# DICKINSON COUNTY

# COMPREHENSIVE LAND USE DEVELOPMENT PLAN

Prepared with Planning & Technical Assistance By:

<u>Northwest Iowa</u> <u>Planning & Development Commission</u> 217 West 5<sup>th</sup> Street, Box 1493, Spencer, Iowa 51301 (712) 262-7225 1-800-798-7224

In Cooperation with and Support from:

**Dickinson County** 

David Kohlhaase, Zoning Administrator Barb Woodley, Zoning Office Assistant

Dickinson County Board of Supervisors

David Gottsche, Chair Mardi Allen Pam Jordan Wayne Northey Paul Johnson Dickinson County Planning Commission

Robins Jackson, ChairSally NielsenJon GundersonRobert ChaffinDuane MoserTony WeberTim Fairchild

With support from these previous Planning Commission Members David Baker Bill Eich Jerry Nelson

### EXECUTIVE SUMMARY

The comprehensive land use plan, required by Iowa law for those communities wishing to enforce a zoning ordinance, annexation, urban renewal tax benefits and other land use controls, is developed to be the county's primary guide for future decision making. It is comprehensive in nature, assessing current conditions and making projections about population, housing, economic conditions, and land use issues. The core of the plan is comprised of two areas: Goals, Objectives & Policy Recommendations for a 15-20 year period into the future, and a Future Land Use Map displaying an ideal pattern of future land uses and development. The goals and objectives should agree with the land use map, and vice versa. Included within this executive summary are the general comprehensive plan goals and the proposed land use map. Supporting data is available within the main body of the plan, as well as additional policy recommendations for the future of Dickinson County.

This document is intended to update and replace the 1993 Dickinson County Comprehensive Plan. This planning program is based on the overall comprehensive plan goal for Dickinson County "To provide long term planning, growth, and balanced developments, which together with land use controls, will minimize the number of conflicting land uses, consider the impact on the natural environment, and preserve the character and intent of urban and rural developments. The County shall recognize and achieve a sensitive balance between urban and rural land uses which facilitate the economic potential of the county while at the same time preserving sensitive environmental resources of the region and facilitating necessary and required services to residents of the county." This statement is the most significant element underlying the comprehensive development plan.

#### **DICKINSON COUNTY'S MISSION STATEMENT:**

*"To enhance the quality of life for citizens of Dickinson County by providing exceptional public services in an enjoyable environment."* 

#### GENERAL DEVELOPMENT TRENDS AND GOALS:

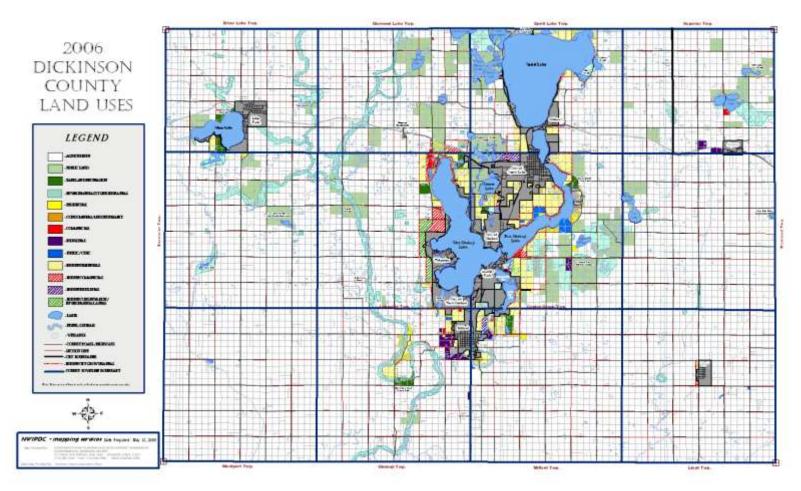
General development goals guide the comprehensive planning process and are summarized as follows:

- Dickinson County has experienced a general increase in population over the past twenty years. Based on this fact, the county's population is expected to continue its increasing trends in the next 15 to 20 years. Continued population growth should be promoted both within the incorporated cities and rural developed areas of Dickinson County.
- Several economic indicators including continued gains in labor force, low unemployment, and increases in the manufacturing, services, and retail sectors are good indicators regarding the future course of the county's economy. Dickinson County should continue to promote countywide economic development efforts.
- Recognize the economic development potential of Dickinson County and maintain the cohesive focal point of the "Iowa Great Lakes" region.
- Develop a transportation and infrastructure system that will provide for the safe, convenient and economical movement of people and goods in and out of the county.

- The county should continue to preserve the separate character of urban and rural areas.
- Dickinson County contains a healthy mix of land uses, with a minimum of conflicting land uses. The separation and delineation of existing or potential conflicting land uses will promote a healthier, safer, and more prosperous county.
- Establish a pattern of land uses that will maximize the safety and welfare of residents, while considering the protection, preservation and mitigation of sensitive environmental areas and critical natural habitats.

Objective statements and the policy recommendations formulated in this plan are intended to achieve the overall goal and mission statement identified above. The policy statements are supported through the land use elements of this plan, and stated in a form which is specific enough to provide the Planning and Zoning Commission with a basis for decision making but still general enough to remain valid for a reasonable period of years.

If developed correctly, the Board of Supervisors, Planning Commission and Board Adjustment of should utilize this comprehensive land use plan as the principal guide for future decision making and development decisions. Implementation of the recommendations made in the comprehensive land use plan should help decision makers to improve the health, safety, and welfare of the residents of Dickinson County.



#### 2006 DICKINSON COUNTY LAND USE MAP

# TABLE OF CONTENTS

EXECUTIVE SUMMARY	ii
I. PURPOSE OF THE COMPREHENSIVE PLAN	1
II. PLANNING ELEMENTS	2
III. COUNTY HISTORY	4
IV. PUBLIC PARTICIPATION AND PLAN HISTORY Background of Comprehensive Planning Pubic Participation	9
V. OVERALL GOAL AND LAND USE OBJECTIVES Overall Comprehensive Plan Goal Dickinson County's Mission Statement General Development Trends and Goals Land Use Objectives	13 13 13
VI. LAND USE TRENDS AND POLICY RECOMMENDATIONS	17 18 20 21 22 24 26 27 28 29 31 33 34
VII. ADDITIONAL DEVELOPMENT ISSUES Annexation Extraterritorial Zoning Smart Growth Planning Principles	36 39
VIII. PHYSICAL FEATURES	42 43 43 44 45 45 46
IX. AGRICULTURE Agricultural Economy Agricultural Land Values Farm Employment Value Added Agriculture Alternative Energy	49 51 52 53

X. NATURAL RESOURCES AND THE ENVIRONMENT	
Lakes and Natural Resource Areas	
Landowners Options (for protection of natural resources)	61
Storm Water Management	62
Urban Conservation Practices	63
Protective/Environmental Organizations	64
Natural Resource Conservation Service (NRCS) Conservation Programs for Landowners	64
XI. PARKS AND RECREATION	68
County Parks and Recreation Areas	
State Parks	
County Trails	75
Parks and Recreation Responsibilities	
Demand for Recreational Activities	
General Consideration of Park and Recreation Development	
State of Iowa Projected Recreation Trends	79
Dickinson County Long Range Parks Plan	
XII. TOURISM AND RETAIL TRADE	83
Dickinson County Recreational/Tourism Activities	
Retail Trade Analysis	
Trade Area Capture	
Trade Area Capture	
XIII. ECONOMIC DEVELOPMENT	90
Employment Trends	90
Industry Trends	91
Industry/Employment Projections	
Commuting Patterns	
Economic Development Commission	
Income Distribution	
XIV. POPULATION & HOUSING	
Past Population Trends	
Current Population Structure	
Rural Versus Urban	
Future Population Projections	
Housing Valuations	
Housing Occupancy	
Housing Unit Projections	
XV. TRANSPORTATION & INFRASTRUCTURE	
Streets	
Traffic Flow	
Street Classifications (definitions)	
Federal Functional Classification of Roads	
Dickinson County 5-Year Road Construction Plan	
County Public Transit Services	
Airport Considerations	
Water Use and Supply	
Rural Water Systems	
Rural Wastewater System	
XVI. COUNTY SERVICES	
Courthouse	
Fire Protection Services	
County Law Enforcement	

Emergency Management	
Solid Waste & Recycling Services	
XVII. PLAN IMPLEMENTATION	
Implementation Strategies	
Cited References and Information Sources	
Referenced Website Resources	

