately Rapid
- Moderate
- Moderately Slow
- Slow
- Very Slow

The majority of soil within Webster County has a permeability classification of Moderate to Moderately Slow. Portions of the southeast corner of the county are classified as having slow permeability. Lastly, several pockets of soil with Rapid and Moderately Rapid permeability are present Northeast of Fort Dodge and along the Des Moines River.

HYDRIC SOILS

Hydric soils are formed under conditions of saturation, flooding, or ponding. The process has to occur long enough during the growing season to develop anaerobic conditions in the upper part. Hydric soils along with hydrophytic vegetation and wetland hydrology are used to define wetlands. (USDA/NRCS, Fall 1996) Figure 25 indicates where the different levels of hydric soils are located in Buena Vista County. The soils are classified as the following: All Hydric

- Partially Hydric
- Not Hydric

The majority of the soils in Webster County are considered either not hydric or all hydric. Although scattered, the greatest concentrations of non-hydric soils are along the Des Moines River, and other major water ways. While the areas of hydric soils are located throughout the rest of the County.

The following data were compiled directly from USDA/NRCS descriptions. Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms. The soils in the United States are placed into four groups A, B, C, and D, and three dual classes, A/D, B/D, and C/D. Definitions of the classes are as follows:

TABLE 31: HYDROLOGICAL CHARACTERISTICS

Map Symbol	Soil Name	Hydrological Group	Rating
6	Okoboji, ponded	B/D	Hydric
27B	Terril	B	Not Hydric
34, 34B	Estherville	B	Not Hydric
55	Nicollet	B	Hydric
62F	Storden	B	Not Hydric
90	Okoboji, ponded	B/D	Hydric
95	Harps	B/D	Hydric
107	Webster	B/D	Hydric
108,108B,108C	Wadena	B	Not Hydric
135	Corland, occasionally flooded	B/D	Hydric
136	Ankeny, rarely flooded	B	Not Hydric
138B	Clarion	B	Not Hydric
138C2	Clarion, moderately eroded	B	Not Hydric
201B	Coland, occsionally flooded	B/D	Hydric
203	Cylinder	B	Hydric
227, 227B	Wadena, loamy substratum	B	Not Hydric
228	Cylinder, loamy substratum	B	Hydric
236D, 236E, 236F	Lester	B	Not Hydric
259	Biscay	B/D	Hydric
262G	Lester	B	Not Hydric
274	Rolfe, ponded	C	Hydric

Map Symbol	Soil Name	Hydrological Group	Rating
278	Biscay, loamy substratum	B/D	Hydric
307	Dundas	B/D	Hydric
315B	Udifluents, occasionally flooded	A	Hydric
323B	Fort Dodge	B	Not Hydric
325	LeSueur	B	Hydric
338	Garmore	B	Not Hydric
342, 342B	Esterville, loamy substratum	B	Not Hydric
344B	Copaston	D	Not Hydric
345	Copaston-Jacwin	D	Hydric
355	Luther	B	Hydric
383	Marna	C/D	Hydric
385	Guckeen	C	Hydric
386	Cordova	C/D	Hydric
387B	Kamrar	B	Not Hydric
413G	Emeline-Gospport	D, C	Not Hydric
457	Du Page, occasionally flooded	B	Hydric
485	Spilville, occasionally flooded	B	Hydric
485B	Spilville, rarely flooded	B	Hydric
506	Wacousta, ponded	B/D	Hydric
507	Canisteo	B/D	Hydric
511	Blue Earth, ponded	B/D	Hydric
526	Wacousta, ponded	B/D	Hydric
536	Hanlon, occasionally flooded	B	Not Hydric
541C	Estherville	B	Not Hydric
551B, 551D	Calamine	D	Hydric
559	Talcot	B/D	Hydric
561	Talcot, loamy substratum	B/D	Hydric
566C	Moingona	B	Not Hydric
568D, 568E	Cokato	B	Not Hydric
583	Minnetonka	D	Hydric
606	Lanyon, ponded	C/D	Hydric
625	Lerdal	C	Hydric
636, 636B	Buckney, rarely flooded	B	Not Hydric
638C2	Clarion, moderately eroded	B	Not Hydric
650	Joilet-Faxon	B/D	Hydric
715	Fluvaquents, frequently flooded, ponded	A	Hydric
735	Havelock, occasionally flooded	B/D	Hydric
740D	Hawick	A	Not Hydric
775B, 775C	Billett	B	Not Hydric
777B	Wapsie	B	Not Hydric
835D2, 835E2	Storden-Omsrud, moderately eroded	B	Not Hydric
836B	Kilkenny	B	Hydric
854D	Fens, aquolls	A/D	Hydric
855	Shorewood	C	Hydric
956	Harps-Okoboji, ponded	B/D	Hydric
1007	Cosmos, bouldery	C/D	Hydric

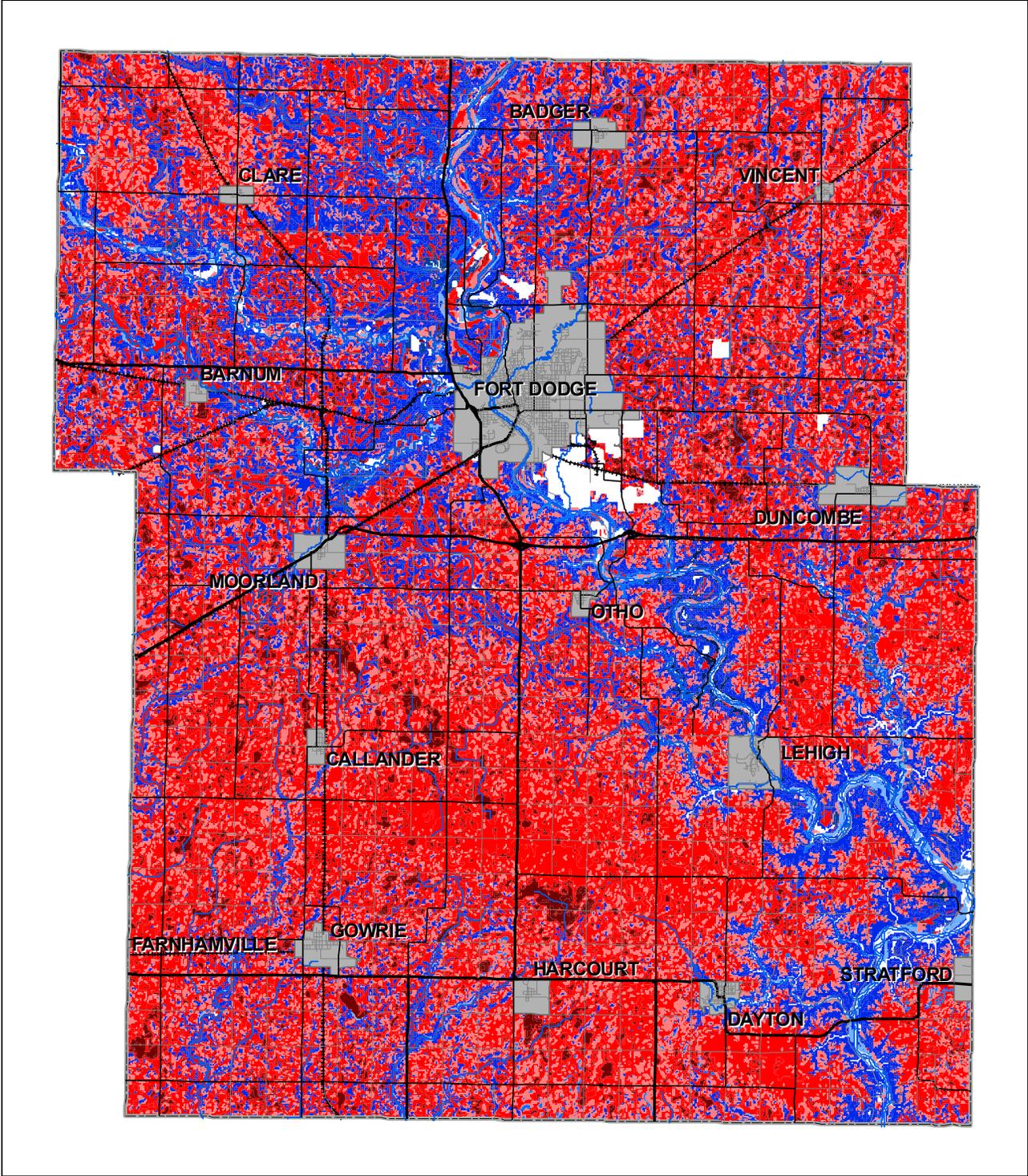
Map Symbol	Soil Name	Hydrological Group	Rating
1055B	Kandiyohi, bouldery	C/D	Hydric
1138B	Clarion, Clay loam	B	Not Hydric
1236B, 1236C	Angus	B	Not Hydric
1259	Biscay, ponded	B/D	Hydric
1507	Brownton	C/D	Hydric
1555	Nicollet	B	Hydric
1836B	Kilkenny	B	Hydric
2700C, 2700B	Ridgeton	B	Not Hydric
4000	Urban land	-	-
4055	Nicollet	B	Not Hydric
4107	Webster	B/D	Hydric
4138B	Clarion	B	Not Hydric
4235B	Angus	B	Not Hydric
4236D	Lester	B	Not Hydric
4325	Le Sueur	B	Not Hydric
4444	Jacwin	B	Not Hydric
4507	Canisteo	B/D	Hydric
4551B, 4551D	Calamine	D	Hydric
4635, 4635B	Buckney, rarely flooded	B	Not Hydric
4946B	Udorthents	-	-
5010	Pits, sand and gravel	A	Not Hydric
5030	Pits, limestone quarries	A	Not Hydric
5035	Pits, gypsum quarries	A	Not Hydric
5040	Udorthents, Loamy	-	-
5049	Aquolls, ponded	-	-
5457	Du Page, channeled, frequently flooded	B	Hydric
5507	Corvuso-Brownton	C/D	Hydric

Source: United States Department of Agriculture, Natural Resources Conservation Service, December 2006.

GROUNDWATER

Groundwater deals with the water under the surface. Groundwater has three primary zones. The first is the aeration zone. The aeration zone is that area from ground level to the point where plant roots absorb moisture. This area is typically unsaturated. The second zone is called the water table. The water table is that area below the aeration zone and above the bedrock. This area is typically saturated and acts more like a sponge rather than an underground lake. Their location is very dependant upon the underground geology of the area and the soil conditions and types. The final groundwater type is the aquifer. Aquifers are large or small areas of water usually within a half mile of the surface.

Some aquifers can be closer than others to the surface. These areas are sometimes referred to as underground lakes. Each of these zones are at varying levels below the surface. Their location is very dependant upon the underground geology of the area and the soil conditions and types. Most public and private wells will drill into either the water table zone or the aquifer zone, especially when an aquifer zone is in close proximity to the surface.



DRAINAGE BY ASSOCIATION: FIGURE 21

 Excessively Drained	 Somewhat poorly Drained
 Somewhat excessive-Well Drained	 Poorly Drained
 Well Drained	 Very poorly Drained
 Moderately well Drained	 Not Rated
 Moderately well-Somewhat poorly Drained	

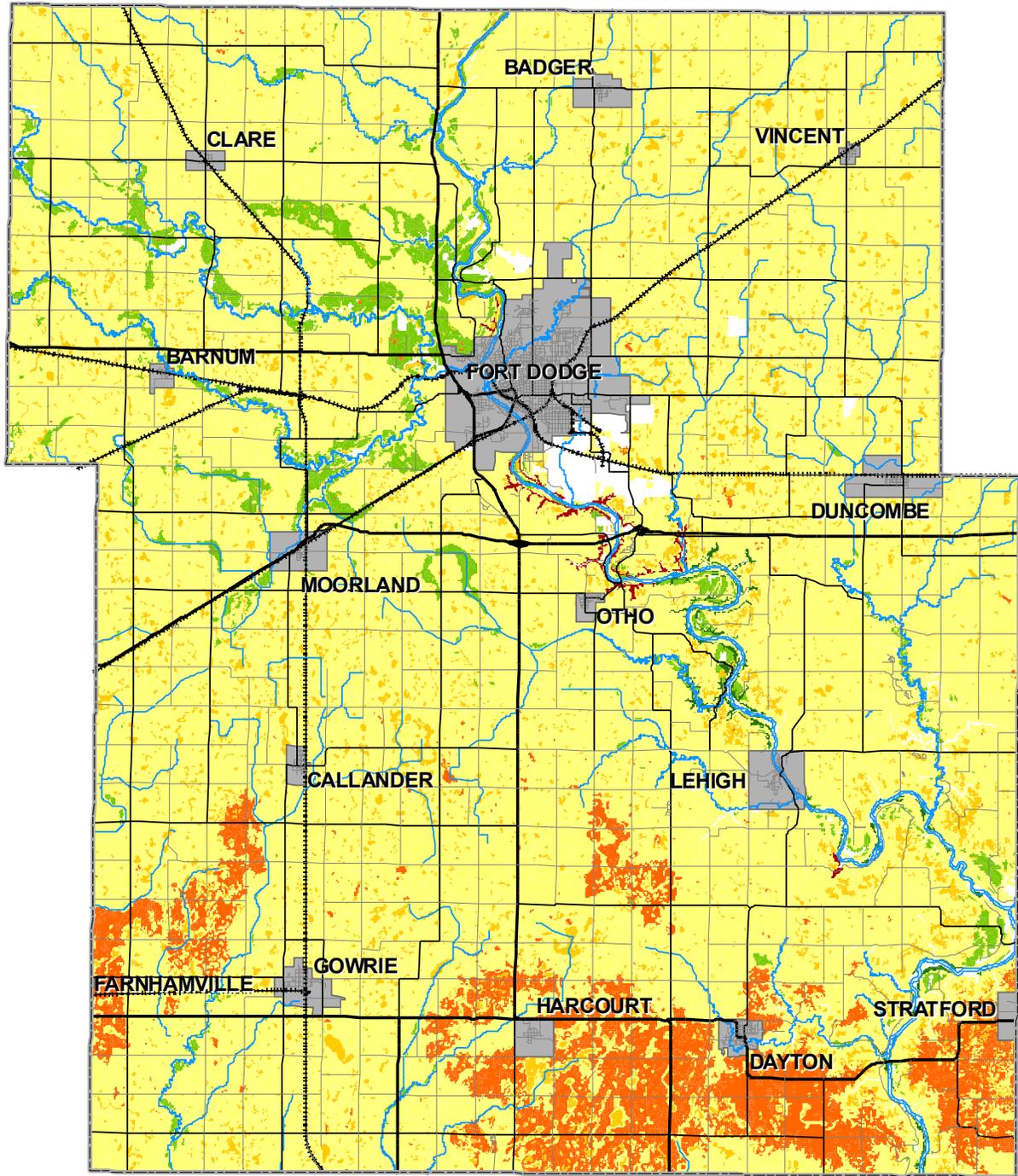
WEBSTER COUNTY, IOWA




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FIGURE 22: SOIL PERMEABILITY



PERMEABILITY: FIGURE 22
Soil Permeability Rate

- | | |
|--|---|
|  Rapid |  Moderately Slow |
|  Moderately Rapid |  Slow |
|  Moderate |  Very Slow |



WEBSTER COUNTY, IOWA

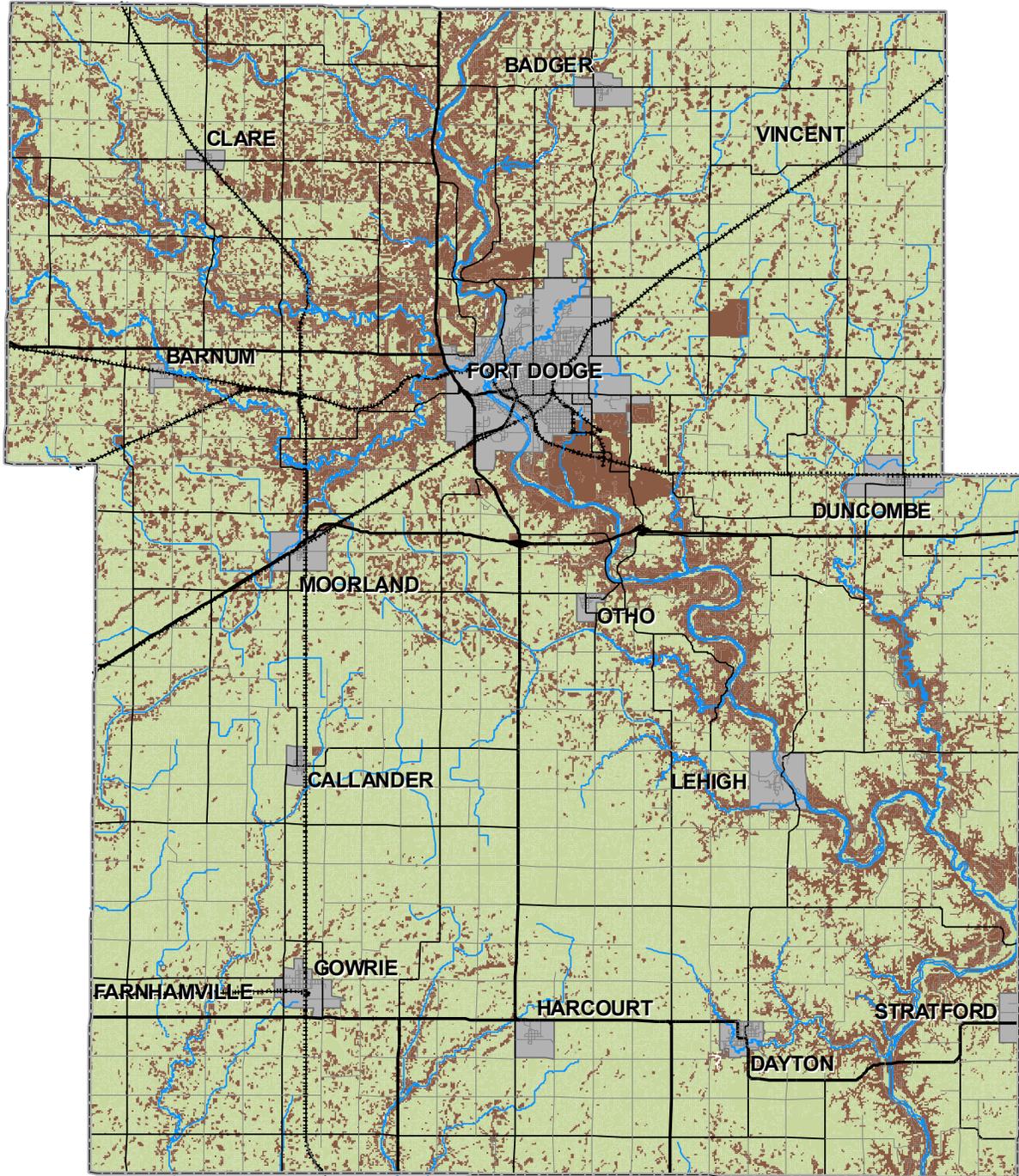


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HYDRIC SOILS: FIGURE 23

WEBSTER COUNTY, IOWA

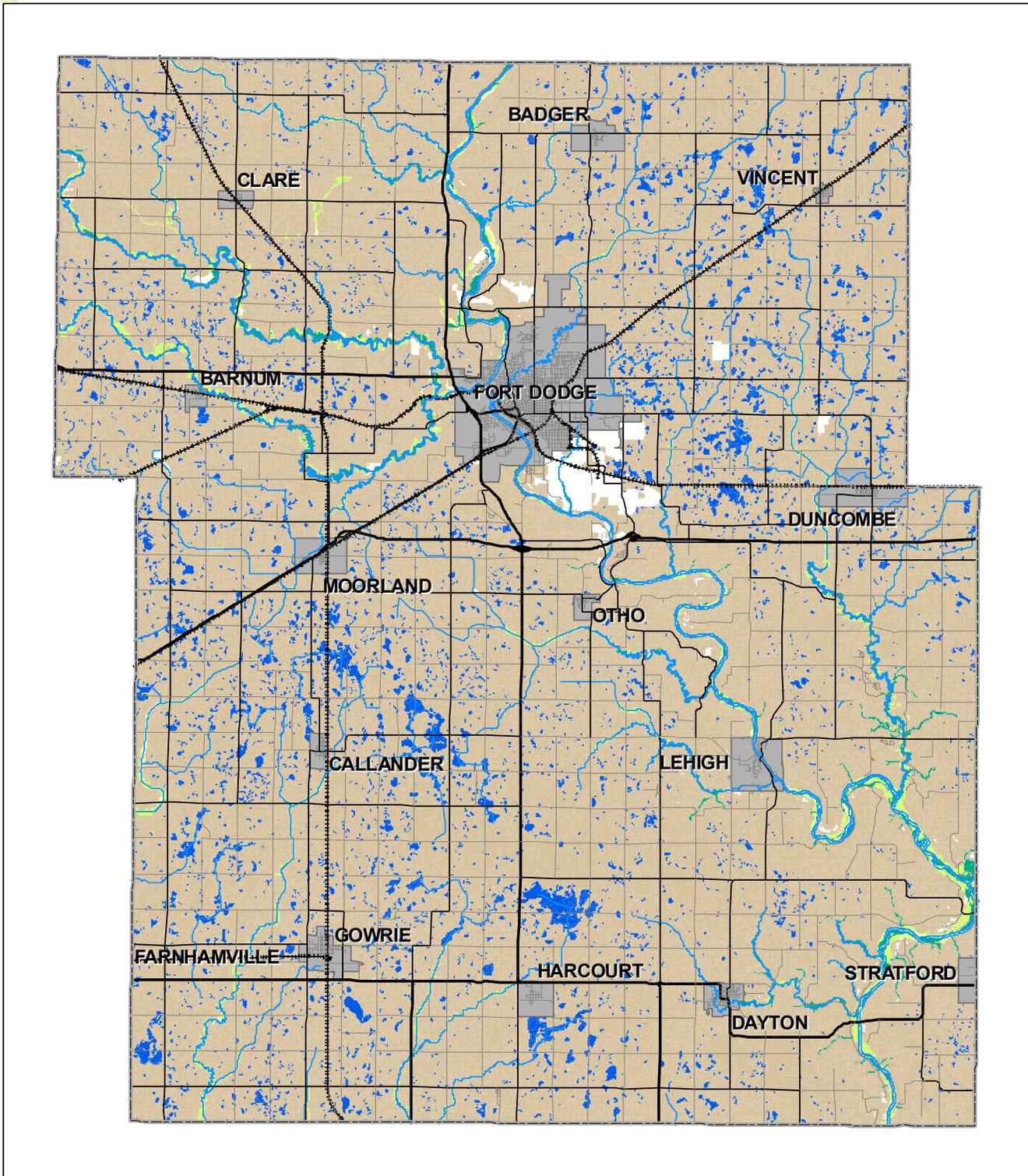
- All Hydric Soils
- Not Hydric Soils



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FIGURE 24: FLOODING FREQUENCY



FLOODING FREQUENCY: FIGURE 24

WEBSTER COUNTY, IOWA

- | | | | |
|---|-----------|---|--------------|
|  | Not Rated |  | Common |
|  | Pondered |  | Occasionally |
|  | Frequent |  | None |



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FLOODING FREQUENCY

Flooding Frequency Flooding Frequency examines how often flooding occurs based upon the soil types. Figure 24 indicates the flooding frequency of Webster County. The map is divided into five different categories, as follows:

- None
- Occasional
- Common
- Frequent
- Poned

The majority of Webster County falls under the category of none; however, there are areas where the flooding is considered to be frequent. All of the frequent areas are not surprising considering they appear along the Des Moines River and other waterways and drainage areas. Areas with frequent flooding should be avoided for development purposes.

CONCLUSIONS

Webster County is and will continue to be faced with a number of land use and growth issues through the planning period. Future decisions regarding the location of land uses will likely create a significant cause and effect scenario for the current and future residents as well as the environment of the County. In general, there are not a large amount of environmental issue limiting growth in Webster County.



Envision Webster County

Town Hall Meetings Goals and Policies

- General Land Use
- Agricultural Land Use
- Commercial Land Use
- Industrial Land Use
- Residential Land Use
- Environment/Water Resources
- Economic Development
- Public Facilities and Taxes
- Public Works
- Transportation
- Health and Safety
- Parks and Recreation
- Implementation, Evaluation, and Review





Town Hall Meetings

- Webster County Town Hall Meetings
 - Fort Dodge Library Town Hall Meeting #1
 - Fort Dodge Library Town Hall Meeting #2
 - Dayton Community Center Town Hall Meeting
 - Gowrie Council Chambers Town Hall Meeting



Town Hall Meetings

WEBSTER COUNTY TOWN HALL MEETINGS

Input from residents is critical to the planning process and will have a direct affect on the development of regulations that will guide the evolution of Webster County. In order to gather meaningful feedback, four town hall meetings were held on July 16 and 17, 2007; two meetings were held in Fort Dodge, and one meeting each was held Dayton and Gowrie. The intention of these meetings was to gather input from county residents describing their perceptions of existing conditions in the county, as well as issues facing the residents and the county. Meeting participants were asked to identify negative and positive aspects of the County, their vision for the future of the County, and the process necessary for achieving the vision the described. The participants then ranked their three top priorities for each question. The following information summarizes the results of each question and the corresponding level of importance allocated to each response.

Although participants were asked to cast all votes they were given and to vote only once for a response, it is not uncommon for people to go ahead and cast all their votes for an issue they feel particularly strong about or to decline to cast all their votes if they cannot find three responses they agree with. For these reasons, the total number of votes cast for each question may differ. Due to low attendance at the third meeting, results from the first town hall meeting were summarized to the group, supplemented with additional responses, and then voted upon in total.

Responses to the questions were specifically not limited to the county only, but participants were invited to also address the communities within the county. Participants were reminded that the regulatory authority of Webster County lies outside the corporate limits of each community, but Webster County as a whole includes everything within its borders.

One of the ground rules for the town hall meetings is that each is treated as a brainstorming exercise; there are no wrong or bad responses. Every response was recorded, whether it was unpopular or few participants agreed with it. Responses were not evaluated when given, but merely listed. Through brainstorming and listing every response, the participants are more likely to engage in a discussion that can lead to additional responses. Also, by listing even unpopular responses, discussion can be had that may reveal new facts that are unknown to other participants. In the end, the votes cast by participants would delineate those responses determined to be most relevant and responsive by the group as a whole. Another ground rule is that responses need not conform to perceived “planning” issues; any response is fair game. Responses that may not be viewed as directly related to the planning process may in fact influence planning decisions. Listing these responses ensures they will be considered during the process, and actions that are planned will not erode positive aspects, nor worsen negative aspects. The four questions, presented in the order asked, were:

“What are the positive aspects of Webster County?”

The participants were asked to respond to this question as honestly as possible. Interestingly, sometimes one person’s positive is another’s negative, and specific responses may appear on each list. Participants were encouraged to speak freely and truthfully from their own perceptions.

“What needs to be improved in Webster County?”

Participants were asked to focus on issues and problems that are either located in or may be outside forces impacting the county. Similar to the first questions, perception and bias may result in a needed improvement being viewed just the opposite by another participant.

“What is the 20-Year Vision of Webster County?”

Participants were reminded that the common timeframe for a comprehensive plan is 20 years, and encouraged to think about events of the past, what is happening now, their desired future, and how each of those might influence one another over time.

“What needs to be done to accomplish this vision?”

To answer this question, each response to the 20-year vision was briefly reviewed and discussed. Participants were asked what actions or tools would be necessary to achieve each of the vision responses.

TOWN HALL MEETINGS**Meeting 1: Fort Dodge City Library****Town Hall Meeting****July 16, 2007 4:00 PM**

20 participants attended the first town hall meeting. The group included a number of steering committee members and county citizens. Much of the discussion centered on ethanol plants, general agriculture issues, and acreage development trends around the county.

**TABLE 32: POSITIVE ASPECTS OF WEBSTER COUNTY,
FORT DODGE LIBRARY**

POSITIVES	POINTS	% OF TOTAL
Quality Ag Land	6	18.75%
Gypsum Industry	4	12.50%
Economic Development	2	6.25%
Veterinary Industry	2	6.25%
Churches	2	6.25%
Kennedy Park	2	6.25%
History	1	3.13%
Small town Traffic	1	3.13%
Schools	1	3.13%
Recreational Facilities	1	3.13%
Job Opportunities	1	3.13%
Cost of Living	1	3.13%
Verason	1	3.13%
Mineral City Speedway	1	3.13%
Emergency Services	1	3.13%
Iowa Central Community College	1	3.13%
Baseball/Softball Facilities	1	3.13%
Youth Entertainment	1	3.13%
Carl King Bandshell	1	3.13%
Good Housing Market	1	3.13%
Friendly People	0	0.00%
Great Town!	0	0.00%
Golf Courses	0	0.00%
OHV Park	0	0.00%
Water Quality	0	0.00%
A2 Property--Ag protection	0	0.00%
Trucking Services	0	0.00%
Trinity Hospital Communications	0	0.00%
Military	0	0.00%
Rotary Club Boating Event	0	0.00%
Fort Museum	0	0.00%
Potential Casino	0	0.00%
Road Maintenance	0	0.00%
Miller Marsh	0	0.00%
TOTAL VOTES	32	100.00%

Source: JEO Consulting Group, Fort Dodge Library Town Hall Meeting,
July 16, 2007

TABLE 33: IMPROVEMENTS OF WEBSTER COUNTY, FORT DODGE LIBRARY

IMPROVEMENTS	POINTS	% OF TOTAL
Urban Sprawl	4	10.81%
Preservation of Gypsum Reserves	4	10.81%
Weed Control	4	10.81%
Potential Casino	3	8.11%
Trails	3	8.11%
Highway 7--High Truck Traffic	2	5.41%
Ag Land Preservation	2	5.41%
Sign Pollution	2	5.41%
Abandoned/Vacant properties/Junk issues	2	5.41%
Railroad Bridge Crossings (need more)	2	5.41%
Stream/Waterway Protection	1	2.70%
Underutilization of Des Moines River	1	2.70%
Transportation Issues around Verason	1	2.70%
Highway 20	1	2.70%
Separation of Agriculture and Residential	1	2.70%
Communications between communities (P/R Person Needed)	1	2.70%
Communications between Health Facilities	1	2.70%
Junk yards	1	2.70%
Train Lengths	1	2.70%
Cell Phone Coverage/Tower	0	0.00%
Mid-America Electric Poles	0	0.00%
Road Maintenance (meet surrounding counties' standard)	0	0.00%
TOTAL VOTES:	37	100.00%

Source: JEO Consulting Group, Fort Dodge Library Town Hall Meeting, July 16, 2007

TABLE 34: 20-YEAR VISION FOR WEBSTER COUNTY, FORT DODGE LIBRARY

20-YEAR VISION	POINTS	% OF TOTAL
Ag based Development/preservation	4	20.00%
Draw more Young people	3	15.00%
Gypsum Industry flourishing	3	15.00%
Specific Land devoted to Industry	2	10.00%
Improvements with Traffic and Railroad	2	10.00%
Better Communications	1	5.00%
Strong Land Use Plan	1	5.00%
More Railroad Crossings	1	5.00%
Utilization of Webster County Development Corp.	1	5.00%
Trails into Town --Implement plan	1	5.00%
Retain Regional Shopping Draw	1	5.00%
More Restaurants	0	0.00%
More Shopping	0	0.00%
Balance between preservation and development	0	0.00%
Industry at the Ag Park	0	0.00%
Reclamation of Mined Areas	0	0.00%
Expansion of OHV Park	0	0.00%
Maintain Housing Market	0	0.00%
TOTAL VOTES:	20	100.00%

Source: JEO Consulting Group, Fort Dodge Library Town Hall Meeting, July 16, 2007

TABLE 35: ACHIEVE THE VISION OF WEBSTER COUNTY, FORT DODGE LIBRARY

ACHIEVE	POINTS	% OF TOTAL
Residential Reclamation of Mined Land	6	27.27%
Determine/Eliminate Industry Roadblocks	3	13.64%
Young Farmers	3	13.64%
Land Use Plan	3	13.64%
Tax incentives for Location of Industry	2	9.09%
Technology/Iowa Central	2	9.09%
Stop Gypsum Import/Work w/ Federal Representatives	1	4.55%
Revitalize Existing Industrial Properties	1	4.55%
Better Shopping Centers	1	4.55%
Grants	0	0.00%
Regulations to Limit Development in Prime Farmland	0	0.00%
Job Opportunities	0	0.00%
Technological Industry	0	0.00%
Recreational Facilities	0	0.00%
Water Park	0	0.00%
TOTAL VOTES:	22	100.00%

Source: JEO Consulting Group, Fort Dodge Library Town Hall Meeting, July 16, 2007

**Meeting 2: Fort Dodge Library Town Hall Meeting,
Fort Dodge, July 16, 2007 6:00 PM**

The second town hall meeting, scheduled for 6:00 PM, was cancelled due to lack of attendance.

**Meeting 3: Dayton Community Center Town Hall Meeting,
Dayton, July 17, 2007 4:00 PM**

15 people attended the third town hall meeting, which included a number of attendees from the first meeting. With so many participants who had been through the process already, we decided to discuss the results of the first town hall meeting, supplement the results with additional responses, and allow for everyone to vote again.