# TABLES

Table 1 – Voluntary Annexation Procedures	. 37
Table 2 – "80/20" Voluntary Annexation Procedures	. 37
Table 3 – Involuntary Annexation Procedures	. 38
Table 4 – Little Sioux River Watershed Data	.44
Table 5 – Change in Size of Farms, 1997-2002	.49
Table 6 – Average Farm Size and Number of Farms, 1997-2002	. 50
Table 7 – Dickinson County and Iowa Agricultural Land Values, 1995-2005	
Table 8 – Percentage Farm Employment	. 52
Table 9 – Acreage of the Major Lakes in Dickinson County	.56
Table 10 – Retail Trade Analysis, 1980-2004	. 86
Table 11 – Total Retail Sales, 1997 & 2002	
Table 12 – Total Accommodation and Food Services, 1997 & 2002	. 88
Table 13 – Trade Capture Area Formula	. 89
Table 14 - Employment trends by Industrial Sector, Dickinson County, 1990-2000	.92
Table 15 - Iowa Workforce Development Region 3 Employment Projections, 2002-2012	.94
Table 16 – Travel Time to Work for Workers in Dickinson County, 2000	.96
Table 17 – Dickinson County and Family Income Distribution, 2000	.98
Table 18 – Historic Population Trends, Dickinson County	
Table 19 – Age Distribution of Population, Dickinson County and Iowa, 2000	. 101
Table 20 – Projected Population and Persons per Household, 2005-2030	. 103
Table 21 - Valuations of Owner-Occupied Housing Units, Dickinson County, 2000	. 104
Table 22 - Valuations of Owner-Occupied Housing Units, Iowa, 2000	. 105
Table 23 – Vacancy Status, 2000	. 106
Table 24 – Projected Housing Units Needed in 2010, 2020 and 2030	. 107
Table 25 – Dickinson County Public Water Systems	. 118

# **FIGURES**

Figure 1 – Dickinson County, Location Map	.3
Figure 2 – Historic Photo of Dickinson County Courthouse	
Figure 3 – Historic Photo of Spirit Lake	.4
Figure 4 – Historic Photo of Minnewashta Lake	
Figure 5 – Historic Photo of West Okoboji Lake	
Figure 6 – 1875 Township Map of Dickinson County	
Figure 7 – Photo of Agricultural Land Use	
Figure 8 – Photo of Rural Residential Subdivision	
Figure 9 – Photo of Single Family Residential Subdivision	

Figure 10 – Photo of Lakeshore Residential Housing	
Figure 11 – Photo of Multiple Family Land Uses	
Figure 12 – Photo of Commercial Land Use	
Figure 13 – Photo of Commercial/Tourism Land Use	
Figure 14 – Photo of Industrial Land Use	
Figure 15 – Photo of Church Camp (Public Land Use)	
Figure 16 – Photo of Horseshoe Bend Recreation Area	
Figure 17 – Photo of Okoboji View Golf Course	
Figure 18 – Photo of Spring Run Complex	
Figure 19 – Photo of Swan Lake Wetlands	
Figure 20 – 2002 Aerial Photo of Dickinson County	
Figure 21 – State of Iowa Watershed Map	
Figure 22 – Percent and Size of Farms, 2002	
Figure 23 – Average Farm Size and Proportion of Land in Farms, 2002	
Figure 24 – 1995- 2005 Agricultural Land Values	
Figure 25 – 2004 Iowa Average Land Values	
Figure 26 - Farm Employment as a Percentage of Total Employment	
Figure 27 – Photo of Flying Cloud Wind Farm near Lake Park	
Figure 28 – Aerial Photo of Spirit Lake	
Figure 29 – Aerial Photo of West Okoboji Lake	
Figure 30 - Proposed Dickinson County Nature Center (next to Kenue Park)	
Figure 31 - Dickinson County Nature Center "Master Plan" for proposed facility improvements	
Figure 32 - Dickinson County Conservation Commission - Parks and Recreation Areas	
Figure 33 – Photo of Iowa Great Lakes Trail	
Figure 34 – Retail Sales and Per Capita Sales for Dickinson County, 1980-2004	
Figure 35 – 2004 Retail Sales Figures for Dickinson and Surrounding Counties	
Figure 36 – 2004 Pull Factor Comparison for Dickinson and Surrounding Counties	
Figure 37 – Pull Factor and Change in Sales, 1997-2002	
Figure 38 - Unemployment Rates for Dickinson County and Iowa, 1990-2005	
Figure 39 – Labor Force Trends in Dickinson County, 1990-2005	
Figure 40 – Employment by Industrial Sector, Dickinson County and Iowa, 2000	
Figure 41 – Percent Change in Commuting Times, 1990-2000	
Figure 42 – Historic Population Trends	
Figure 43 – Age Distribution Graph, 2000	
Figure 44 – Age Distribution Comparison, Dickinson County and Iowa	
Figure 45 – Projected Population Growth, 2005-2030	
Figure 46 – Housing Valuations of Owner-Occupied Housing Units, 2000	
Figure 47 – 2003 Annual Average Daily Traffic	
Figure 48 – Dickinson County Federal Functional Classification Map	
Figure 49 – Urban Federal Functional Classification Map	
Figure 50 – Aerial Photo of Spirit Lake Municipal Airport	
Figure 51 – Photo of Osceola RW - Water Tower	
Figure 52 – Photo of Clay Regional Water - Water Tower	
Figure 53 – Floor Plan of the new Dickinson County Courthouse, 2005	
Figure 54 – Architect's Drawing of the new Dickinson County Courthouse	

# I. PURPOSE OF THE COMPREHENSIVE PLAN

A comprehensive plan is a combination of stated objectives and policy recommendations integrated together and working toward a common set of goals outlining the existing land uses and future needs of the county; while at the same time looking toward the future to establish a guideline in relation to long range goals and objectives. A land use map, a policy plan, a strategic plan, and even a set of goals are all useful tools in the planning process, but they are not substitutes for a comprehensive plan. These tools should be used as part of the whole, or as components of the comprehensive plan.

The comprehensive planning process consists of utilizing past and present efforts and information provided by predecessors and integrating this information into a vision for the future. What exactly is a "vision?" A vision is an image or foresight into where representatives of Dickinson County wish to see the county directed in the future. A common vision is critical for the development of a comprehensive plan, because once a vision statement has been established; it serves as a focal point for all other long range plan goals and specific policy statements to aim for.

A comprehensive plan's working expectancy will vary with each individual governmental body, but averages between fifteen and twenty years. The plan is an intense study and analysis into specific components that make the county work. Another aspect that is explored in the comprehensive plan is the physical county itself. Information on land uses, infrastructure, natural characteristics, and other features are very important in determining the current condition of the county and likewise important in determining where the local governing officials should "envision" the county in the future. This information is extremely useful in determining objectives and policies relating to agricultural lands, the natural environment, the built or developed environment, varying land uses, and other such activities that directly affect the physical aspects of Dickinson County.

Most importantly, this comprehensive plan is not "etched in stone" per se. This document, specifically the visioning, goals, and policies section of the plan, is intended to be and should be amended as needed. As the county grows and changes from year to year, so will its needs. Therefore, the comprehensive plan should reflect new changes and possibly new objectives or policies toward specific actions. Ideally, the comprehensive plan would be regularly updated on an annual basis. Actions recommended by the planning and zoning commission and taken by the Board of Supervisors can amend this plan to reflect current trends or simply a change in philosophy regarding one or more of the policy statements.

# **II. PLANNING ELEMENTS**

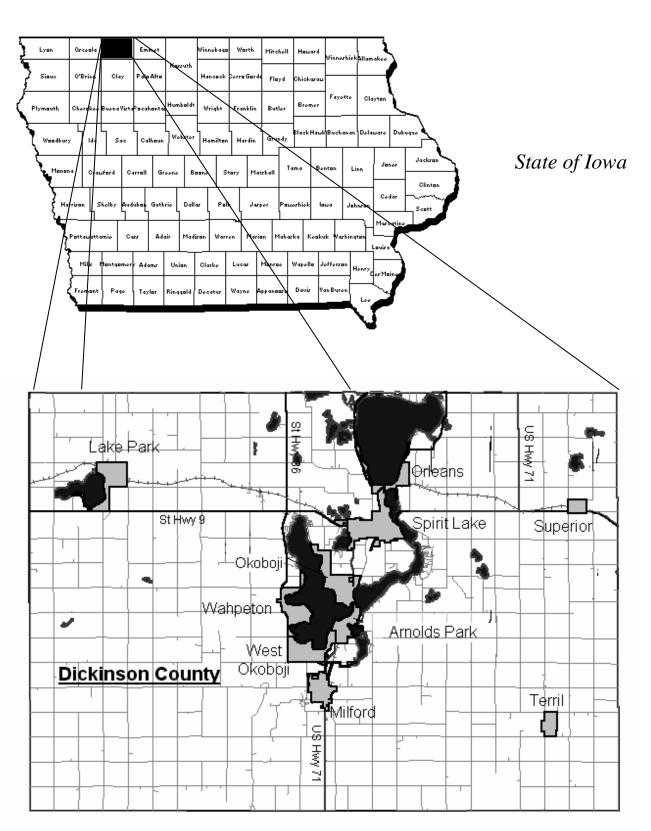
Once the working definition of planning has been internalized by those involved, the steps of the actual process should commence.