TABLE 36: POSITIVE ASPECTS OF WEBSTER COUNTY, DAYTON COMMUNITY CENTER

POSITIVES	POINTS	% OF TOTAL
Gypsum Industry	5	23.81%
Dayton Rodeo	4	19.05%
Quality Ag Land	2	9.52%
Gowrie 4th of July Parade	2	9.52%
Youth Camps	2	9.52%
Recreational Facilities	1	4.76%
Iowa Central Community College	1	4.76%
Baseball/Softball Facilities	1	4.76%
A2 Property--Ag protection	1	4.76%
Hidden Acres	1	4.76%
Girl Scout Camp	1	4.76%
Economic Development	0	0.00%
Veterinary Industry	0	0.00%
Churches	0	0.00%
Kennedy Park	0	0.00%
History	0	0.00%
Small town Traffic	0	0.00%
Schools	0	0.00%
Job Opportunities	0	0.00%
Cost of Living	0	0.00%
Verason	0	0.00%
Mineral City Speedway	0	0.00%
Emergency Services	0	0.00%
Youth Entertainment	0	0.00%
Carl King Bandshell	0	0.00%
Good Housing Market	0	0.00%
Friendly People	0	0.00%
Great Town!	0	0.00%
Golf Courses	0	0.00%
OHV Park	0	0.00%
Water Quality	0	0.00%
Trucking Services	0	0.00%
Trinity Hospital Communications	0	0.00%
Military	0	0.00%
Rotary Club Boating Event	0	0.00%
Fort Museum	0	0.00%
Potential Casino	0	0.00%
Road Maintenance	0	0.00%
Miller Marsh	0	0.00%
Local Events	0	0.00%
Baptist Youth Camp	0	0.00%
TOTAL VOTES:	21	100.00%

Source: JEO Consulting Group, Dayton Community Center Town July 17, 2007

TABLE 37: IMPROVEMENTS OF WEBSTER COUNTY, DAYTON COMMUNITY CENTER

IMPROVEMENTS	POINTS	% OF TOTAL
Junk yards	5	25.00%
Access to Hidden Acres	4	20.00%
Lack of Enforcement on Junk Properties	3	15.00%
Urban Sprawl	1	5.00%
Preservation of Gypsum Reserves	1	5.00%
Trails	1	5.00%
Highway 7--High Truck Traffic	1	5.00%
Ag Land Preservation	1	5.00%
Abandoned/Vacant properties/Junk issues	1	5.00%
Transportation Issues around Verason	1	5.00%
Appearance of Rundown Farms	1	5.00%
Weed Control	0	0.00%
Potential Casino	0	0.00%
Sign Pollution	0	0.00%
Railroad Bridge Crossings (need more)	0	0.00%
Stream/Waterway Protection	0	0.00%
Underutilization of Des Moines River	0	0.00%
Highway 20	0	0.00%
Separation of Agriculture and Residential	0	0.00%
Communications between communities (P/R Person Needed)	0	0.00%
Communications between Health Facilities	0	0.00%
Train Lengths	0	0.00%
Cell Phone Coverage/Tower	0	0.00%
Mid-America Electric Poles	0	0.00%
Road Maintenance (meet surrounding counties' standard)	0	0.00%
Wireless/High Speed Internet	0	0.00%
Improvement of Regulations/Zoning	0	0.00%
TOTAL VOTES:	20	100.00%

Source: JEO Consulting Group, Dayton Community Center Town Hall Meeting, July 17, 2007

TABLE 38: 20-YEAR VISION OF WEBSTER COUNTY, DAYTON COMMUNITY CENTER

20-YEAR VISION	POINTS	% OF TOTAL
Commercial Growth	8	36.36%
Draw more Young people	3	13.64%
Gypsum Industry flourishing	3	13.64%
Specific Land devoted to Industry	3	13.64%
Ag based Development/preservation	1	4.55%
Trails into Town --Implement plan	1	4.55%
Reclamation of Mined Areas	1	4.55%
Maintain Housing Market	1	4.55%
Opportunities for new Commercial Businesses	1	4.55%
Improvements with Traffic and Railroad	0	0.00%
Better Communications	0	0.00%
Strong Land Use Plan	0	0.00%
More Railroad Crossings	0	0.00%
Utilization of Webster County Development Corp.	0	0.00%
Retain Regional Shopping Draw	0	0.00%
More Restaurants	0	0.00%
More Shopping	0	0.00%
Balance between preservation and development	0	0.00%
Industry at the Ag Park	0	0.00%
Expansion of OHV Park	0	0.00%
TOTAL VOTES:	22	100.00%

Source: JEO Consulting Group, Dayton Community Center Town Hall Meeting, July 17, 2007

TABLE 39: ACHIEVE THE VISION OF WEBSTER COUNTY, DAYTON COMMUNITY CENTER

ACHIEVE	POINTS	% OF TOTAL
Clean Up Junk Yards	5	31.25%
Determine/Eliminate Industry Roadblocks	4	25.00%
Revitalize Existing Industrial Properties	3	18.75%
Residential Reclamation of Mined Land	1	6.25%
Land Use Plan	1	6.25%
Tax incentives for Location of Industry	1	6.25%
Increase Recreational Opportunities	1	6.25%
Young Farmers	0	0.00%
Technology/Iowa Central	0	0.00%
Stop Gypsum Import/Work w/ Federal Representatives	0	0.00%
Better Shopping Centers	0	0.00%
Grants	0	0.00%
Regulations to Limit Development in Prime Farmland	0	0.00%
Job Opportunities	0	0.00%
Technological Industry	0	0.00%
Recreational Facilities	0	0.00%
Water Park	0	0.00%
Improve Roads	0	0.00%
Better Access to Recreation	0	0.00%
Maintain old Recreational Facilities	0	0.00%
TOTAL VOTES:	16	100.00%

Source: JEO Consulting Group, Dayton Community Center Town Hall Meeting, July 17, 2007

**Meeting 4: Gowrie Council Chambers Town Hall Meeting,
Gowrie, July 17, 2007 6:00PM**

15 people attended the fourth town hall meeting, including five participants that had not attended any of the previous meetings. . This group held an excellent discussion, focusing mainly on issues facing the smaller communities outside of Fort Dodge. A new list of meeting results was established and the regular voting was completed.

TABLE 40: POSITIVES FOR WEBSTER COUNTY, GOWRIE COUNCIL CHAMBERS 6:00 PM

POSITIVES	POINTS	% OF TOTAL
Quality of Farmland	5	23.81%
Cost of Living	4	19.05%
Medical Facilities	3	14.29%
Gowrie 4th of July Parade	2	9.52%
Rural Quality of Life	2	9.52%
Brushy Creek and State Park	2	9.52%
Ethanol Plants	1	4.76%
Golf Courses	1	4.76%
Forgivable Loans for Low-Moderate Income Housing	1	4.76%
Dayton Rodeo	0	0.00%
Fort Dodge/Webster County Development	0	0.00%
Fort Dodge/Board of Supervisors/Private Collaboration	0	0.00%
Churches	0	0.00%
Schools	0	0.00%
Des Moines River--Canoeing	0	0.00%
Harlan Rodgers Softball/Baseball Complex	0	0.00%
Gowrie Roller Skating Rink	0	0.00%
Fishing/Hunting	0	0.00%
Arts Councils	0	0.00%
Job Opportunities	0	0.00%
TOTAL VOTES:	21	100.00%

Source: JEO Consulting Group, Gowrie Town Hall Meeting, July 17, 2007

TABLE 41: IMPROVEMENTS FOR WEBSTER COUNTY, GOWRIE COUNCIL CHAMBERS 6:00 PM

IMPROVEMENTS	POINTS	% OF TOTAL
Ethanol Truck Traffic/Road Damage	4	20.00%
Trails	3	15.00%
Affordable Housing	2	10.00%
Effort to Provide Incentives for Affordable Housing	2	10.00%
Recreational Opportunities	2	10.00%
Future Land Use	2	10.00%
Apartments	1	5.00%
Retirement Facilities	1	5.00%
Lack of Planning for the Future	1	5.00%
Medical Facilities in Small communities	1	5.00%
County Road Maintenance	1	5.00%
Shopping	0	0.00%
River Development	0	0.00%
Generation Balance/Cooperation	0	0.00%
Housing Study	0	0.00%
Facilities to accommodate new families	0	0.00%
Hardware Store in Gowrie	0	0.00%
Lack of cooperation b/w city, governing bodies, and county development corps	0	0.00%
TOTAL VOTES:	20	100.00%

Source: JEO Consulting Group, Gowrie Town Hall Meeting, July 17, 2007

TABLE 42: 20-YEAR VISION FOR WEBSTER COUNTY, GOWRIE COUNCIL CHAMBERS

20-YEAR VISION	POINTS	% OF TOTAL
Cooperation/Communication among communities	3	15.00%
Preservation of Prime Farmland	3	15.00%
Controlled Acreages	3	15.00%
Promote Industrial Growth	3	15.00%
Population retention/growth	2	10.00%
Bring in/retain youth	2	10.00%
Good Airport	2	10.00%
School Centralization--Countywide	1	5.00%
Infrastructure	1	5.00%
TOTAL VOTES:	20	100.00%

Source: JEO Consulting Group, Gowrie town Hall Meeting, July 17, 2007

ACHIEVE	POINTS	% OF TOTAL
Strong Land Use Plan	4	20.00%
Organize, Coordinate, Control	3	15.00%
Regular Mayoral Meetings	3	15.00%
Small Community Representation at Ft. Dodge/Webster County Development Corps.	3	15.00%
Encourage Residential Development in A2 Property	2	10.00%
County-wide Zoning	1	5.00%
School Consolidation	1	5.00%
Highway 20 increase to 4 lanes	1	5.00%
Continue Highway 169 North	1	5.00%
Retain Railroad	1	5.00%
Work with Iowa Central	0	0.00%
TOTAL VOTES:	20	100.00%

Source: JEO Consulting Group, Gowrie Town Hall Meeting, July 17, 2007

Overall Town hall Meeting Results

By combining and analyzing all of the town hall meeting results together, we can gain an understanding of how meeting participants as an entire group view the county. Responses that were worded differently, but had the same intent, were consolidated into one response. Overall, there were 71 votes cast for positive aspects, 74 votes cast for improvements, 64 votes cast for the '20-year vision,' and 58 votes cast for steps to achieving the vision. As mentioned previously, these numbers indicate that some participants may have voted fewer or more than three times on one question

Positive Aspects of Webster County

Overall, 71 votes were cast for 51 different positive responses offered by attendees of the town hall meetings. The number one selected positive response was the quality of agricultural land in the county, which received nearly twice the votes of the second place response, and nearly one-fifth of all votes. Interestingly, two of the top five responses identified events held within the county: the Gowrie 4th of July Parade and the Dayton Rodeo. Similarly, cost of living and quality of life ranked in the top ten. These responses indicate a high level of civic pride and satisfaction with life in Webster County felt by meeting participants. This should result in goals and policies that foster and support these types of activities, as well as a continuation of the fiscal policies that have created and allowed this level of satisfaction.

TABLE 44: POSITIVE ASPECTS OF WEBSTER COUNTY

POSITIVES	POINTS	% OF TOTAL
Quality Ag Land	13	18.3%
Gypsum Industry	7	9.9%
Cost of Living	5	7.0%
Gowrie 4th of July Parade	4	5.6%
Dayton Rodeo	4	5.6%
Medical Facilities	3	4.2%
Youth Camps	2	2.8%
Veterinary Industry	2	2.8%
Rural Quality of Life	2	2.8%
Recreational Facilities	2	2.8%
Kennedy Park	2	2.8%
Iowa Central Community College	2	2.8%
Ethanol Plants	2	2.8%
Economic Development	2	2.8%
Churches	2	2.8%
Brushy Creek and State Park	2	2.8%
Baseball/Softball Facilities	2	2.8%
Youth Entertainment	1	1.4%
Small town Traffic	1	1.4%
Schools	1	1.4%
Mineral City Speedway	1	1.4%
Job Opportunities	1	1.4%
History	1	1.4%
Hidden Acres	1	1.4%
Good Housing Market	1	1.4%
Golf Courses	1	1.4%

POSITIVES	POINTS	% OF TOTAL
Girl Scout Camp	1	1.4%
Forgivable Loans for Low-Moderate Income Housing	1	1.4%
Emergency Services	1	1.4%
Carl King Bandshell	1	1.4%
Water Quality	0	0.0%
Trucking Services	0	0.0%
Trinity Hospital Communications	0	0.0%
Rotary Club Boating Event	0	0.0%
Road Maintenance	0	0.0%
OHV Park	0	0.0%
Miller Marsh	0	0.0%
Military	0	0.0%
Local Events	0	0.0%
Harlan Rodgers Softball/Baseball Complex	0	0.0%
Great Town!	0	0.0%
Gowrie Roller Skating Rink	0	0.0%
Friendly People	0	0.0%
Fort Museum	0	0.0%
Fort Dodge/Webster County Development	0	0.0%
Fort Dodge/Board of Supervisors/Private Collaboration	0	0.0%
Fishing/Hunting	0	0.0%
Des Moines River--Canoeing	0	0.0%
Baptist Youth Camp	0	0.0%
Arts Councils	0	0.0%
A2 Property—Ag protection	0	0.0%
TOTAL VOTES:	71	100.0%

Source: JEO Consulting Group, Webster County Town Hall Meetings July 16 and July 17, 2007

Improvements Needed in Webster County

Overall, 74 votes were cast for 39 different responses identifying needed improvements within Webster County by the attendees of all three town hall meetings. Receiving the most votes was improving trails in the county, which indicates a meaningful interest in outdoor activities by residents. Preserving gypsum reserves within the county was voted to third place, which correlates well with the gypsum industry's identification as the second most positive aspect of the county. Goals and Policies will need to specifically address this component of the county, and ensure threats to the industry can be minimized.

TABLE 45: IMPROVEMENTS FOR WEBSTER COUNTY

IMPROVEMENTS	POINTS	% OF TOTAL	IMPROVEMENTS	POINTS	% OF TOTAL
Trails	8	10.8%	Highway 20	1	1.4%
Junk yards	6	8.1%	Lack of Planning for the Future	1	1.4%
Preservation of Gypsum Reserves	5	6.8%	Medical Facilities in Small communities	1	1.4%
Urban Sprawl	5	6.8%	Retirement Facilities	1	1.4%
Ethanol Truck Traffic/Road Damage	5	6.8%	Road Maintenance (meet surrounding counties' standard)	1	1.4%
Abandoned/vacant properties/junk issues/abandoned farms	4	5.4%	Separation of Agriculture and Residential	1	1.4%
Access to Hidden Acres	4	5.4%	Stream/Waterway Protection	1	1.4%
Weed Control	4	5.4%	Transportation Issues around Verason	1	1.4%
Ag Land Preservation	3	4.1%	Underutilization of Des Moines River	1	1.4%
Highway 7--High Truck Traffic	3	4.1%	Cell Phone Coverage/Tower	0	0.0%
Lack of Enforcement on Junk Properties	3	4.1%	Facilities to accommodate new families	0	0.0%
Affordable Housing	2	2.7%	Generation Balance/Cooperation	0	0.0%
Effort to Provide Incentives for Affordable Housing	2	2.7%	Hardware Store in Gowrie	0	0.0%
Future Land Use	2	2.7%	Housing Study	0	0.0%
Railroad Bridge Crossings (need more)	2	2.7%	Improvement of Regulations/Zoning	0	0.0%
Recreational Opportunities	2	2.7%	Mid-America Electric Poles	0	0.0%
Sign Pollution	2	2.7%	River Development	0	0.0%
Apartments	1	1.4%	Shopping	0	0.0%
Communications between communities (P/R Person Needed)	1	1.4%	Wireless/High Speed Internet	0	0.0%
Communications between Health Facilities	1	1.4%	TOTAL VOTES:	74	100.0%

Source: JEO Consulting Group, Webster County Town Hall Meetings July 16 and July 17, 2007

20-Year Vision of Webster County

Town Hall Meeting participants described their visions of a future Webster County with 28 different responses. . The top five responses identified jobs-related issues: bringing young people to the county and growing the agricultural, commercial and industrial sectors, specifically including the gypsum industry. Responses related to quality of life concerns foresee the need to maintain an adequate housing supply, developing trails, and centralizing the county school system.

TABLE 46: 20-YEAR VISION OF WEBSTER COUNTY

20-YEAR VISION	POINTS	% OF TOTAL
Draw more Young people	9	14.1%
Ag based Development/preservation	8	12.5%
Commercial Growth	8	12.5%
Gypsum Industry flourishing	7	10.9%
Specific Land devoted to Industry	5	7.8%
Controlled Acreages	3	4.7%
Cooperation/Communication among communities	3	4.7%
Promote Industrial Growth	3	4.7%
Good Airport	2	3.1%
Improvements with Traffic and Railroad	2	3.1%
Population retention/growth	2	3.1%
Trails into Town --Implement plan	2	3.1%
Better Communications	1	1.6%
Infrastructure	1	1.6%
Maintain Housing Market	1	1.6%
More Railroad Crossings	1	1.6%
Opportunities for new Commercial Businesses	1	1.6%
Reclamation of Mined Areas	1	1.6%
Retain Regional Shopping Draw	1	1.6%
School Centralization--Countywide	1	1.6%
Strong Land Use Plan	1	1.6%
Utilization of Webster County Development Corp.	1	1.6%
Balance between preservation and development	0	0.0%
Expansion of OHV Park	0	0.0%
Industry at the Ag Park	0	0.0%
More Restaurants	0	0.0%
More Shopping	0	0.0%
TOTAL VOTES:	64	100.0%

Source: JEO Consulting Group, Webster County Town Hall Meetings July 16 and July 17, 2007

Achieving a New Vision of Webster County

In order to take the steps necessary to achieve the vision identified by meeting participants, a list of actions was developed and ranked. Respondents provided 28 different responses describing the elements that need to be present over the next 20 years in order to have the future they desire. Maybe intuitively, respondents chose a strong land use plan as the number one tool for realizing the changes they desire. This indicates a meaningful level of support for this planning effort, as well as future efforts that will be undertaken by the county. This support should be recognized for the value it brings to the process, and nurtured as this Plan is finalized and put into action. Besides giving county residents a strong implementation program, the county should remain cognizant of public support, and reach out to the citizens whenever planning processes are undertaken. Strong public support is the key factor in any public planning process.