- 1) The <u>primary stage</u> of a planning program is <u>research and data collection</u>. It is from this supply of data that all decisions will be based, indicating that the more extensive and specific the data is the more accurate and functional the decisions. The first step is to identify all sources of existing data, and to establish what data is existing and what data needs exploration and research.
- 2) <u>Analysis of the data collected</u> is an <u>ongoing activity</u> conducted at the same time the research and data collection is being pursued. Analysis involves the collection and presentation of data in written and/or graphic form to establish a complete base of existing conditions. Once this base has been established, the analysis proceeds into projection of future trends and growth.
- 3) All of this **input will facilitate the evolvement** of certain <u>broad and general goals</u> for the planning area. A goal is that aim or end toward which effort is to be directed. Objectives involve bringing the goals closer to reality and specifically establishing those accomplishments that are desirable and closer to realizing established goals.
- 4) The **goals and objectives** constitute the framework for plan preparation. Before submission of the plan to the legal bodies concerned, it should have been studied and commented upon all the involved sectors and altered accordingly.
- 5) <u>Legalization of the plan</u> involves the <u>plan adoption by the Board of Supervisors</u>. Public hearings and wide distribution of the plan should take place before formal adoption proceedings. The plan must meet with the approval of those in the planning area to function properly.
- 6) <u>Actual implementation of the plan</u> is not carried out by any one department or agency, but is out of necessity <u>a combined effort of all government</u>, private and related entities. The plan will list and define various tools of implementation (zoning and subdivision regulations, capital improvements programs, etc.).

This comprehensive plan is to be used by both public and private sectors in land use decision-making processes. The private sector, including developers, investors, industry, and businesses will use this document to become informed of the official positions of the county regarding land use and policy issues. The plan will provide the general public with an outline to make individual land investments, purchases, or development decisions. The public will become more informed as to the county's policies regarding land uses that are permitted, encouraged, prohibited, or protected.

The public or government sector, including but not limited to Dickinson County, State of Iowa and the Federal Government shall use the plan as a guide in land use decision making processes. While this working document is the result of the efforts of the county, it has been prepared representing the interests of all Dickinson County residents. Any activities affecting land uses by the county, state or the United States Federal Government should follow the comprehensive plan. All governmental bodies, businesses, individuals, and corporations are strongly encouraged to comply with the spirit and intent set forth in the goals and policies outlined in the comprehensive plan.





### **III. COUNTY HISTORY**

Dickinson County, the smallest Iowa county in land area, is named in honor of Daniel S. Dickinson, a lawyer and senator from New York. In the summer of 1856 Rowland Gardner came from Cerro Gordo County to settle. He and his family erected cabins, which came to be known as Gardners Grove. Soon after, many families started to settle in the area. By the end of the year the population was only 40 residents, half of that being children.

By 1857 little was known about Dickinson County or the entire Iowa Great Lakes Region for that matter. Except for a few brave inhabitants, it was a bitter, cold winter. Exposed to harsh elements, a hungry and angry band of Sioux Indians seeking food



THE SPIRIT LAKE COURTHOUSE.

and shelter roamed aimlessly up the Little Sioux River basin which eventually led to the confrontation and massacre of 33 pioneer settlers. When word spread of the now known, "Spirit Lake Massacre," a small detachment of soldiers from Fort Dodge, Iowa who suffered the cold, snow, and harsh frontier conditions made their way to the lakes region to only identify and bury the dead of the massacre and dispose of any Indians encountered.

This event would go down as one of the most significant historical events in Dickinson County, and eventually lead to the decision for separate governmental jurisdiction of the County. Soon after the "Spirit Lake Massacre" a petition was sent to the judge in Woodbury County asking for a separate jurisdictional control. An election was held calling for county officials. That election was held on the first Tuesday in August 1857, at the house of J. S. Prescott.



VIEW ON SPIRIT LAKE.

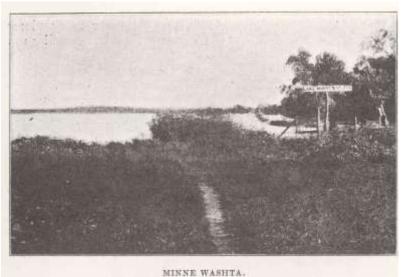
Of greatest value to early pioneer settlers migrating to the lakes region in the late 1850s and early 1860s, other than the land itself was fishing. Since there were no laws regulating fishing at the time, massive amounts of fish were taken from all of the lakes in the area, both by sport fishing and commercial fishing.

Based primarily on the habits and needs of the nomadic Sioux Indians, the Iowa Great Lakes region, including all of Dickinson County, was probably used as a hunting ground and temporary encampment.

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In the early days, the entire lakes region was known wholly as "Spirit Lake." The first clue of permanent habitation to the area occurred in 1859 when a makeshift flour mill was built on the narrow isthmus between Spirit Lake and East Okoboji Lake. A channel was dug to transport water between the two bodies of water, but early settlers soon abandoned the facility because of lack of water flow to support the "old Red Mill." It was discovered that the channel significantly lowered the level of Spirit Lake and also raised the water levels in East Okoboji.

Figure 4 – Historic photo of Minnewashta Lake



According to R.A. Smith in "<u>A</u> <u>History of Dickinson County Iowa</u>," an important task among the early settlers was the naming of the different lakes, or rather familiarizing themselves with the names the French settlers and native Indians already gave the lakes. Spirit Lake was well known in the area as "Minne Waukon" by the Indians. This name was said to mean "the Spirit Water." The early French settlers called the lake "Lac d'Esprit" which literally translated into Spirit Lake. East Okoboji was called

Figure 5 – Historic photo of West Okoboji Lake

"Okoboozhy" by the Dacotah Indians and West Okoboji Lake was assigned the name "Minnetonka," signifying big water. Since there was already a large popular lake in central Minnesota also called Lake Minnetonka, the Iowa Minnetonka name was dropped and renamed West Okoboji. At one time the west lake was attempted to be named Lake Harriot in honor of Dr. Harriot and the east lake was to be named Rice Lake in honor of Senator Henry M. Rice, the U.S. Senator from Minnesota. However, local



NATURAL RIPRAPPING ON WEST OKOBOJI.

inhabitants finally settled with the current names of West Okoboji Lake and East Okoboji Lake. There appears to be some confusion over the origin of the word Okoboji, but Prof. T.H. MacBride says, "place of rest." Others, however, seem to believe the origin of the word means "and there are others" from the Dacotah Indian translation.

The first courthouse was built in Spirit Lake in 1859 and partially finished in 1860. In 1860 it was used as a barracks for Civil War troops and was completed in 1868. This building was destroyed by fire in 1872. A second courthouse was constructed using the salvageable bricks of the first courthouse, but it was soon deemed unsatisfactory and condemned in 1880. In September 1889 a \$15,000 bond issue was proposed for the construction of a new courthouse. It was passed by a large majority. Construction of the third courthouse began on October 4, 1890 and was completed in 1891. Since its completion the building has seen three additions, one in 1957 and two more in 1976 and 1978. The funding for these additions came from the Federal Revenue Sharing fund.

Source: Segments of the County History Section where summarized and paraphrased from the <u>A History of</u> <u>Dickinson County Iowa, R.A. Smith, 1902</u>, the <u>History of the Iowa Great Lakes Region, John W. Parson,</u> <u>1988</u>, and from "<u>History of County Governments in Iowa</u>", published in 1992 by the Iowa State Association of Counties, Des Moines, Iowa

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#### Historic late 19th Century Township Map of Dickinson County, Iowa circa 1875

Figure 6 – 1875 Township Map of Dickinson County

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#### Places of Historic Significance in Dickinson County – National Register of Historic Places

According to the National Register of Historic Places, there are twelve (12) buildings or sites carrying the distinction of being placed on the national register. These twelve sites are important to the understanding and knowledge of the county's founding forefathers and provide those residing and visiting Dickinson County a glimpse into what life was like over one hundred years ago. Below is a listing of each of these nationally registered historic places with a brief background about their historical importance.

<u>Gerome Clark House</u> (a.k.a. Old Stone House) – This single family house provides a glimpse into the architecture of early exploration and settlement families in Dickinson County. The period of historical significance is 1850-1874. The house was added to the register in 1977.

<u>Dickinson County Courthouse</u> – The local center of governmental operation, Dickinson County's Courthouse was the prominent site on the prairie landscape when it was constructed in Spirit Lake. The Courthouse is characteristic of Romanesque architecture.

<u>*Gull Point State Park (area A)*</u> – Located on the western shores of West Okoboji Lake, this portion of the state park represents the historical efforts of the builders, landscape designers, and architects who designed and built the park early in the  $20^{th}$  century.

<u>Gull Point State Park (area B)</u> – Located within the same park complex as the above site, but a different designated area. Both areas A and B were designated as historical sites in 1990.

*Iowa Lakeside Laboratory Historic District* – This research and educational facility located along the western shores of West Okoboji Lake is owned by the State of Iowa and recognized for historical significance during the period from 1925-1949, specifically 1936 and 1937. The Laboratory was designed by the USDA Bureau of Biological Survey and build by the Iowa CCC Camp B.F. 1. This site is recognized for its historical conservation, education, science, and architectural merits.

<u>*Okoboji Bridge*</u> – A historical engineering and transportation feat constructed during the early  $20^{\text{th}}$  century over the Little Sioux River on  $180^{\text{th}}$  Street. The bridge was engineered by the Clinton Bridge and Iron Works and constructed by the Illinois Steel Co.

<u>Pikes Point State Park Shelter and Steps</u> – Located along the northeastern shores of West Okoboji Lake, the shelter house and steps winding down the steep hill depict historic landscaping and design from the early-mid 20<sup>th</sup> century. This park represents a historical landscape and entertainment value.

<u>*Pillsbury Point State Park*</u> – Added to the national historical register in 1993, it is the newest addition to the register in Dickinson County. Pillsbury Point State Park is located on the eastern shores of West Lake Okoboji adjacent to the Spirit Lake Massacre Site and Gardner Cabin.

<u>Spirit Lake Massacre Log Cabin (a.k.a. Gardner Log Cabin)</u> – Perhaps the most widely recognized historical landmark in Dickinson County, this pioneer era log cabin was the site of the Spirit Lake Massacre and kidnapping of Abby Gardner Sharp. The cabin represents a historical event as well as the historical nature of the building itself. The period of historical significance is 1850-1874. Today the site serves as a museum and park.</u>

<u>Spirit Lake Public Library</u> – Constructed as a Carnegie Library, the Sprit Lake Public Library was selected for the national register due to educational and architectural significance. The Spirit Lake library was added to the national register in 1980 and is recognized for its historical period of significance between 1900-1924.

<u>*Templar Park*</u> – Templar Park was developed as a hotel and entertainment complex along the western shore of Spirit Lake in the City of Orleans. The building was designed with Mission and Spanish Revival architectural influences. Some years ago, the hotel was destroyed and today the only remnants of the original Templar Park is the entrance gate, which now serves as the entrance to Templar Park State Park and public boat access.

<u>Trappers Bay State Park Picnic Shelter</u> – This state park is located along the north shore of Silver Lake adjacent to the City of Lake Park. The picnic shelter added to the national register in 1990 retains historical value pertaining to landscape architecture, entertainment, government, and social history. The period of historical significance is between 1925-1949.

# **IV. PUBLIC PARTICIPATION AND PLAN HISTORY**

#### BACKGROUND OF COMPREHENSIVE PLANNING

Dickinson County initiated its planning efforts in April 1969 by joining with the incorporated cities in the county to participate in a 701 Housing and Urban Development (HUD) planning program under the direction of Anderson Engineering Company. The engineering consultants and a citizen advisory group developed a plan format that was adopted by the Dickinson County Board of Supervisors in April 1972.

The Board of Supervisors, Planning and Zoning Commission, and Board of Adjustment actively utilized the plan in making land use decisions for the next seven years, but growth rates exceeded land use projections within the plan and several major revisions within the zoning ordinance and subdivision regulations became necessary. The Board of Supervisors indicated the need to update the comprehensive plan and substantially revise the zoning ordinance and subdivision regulations to reflect the trends, needs, and philosophies of the time. This time the Board of Supervisors sought the assistance of the regional Council of Governments (COG), of which they were a participating member. The Northwest Iowa Regional Council of Governments (NWIRCOG) staff planners prepared a plan that was adopted February 4, 1982.

Again in 1993, the Board of Supervisors reviewed the 1982 plan and determined that several factors, including the farm crisis during the late 1980s, a major economic recession, changing population trends, and an increase in seasonal tourism and retail trade had changed the land use patterns to the degree that new goals and objectives for land use and zoning needed to be addressed. The Supervisors once again contacted the regional COG, renamed Northwest Iowa Planning and Development Commission (NWIPDC), for technical assistance in preparation of a comprehensive land use plan and a zoning ordinance. The Board of Supervisors adopted the county's current comprehensive land use plan in December 1993.

Most recently, the Board of Supervisors has reviewed and followed the 1993 comprehensive plan, but a period of unprecedented growth during the late 1990s combined with a solid economy heading into the year 2000, resulted in several hundred new housing units being constructed both in the cities and rural portions of the county. The tourism and seasonal activity in Dickinson County has experienced significant growth, as well as the retail and service sectors of the economy. By 2003, the Board of Supervisors felt that it was time to once again complete a comprehensive review of the plan's goals and objective statements, followed by an update of all background information, reflective of new 2000 Census data completed and published in 2001 and 2002. The County contacted Northwest Iowa Planning and Development Commission in late 2003 and the comprehensive planning process was initiated in early 2004.

#### PUBLIC PARTICIPATION

On January 29, 2004, the residents of Dickinson County were invited to attend a public forum to discuss land use and planning issues important to the county with regards to the comprehensive plan. Planning staff from Northwest Iowa Planning and Development Commission facilitated the meeting. After explaining the comprehensive planning process, staff asked guests to openly share their thoughts about the strengths Dickinson County, some of the challenges facing the county today, and an insight into the future vision of what the residents would like to see in 15 to 20 years. An estimated 30-40 guests attended the public visioning meeting held at the Arnolds Park Community Center. Most of the guests included rural county residents, in addition to a few interested individuals from the incorporated cities in Dickinson County.

The following summary is a combination of the public verbal comments received during the visioning meeting.

#### LAKES / NATURAL RESOURCES ISSUES

- Should develop a storm water control entity, a storm water district, that would be responsible for the control and management of storm water runoff throughout the county and implement a countywide management plan
- Limit size of boats on the lakes
- > There should be more opportunities for off-lake recreation
- Creation of "environmental zones" to outline and subsequently protect naturally sensitive areas
- Envision an expansion of the lakes' recreational area by moving dam further downstream potentially south of Milford
- Establish dredging program for lakes (specifically Minnewashta and Gar Lakes) for enhancement of all lake resources within the county.
- > Protection of lakes for fish habitat as well as for other wildlife habitat
- > Update silt control ordinances in zoning and subdivision regulations
- > Target "hot spots" for conservation programs and develop those "hot spots"

#### LAND USE / PLANNING ISSUES

- Ensure regulatory compliance of the state as it pertains to use and management of their owned and managed areas – state parks, wildlife, etc.
- Subdivision flexibility in regards to regulations according to an area's value or perceived value
- > Development of "green space" minimum requirement levels within subdivisions
- Coordinate land use processes and practices such as annexation and long-range planning with cities. Need better coordination between these entities during the development process
- Merge county/cities into one "metropolitan" area (joint governmental jurisdiction of all cities around the lakes)
- ➤ Work to develop policies or ordinances to promote the use of recycling storm water runoff

- Ensure proper smart growth and development provisions for land between Spirit Lake and Dickinson County
- Coordinate with the Sanitary District on future growth plans

#### **HOUSING ISSUES**

- Ensure adequate storm water retention and runoff control ordinances, especially when platting new housing developments
- Subdivision regulations need to address curb, gutter and sidewalk regulations
- The County needs to determine what level of involvement it will take in regards to future housing development

#### TRANSPORTATION

- Airport is there a need to look at a regional or countywide merged airport? Currently, there are two municipal airports in Dickinson County.
- > Continue planning and consideration for long term bypass of U.S. Hwy 71 around the lakes.
- Need to establish consistency with street regulations and development of new streets within future growth areas

#### PARKS & RECREATION

- Land purchases by public entities need to be centered on lakes area. Develop "map of potential" areas to be purchased by public entities.
- Development of more access to lakes
- > Maintain and improve state and county park systems
- > Development of bike trails along the west side of the lakes
- > Identification of currently owned public areas and ones potentially to be owned by a public entity
- Establish a moratorium on public purchase of farm ground. Need to emphasize the maintenance and management of existing areas over purchasing new property

Additionally, in June 2004 the County Zoning Administrator along with members of the Dickinson County Planning and Zoning Commission were invited to attend a joint Dickinson County/City Planning Session whereas members from each of the municipal governments in Dickinson County were invited to discuss growth and development issues with members of the County Planning and Zoning Commission. The county's commitment to cooperative planning and development was evident through the coordination and participation in this joint county/city planning meeting. Below is a brief summary of the discussion between the cities and Dickinson County.