TABLE 47: ACHIEVE THE VISION FOR WEBSTER COUNTY

ACHIEVE THE VISION	POINTS	% OF TOTAL
Strong Land Use Plan	8	13.8%
Determine/Eliminate Industry Roadblocks	7	12.1%
Residential Reclamation of Mined Land	7	12.1%
Clean Up Junk Yards	5	8.6%
Revitalize Existing Industrial Properties	4	6.9%
Organize, Coordinate, Control	3	5.2%
Regular Mayoral Meetings	3	5.2%
Small Community Representation at Ft. Dodge/Webster County Development Corps.	3	5.2%
Tax incentives for Location of Industry	3	5.2%
Young Farmers	3	5.2%
Encourage Residential Development in A2 Property	2	3.4%
Technology/Iowa Central	2	3.4%
Better Shopping Centers	1	1.7%
Continue Highway 169 North	1	1.7%
County-wide Zoning	1	1.7%
Highway 20 increase to 4 lanes	1	1.7%
Recreational Facilities	1	1.7%
Retain Railroad	1	1.7%
School Consolidation	1	1.7%
Stop Gypsum Import/Work w/ Federal Representatives	1	1.7%
Grants	0	0.0%
Job Opportunities	0	0.0%
Regulations to Limit Development in Prime Farmland	0	0.0%
Technological Industry	0	0.0%
Water Park	0	0.0%
Work with Iowa Central	0	0.0%
TOTAL VOTES:	58	100.0%

Source: JEO Consulting Group, Webster County Town Hall Meetings, July 16 and July 17, 2007



Goals and Policies

- General Land Use
- Agricultural Land Use
- Commercial Land Use
- Industrial Land Use
- Residential Land Use
- Environment/Water Resources
- Economic Development
- Public Facilities and Taxes
- Public Works
- Transportation
- Health and Safety
- Park and Recreation
- Implementation, Evaluation, and Review



GOALS AND POLICIES

INTRODUCTION

A key component of a Comprehensive Development Plan is the implementation section, which relies on accepted goals and policies. The issues and concerns that have been presented by the citizens have been distilled into a series of goals and policies, which are used to describe and explain the future vision of the County. The vision is then be further delineated and translated into action statements, used to guide, direct, and base decisions for future growth, development and change within Webster County.

Establishing goals allows the community to unite behind a shared vision through consensus. Goals are future-oriented and provide long term targets toward which community leaders and citizens can work towards. Setting policies that conform to established goals provides the county with a roadmap showing the way from today's conditions to tomorrow's vision. Finally, the Implementation section of this Plan will present action steps that have been identified as critical for the ultimate success of this Plan. Action steps provide a series of benchmarks and clearly defined activities, complete with timelines and responsible agencies/persons. These action steps give the community ownership of their process, accountability for their success, and key indicators against which to measure their progress. Planning in such a comprehensive manner focuses on ways of solving existing problems within the County, and providing a management tool enabling Webster County citizens to achieve their vision for the future.

Visioning is a process of evaluating present conditions, identifying problem areas, and bringing about consensus on how to overcome existing problems and manage change. Through public participation, the strengths and weaknesses of Webster County have been determined; the community has created a picture in text describing what it wants to be. Here, we will develop a roadmap to help guide decisions and assist the County in fulfilling its vision.

Specific criteria can be established that will direct future decision-makers to become 'proactive' when facing changes. These criteria will be used to judge and manage these changes. Instead of reacting to development pressures after the fact, the County using their adopted strategic vision can better reinforce the desired changes, and discourage negative impacts that may undermine the vision. A shared vision permits Webster County to focus its diverse energies and minimize conflicts in the present, and in the future.

- **Goals** are desires, necessities, and issues to be attained in the future. A goal should be established in a manner that allows it to be accomplished. Goals are the end-state of a desired outcome. Goals also play a factor in the establishment of policies and regulatory guidelines within a county. In order to attain certain goals and/or policies within county government, they may need to be modified or changed from time to time.
- **Policies** are concerned with defining and implementing the broad goals of the Comprehensive Development Plan. Policies are a means to achieving the goals established by the County. They are specific statements of principle or actions that imply a clear commitment that is not mandatory. Policies are part of the value system linking goals with action. Policies have three different elements: an end that needs to be achieved, a means by which to achieve that end, and an administrative mechanism by which the means are carried out.

- **Action Steps** are the most detailed level of the implementation process. These steps provide the “day-to-day” guidance necessary to keep the County on track. Action steps provide specific actions that must be undertaken, assign responsibility and authority for the action to a specific person or agency, and identify a due date or time element for each action in order to allow for continuous monitoring and feedback regarding the overall progress towards the final goal.

These policies will synthesize the information from the goals, as well as the responses from the participants of the town hall meetings in order to develop solutions that will achieve the goals of the Comprehensive Development Plan. The goals and policies help ensure the Comprehensive Plan accomplishes the desires of the residents in Webster County. This section of the Comprehensive Plan is therefore a compilation of local attitudes that has been generated through public meetings and workshops. When followed, development proposals in the County will be evaluated as to their relationship with the citizens’ comments. Therefore, “goals and policies” should be referred to as diligently as the Future Land Use Map or any other part of the Comprehensive Plan, when reviewing and/or making recommendations on planning issues. Likewise, they should be maintained and kept current with changing trends and public preferences, in order to reflect the attitudes and desires of the County and its residents.

It is important for counties to establish their goals and policies in a manner that allows for both long-term and short-term accomplishments. The short-term goals and policies serve several functions:

- Allow for immediate feedback and success, which fuels the desire to achieve additional goals and better policies.
- Allow for the distribution of resources over time thus assuring a balanced use of public investment.
- Establish certain policies that need to be followed before the long-term goals can be accomplished.

PRIORITIZED GOALS AND POLICIES

Each response from the town hall meetings was classified into one of the 12 general categories seen below. The number total shown was found by adding the number of votes for responses that were classified into the category. Responses that did not generate a vote were counted as one. Prioritizing the goals and objectives by these categories allows county leaders to see which broad categorical function was most important as determined by the public participation process. These categories are broad enough to allow many issues to fall within them, but narrow enough to allow a fairly clear distinction and separation. These categories are used for a logical organization of goals and policies. Shown below the categories below are representative responses from the town hall meetings that indicate the general nature of responses that were classified into the category.

Implementation, Evaluation, and Review – 45 total

- Code enforcement county wide
- Increase communication between communities
- Utilize Webster County Development Corporation
- Eliminate road blocks which hinder industrial development

Parks and Recreation – 43 total

- Implement the trails plan
- Increase recreational opportunities

Industrial Land Use – 41 total

- Continue growth of the gypsum industry
- Utilize existing industrial properties for new development
- Ethanol plants

Infrastructure (Public Works and Transportation) – 28 total

- High truck traffic due to development of ethanol plants
- Railroad bridge crossings
- Increase Highway 20 to 4-lane

Agricultural Land Use – 25 total

- Quality of agricultural land
- Preservation of quality agricultural land

General Land Use – 25 total

- Establishment of a strong land use plan
- Lack of planning for the future
- Separation of agriculture and residential
- Reclamation of mined areas

Public Facilities and Taxes – 22 total

- Tax incentives for location of industry
- Work with Iowa Central Community College

Economic Development – 18 total

- Promote economic development
- Population retention
- Strengthen commercial by emphasizing ‘regional shopping area’ around Fort Dodge

Health and Safety – 17 total

- Cost of living is low
- Rural, small town atmosphere
- Good hospitals

Commercial Land Use – 14 total

- Improved shopping opportunities

Residential Land Use/Housing – 11 total

- Affordable housing opportunities
- Forgivable loans for low income housing

Environment/Water Resources – 11 total

- Underutilized Des Moines River

The above list of general categories should not be interpreted to mean that issues should be addressed in the order presented or that any one category is more important than another. Categories were merely listed according to the number of votes received within each category. All of the goals and policies are equally important for implementation of the Comprehensive Plan.

GOAL #1 – GENERAL LAND USE

Webster County should protect environmental resources, maintain and increase land values, and guide future growth and development in a compact fashion into areas that can support land uses based upon the availability and economical expansion of public infrastructure.

General Land Use Policies

- 1.1 A review and comment process will be required prior to planning commission and county board public hearings for any proposed activity that will occur within County zoning jurisdiction. The cost of required improvements, both on-site and off-site, to a subdivision or development that will exclusively serve the property owners thereof shall be borne by the developer or those property owners
- 1.2 Designate areas in the Land Use Plan that address the anticipated future growth needs of the County.
- 1.3 Develop zoning and subdivision regulations that promote efficient land usage and long-term adequacy, while avoiding land use conflicts and inefficient provision of public infrastructure.
- 1.4 Encourage the development of vacant lands located near cities by providing regulatory incentives that promote appropriate land uses.
- 1.5 Discourage and minimize leap-frog development outside of municipalities.
- 1.6 Allow agricultural production in all areas in which agricultural uses are appropriate. Non-agricultural development in agricultural areas should be allowed only in specifically designated areas and only when such development will not negatively impact the agricultural uses.
- 1.7 The County should not compete with municipalities regarding subdivision development and lot size.
- 1.8 Encourage future development in areas that have existing utilities and infrastructure, or can be adequately and economically served by utilities and infrastructure.
- 1.9 As development attempts to move into areas that are not easily served by utilities, the County should establish policies for shared costs of utility extensions.
- 1.10 When developments propose to develop along the hillsides and other environmentally sensitive areas, special criteria should be used that will allow creative platting of lots into clusters.
- 1.11 Future developments should be encouraged to preserve tree groves and natural drainage ways as part of the development.
- 1.12 Rural development should be allowed to occur on a limited scale to minimize road maintenance and other public facility and service budgets. This rural development will not be permitted to become urban in nature, thereby minimizing future urban demands on the County.
- 1.13 (For a subdivision exclusively serving the property owners of the subdivision, the cost of services shall be borne by the developer or those property owners within the subdivision.) ?
- 1.14 Develop a set of regulations sensitive to the environmental conditions of Webster County. These include soil types and suitability, groundwater, surface water, watershed areas and air pollution.
- 1.15 Establish land use districts that will identify uses best suited for specific areas of the County.

GOAL #2 – AGRICULTURAL LAND USE

Webster County should establish a land use regulation which promotes preservation of prime farmland by establishing areas for non-farm residential development that will not inhibit continued agricultural production.

Agricultural Policies

- 2.1 Criteria should be developed to designate areas of Webster County as “Prime Farmland”. Special consideration through the use of preservation land use practices should assist in the protection of these lands for traditional agricultural purposes.
- 2.2 Confined livestock operations in Webster County should be located such that their presence and operational impacts on neighboring land uses are minimized.
- 2.3 Uses promoting the diversification of agricultural production by adding additional value to existing products should be encouraged to locate or expand within Webster County.
- 2.4 Encourage low non-farm densities in prime farmland areas and other agricultural districts by providing appropriate residential lot size requirements and proper separation distances between residential and agricultural uses.
- 2.5 Support agricultural businesses designed, operated and located in the proper areas while being consistent with maintaining the health, safety and general welfare of all County residents.
- 2.6 Protect and preserve prime farmland through land use regulations.

GOAL #3 – COMMERCIAL LAND USE

Webster County should work with communities and other stakeholders to increase the number of commercial establishments throughout the county.

Commercial Development Policies

- 3.1 Work with the Fort Dodge/Webster County Development Corporation to identify and promote businesses in key locations of Webster County.
- 3.2 Encourage the location of neighborhood commercial land uses at the intersections of major transportation networks that already have or can be efficiently supplied with public infrastructure.
- 3.3 Utilize frontage roads when locating along major roads/highways in order to minimize access points and traffic conflicts.
- 3.4 Require landscaping and architectural standards for all new commercial construction and expansion to existing operations.
- 3.5 Limit the extent of commercial development to areas as designated on the Future Land Use Map and along major transportation corridors.

GOAL #4 – INDUSTRIAL LAND USE

Webster County should work to establish a strong relationship with existing industries, work to identify new industrial opportunities, and eliminate obstacles in order to promote increased industrial growth.

Industrial Development Policies

- 4.1 Heavy industrial uses with seasonal or high nuisance characteristics are encouraged to locate or relocate only in or immediately adjacent to areas where all required services are available, well removed and shielded from existing or projected residential development. Conversely, prime heavy industrial sites should be identified and protected from encroachment of other urban uses pending acquisition and development, in order to prevent future land use conflicts.
- 4.2 To the greatest extent possible, industrial areas are to be located near a community where they can be adequately served by necessary major utility lines, including electric power substations and transmission lines, sewer trunk lines, water trunk lines, and where appropriate, gas trunk lines.
- 4.3 Industrial uses which are incompatible with surrounding residential or commercial development and cannot bear the cost of abating their incompatible characteristics, whether related to performance or appearance, will be encouraged to locate or relocate to areas with similar industrial developments, and where all required services are immediately available.
- 4.4 Industrial uses will be located so that adequate buffer space is provided between incompatible land uses.
- 4.5 The County, through zoning, should develop appropriate performance, design, and specification standards for all existing and possible future industrial uses to guide their location or relocation in the County and within existing industrial areas of the County.
- 4.6 Promote redevelopment of vacated industrial properties, as well as remediation of large industrial sites prior to abandonment or closure.
- 4.7 Industrial development that is not dependant upon rail transport should be discouraged from locating adjacent to a railroad right-of-way where land is available. They should be, however, located near major transportation routes.
- 4.8 The County should encourage industrial development that is energy efficient. Energy conservation measures that will be promoted include, but are not limited to, the following:
 - 1) Efficient building, manufacturing, and heating practices;
 - 2) Co-generation systems including the burning of wastes; and
 - 3) Utilization of new and alternative systems.
- 4.8 The County should encourage industrial development which bases its products on renewable and indigenous raw materials. The County should recognize and encourage small scale industries as viable alternatives to larger conventional enterprises.

GOAL #5 – RESIDENTIAL LAND USE

Webster County should ensure the future land use plan places residential land uses in areas which will not hinder agricultural production, gypsum mining operations, or other opportunities for economic development in the future.

Residential Land Use Policies

- 5.1 Residential development should be separated from more intensive uses, such as agriculture, industrial, and commercial development, by the use of setbacks, buffer zones, or impact easements.
- 5.2 County officials should work with community officials and developers on a continual basis to monitor and evaluate the effectiveness of existing regulations, and to identify proper areas to locate new development.
- 5.3 Encourage low non-farm densities in prime farmland areas and other agricultural districts by providing residential lot size requirements and proper separation distances between residential and agricultural uses.
- 5.4 Buffers and/or impact easements, as immediate land uses or as landscaped areas, shall be provided between residential and agricultural uses.
- 5.5 Utilize information tools such as slopes, soil types, floodplain, road and bridge development and maintenance plans, when identifying areas for residential development.
- 5.6 Develop subdivision regulations that provide for a quality living environment while avoiding inefficient and expensive public infrastructure expansions.
- 5.7 Webster County property and landowners should be ensured their right to the exclusive and uninterrupted use of their land will be protected through regulations that are sensitive to the effects of activities that are nuisance in nature.
- 5.8 Support housing options for all Webster County residents, regardless of income level or physical capability
- 5.9 Encourage the establishment of a rehabilitation program to maintain and improve the existing housing stock.
- 5.10 Encourage new residential development to locate near urban centers or areas identified to accommodate higher density growth, especially when direct access to existing, hard-surfaced roads or highways can be accomplished.
- 5.11 Establish zoning and subdivision design standards for new developments that require buffers, screening standards, and usable green space
- 5.12 All proposed rural area developments shall be based on a reasonable expectation of supply and demand for said use or facilities and no large-scale development shall be approved without:
 - 1) The submission and approval of a layout and design concept, with provision for the staging and servicing of all phases of the development;
 - 2) The approval of all federal and state agencies relative in any applicable health, safety and environmental controls; and
 - 3) An adequate demonstration of the financial capacity (escrows, performance bonds, etc.) and responsibility of the applicants to complete the development and provide for operation and maintenance services.

5.15 All proposed rural area development and facilities:

- 1) Shall be appropriately, if not uniquely, suited to the area or site proposed for development;
- 2) Shall not be located in any natural hazard area, such as a flood plain or area of geologic hazard, steep slope, severe drainage problems or soil limitations for building or sub-surface sewage disposal, if relevant;
- 3) Shall be furnished with adequate access – when possible a minimum of two entrances and exits.
- 4) Shall be furnished with adequate individual or community water supply, if required;
- 5) Shall not be justified solely or even primarily on the argument that the land is less costly than better alternative sites.

5.16 Proposed rural area development shall not need or require the extension of costly services and facilities normally associated with urban centers. These services may include municipal water supply and sanitary sewer, power, and gas. Development shall not impose inordinate additional net costs on mobile, centralized public services, such as emergency services, school busing or refuse collection.

5.17 Webster County will recognize that the appropriate location of very low density residential development is in designated areas where commitments to such uses have already been made through existing subdivision or development.

GOAL #6 - ENVIRONMENT/WATER RESOURCES

Webster County should work to guide development in a manner that conserves and protects the natural resources; minimizes potential conflicts between rural/urban residents; promotes compatible land uses; encourages compact development and an efficient provision of services.

Efficient use of water resources is a benefit to all citizens, as water is an essential part of the livability of an area. Conserve and manage water resources efficiently in order to sustain and enhance the quantity and quality of water available for human consumption and to abate flood, erosion and sedimentation problems.

Environment/Water Resources Policies

- 6.1 Establish zoning regulations and design standards to protect the environmental and natural resources of Webster County through the encouragement of preservation and conservation practices in environmentally sensitive areas.
- 6.2 Discourage conversion of designated prime agricultural land and soils to non-agricultural uses by targeting less productive agricultural soils (crops) for urban or non-farm uses. Establish a hierarchy of minimum lot sizes to encourage non-farm growth in the appropriate locations.
- 6.3 Federal requirements and regulations shall be followed when land use regulations are being developed. Webster County regulations should, at a minimum, be as strict as federal standards, and where necessary, may be enforced in a manner stricter than federal guidelines.
- 6.4 Encourage conservation of hillsides by establishing criteria and limiting development along specific slopes in the County.
- 6.5 Promote quality land management through the development of erosion control design standards for rural subdivisions and larger commercial and industrial developments.

- 6.6 Encourage the preservation of environmentally sensitive areas such as wetlands, wooded areas, waterways (streams, ponds, lakes, rivers, etc.), and other amenities. Preservation should occur through prohibiting development, incorporating these areas into conservation easements, and requiring pollution, groundwater, and/or erosion control measures when these amenities are located downstream from a proposed development.
- 6.7 Webster County, in cooperation with the communities, will promote recycling and provide household hazardous waste collections.
- 6.8 Webster County should participate in the FEMA National Flood Insurance Program to prevent flood-caused loss of life and property, by identifying and mapping the floodplains and floodways of the County, restricting land uses within the floodplains to those which are open and undeveloped, including forestry, agriculture, wildlife habitat and recreational areas, and encouraging improved watershed management practices and the construction of watershed storage projects for flood control. This includes working with FEMA to update the FIRM map for the County.
- 6.9 Webster County shall implement the FEMA National Flood Insurance Program by adopting a floodplain zoning overlay district. The zoning overlay district should include the most recently developed floodplain map as delineated by FEMA. The boundary of the floodplain zoning overlay district should be drawn according to visible political boundaries and quarter section lines and include the entire 100-year floodplain.
- 6.10 Webster County will support soil and water conservation efforts to aid in erosion, sediment, and run-off control.
- 6.11 Webster County will coordinate with and support city, regional, state and federal water-quality plans and programs so that high water quality will be achieved in the cities of the County, that sound watershed management practices will take place, and that improved treatment of point and non-point sources of water pollution will be achieved.
- 6.12 It is the policy of Webster County to protect riparian vegetation from damage that may result from land use applications for development that is otherwise permitted outright or conditionally under county zoning regulations. To achieve this goal, Webster County will review land use applications for development in riparian areas in an effort to mitigate or prevent damage to riparian vegetation that might result from the development.
- 6.13 Land use management practices and nonstructural solutions to problems of erosion and flooding are preferred to structural solutions. Water erosion control structures should be reviewed by the appropriate authorities to ensure they are necessary, are designed to incorporate vegetation where possible, and designed to minimize adverse impacts on water currents, erosion, and accretion patterns.
- 6.14 Webster County will cooperate with the U.S. Fish and Wildlife Department, the cities in the County, and the U.S. Conservation Service to identify, conserve, and protect fish and wildlife habitat; determine areas of critical imbalance and threats to particular species; and formulate and implement measures for the improvement of existing habitat and the creation of new habitat where needed.
- 6.15 Webster County recognizes the need to conserve and protect fish and wildlife habitat in its plan implementation measures; and the following will be considered in any public or private land use determination subject to county review: the impact of filling or drainage of swamps or marshes; the damming of rivers and streams; the location and construction of highways and utility transmission

lines; and any other land development activities which significantly interfere with the vegetation or soil cover or drainage patterns in critical habitat areas.

GOAL #7 - ECONOMIC DEVELOPMENT

Webster County should promote and encourage economic development necessary to support the needs of present and future residents such that the economy is stable and diverse. Webster County should also maintain a rate and pattern of economic growth sufficient to prevent recurring high levels of unemployment and under-employment in the county, balance the real property tax base of the various cities, and strengthen local economic bases.

Economic Development Policies

- 7.1 Webster County will encourage economic development projects which do not conflict with the agricultural character of the County. Identify those business owners that might be retiring in the near future. Work with these individuals to set up a business development program to recruit future business owners into the community.
- 7.2 Continue to support existing agricultural businesses and gypsum mining operations in addition to implementing ideas from the R.A. Smith and Associates Study to determine which businesses the county should promote locating in the Highway 7 agricultural park, as well as throughout the rest of Webster County.
- 7.3 The recreational assets, especially along the Des Moines River, should be expanded and improved such that they may be promoted through tourism based endeavors, including hunting, fishing, and camping.
- 7.4 Work to encourage the youth of Webster County to remain in or return to the county after completion of post-secondary education. Economic development projects, as identified and developed by youth, should be established to provide such encouragement.
- 7.5 Utilize the Fort Dodge/Webster County Economic Development Corporation to encourage, promote and develop economic development partnerships between local entities, including all communities in Webster County, and private companies to assist existing and expanding business enterprises.
- 7.6 Support area historical, cultural and recreational activities. Webster County should continue to build upon the historical structures, cultural heritage and recreational assets located throughout the County and within the incorporated and unincorporated municipalities to encourage a sense of community through tourism based endeavors.
- 7.7 Utilize an Internet website to promote Webster County activities, business expansion opportunities, availability of land for industrial and commercial development, and notification of any economic incentives for new businesses to locate to Webster County.
- 7.8 Encourage and promote the development of home-based businesses and telecommuting based upon a commitment to providing a high level of technology and communication infrastructure.
- 7.9 Continue in cooperation with area communities and adjacent counties to implement a joint economic development strategy that supports existing businesses, promotes new businesses, including industrial development, coming to the area and seeks to develop new attractions and amenities for the public on a local and regional level.

GOAL #8 - PUBLIC FACILITIES AND TAXES

Webster County needs to integrate public facilities and services in an effort to eliminate costs and conserve energy. Coordination with all jurisdictions and affected agencies is essential in the development and maintenance of adequate public facility systems. The expansion of public facilities is a major factor in directing development.

Public Facilities and Taxes Policies

- 8.1 Public facilities should be strategically located within Webster County so as to provide cost-effective, efficient, and timely service to all residents.
- 8.2 Public facilities such as County yards and maintenance buildings shall be located in key areas of the County, which efficiently serves the public.
- 8.3 Support the area's historical and cultural activities.
- 8.4 Continually evaluate the staffing needs of the Sheriff's Department. As the population continues to grow, the county needs to hire additional deputies and jailers in order to meet the level of protection desired by the public.
- 8.5 Support development of Iowa Lakes Rural Water District to efficiently serve rural residents throughout the County.
- 8.6 Webster County will coordinate with the cities, and appropriate local, state, and federal agencies in providing for the health and service needs of the public, particularly the needs of the disadvantaged, including the young, the elderly and the handicapped.
- 8.7 Webster County will encourage the consolidation of city, county, and state administrative offices, public health, safety and welfare buildings, and community cultural facilities as opportunities that will promote energy conservation, provide convenient, centralized services and attractive building and open space groupings.
- 8.8 Webster County will, where practicable, encourage the consolidation of similarly functioning city, county, school district, utility and state facilities (i.e. works yards, shops, bus barns, and equipment and storage yards), in order to realize economies of scale in land acquisition, development, and operation and maintenance costs, and eliminate present facilities which are incompatible with sensitive residential and commercial areas throughout the County.
- 8.9 Close cooperation will be encouraged among the cities, the school districts, and the County with respect to matters of school site selection, acquisition, planning, servicing, and joint use in keeping with the anticipated direction and pattern of County growth.
- 8.10 Webster County will encourage the dedication of major drainage-ways such as wetlands, swales, intermittent creek basins and roadside depressions for the purpose of non-structural storm water collection.
- 8.11 Groundwater supplies will be protected from critical draw-downs or disrupted flows where municipal watersheds exist; surface water supplies will be protected from unusual increases in turbidity and sedimentation caused by farming, excavation or grading; and both ground water and surface water supplies will be protected from contamination by subsurface sewage disposal systems, sewage lagoons, and other sources of pollution.
- 8.12 Webster County will assist in the organization of special purpose districts such as sanitary districts, sanitary authorities, and county service districts which would be able to utilize federal and state funds to build collection and treatment facilities and provide the necessary services to their respective communities or

clientele. The County will work to ensure that these districts are created in a manner that promotes planned growth patterns in the County and adjacent to the communities.

- 8.13 The development of sanitary sewer systems will be supported where such systems conform to all applicable federal and state standards pertinent to the collection, treatment, and final disposal of effluent.
- 8.14 Webster County will support any consolidation of water and sewer facilities to secure the potential economies of scale and organizations, provided their potential environmental impacts are consistent with existing land-use plans, related urban growth goals and policies, established water quality standards, and where separate local facilities are shown to be more expensive.

GOAL #9 - PUBLIC WORKS

Webster County shall pursue programs and facilities to ensure adequate utilities will be considered and will be compatible with the County's land use policies. Goals include protecting current and future water sources; promoting development that utilizes existing facilities and capacities; and developing new utility system facilities and capacities that support development goals.

Public Work Policies

- 9.1 Implement development and design standards that protect the area around municipal water sources located in the county.
- 9.2 Utilize soil suitability data from the Webster County soils survey when evaluating development proposals proposing onsite wastewater treatment systems.
- 9.3 Encourage future expansion and upgrading of the rural water system within Webster County. This would lower the potential for contamination of wells and other water sources from poor management of waste.

GOAL #10 - TRANSPORTATION

Webster County should provide a transportation system that improves access and circulation for vehicular traffic, shall be guided to safely utilize existing public investment in roads, and programs to reduce road development or maintenance. The transportation goal of Webster County is to develop and support an efficient road system to serve current and future circulation and access needs, and provide and encourage an efficient, safe, convenient transportation and communication system, including road, rail, waterways, public transit and air, to serve the needs of existing and projected urban and rural development within the county. The County will also accommodate the regional movement of people and goods, recognizing the economic, social and energy impacts of the various modes of transportation.

Transportation Policies

- 10.1 Based upon increased truck traffic from ethanol plant development, complete a traffic capacity study throughout the County, to include Highway 7, to determine methods of improving circulation of large vehicle traffic and alleviate potential safety concerns.
- 10.2 The interaction of existing transportation routes and drainage ways should be studied to determine the need for bridge and road improvements.
- 10.3 When new development is contemplated, due consideration must be given to the carrying capacity of the existing road system in the area, and development should be discouraged from occurring in areas where the road system is insufficient to handle any additional traffic load.

- 10.4 Based upon the Transportation Plan, investigate the paving or resurfacing of minimum maintenance County roads to improve connectivity within the County.
- 10.5 Right-of-way and pavements shall be sufficiently wide and of sufficient strength to accommodate anticipated future traffic loads.
- 10.6 Commercial signing should be limited to major arterials, shall be kept to a minimum and shall be low profile.
- 10.7 Based upon the Transportation Plan, encourage the on-going replacement of older, dilapidated bridges throughout the County.
- 10.8 Develop a plan of education/action to prevent and cleanup roadside dumping in the rural areas of the County.
- 10.9 Continue working with IDOT and the public to upgrade highways in and through the County by either resurfacing or widening existing State and County Highways.
- 10.10 Due primarily to the increasing traffic load and traffic hazards on all County roads, there is a need to control access points for future development.
- 10.11 All transportation-related decisions will be made in consideration of land use impacts including but not limited to adjacent land use patterns, both existing and planned, and their designated uses and densities.
- 10.12 Webster County will cooperate and establish close relationships with state and federal agencies as well as other stakeholders operating in the County, in respect to matters relating to the location, design and programming of roads, railroads, public transit facilities, airports, transmission lines, pipelines, waterways, energy corridors and communications facilities to guide and accommodate the emerging development patterns of the county.
- 10.13 Webster County will work to implement the trails plan as established in 200?? and will encourage bicycle and pedestrian traffic as an element of the transportation system by coordinating with the cities within the County to develop an integrated system of safe and convenient bicycle and pedestrian ways to complement other modes of transportation.
- 10.14 Transportation needs for the disadvantaged, such as the low income, the handicapped, and the elderly, will be considered in the continued development of a County transportation system.
- 10.15 The County will continue to recognize the need to address the various transportation issues by working with cities and other stakeholders to establish other transportation options and/or facilities as they are appropriate and feasible.

GOAL #11 - HEALTH AND SAFETY

Webster County will enforce local codes, zoning, and other applicable land use regulations to create a safe place for citizens to live and develop an atmosphere to attract new development to Webster County. Webster County will continue to support health care, fire protection, and law enforcement programs by exploring programs and alternative services to insure optimum service levels and public costs.

Health and Safety Policies

- 11.1 Regulate land use developments affecting the health, safety, and general welfare of the public.
- 11.2 Clean, enforce, and regulate nuisances and poorly maintained properties. This includes the continued efforts to regulate junk cars, junkyards, and dilapidated/deteriorated residences/farm yards throughout the County.
- 11.3 Establish regulations that protect County residents from the secondary effects of various uses, such as adult entertainment establishments.

GOAL #12 - PARKS AND RECREATION

Webster County will continue to provide new recreational opportunities and enhance existing facilities for the residents of Webster County, visitors, and the all of Iowa.

Parks and Recreation Policies

- 12.1 Park and recreation facilities should be designed to accommodate the particular needs and interests of area residents while protecting, preserving, and conserving the environmental character and quality of the area.
- 12.2 Provide parks and recreational facilities that are reasonably accessible to residents of Webster County.
- 12.3 Promote recreation, especially along the Des Moines River, as a continuing means of economic development.
- 12.4 Set standards that require or promote the dedication of parks and open space within proposed subdivision and large-scale developments.
- 12.5 Encourage recreational amenities offering year round enjoyment.
- 12.6 Work with developers of future rural subdivisions to create conservation areas through cluster subdivisions and conservation easements. These conservation areas should be interconnected with other subdivisions
- 12.7 Webster County will cooperate with all governmental and recreation agencies within the region to identify open space and scenic resources, to determine resident and non-resident recreation needs, and to formulate and implement measures for open space preservation and use.
- 12.8 Webster County will seek to offer greater opportunities for water-based recreation on the Des Moines River and its tributaries.
- 12.9 Webster County will work with all the cities to develop recreation trails and corridors that one day connect each community with one another.
- 12.10 For the purpose of implementing recreation programs and development, Webster County will investigate funding alternatives such as tax levies, bonding grants in aid, user fees and subdivision ordinance stipulation.

GOAL #13 - IMPLEMENTATION, EVALUATION, AND REVIEW

Webster County will implement the comprehensive plan to meet the needs of the citizens of the county, provide opportunities for economic development while preserving the prime agricultural farmland in the County. Changing needs and conditions will necessitate future review, evaluation, and updating of the Comprehensive Development Plan and its supporting documents. Intergovernmental coordination of all planning activities affecting land uses within the county is necessary to ensure an integrated comprehensive plan for Webster County.

Implementation, Evaluation, and Review Policies

- 13.1 Involve all citizens and stakeholders in Webster County in all phases of the planning process.
- 13.2 Webster County will review any development concepts or proposals which conflict with the Land Use Map, goals or policies in light of changing needs and conditions and in keeping with established procedures of Plan evaluation, amendment, and update.
- 13.3 Webster County will work with Fort Dodge and other communities to ensure adequate services are available prior to construction of residential subdivisions, commercial, and industrial developments.
- 13.4 Webster County will undertake a major update of the Comprehensive Development Plan and review of all supporting documents every five to ten years to ensure that an adequate factual basis for planning decisions is maintained.
- 13.5 Webster County will encourage federal, state, and regional agencies and special districts to coordinate their planning efforts with those of the County.
- 13.6 Webster County's Board of Supervisors and Planning Commission will meet annually to review the Comprehensive Plan and all development regulations for adequacy.
- 13.7 Webster County will work to provide adequate training for those involved in the decision making process regarding planning and zoning issues.

Achieve Webster County

County Land Use Management
Policies (CLUMP)

Future Land Use Plan

Transportation Plan



INTRODUCTION

Within any planning jurisdiction, whether a large growing urban area or a small declining rural county, land uses will be changing throughout the planning period. The purpose of the Achieve Webster County Chapter is to provide a general guide to direct changes in land use and transportation during the planning period. This Chapter must reflect the existing conditions and be flexible in order to meet the needs of its citizens as well as their vision for the county's future.

The Achieve Webster County Chapter provides the basis for the formulation of land use policies and guidelines for future land uses and zoning districts in the county. This makes it imperative to formulate a plan tailored to the needs, desires and environmental limitations of the planning area. The Achieve Webster County Chapter should promote improvements in all components of the local economy with particular emphasis on agricultural growth, as the predominant component of the local economy. The following common principles and land use concepts for agricultural areas have been formed to guide the development of the Achieve Webster County Chapter.

LAND USE ELEMENTS

The elements of the Achieve Webster County Chapter include the County Land Use Management Policies (CLUMP), Future Land Use, and Transportation. To effectively evaluate development decisions, a substantial amount of information must be utilized.