# There will be a continued demand for property to develop in the great lakes corridor, both in cities and in the county.

- ➢ Geography and topography will dictate future development patterns of the region
- Some of the highly desirable development areas will not be located near existing sanitary sewer lines or other "municipal" utilities

#### What are potential conflicts facing development around the lakes region?

#### Wastewater removal (sanitary sewer)

- Should removal of wastewater be mandated to county hookup or should on-site septic systems be allowed?
- In some cases, it may be more economical to use private waste systems, but what are long term development issues and/or long term environmental issues/concerns.

#### Fire Protection Services

- Water service provided around the unincorporated areas of the great lakes region should have provisions for fire protection as well, in addition to water service.
- Rural water systems should consider adapting to a more urban water system when placing mains around the Iowa Great Lakes corridor.

#### Should the County and lakes corridor cities consider standardized subdivision regulations?

- Currently, the seven cities and Dickinson County are implementing and enforcing eight separate subdivision standards. Although, many of the standards may be similar in nature, some of the communities vary greatly in differences of subdivision regulations.
- Specifically, many of the cities are primarily concerned with standardization of subdivision regulations within a two-mile boundary of the municipalities' jurisdiction.

# One possible measure to assist in creating more cooperation between development standards around the lakes region is to create a <u>Dickinson County Development Board</u>.

- A joint development board may serve to promote more cohesiveness and consistency for development projects in Dickinson County.
- The Development Board would meet quarterly or more, depending upon need, to review and discuss local development issues, concerns, projects, etc.

#### Additional issues and concerns raised during the meeting included.

- Sensitive natural areas need to be identified in the Iowa Great Lakes watershed area.
- > Greenspace needs to be encouraged and utilized effectively throughout the lakes region.
- Consider the impact, land utilization, and future land uses prior to allowing subdivisions or development
- Some local representatives pointed out that cohesiveness and consistency in development is not as important as:
  - Land Use patterns
  - Environmentally friendly developments
  - Effective stormwater management plans (how to get rid of excess stormwater efficiently)
- A need exists to follow and enforce existing subdivision and development regulations already established.

# V. OVERALL GOAL AND LAND USE OBJECTIVES

Development of a comprehensive plan involving cooperation between diverse interests and various levels of government requires all to function with similar concepts in mind. This plan will establish the framework which will enable all interests to operate effectively. It is absolutely essential that involved parties understand each other's roles and responsibilities. Planning is theoretical in nature. There are many different theories advocated, but the general process remains much the same. The following two chapters will detail a series of goals, objectives and land use policies which will reflect the desires and intent of the county. Additional chapters in this plan will provide an overview of existing conditions in the county that will provide the background and supporting data of the goals and objectives.

There are several items the Board of Supervisors and the Planning and Zoning Commission need to remember in order to make this a successful comprehensive plan. The first and foremost is that all participants must realize there is a large commitment and effort required to make the planning process successful. The commitment of the Planning and Zoning Commission to work with county leaders to guide the implementation of this plan and other development issues is essential. This plan is not a "quick fix" to the economic or development challenges that face Dickinson County; however this plan can serve as a guide to future development opportunities. A comprehensive land use plan needs to be modified and updated over time in order to maintain current plan and control ordinances.

#### **OVERALL COMPREHENSIVE PLAN GOAL:**

"To provide long term planning, growth, and balanced developments, which together with land use controls, will minimize the number of conflicting land uses, consider the impact on the natural environment, and preserve the character and intent of urban and rural developments. The County shall recognize and achieve a sensitive balance between urban and rural land uses which facilitate the economic potential of the county while at the same time preserving sensitive environmental resources of the region and facilitating necessary and required services to residents of the county."

#### DICKINSON COUNTY'S MISSION STATEMENT:

"To enhance the quality of life for citizens of Dickinson County by providing exceptional public services in an enjoyable environment."

#### GENERAL DEVELOPMENT TRENDS AND GOALS:

General development goals guide the comprehensive planning process.

• Dickinson County has experienced a general increase in population over the past twenty years. Based on this fact, the county's population is expected to continue its increasing trends in the next 15 to 20 years. Continued population growth should be promoted both within the incorporated cities and rural developed areas of Dickinson County.

- Several economic indicators including continued gains in labor force, low unemployment, and increases in the manufacturing, professional, and retail sectors are good indicators regarding the future course of the county's economy. Dickinson County should continue to promote countywide economic development efforts.
- Dickinson County contains a healthy mix of land uses, with a minimum of conflicting land uses. The separation and delineation of existing or potential conflicting land uses will promote a healthier, safer, and more prosperous county.
- The county should continue to preserve the separate and distinct characteristics of urban and rural areas.
- Establish a pattern of land uses that will maximize the safety and welfare of residents, while considering the protection, preservation and mitigation of sensitive environmental areas and critical natural habitats.
- Develop a transportation and infrastructure system that will provide for the safe, convenient and economical movement of people and goods in and out of the county.
- Recognize the economic development potential of Dickinson County and maintain the cohesive focal point of the "Iowa Great Lakes" region.

#### LAND USE OBJECTIVES:

- 1. **Physical Setting:** Dickinson County is characterized by an urban setting in the middle third of the county that is in distinctly urbanized and contrasts with the rural atmosphere in the western third and eastern third of the county. Thus, land use considerations should be based upon two separate and distinct environments. Future developments should be scrutinized for potential effects it may have upon the physical setting and natural resources of the county.
- 2. Agricultural Lands: The soils of Dickinson County are an extremely valuable and nonrenewable natural resource. This natural resource must be protected, especially the control of soil erosion, soil manipulation, and soil contamination which can influence the depletion of this resource and lead to polluting local and regional water resources. Existing agricultural lands and non-productive lands may be considered for development if they are adjacent to existing built urban areas for the sake of continuity and economic advancement of the county. Furthermore, lands should be considered for development if the proposed development will not be detrimental to other existing developments or nearby sensitive natural resource areas.
- 3. **County Development**: Overall development of the county must not become stagnant. At a minimum, existing businesses and housing should be maintained and encouraged to expand. One primary objective for countywide development involves focus on increasing the county's existing tax base through the promotion of new opportunities. New development, especially those related to the tourism and recreational nature of the county, should be encouraged in order to strengthen and promote the continued economic viability of Dickinson County
- 4. **City Development**: City growth in Dickinson County must be encouraged in order to strengthen the overall community, economic and tourism vitality. However, the county will encourage cities' growth trends toward infill development and within existing city limits. The county should

carefully review and comment upon any future proposed annexations of unincorporated areas by the cities in Dickinson County. Growth within the incorporated cities makes the most efficient use of available capital resources and community facilities.

- 5. **Residential Development**: Adequate space for future residential development must be maintained if the county will continue to grow. Furthermore, the county should be careful to consider the needs and services required by existing housing developments. A variety of persons require a variety of living environments; thus, a variety of locations and situations must be expected. Housing growth should be monitored through land use management, zoning and subdivision control measures to ensure that poorly scattered development or poor construction techniques on and near sensitive natural resource areas do not occur.
- 6. **Commercial Development**: Citizens of Dickinson County demand a variety of goods and services through retail establishments. Commercial development should be located adjacent to major arterials where services and products are made readily available to the public. However, these establishments should locate in conjunction with adequate parking and or frontage roads to help eliminate traffic hazards. Such areas should be near existing commercial sites and in areas set aside for commercial expansion. Commercial activity of a "home occupation" nature should be allowed in both the "Agricultural" and "Residential" zoning districts as long as given conditions are met by the home occupation.
- 7. **Industrial Development**: The economic base of a county is strengthened and expanded by the variety of industries which it contains. Expansion of industrial land uses should occur within existing corporate limits or in planned industrial parks where necessary services and utilities can be provided with a minimum of expense and maximum efficiency. Hazardous industrial uses (i.e. farm or agricultural chemicals) along with those industries promoting the harnessing or production of natural energy sources should be considered, upon careful review and consideration, to locate in agricultural zoned areas where zoning protection can be implemented to keep residential uses at a safe distance. Any industrial development should be reviewed and considered in regards to its impact upon the surrounding environment.
- 8. **Parks & Recreation**: Recreation and park areas enhance the quality of life for all those who have access to them. The addition of new recreational areas should be considered, but also examined to determine what affects new park or recreational places will have upon the local community, residents, environment, and social structure of the county.
- 9. Natural Resource/Environmental Areas: Dickinson County is a host to one of the state's most unique environments. All of these natural resource and environmentally sensitive areas including lakes, rivers, marshes, prairies, and a myriad of other natural resources require special attention to protect them. Heavy or intense agricultural uses, industrial uses, commercial uses and even residential uses should be scrutinized before being allowed to locate in or near these areas. If human-made developments are not compatible, or even questionable, in relation to the natural area, special consideration, alternatives, or mitigation measures should be implemented in order to provide a cohesive and respectful development. These measures can be addressed and maintained through land use controls including the zoning ordinance or subdivision ordinance.