PRINCIPLES AND CONCEPTS

- Private ownership of land is essential to the freedom of individuals, families and communities and to the economic interest of the citizens of the County.
- Existing agricultural uses, methods of agricultural production, property values and the quality of life of the County residents should be protected and preserved.
- Recognize that residential developments of any number present a potential conflict to the existing agricultural uses found within the County.
- Allow for changes in farming practices and the scale of agricultural production should be encouraged when the use is compatible with existing land uses.
- Negative impacts on incompatible land uses, environmentally sensitive areas and issues impacting property values or the quality of life in the rural areas of the County should be kept to a minimum.
- Protect other land uses, such as gypsum mining, that are essential to the economic viability of the county.
- Land use regulations, which are to be implemented in the Future Land Use Plan, should be minimized to preserve the freedoms and the property rights enjoyed by the County residents.
- Effectively address the basic protection of the existing land uses, property values, the local environment and quality of life.
- Development of future land uses that are inconsistent with these basic protections should be discouraged.
- Decisions about land use affect transportation systems and vice versa.

County Land Use Management Plan

- Purpose
- Process
- Concept
- Policy Areas
 - Agriculture Policy (A)
 - Transitional Development Zone (TDZ)
 - Urban Reserve (UR)



County Land Use Management Policies (CLUMP)

PURPOSE OF CLUMP

The purpose of the CLUMP system is to develop a broad policy that acknowledges existing land use patterns, existing and future market demands, and manages these factors in relation to one another. CLUMP establishes a long-range management policy that provides guidance for future development and segregates these into three tiers, Agriculture, Transitional Development Zone, and Urban Reserve.

CLUMP PROCESS

CLUMP was devised to identify and examine existing development trends within counties, such as Webster County. The CLUMP process includes a review of two critical elements of the existing land use fabric within the county; which are:

- Existing Land Use patterns and locations, and
- The density of residential development within the unincorporated areas of the county.

These elements can be seen in Figures 5, 6, 7, 8 and 9 of this document.

CLUMP balances the demand for urban and non-urban development with the preservation and conservation of agriculture and the fiscal responsibilities to provide services either at the county or the municipal level. CLUMP utilizes principles found within the “Smart Growth” movement. According to the Urban Land Institute’s publication *Smart Growth: Myth or Fact*, a major myth is that “Smart growth is a code word for no growth”. However, as the ULI points out, a major fact is that “**Smart growth recognizes that growth and development are both inevitable and beneficial**”.

The development of CLUMP was based on the belief that development pressures and demands exist and that the best approach is to acknowledge and accommodate these pressures through proper planning. However, these pressures must be managed and channeled to areas that are in the process of developing, or areas that can accommodate this development over the long term.

CLUMP CONCEPT

The CLUMP concept centers on three policy tiers. These tiers are:

- Agriculture Urban,
- Transitional Development Zone,
- Urban Reserve

These policy areas are indicated on Table 48 of this document. These areas generally identify different levels of development based upon:

- proximity to existing urban centers or smaller developments,
- proximity to major transportation routes,
- existing land use densities, and
- potential land uses to be allowed in the future.

The intent is to concentrate each of the different policy considerations into areas based upon these factors.

In addition, intense development (major commercial centers, densely populated subdivisions, etc.) should be encouraged to locate within or adjacent to the existing communities of Webster County. Ultimately, the CLUMP concept is to encourage growth and development only within appropriate unincorporated areas of Webster County.

“The goal of smart growth is not ‘no growth’ or even slow growth. Rather, the goal is sensible growth that balances our need for jobs and economic development with our desire to save our natural environment”

Parris Glendening, Governor
State of Maryland

POLICY AREAS

AGRICULTURE POLICY TIER

The Agriculture policy tier is made up of all areas within Webster County that are not included in the Urban Reserve or Transitional Development Zone areas.

These tiers have been identified based upon their lack of development and the ability to preserve the agricultural base of Webster County. All future development of this type should be located in the designated areas in order to minimize future sprawl and haphazard development.

TRANSITIONAL DEVELOPMENT ZONE POLICY TIER

When making future land use and zoning decisions, the policy requires any of these use types to be located within a Transitional Development Zone policy tier unless overlapping uses are allowed in another policy area. Future development, especially the smaller commercial uses and rural residential should be designed in ways to minimize impact on surrounding uses (i.e. cluster development, developments that protect environmentally sensitive areas). One key factor determining the Transitional Development Zone locations was based upon the existing environmental factors, and the density of existing residential development. All future development of this type should be located in the designated areas in order to minimize future sprawl and haphazard development.

URBAN RESERVE POLICY AREA

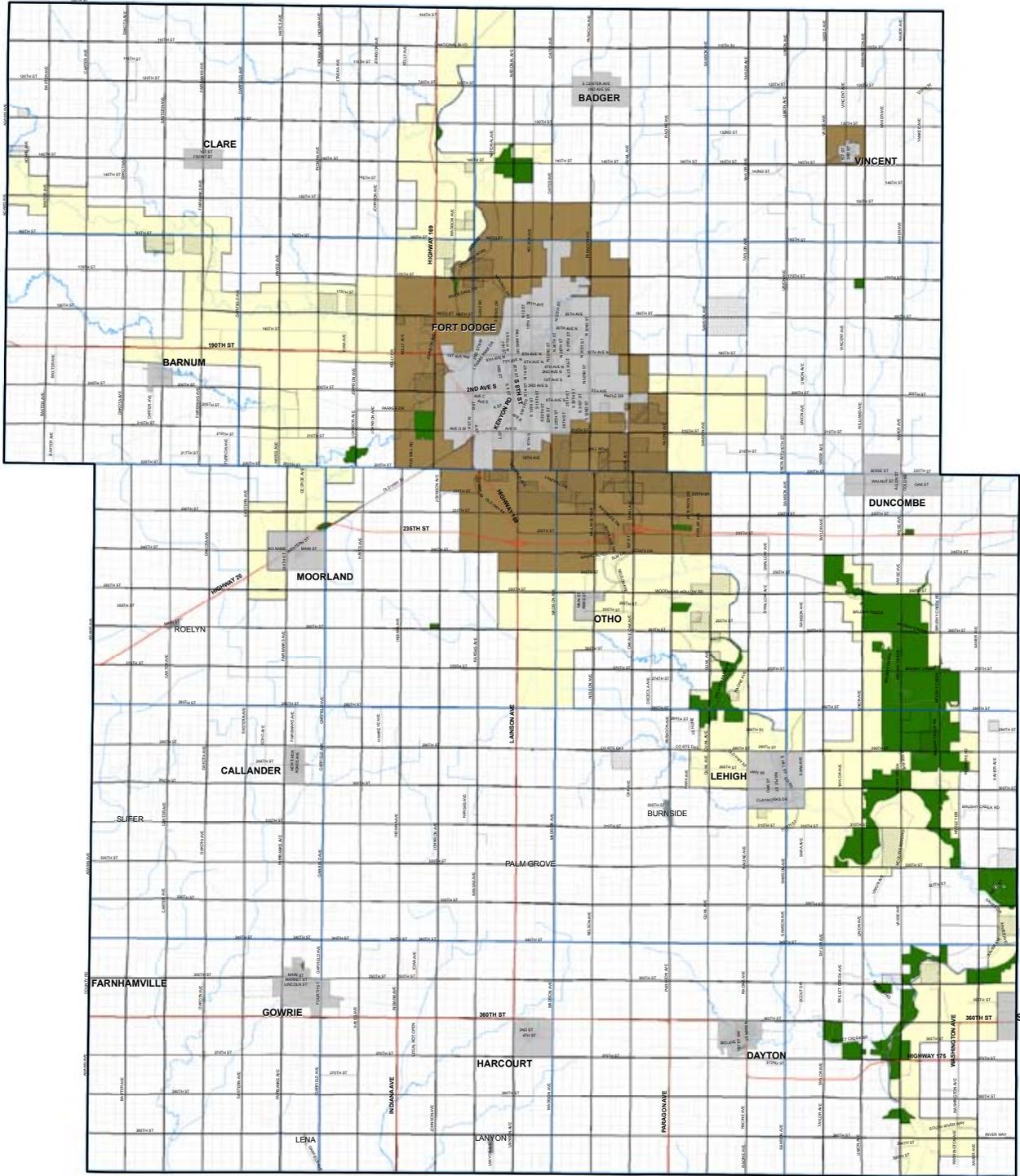
When making future land use and zoning decisions, this policy tier requires any of these use types to be located within an Urban Reserve policy tier. These tiers should allow for ample development opportunities while allowing for a controlled growth policy. All future development of this type should be located in the designated areas in order to minimize future sprawl and haphazard development.

TABLE 48: CLUMP POLICY TIERS

POLICY TIER	SPECIFIC POLICIES	LAND USE DISTRICTS
<p>AGRICULTURE (A)</p>	<ol style="list-style-type: none"> 1. The preservation of agricultural uses 2. Low density residential development, primarily farmsteads and residences connected to an existing farming operation 3. Minimize future conflicts of new uses and existing agricultural operations 4. Mixture of Agriculture and agri-businesses 	<ul style="list-style-type: none"> • General Agriculture • Transitional Agriculture • Public • Parks / Recreation • Conservation • Agricultural/Industrial • Mineral Extraction
<p>TRANSITIONAL DEVELOPMENT ZONE (TDZ)</p>	<ol style="list-style-type: none"> 1. Less dense types of developments generally within or near rural areas of the county that have already developed 2. Near the smaller communities of the county 3. Near major roadways 	<ul style="list-style-type: none"> • General Agriculture • Rural Residential • Transitional Agriculture • Some small commercial uses • Mixture of Agriculture and agri-businesses • Public • Parks / Recreation. • Agricultural/Industrial • Mineral Extraction
<p>URBAN RESERVE (UR)</p>	<ol style="list-style-type: none"> 1. Higher density development generally near urbanized areas /communities 2. Location of higher intensity uses 3. Potential growth areas adjacent to the smaller communities 	<ul style="list-style-type: none"> • Industrial • Commercial • Urban Residential, including single family residential • Rural Residential • Public/Quasi-Public • Parks / Recreation • Mineral Extraction

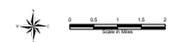
FIGURE 25: COUNTY LAND USE MANAGEMENT PLAN (CLUMP)

COUNTY LAND USE MANAGEMENT PLAN (CLUMP)



<ul style="list-style-type: none"> Corporate Boundary Unincorporated Villages Sections Quarter Sections Township Boundaries Mining Operations (Non-coal) Conservation/Recreation 	<ul style="list-style-type: none"> AGRICULTURAL <ul style="list-style-type: none"> - Reserved for Agriculture - Low/Lower Densities of Development <p>Acceptable Land Uses:</p> <ul style="list-style-type: none"> - Agriculture - Transitional Agriculture - Public/Quasi-Public - Park/Recreation - Conservation 	<ul style="list-style-type: none"> TRANSITIONAL DEVELOPMENT ZONE <ul style="list-style-type: none"> - Less Dense Development - Near Woodlands and River Systems - Near Present Acreage Developments <p>Acceptable Land Uses:</p> <ul style="list-style-type: none"> - Agriculture - Transitional Agriculture - Rural Residential - Commercial - Industrial - Public/Quasi-Public - Park/Recreation - Conservation 	<ul style="list-style-type: none"> URBAN RESERVE <ul style="list-style-type: none"> - Higher/Highest Density Development - Generally Near Urban Areas - Adjacent to Existing Rural Developments <p>Acceptable Land Uses:</p> <ul style="list-style-type: none"> - Urban Density Residential - Rural Residential - Public/Quasi-Public - Park/Recreation - Industrial - Commercial
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Webster County, Iowa



Future Land Use

AP: Agriculture Preservation

TA: Transitional Agriculture

RE: Residential Estates

UR: Urban Residential

C: Commercial

I: Industrial

AG/I: Agriculture/Industrial

ME: Mineral Extraction

CONS: Conservation

P/R: Parks and Recreation

PUB: Public Use

Future Land Use Plan Map





AP: AGRICULTURE PRESERVATION

INTENT

The intent of the Agricultural Preservation District is to preserve the agricultural economy of Webster County. This district will work to eliminate future conflicts between agriculture and those uses that are not conducive to the practices seen in this portion of the county.

COMPATIBLE USES

The Compatible Uses for the AP: Agriculture Preservation District are as follows:

- Row crops, including corn, soybeans, sorghum
- Livestock operations
- Residences in association with farming operation
- Secondary dwelling units in association with farming operations
- Public facilities
- Parks and Recreational facilities
- Mining operations
- Agri-businesses such as ethanol/soy diesel plants and grain elevators
- Wind Energy Conversion Systems

INCOMPATIBLE USES

Incompatible Uses for the AP: Agriculture Preservation District are as follows:

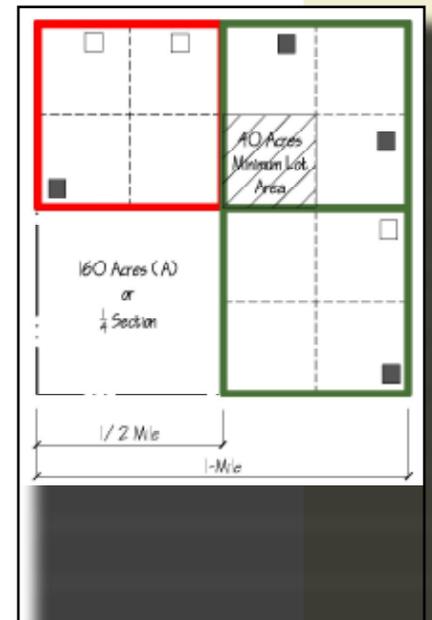
- Residential developments
- Large commercial developments such shopping centers and strip malls
- Acreage dwellings not in association with a farming operation
- Mobile homes as a dwelling unit unless associated with an approved mobile home park

SPECIAL POLICIES

- Maximum residential density = 2 dwelling units/ 1/4 section of land
- Any residential dwelling units not associated with a farming operation will be required to maintain an additional setback for any horticultural element from fence lines for the purpose of minimizing future drift kill from herbicides as well as any other potential conflicts at the fence line.
- Minimum lot area = 40 acres
- Corn Suitability Ratio = 65 or less

HOMESTEAD DENSITY EXCEPTION

- outbuildings and/or house is existing
- an existing well on site
- minimum of two acres
- tree grove is in existence
- has never been converted to row crops
- has remained in single ownership
- meets the minimum CSR requirements
- must be reviewed and approved by the Planning and Zoning Commission



TA: TRANSITIONAL AGRICULTURE

INTENT

Transitional Agricultural areas are intended to protect existing crop production in the county; while providing an incentive area for more densely developed residential areas, as opposed to the Agricultural Preservation District. Denser residential development should be allowed along major transportation corridors and some communities.

COMPATIBLE USES

The Compatible uses for the TA: Transitional Agriculture District are as follows:

- Row crops, including corn, soybeans, sorghum
- Residences in association with farming operation
- Secondary dwelling units in association with farming operations
- Acreage dwellings and developments not in association with a farming operation along major transportation corridors and some communities.
- Public facilities
- Parks and Recreational facilities
- Agri-businesses such as ethanol/soy diesel plants and grain elevators
- Wind Energy Conversion Systems

INCOMPATIBLE USES

Incompatible Uses for the TA: Transitional Agriculture District are as follows:

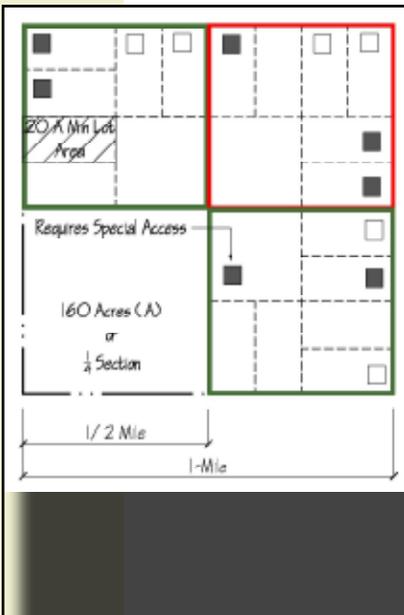
- Large scale Residential developments
- Livestock operations (if the State of Iowa modifies State Code to allow such regulations)
- Large commercial developments such shopping centers and strip malls
- Mobile homes as a dwelling unit unless associated with an approved mobile home park

SPECIAL POLICIES

- Maximum residential density = 4 dwelling units/ 1/4 section of land
- Minimum lot area = 20 acres
- Corn Suitability Ratio = 65 or less
- When adjacent to an existing community, residential developments may be required to “Ghost Plat” the entire development.
- Clustered layouts may be required
- Any residential dwelling units not associated with a farming operation will be required to maintain an additional setback for any horticultural element from fence lines for the purpose of minimizing future drift kill from herbicides as well as any other potential conflicts at the fence line.

HOMESTEAD DENSITY EXCEPTION

- outbuildings and/or house is existing
- an existing well on site
- minimum of two acres
- tree grove is in existence
- has never been converted to row crops
- has remained in single ownership
- meets the minimum CSR requirements
- must be reviewed and approved by the Planning and Zoning Commission



RE: RESIDENTIAL ESTATES

INTENT

The intent of the Residential Estates District is centered on residential subdivisions of two acres lots or more. The Residential Estates district is designed to be more densely populated than other residential areas of the county, outside of the communities.

COMPATIBLE USES

The Compatible Uses for the RE: Residential Estate District are as follows:

- Row crops, including corn, soybeans, sorghum
- Residences in association with farming operation
- Public facilities
- Smaller commercial uses supporting the residences
- Parks and Recreational facilities
- Acreage dwellings and developments not in association with a farming operation along major transportation corridors and some communities.

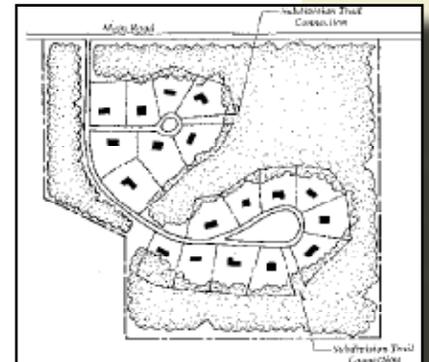
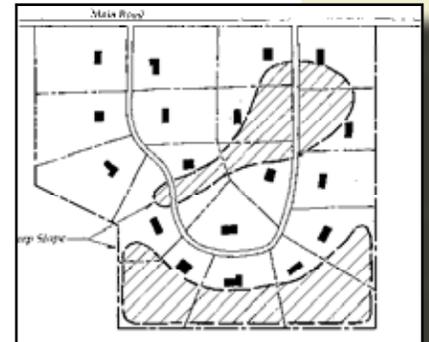
INCOMPATIBLE USES

Incompatible Uses for the RE: Residential Estates District are as follows:

- Large commercial developments such shopping centers and strip malls
- Livestock Operations
- Mining Operations
- Industrial uses
- Mobile homes as a dwelling unit unless associated with an approved mobile home park

SPECIAL POLICIES

- Maximum residential density = NA
- A traffic study examining traffic control, turn lanes, and limited access points, all associated costs will be assessed to the developer.
- When adjacent to an existing community, residential developments may be required to “Ghost Plat” the entire development.
- Clustering of lots is recommended.
- A completed drainage study completed by the developer.
- All internal roads shall be easement roads with a perpetual easement granted to the general public.
- All internal streets, when the subdivision is adjacent to a city, shall meet all street standards for the adjacent community and shall be designed with future extensions to future subdivisions.
- Adjacent maintained county roads shall be dedicated to the general public.
- All county roads adjacent to the development should be hard surfaced from boundary line to boundary line of the subdivision, especially when adjacent to a community.



An example of a Cluster Subdivision with the typical approach above.
Source: Randall Arendt





UR: URBAN RESIDENTIAL

INTENT

The intent of the Urban Residential District is centered on residential subdivisions with lots having a minimum of 10,000 square feet and adjacent or near a community. These developments will not fall outside the two-mile subdivision review jurisdiction of a community. The Urban Residential District is designed to allow dense residential populations to congregate near cities and the area ideally will be annexed into the city in the future.

COMPATIBLE USES

The Compatible Uses for the UR: Urban Residential District are as follows:

- Single-family dwelling
- Multi-family dwelling units in special circumstances
- Public facilities
- Parks and Recreational facilities

INCOMPATIBLE USES

Incompatible Uses for the RE: Residential Estates District are as follows:

- Commercial developments such shopping centers and strip malls
- Agricultural Operations
- Livestock Operations
- Mining Operations
- Industrial uses
- Mobile homes as a dwelling unit unless associated with an approved mobile home park

SPECIAL POLICIES

- Maximum residential density = NA
- Minimum lot area = 10,000 square feet
- A Traffic Study examining traffic control, turn lanes, and limited access points, all associated costs will be assessed to the developer.
- When adjacent to an existing community, residential developments may be required to “Ghost Plat” the entire development.
- Clustering of lots is recommended.
- A completed Drainage Study completed by the developer.
- All internal roads shall be easement roads with a perpetual easement granted to the general public, unless dedication to the public is made and accepted.
- All internal streets, when the subdivision is adjacent to a city, shall meet all street standards for the adjacent community.
- Adjacent maintained County Roads shall be dedicated to the general public.
- Future access to adjacent developable land should be considered into the layout.
- All County Roads along and adjacent to the development should be hard surfaced from boundary line to boundary line of the subdivision, especially when adjacent to a community.

C: COMMERCIAL DISTRICT

INTENT

The intent of the Commercial District is to provide a location within Webster County where commercial specific uses may locate. The district should be located at major transportation intersections and along the perimeter of communities.

COMPATIBLE USES

The Compatible Uses for the C: Commercial District are as follows:

- Public facilities
- Retail businesses, including large commercial developments such shopping centers and strip malls
- Office facilities
- Parks and Recreational facilities

INCOMPATIBLE USES

Incompatible Uses for the C: Commercial District are as follows:

- Residential developments
- Row crops, including corn, soybeans, sorghum
- Residences in association with farming operation
- Industrial uses
- Single-family dwelling not in association with a farming operation
- Mobile homes as a dwelling unit unless associated with an approved mobile home park
- Agri-businesses such as ethanol/soy diesel plants and grain elevators

SPECIAL POLICIES

- Maximum residential density = NA
- Minimum lot area = 2 acres
- Special design criteria should be implemented on new developments
- When adjacent to a municipality, the use/development should be connected to municipal services



I: INDUSTRIAL DISTRICT

INTENT

The intent of the Industrial District is to provide a location within Webster County where industrial specific uses may locate. The district should be located at major transportation intersections and along the perimeter of communities when possible.

COMPATIBLE USES

The Compatible Uses for the I: Industrial District are as follows:

- Row crops, including corn, soybeans, sorghum
- Residences in association with farming operation
- Public facilities
- Manufacturing facilities
- Warehousing
- Adult entertainment establishments
- Transportation facilities and businesses
- Mining operations
- Smaller commercial/retail operations
- Parks and Recreational facilities
- Agri-businesses such as ethanol/soy diesel plants and grain elevators

INCOMPATIBLE USES

Incompatible Uses for the I: Industrial District are as follows:

- Residential developments
- Single-family dwelling not in association with a farming operation
- Larger retail businesses, including large commercial developments such shopping centers and strip malls
- Mobile homes as a dwelling unit unless associated with an approved mobile home park

SPECIAL POLICIES

- Maximum residential density = NA
- Minimum lot area = 2 acres
- When adjacent to a municipality, the use/development should be connected to municipal services
- Special design criteria should be implemented on new developments



AG/I: AGRICULTURAL/INDUSTRIAL DISTRICT

INTENT

The intent of the Agricultural/Industrial District is to accommodate the development of the Northcentral Iowa Ag-Industrial Park within Webster County. Development within this area must comply with the Master Plan completed in 2008.

COMPATIBLE USES

The Compatible Uses for the AG/I: Agricultural/Industrial District are as follows:

- Ag-processing such as ethanol/soy diesel plants and grain elevators as identified in the Master Plan
- Row crops, including corn, soybeans, sorghum
- Greenhouses
- Manufacturing of products derived from co-products of agricultural processing
- Manufacturing of machinery and equipment used in agricultural processing
- Warehousing related to products manufactured in the zone
- Public and private utilities
- Other manufacturing uses that can demonstrate a compelling advantage to being co-located with the agricultural processing facilities

INCOMPATIBLE USES

Incompatible Uses for the AG/I: Agricultural/Industrial District are as follows:

- All uses not listed as compatible

SPECIAL POLICIES

- Maximum residential density = NA
- Minimum lot area = NA acres
- Corn Suitability Ratio = NA
- Design standards as developed within the Master Plan.

ME: MINERAL EXTRACTION DISTRICT

INTENT

The intent of the Mineral Extraction District is to provide a location within Webster County where existing mining operations may continue with their mineral extraction as well as providing key locations for the operations to reasonably expand. The ME District has been established to protect a vital economic interest in Webster County. The basis for determining the boundaries on the future land use map was the location of existing and past operations, natural Jurassic formations, existing land holdings, and future growth plans.

COMPATIBLE USES

The Compatible Uses for the ME: Mineral Extraction District are as follows:

- Mining operations
- Crop production on non-mined or reclaimed property
- Manufacturing facilities in association with the mining operations
- Transportation facilities and businesses in association with the mining operations
- Parks and Recreational facilities
- Residential subdivisions when proposed as part of a reclamation program. Subdivisions shall meet the following:
 - Subject to either the RE or UR standards
 - Amendments to the Future Land Use Plan and Zoning Map must be completed prior to any residential construction commencing.
 - Construction of new residential dwelling units will not be allowed within 600 feet of the mining area or any production facility.

INCOMPATIBLE USES

Incompatible Uses for the ME: Mineral Extraction District are as follows:

- Residential developments unless otherwise provided.
- Larger retail businesses, including large commercial developments such shopping centers and strip malls
- Mobile homes as a dwelling unit unless associated with an approved mobile home park

SPECIAL POLICIES

These special policies are a guide for the County, the County Planning Commission, neighboring applicants with properties and regard to the development and expansion of Mineral Extraction Operations.

- New residential developments or subdivisions must have a minimum of 1,320 feet between the perimeter lines of the development and the ME district boundary.
- Production sites, within a ME District, within the county may be granted when these minimum standards are met:
 - Area is under ownership of the mining operation or mineral are in their control or there is an option to purchase the property (land and/or mineral rights).
 - Roads to and from the site are adequate to handle the required truck and machinery traffic or the applicant agrees to finance the required upgrades and to pay for future maintenance of the road.
 - The mining operation holds a current state mining license.
 - When within 600 feet of an existing residential development, or primary highway, the mining operation will be required to provide a screened area between the operation and the development. The screen may be either a man-made, natural or a combination of both.
 - All screens are intended to provide a visual barrier not a noise or dust barrier, or the operator must provide evidence that the company maintains ownership of said residence or development.
 - Other conditions that may be valuable for consideration, but not required:
 1. Proof that the location was previously mined through another methodology.
- Requests for new ME Land Use Districts within the County may be considered when any or all of the following items are present.
 - The applicant demonstrates that the new location is either:
 1. In the company's ownership
 2. The company has mineral rights on the property
 3. The company has an option to purchase the property
 - The applicant holds a current state mining license
 - The operation meets the minimum state regulations for separation from any boundary lines not on the operator's property
 - Roads to and from the proposed location are adequate to handle the required truck and machinery traffic or the applicant has signed an agreement with the County to finance the upgrades and to pay any future maintenance of the road.
 - The area falls within the natural Jurassic formation as indicated on state geology maps, OR if outside the identified boundaries, the applicant can demonstrate the geologic presence of the materials
- Other items that may be considered, but are not necessary for amending the Future Land Uses Map.
 - Proof that the location was previously mined through another technology

CONS: CONSERVATION DISTRICT

INTENT

The intent of the Conservation District is to provide protection for natural resources areas that are critical to the county.

COMPATIBLE USES

The Compatible Uses for the CONS: Conservation District are as follows:

- Row crops, including corn, soybeans, sorghum
- Residences in association with farming operation
- Residential developments when designed to work with the topography, viewsheds, and soil types
- Single-family dwelling not in association with a farming operation, when designed to work with the topography, viewsheds, and soil types
- Public facilities
- Mining operations under special conditions
- Parks and Recreational facilities
- Agri-businesses such as ethanol/soy diesel plants and grain elevators under special conditions

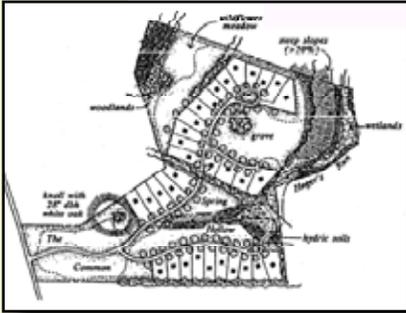
INCOMPATIBLE USES

Incompatible Uses for the CONS: Conservation District are as follows:

- Industrial uses
- Residential developments not designed to work with the topography, viewsheds, and soil types
- Single-family dwelling not in association with a farming operation and not designed to work with the topography, viewsheds, and soil types
- Larger retail businesses, including large commercial developments such shopping centers and strip malls
- Mobile homes as a dwelling unit unless associated with an approved mobile home park

SPECIAL POLICIES

- Maximum residential density = NA
- Minimum lot area = 2 acres
- Conservation Subdivision designs to work with the natural environment



An example of a Conservation Subdivision
 Source: Randall Arendt,
 Natural Lands Trust, 1994.

INTENT:

The intent of the Parks and Recreation District is to provide a location within Webster County where municipal, county, state or other park and recreational uses may be located.

COMPATIBLE USES

The Compatible Uses for the P/R: Parks and Recreation District are as follows:

- Row crops, including corn, soybeans, sorghum
- Residences in association with farming operation
- Public facilities
- Parks and Recreational facilities
 - Boating
 - Skiing
 - Camping
 - Hiking
 - Biking
 - Playground equipment
 - Similar uses

INCOMPATIBLE USES

Incompatible Uses for the P/R: Parks and Recreation District are as follows:

- Residential developments
- Single-family dwelling not in association with a farming operation
- Larger retail businesses, including large commercial developments such as shopping centers and strip malls
- Manufacturing uses
- Mobile homes as a dwelling unit unless associated with an approved mobile home park

SPECIAL POLICIES

- Maximum residential density = NA
- Minimum lot area = NA
- Corn Suitability Ratio = NA

PUB: PUBLIC USE DISTRICT

INTENT:

The intent of the Public Use District is to provide areas for large scale public use areas within Webster County.

COMPATIBLE USES

The Compatible Uses for the PUB: Public Use District are as follows:

- Row crops, including corn, soybeans, sorghum
- Residences in association with farming operation
- Public facilities
 - Schools
 - County maintenance facilities
 - Fire stations
 - Emergency management facilities
 - Airports
 - Similar uses

INCOMPATIBLE USES

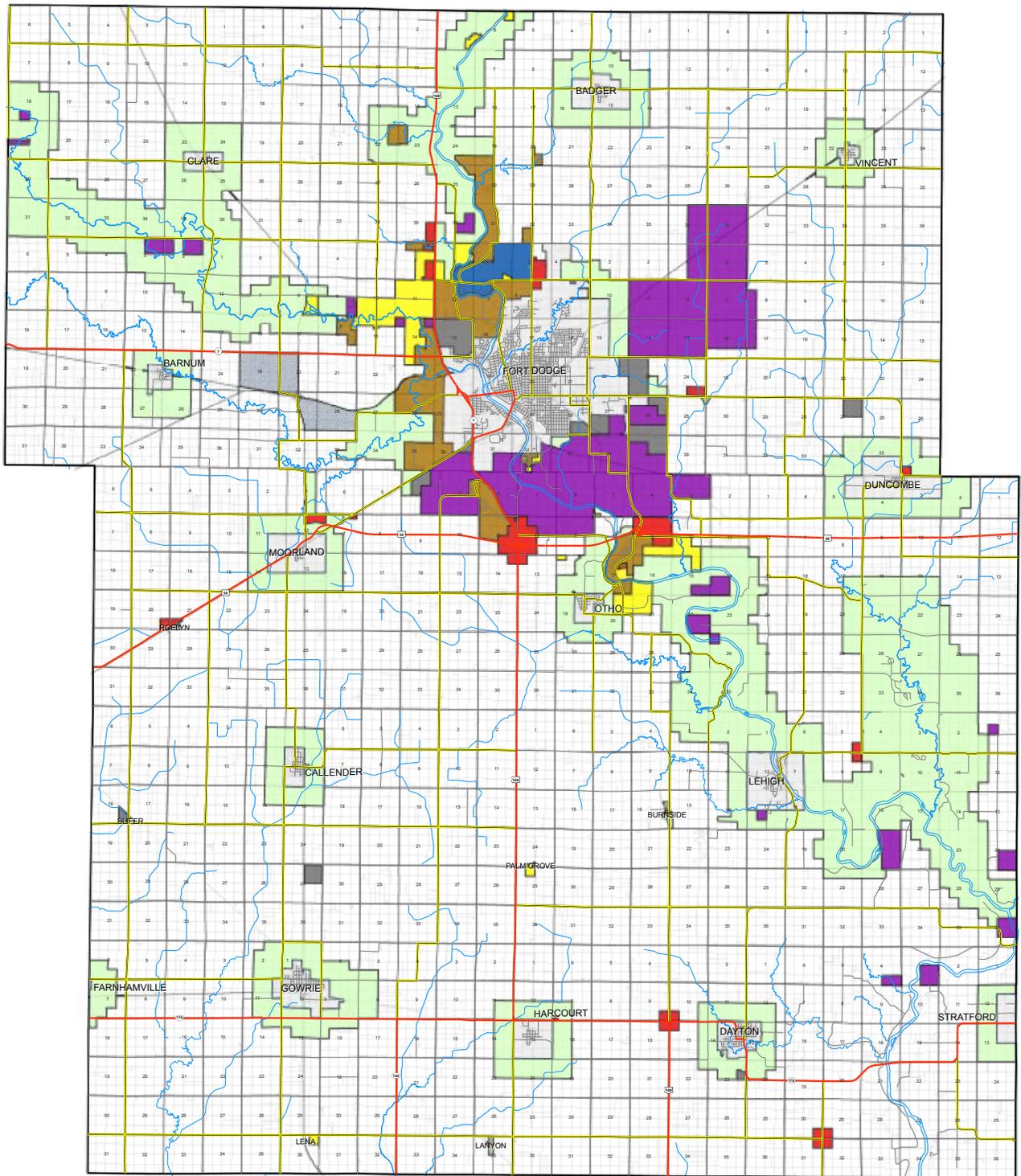
Incompatible Uses for the PUB: Public Use District are as follows:

- Manufacturing uses
- Residential developments
- Single-family dwelling not in association with a farming operation
- Larger retail businesses, including large commercial developments such shopping centers and strip malls
- Mobile homes as a dwelling unit unless associated with an approved mobile home park

SPECIAL POLICIES

- Maximum residential density = NA
- Minimum lot area = NA
- Corn Suitability Ratio = NA

FIGURE 26: FUTURE LAND USE PLAN MAP



Future Land Use Districts		Corporate Limits
AP	Agriculture Preservation	Industrial District
TA	Transitional Agriculture	Agricultural / Industrial District
RE	Residential Estates	Mineral Extraction District
UR	Urban Residential	Conservation District
MHR	Mobile Home Residential	Parks and Recreation District
C	Commercial District	Public Use District
		Highways
		Major Road
		Local Road
		Railroads

Future Land Use Map
Webster County, Iowa



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 JOURNAL OF ENVIRONMENT & ORGANIZATION



Transportation Plan

- Introduction
- Transportation Planning and Land Use
- Transportation Financing Issues
- Existing Transportation System
- Jurisdictional Responsibility
- Proposed Improvements



Transportation Plan

INTRODUCTION

A transportation network ties communities together as well as provides a link to the outside world. Adequate circulation systems are essential for the safe and efficient flow of vehicles and pedestrians, and accessibility to all parts of the county. The Transportation Plan identifies existing conditions as well as future improvements planned to provide safe and efficient circulation of vehicles within Webster County.