- 10. **Transportation/Infrastructure**: Improvements to the county's transportation and infrastructure systems is one of the primary vital components to developing a sound economic base. To ensure the best use of county funds, all roads should be regularly maintained, but more critical collector and arterial routes should be monitored, maintained and replaced as necessary. In order to provide transportation of people and goods in the most efficient and effective manner, an integrated system of roadways, airways, and waterways should be planned for, developed, and maintained. The county should consider adopting and utilizing uniform infrastructure, construction, and maintenance standards utilized by the cities throughout the county to promote a consistent infrastructure system.
- 11. Utilities: Necessary services, such as fire protection, water, sewer, electric, streets, and gas greatly enhance the living environment and economic potential of an area. Because of the cost of providing such services, uses should be encouraged to locate where adequate infrastructure and services are present. If existing utilities are not available, private systems should be carefully reviewed in regards to their impact upon the environment prior to approval of county officials.
- 12. **Government Role**: The primary goal of the governing body is to ensure the best interests of the county's population are protected and advanced. The governing body must be as consistent as possible to ensure all residents and landowners are treated fairly. There should be an effort to increase the level of intergovernmental coordination and cooperation so consistency in policy and decisions is maintained and duplication of resources and efforts is avoided between the county and cities in Dickinson County.
- 13. Land Use Mixing: Zoning practices should allow a separation of land use types in order to give all uses protection from incompatible types. Some degree of mixing may be acceptable and even encouraged in instances where multiple land uses are beneficial for the overall development and the properties it affects.
- 14. **Planning and Implementation**: Citizen input is one of the most vital planning assets the county has. Thus, with citizen input available, every effort should be made to implement the ideas contained in this plan. Continued public input and citizen recommendations should be heard and considered by the county.

## VI. LAND USE TRENDS & POLICY RECOMMENDATIONS

Dickinson County continues to be characterized by two distinct land use patterns: concentrated urban development centered around the Iowa Great Lakes region and vast rural areas elsewhere in the county. From 1990 to 2000, land usage patterns in both areas grew more pronounced. The urban development in the lakes' region was built up further with more farmland taken out of production for residential and commercial uses. A new trend experienced throughout the past decade or so has been the increasingly concentrated density of development and redevelopment on lakefront property. In the rural portions of the county the agricultural trends continue to hasten the movement toward larger farm corporations and fewer family farmsteads.

Land use policies deal with specific problem areas and delineate a course of action to address existing or potential future issues. Policies are directly related to the county's overall goal and objectives but are specific in addressing particular elements or land use types. Policies are meant to be an aid in assisting implementing bodies in revising future land uses in the form of sound and intelligent decisions. The land use configuration of Dickinson County identifies and reflects the personality of the county. The use of the land is related to factors including past trends, socioeconomic characteristics, soil suitability, topography, availability of utilities, transportation and the local nature and beliefs of its residents. Upon determination of prevailing land use patterns, analysis may be conducted showing trends of the past, influential factors and likely use of the land in the future. Once this information has been gathered, analyzed and quantified, it can be linked with future land use goals and objectives and the suitability of future growth areas to facilitate the evolution of a realistic, attainable and viable land use plan.

It becomes clear that land use issues of concern today are not the same problems that merited concern from the Supervisors 10 or 20 years ago. This study of planning in Dickinson County will include the analysis of several different land uses found within the county's jurisdiction. Land use considerations are probably the most important aspect of comprehensive planning, as far as shaping the future growth and development of the county. Decisions made today tend to be long term, affecting future growth decisions for many years. The ideal land use pattern is to have a separation of land use types so one type of use is offered the same zoning and development protection experienced by all of the other types.

#### LAND USE DEFINITIONS

According to "*The New Illustrated Book of Development Definitions*" a "<u>Comprehensive Plan</u>" or "<u>Master Plan</u>" is defined as,

"A Comprehensive, long range plan intended to guide the growth and development of a community or region (i.e. county) that typically includes an inventory and analytic sections leading to recommendations for the community's future economic development, housing, recreation and open space, transportation, community facilities, and land use, all related to the goals and objectives for these elements."

Agricultural -

Land in the county being utilized for crop production, the raising and/or production of livestock, and/or other agricultural-based commodities.

Rural Residential <u>Unincorporated Towns</u> -	Residential structures, typically single family housing units, located in unincorporated subdivisions, acreages or farmsteads.
Single Family/ <u>Lakeshore Residential</u> -	Structures occupied for dwelling purposes by a single-family or two families living in separate dwelling units under a common roof.
Multi-Family <u>Residential</u> -	Structures occupied for dwelling purposes by three (3) or more families or containing three (3) or more dwelling units.
Commercial -	Structures and/or land used primarily for services, trade, and commerce such as retail, entertainment, food, and other businesses providing the sale of goods, products, and services; excluding wholesale and manufacturing.
<u>Resort Enterprise</u> -	A facility consisting of residential, commercial or a combination of these uses primarily intended for transient guests where the primary attraction is generally recreation features or activities. Similarly, recreation developments often accompany resort enterprises. Recreation developments include residential developments planned, maintained, operated and integrated with a major recreation facility, such as a golf course, marina, lakes, or ski resort.
Industrial -	Structures and/or land used primarily for the manufacturing, packaging warehousing, or distribution of natural or man-made products.
<u>Public/Civic</u> -	Structures and/or land available for use by the general public for non- commercial purposes such as schools, churches, cemeteries, fraternal or social clubs, and government buildings.
Parks & Recreation -	Public and/or private areas devoted to active or passive recreation activities
Natural Resource/ and Conservation -	Those public and/or private areas devoted to the protection, preservation, sustainability of the natural resources and native land uses of the County.
Sensitive Natural Area - (i.e. Critical Area)	An area where one or more of the following environmental characteristics exist: 1) steep slope, 2) flood plain, 3) hydric soils, 4) highly erodible soils, 5) land with poor drainage, 6) stream corridors, 7) mature stands of native vegetation, 8) aquifer recharge and discharge areas, 9) wetlands, and 10) habitat of endangered species.

#### LAND USE CHARACTERISTICS/GROWTH TRENDS

Historical growth of Dickinson County has developed around the natural lakes and geographic features present within its boundaries. These natural features are impetus that encourages tourism, recreation, housing and ultimately growth for the county. Over the years the lakeshores have become increasingly developed to accommodate the needs of residences establishing permanency. Furthermore, the county has experienced commercial, industrial, and recreation based growth along its major transportation routes, including U.S. Highway 71 and Iowa Highways 9 and 86. With the lakes' shoreline reaching built capacity, the unincorporated portions of Dickinson County and adjacent cities have experienced growth in offshore 2<sup>nd</sup> and 3<sup>rd</sup> tier residential and commercial developments around the lakes. Recent developments occurring within the county include new large

scale residential and recreation/tourism based commercial land uses. With considerable development occurring along the shorelines of Dickinson County's natural resources, county officials along with special interest groups have been careful to identify, scrutinize, and mitigate against the impact from development. In addition to the natural features of the lakes in Dickinson County, there are also thousands of acres of land returned to its natural prairie habitat. This land is primarily located within the vast watershed of the "Iowa Great Lakes" and is comprised of fens, marshes, prairie potholes, and other natural wetlands.

Urban sprawl trends should receive significant consideration in regards to the planning of growth, development, and future land uses. Land use control measures should be explored and recommended by participating cities surrounding the lakes region, even implementing a shared or common set of urban sprawl control measures should be considered. The information presented throughout the rest of this section should provide a sound basis from which the county's land use goals, objectives, and policies can be developed.

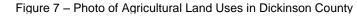
The exact amount of land to be devoted to each land use in 2025 is not known and cannot be accurately estimated because of unknown variables; rather, a realistic estimate of land areas will be made relative to the following methodology. First the increase in projected population from 2000 to 2025 will be examined and analyzed to determine the impact on existing and future planned land uses. Secondly, land use areas or districts will be indicated on the future land use map. It must be kept in mind that the future land use plan is a valuable tool in which development decisions and zoning controls can and should be based.

The following **"Smart Growth" Land Use Policies** are to be used when considering future land use development trends in Dickinson County:

- 1. Encourage future mixed-use developments with special considerations toward those projects incorporating innovative transportation and infrastructure solutions, green developments, and recreational amenities combined with traditional residential and commercial developments.
- 2. Smart growth trends encourage social, economic, and environmental benefits by promoting and incorporating green building practices, low-impact developments, and walkable neighborhoods.
- 3. Smart growth promotes housing options for unique and diverse lifestyles, as well as promoting healthy lifestyles through innovative design alternatives such as trails or pedestrian walkways, and mixed-use development including affordable housing alternatives or compact development designs.
- 4. To preserve open space, prime agricultural lands, natural beauty and sensitive environmental areas, by incorporating these elements into "green designs" on mixed-use projects.
- 5. Encourage city/county and stakeholder collaboration to foster distinctive, unique, and environmentally conscious developments, while also considering fair and cost-effective development practices.
- 6. Promote smart growth provisions and development policies for those areas of undeveloped land located within the county but adjacent to the cities surrounding the "Iowa Great Lakes."
- 7. Ensure proper smart growth practices are considered and development provisions are outlined for land to the south east of the City of Spirit, near the Francis Sites subdivision in Dickinson County.

#### AGRICULTURAL LAND USE

Agricultural land uses are those areas in the county primarily used for grazing or pasture land, production of row crops, raising of livestock and other agricultural commodities. By far. agricultural land accounts for the greatest amount of land, accounting for more than 203,000 acres. Furthermore, the agricultural economy still remains one of the county's strongest economic economic resources. The impact derived from agricultural products and farming will continue to have a strong presence in Dickinson County. Local officials need to look toward





implementing protection measures of prime agricultural land from prospective development and unnecessary urban sprawl. The areas within Dickinson County which represent the highest concentrations of agriculture and the prime land resources are along the eastern third and western third of the county.

Prime agricultural land is one of Iowa's greatest single natural resources and as such should receive consideration for preservation. Prime agricultural areas of the county should remain such, with urban land uses being encouraged to locate within existing corporate limits or within close proximity to other developed areas of the Iowa Great Lakes region. Protection of agricultural areas can help maintain agriculture's status as the dominant economic activity in the unincorporated areas outside the urbanized lakes region.

The following "**Agricultural**" **Land Use Policies** are to be used when considerations are given toward revising the boundaries of agricultural areas:

- 1. To direct development away from prime agricultural soils when the proposed land use development is not contiguous to existing developed areas.
- 2. To prevent the proliferation of nonagricultural land uses through predominantly rural sectors of the county.
- 3. Utilize the natural resources of the area, including the geography and topography of the land to dictate future development patterns.
- 4. Consider the future consequences of continued agricultural acquisition and conversion to recreational or idle lands. The county, State, and Federal agencies should emphasize maintenance and management of existing areas.
- 5. Land purchased for "public use" should be near the Iowa Great Lakes corridor or one of the other natural, environmental, or recreational uses in Dickinson County, in an effort to protect prime agricultural lands.

6. Just as prime agricultural soils are to be protected against development in an effort to preserve agricultural uses in the county, so should hydric soils and other environmentally sensitive soils be protected against development and intensive agricultural uses in order to preserve the sensitive natural resources of Dickinson County.

#### RURAL RESIDENTIAL SUBDIVISIONS/UNINCORPORATED TOWNS

Rural residential subdivisions in Dickinson County are expected to see continued growth. The county has experienced an increasing trend of "city dwellers" wanting to construct new homes in rural subdivisions where many homeowners expect to have services such as water, sewer, solid waste collection and police and fire protection that they received from cities. With the continued expansion of two rural water systems in Dickinson County, rural residential subdivision development has become easier to accommodate with services similar to that of a municipality. It can be expected that a continuation of new rural residential subdivisions will occur in Dickinson County.

Another form of rural residential land use includes those persons residing within the unincorporated town of Montgomery. Typically older and affordable housing alternatives are located within unincorporated towns. This small community is located approximately 5 miles west of Spirit Lake and just north of Iowa Highway 9. Living in a small unincorporated town such as Montgomery often times presents an affordable alternative to those who want to feel as if they are living in the "country," but yet want to maintain a neighborhood atmosphere. Figure 8 – Photo of Rural Residential Subdivision



The following "**Rural Development**" Land Use Policies are to be used when considerations are given toward revising the boundaries of rural subdivisions:

- 1. Residential lot sizes for rural residential dwellings shall be adequate to meet on-site wastewater treatment system (septic) percolation test as required by the Iowa Department of Health, Iowa Department of Natural Resources and Dickinson County Board of Health.
- 2. Consider the impact of development upon the land, the best land utilization, and future potential uses prior to allowing rural development.
- 3. Continue to provide the appropriate level of county services and maintenance to those existing residences and business located within unincorporated towns and rural developments.
- 4. Private water and waste systems, even if more cost effective, should not be permitted within rural subdivisions within 2 miles of a city if adequate water and wastewater provisions can be accommodated, due to long term development/environmental issues.

5. Rural subdivisions located within 2 miles of a city should adhere to "urban" subdivision and street standards; whereas those subdivision located outside of the 2 mile buffer can be developed with more traditional "rural" design standards.

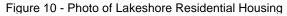
#### SINGLE FAMILY AND LAKESHORE RESIDENTIAL LAND USE

Both single family and lakeshore residential land uses comprise the third largest amount of land area in the county aside from the vast number of agricultural and recreational/natural resource acres. By far, the most popular areas for residential development in the county are along the lakeshores of the many natural lakes. Existing residential and lakeshore developments are expected to see continued growth. With the lakeshore experiencing a near built to capacity scenario, offshore and second tier developments have recently experienced significant increases in Dickinson County. It is expected this type of residential construction will continue in the future. One alternative for housing

Figure 9 - Photo of Single Family Residential Subdivision



developers will be seeking off-lake shore property with possible lake views, but not necessarily access. However, some developers try to incorporate a small amount of lakeshore property in connection with a large number of housing units across from the lake. This type of development is referred to as "keyholing." Some of the cities surrounding the lakes encourage this type of development whereas others strictly prohibit it. The County's approach to keyholing is to permit it on a limited basis by control measures implemented through the zoning ordinance.



In order to make the most efficient use of existing or readily expandable utilities it is essential that future residential growth first occurs within existing developed areas of the county. Dickinson County is in a unique position in that most of the lakeshore development occurring today is in the form of infill or reconstruction since a majority of the shoreline is already developed. There are also those developers offering newly platted subdivisions away from the lakes offering desirable and spacious acreages versus smaller infill lots. Encroachment from non-residential incompatible land uses must be resisted.



Realization of residential development by the types and areas proposed can be achieved though the use of regulatory measures such as zoning and subdivision ordinances. Zoning will delineate residential areas by type and density controls, and should reflect the policies of the land use plan to channel development accordingly. Subdivision regulations regulate the layout of subdivisions, lot sizes, infrastructure, etc., and require all proposals to conform to the plan.

To facilitate and accommodate projected population growth the county should concentrate on facilitating residential development adjacent to or near the lakes region that remains attractive to potential developers. Areas suited for residential development are those areas adjacent to existing developed subdivisions along with areas physically suited for such development. Residential growth will also occur at the outer fringes of growth areas and in widely scattered sites in rural areas. Residential growth may also occur around minor lakes that prove developable, but this growth should be closely monitored to avoid isolated pockets of large scale rural residential developments.

The following **"Residential" Land Use Policies** are to be used when considerations are given toward revising the boundaries of the residential areas:

- 1. Encourage new residential developments to locate adjacent to existing developed areas.
- 2. Discourage strip development of housing along major roadways, except when the road's major function is to provide access to abutting properties.
- 3. Suggested areas for development would be those that can be adequately served by public sewer and water. The secondary growth areas would be subject to approval of private water and wastewater treatment systems.
- 4. Residential subdivision regulations should address consistency in curb, gutter, street, and sidewalk requirements. Whether the county decides to implement urban design standards or rural design standards with low impact development considerations, the county must remain consistent in its enforcement of infrastructure requirements.
- 5. County officials should determine what level of involvement, both financially and oversight, it will take in regards to future residential development.
- 6. The county needs to establish consistency within county departments and between local cities with regards to infrastructure requirements and street configurations in newly developed areas.
- 7. Currently, seven cities and the county are implementing and enforcing eight separate standards for subdivision regulations. There should be consistency and collaborative efforts to promote the same types of development patterns.
- 8. A joint development board should be explored and created to promote more cohesiveness and consistency for development projects in the county.
- 9. Provisions for increased access to the lakes and recreational amenities offered in the Iowa Great Lakes corridor will open up the potential for new housing developments.
- 10. Create minimum "greenspace" requirements on future subdivision developments
- 11. Subdivision regulations should have some" flexibility" or differences built into the requirements based upon urban versus rural development.