TRANSPORTATION PLANNING AND LAND USE

Land use and transportation create the pattern for future development. An improved or new transportation route generates a greater level of accessibility and determines how adjacent land may be utilized in the future. In the short term, land use shapes the demand for transportation. However, new or improved roads, as well as, county and state highways may change land values, thus altering the potential demand for certain land uses.

In general, the greater the transportation needs of a particular land use, the greater its preference for a site near major transportation facilities. Commercial activities are most sensitive to accessibility, since their survival often depends upon the ease potential consumers can travel to this location. Therefore, commercial land uses are generally located near the center of their market area along highways or at the intersection of arterial streets.

Industrial uses are also highly dependent on transportation access, but in a different way. For example, visibility is not as critical for a manufacturer as it is for a retail store. Industrial uses often need access to more specialized transportation facilities, which is why industrial sites tend to be located near railroad lines or highways to suit individual industrial uses.

TRANSPORTATION FINANCING ISSUES

The Iowa Department of Transportation (IDOT) annually establishes a Five-Year Transportation Improvement Program. The Five-Year plan is developed to inform Iowa citizens of the planned investments in aviation, railroad, trails, and highway improvements. Regular meetings held around the state annually provide citizen input to the transportation planning process. The Five-Year Transportation Improvement Program is established, based on existing federal and state programs, on estimates of funds expected to be available and on the estimated costs for construction, maintenance, and other work proposed to be accomplished. The five-year program is “Road” or “street” means the entire width between property lines through private property or the designated width through public property of every way or place of whatever nature if any part of such way or place is open to the use of the public, as a matter or right, for purposes of vehicular traffic.

EXISTING TRANSPORTATION SYSTEM

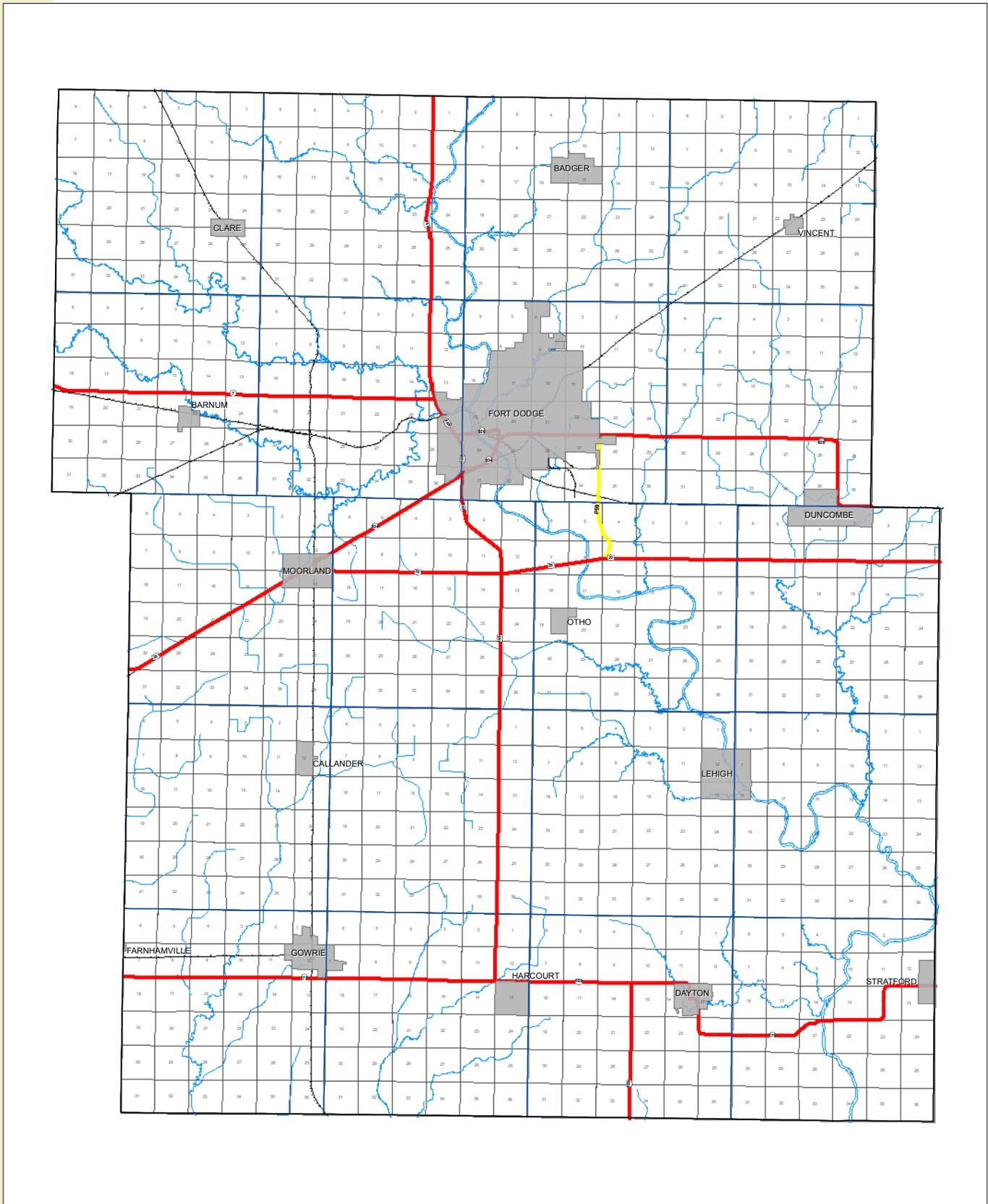
STREET AND ROAD CLASSIFICATION SYSTEM

Webster County offers many alternative methods of transportation, whether for passengers or cargo. The most obvious transportation route is the road system throughout the county. The road system includes US Highway 20, US Highway 169, Iowa Highways 7 and 175, and Webster County Highway D43. In addition to these major highways, numerous other county roads provide Webster County residents transportation routes throughout the entire county.

The Iowa Legislature has defined several road classifications. (Iowa Code Ann. § 306.3) These classifications are used to define typical traffic patterns and jurisdictional responsibility. The classification areas follow:

1. **“Area service” or “area service system”** means those secondary roads that are not part of the farm-to-market road system.
2. **“County conservation parkways” or “county conservation parkway system”** means those parkways located wholly within the boundaries of county lands operated as parks, forests, or public access areas.
3. **“Farm-to-market roads” or “farm-to-market road system”** means those county jurisdiction roads which serve principal traffic generating areas and connect such areas to other farm-to-market roads and primary roads. The farm-to-market road system includes those county jurisdiction roads providing service for short-distance intra-county and inter-county traffic or providing connections between farm-to-market roads and area service roads, and includes those secondary roads which are federal aid eligible. . .
4. **“Interstate roads” or “interstate road system”** means those roads and streets of the primary road system that are designated by the Secretary of the United States Department of Transportation as the national system of interstate and defense highways in Iowa.
5. **“Municipal street system”** means those streets within municipalities that are not primary roads.
6. **“Primary roads” or “primary road system”** means those roads and streets both inside and outside the boundaries or municipalities which are under department jurisdiction.
7. **“Public road right-of-way”** means an area of land, the right to possession of which is secured or reserved by the state or a governmental subdivision for roadway purposes. The right-of-way for all secondary roads is sixty-six feet in width, unless otherwise specified by the county board of supervisors of the respective counties.
8. **“Secondary roads” or “secondary road system”** means those roads under county jurisdiction.
9. **“State park, state institution, and other state land road system”** consists of those roads and streets wholly within the boundaries of state lands operated as parks, or on which institutions or other state governmental agencies are located.

FIGURE 27: EXISTING AND FUTURE TRANSPORTATION PLAN



Legend

- Major Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- * Interchange
- - - Future Arterial
- - - Future Collector
- Local Roads
- - - Railroads

Planned Improvements

- (A) Four Lanes
- (B) Turn Lanes/Signalization/Signage
- (C) Potential Split-Grade Intersection
- (D) Geometric Improvements
- (E) Lighted Intersections

Existing Transportation Map
Webster County, Iowa



JURISDICTIONAL RESPONSIBILITY

Depending on the classification of a particular road, various government agencies may have jurisdiction and control over that road. (Iowa Code Ann. §306.4) The Iowa Code provides these guidelines to establish the responsibilities of the counties over their roadways:

1. Secondary roadways fall under the jurisdiction of the County Board of Supervisors.

Roads and streets within any state land, including parks, are within the jurisdiction of the government agency that exercises control over such state land. However, any roadway that is an extension of a primary or secondary road, which both enters and exits the state land at separate points, will come within the

1. concurrent jurisdiction of the controlling agency and agency that exercises jurisdiction over the primary or secondary road.
2. Roads and streets within any county park or conservation area are within the jurisdiction of the County Conservation Board. However, any roadway that is an extension of a primary or secondary road, which both enters and exits the county park or county conservation area at separate points, will come within the concurrent jurisdiction of the County Conservation Board and the agency that exercises jurisdiction over the primary or secondary road.

WEBSTER COUNTY’S PROPOSED IMPROVEMENTS

The Webster County Engineer’s office is in charge of the County’s Secondary Roads Program. The County Engineer’s Office is responsible for the repair and maintenance of 1,172 miles (two miles non-surfaced, 914 miles of gravel, and 256 of hard surfaced pavement). In addition, the office is responsible for 214 bridges throughout the county.

Webster County annually adopts a Secondary Roads Program and Budget for road and highway improvements for a five-year period. The information in this Comprehensive Development Plan is from Fiscal Year 2008. The program includes planned projects for Fiscal Years 2008, 2009, 2010, 2011, and 2012.

During this five-year period there are 85 different projects indicated. The overall budget for these projects is \$21,441,000.00. These budget numbers are funded through various sources. See Figure 26 for the different project locations planned for the five year period. The following table indicates the anticipated costs on an annual basis.

TABLE 49: SECONDARY ROADS PROGRAM – FY 2008 - 2012

Year	
2008	\$5,846,000
2009	\$2,660,000
2010	\$4,300,000
2011	\$3,625,000
2012	\$3,010,000
Total:	\$21,441,000



Webster County Plan Implementation

Action Agenda

- Support Programs
- Public Education

Comprehensive Plan Maintenance

- Annual Review of the Plan
- Plan Amendment Procedures
- Unanticipated Opportunities
- Methods for Evaluating Development Proposals



Implementation

This section of the plan contains the inspiration of the many county officials and residents who have participated in the planning process. However, the ultimate success of this plan remains in the dedication offered by each and every resident. Also, the time and effort put forth by the zoning commission is vital to the success of not just the comprehensive planning process, but also daily planning process which occurs throughout Webster County everyday.

There are numerous goals and objectives in this plan which should be reviewed during planning and budget setting sessions. However, it is also recommended the county select three elements of the plan for immediate action; the goals of highest priority. This is the Action Plan.

ACTION AGENDA

The Action Agenda is a combination of the following:

- Goals and Objectives
- Growth Policies
- Land Use Policies
- Support programs for the above items

It will be critical to earmark specific funds to be used and the individuals primarily responsible for implementing the goals and policies in Webster County.

SUPPORT PROGRAMS FOR THE ACTION AGENDA

Four programs will play a vital role in the success of Webster County's plan. These programs are:

1. Zoning Regulations--updated land use districts can allow the community to provide direction for future growth.
2. Subdivision Regulations--establish criteria for dividing land into building areas, utility easements, and streets. Implementing the Transportation Plan is a primary function of subdivision regulations.
3. Plan Maintenance--an annual and five-year review program will allow the community flexibility in responding to growth and a continuous program of maintaining the plan's viability.
4. Capital Improvement Plan--an annual transportation improvement plan listing prioritized projects county wide over a five-year period.

PUBLIC EDUCATION

Finally, broad public support and involvement are necessary to the development and use of practically any implementation policy or program. If adequate support is to be developed, a permanent program educating residents is necessary. People who understand the needs and ways of meeting these needs of the community must take the initiative to stimulate the interest and the understanding required to assure action is taken. The governing body of Webster County should strive to implement an active public participation process by creating an educational process on land use issues annually.

Some of the objectives of the Comprehensive Plan cannot be achieved unless the actions of two or more public agencies or private organizations can be coordinated. Frequently, constraints prevent organizations from working with one another (i.e.,

financial resources, legal authority, restriction of joint uses of facilities, etc.) Efforts should be made to bridge this gap with open communication, cooperation and the realization that the issue at hand could benefit the health, safety, and general welfare of the residents of Webster County.

COMPREHENSIVE PLAN MAINTENANCE

ANNUAL REVIEW OF THE PLAN

A relevant, up-to-date plan is critical to the on-going planning success. To maintain both public and private sector confidence; evaluate the effectiveness of planning activities, and, most importantly, make mid-plan corrections on the use of community resources, the plan must be current. The annual review should occur during the month of January.

After adoption of the comprehensive plan, opportunities should be provided to identify any changes in conditions that would impact elements or policies of the plan. At the beginning of each year a report should be prepared by the Planning and Zoning Commission, which provides information and recommendations on whether the plan is current in respect to population and economic changes, and the recommended policies are still valid for the county and its long-term growth. The Planning and Zoning Commission should hold a public hearing on this report in order to:

1. Provide citizens or developers with an opportunity to present possible changes to the plan,
2. Identify any changes in the status of projects called for in the plan, and
3. Bring forth any issues, or identify any changes in conditions, which may impact the validity of the plan.

If the Planning and Zoning Commission finds major policy issues or major changes in basic assumptions or conditions have arisen which could necessitate revisions to the Comprehensive Plan, they should recommend changes or further study of those changes. This process may lead to identification of amendments to the Comprehensive Plan and would be processed as per the procedures in the next section.

PLAN AMENDMENT PROCEDURES

It is anticipated that each year individuals and groups may come forward with proposals to amend the Comprehensive Plan. It is recommended that those proposals be compiled and reviewed once a year at the annual review. By reviewing all proposed amendments at one time, the effects of each proposal can be evaluated for impacts on other proposals and all proposals can be reviewed for their net impact on the Comprehensive Plan.

UNANTICIPATED OPPORTUNITIES

If major new and innovative development opportunities arise which impact several elements of the plan and which are determined to be of importance, a plan amendment may be proposed and considered separate from the Annual Review and other proposed Comprehensive Plan amendments. The Zoning Administrator will compile a list of the proposed amendments received during the previous year, prepare a report providing applicable information for each proposal, and recommend action on the proposed amendments. The Comprehensive Plan amendment process should adhere to the adoption process specified by Iowa Code and provide for the organized participation and involvement of citizens.

METHODS FOR EVALUATING DEVELOPMENT PROPOSALS

The interpretation of the Comprehensive Plan should be composed of a continuous and related series of analyses, with references to the goals and policies, the Land Use Plan, and specific land use policies. Moreover, when considering specific proposed developments, interpretation of the Comprehensive Plan should include a thorough review of all sections of the Comprehensive Plan.

If a development proposal is not in conformance or consistent with the policies developed in the Comprehensive Plan, serious consideration should be given to making modifications to the proposal or the following criteria should be used to determine if a Comprehensive Plan amendment would be justified:

- the character of the adjacent neighborhood
- the zoning and uses on nearby properties
- the suitability of the property for the uses allowed under the current zoning designation the type and extent of positive or detrimental impact that may affect adjacent properties, or the community at large, if the request is approved
- the impact of the proposal on public utilities and facilities
- the length of time that the subject and adjacent properties have been utilized for their current uses
- the benefits of the proposal to the public health, safety, and welfare compared to the hardship imposed on the applicant if the request is not approved
- comparison between the existing land use plan and the proposed change regarding the relative conformance to the goals and policies
- consideration of County staff recommendations