- 12. The county should continue to enforce and monitor the effectiveness of its keyholing ordinance as pressure to access the region's lakes will continue to increase.
- 13. Low impact developments including the installation and use of rain gardens, bioswales, stormwater retention basins, etc. should be encouraged in all new developments, and retrofitted to existing developments if feasible.

#### MULTIPLE FAMILY RESIDENTIAL (AND CONDOMINIUM) LAND USE

Multifamily residential development is an issue that many counties do not typically deal with, aside from an occasional group home, county home, assisted living facility or other institutional/detention facility. Even then, some of these uses are classified as civic or public in certain circumstances. Most multiple family apartment or condominium residential uses are usually constructed within a city where adequate public services can be provided. However, the unique "urban environment" experienced around the developed unincorporated lakeshores of the Iowa Great Lakes offers many opportunities for multiple family housing alternatives. One solution to creating more housing units in fewer available lots is to create multiple family condominium or townhouse units. With rural water systems able to provide a practical alternative to services, new multiple family developments in Dickinson County are able to capitalize upon many of the "urban" services provided within cities.

Figure 11 - Photo of Multiple Family Residential Use



In many instances, older housing units, commercial properties, or older resorts located along the lakeshore are being redeveloped and replaced by new multiple family units. A high-density residential development near the lakes will provide a greater number of people access to recreational based amenities. Higher density housing developments also help promote a pedestrian friendly environment that can be assisted by walking and bike trails. Additionally, medium and high-density dwellings will become more of an option for builders and developers as property values and

construction prices continue to escalate. Future multiple family residential development is expected to continue to grow in areas near the north and west sides of West Lake Okoboji; and along the southeast, east, and northeast sides of East Okoboji Lake.

Below is a list of benefits of multifamily housing that county officials may consider when planning. The list is assembled from selected excerpts of, "*The Case for Multifamily*," Urban Land Institute.

#### Multifamily housing is a key component of smart growth

- Well-planned, higher density housing in areas designated for growth has always been an integral component of smart growth.
- By housing more people on less land, multifamily housing developments make it possible to preserve more open space and natural features than do single family housing.
- Multiple housing reduces development pressure on the remaining undeveloped land in a region.
- Multiple housing usually requires less public infrastructure, including roads, sewer and water pipes, and electricity and gas lines.
- Multifamily housing makes it financially feasible to integrate commercial and retail uses into a neighborhood.
- Multifamily housing has a smaller per-housing-unit fiscal impact on local governments because it has a smaller impact on local schools.

#### Well-designed multifamily housing can be a compatible addition to the county.

- Multifamily housing has come a long way from the plain boxes of the past; the design of today's apartments and condominiums is much more creative and sensitive to neighborhood context.
- Multifamily structures allow greater flexibility is siting buildings, which makes it possible to preserve open space and distinctive natural features such as hillsides, streams, or trees.
- Visual preference surveys have demonstrated that consumers, when shown well-designed visual

#### images of high-density developments versus lowdensity, often prefer high-density communities.

- Many multifamily housing communities were constructed using principles consistent with the new urbanist movement. Multifamily housing has an important role to play in the new urbanist communities of the future.
- There is no discernible difference in price appreciation of single family housing located near multifamily buildings and that of homes not located close to multifamily housing.

#### Multifamily housing can help minimize area wide traffic congestion.

- While it may increase traffic at an individual site, multifamily housing can significantly relieve overall regional traffic congestion.
- Multifamily residents average one motor vehicle per household, while owner-occupied households average two vehicles.
- Multifamily housing allows more people to live in housing that is near their work.
- The availability of recreational facilities-including fitness centers, pools, and picnic areas-within the multifamily community reduces the need for auto trips as most residents can walk to these amenities.

The following **"Multiple Family Residential" Land Use Policies** are to be used when considerations are given toward development of multiple family residential areas:

- 1. When developing multiple family or high density residential or tourism-related residential projects, provisions for adequate greenspace and low impact development should be encouraged.
- 2. Water service provided in the unincorporated areas of the great lakes region should have provisions for fire protection as well, especially when providing this essential infrastructure service to multiple family or high-density developments.
- 3. The County should consider implementing joint storm water retention and runoff control ordinances with all of the municipalities around the Iowa Great Lakes, especially when platting new multiple family or high-density housing projects.
- 4. Rural water systems should consider adopting urban water system standards when installing mains to higher density residential developments.

- 5. Create minimum "greenspace" requirements on future medium and high-density residential developments.
- 6. The County should consider adopting and enforcing density standards for multiple family and high density residential uses.

#### COMMERCIAL LAND USE

Since the "urban environment" of Dickinson County central was developed around residential and tourism activities, commercial uses have become accepted in the county and developed out of a need to meet the daily demands of residents and visitors to the region. Most commercial needs are met through the businesses located within one of the nine cities in Dickinson County. Commercial and retail uses located within the county are likely tourism supported businesses that otherwise would not be supported by a rural agricultural county. Over the years, the U.S. Highway 71 corridor

Figure 12 - Photo of Commercial Land Use

serving as the principal arterial route through the county has become developed as a retail and commercial corridor. Scattered commercial uses along the lakeshores are typically resort, marina, or service type businesses.

In all respects, commercial uses should receive the same protection from incompatible land uses, as one would expect for a residential district. In other words, if residential developments are encroaching toward a commercial corridor, then appropriate measures should be taken to ensure that adequate buffers are required to dampen the sound and visual distraction. Adequate spatial needs also deserve attention to the future growth and continued expansion of the U.S. Highway 71 and



Iowa Highways 9 and 86 corridors. Spot or strip commercial development, aside from resort or tourism businesses, should be discouraged in the unincorporated part of the county. New commercial development should be directed to cities, and as infill in existing developed commercial areas in the county. This will result in less traffic congestion on the county's major highways; help preserve the area's character; and result in lower costs for infrastructure.

The following **"Commercial/Retail" Land Use Policies** are to be used when considerations are given toward revising the boundaries of the commercial areas:

- 1. To encourage the clustering of commercial land uses in order to maximize consumer safety and convenience, improve traffic safety and flow, and enhance economic viability.
- 2. Commercial developments serving the needs of the rural residents and visitors to Dickinson County should be encouraged to locate adjacent to existing residential uses, near existing or planned public utilities and infrastructure, and along a primary arterial or collector transportation route.
- 3. To allow commercial establishments that need lake front locations to be viable to locate in strategic positions along the lakes, but to avoid a scattering of these establishments.
- 4. To prevent the proliferation of unplanned strip commercial uses along streets and highways and the development of commercial uses poorly related to surrounding land use types. Rather, any of the following should be considered:
  - *a)* Where commercial uses will be adjacent to a major roadway, the use of a frontage road must be considered to avoid traffic congestion and dangerous intersections.
  - b) An alternative to allowing scattered commercial strip development along major roadways would be the development of highway commercial clusters or further development of existing commercial centers. Clustering of any commercial activity within a compact area enhances the economic viability of all because each benefits from the drawing power of others.

#### INDUSTRIAL LAND USES

Dickinson County's industrial sector primarily consists of agricultural and support industries. The majority of the county's manufacturing and businesses industrial are located within designated industrial parks in Spirit Lake and Milford, the two largest cities in Dickinson County. There is not a designated industrial park located within the rural portions of Dickinson County.



The county must continue to encourage major manufacturing and non-agricultural based industries to locate in existing or expanding industrial areas within municipalities. Generally, the unincorporated areas of Dickinson County do not have the necessary support facilities and utilities to adequately serve modern industrial plants. The exception are those industries that are directly related to rural use or support services, such as farm service centers, cooperatives, or agricultural production plants which either handle toxic chemicals or rely upon the agricultural location to support their industry. These industries should be encouraged to be located in rural portions of the county away from concentrated residential areas.

Another new and expanding industry to Dickinson County is the alternative fuel and energy industries. Dickinson County currently has an established 29 turbine "Flying Cloud" wind farm located south of Highway 9 between Lake Park and West Okoboji Lake. In the summer of 2005 it was announced that an additional 60 wind turbines, as part of the "Endeavor" wind farm are to be installed just west of the existing Flying Cloud wind farm. Furthermore, Ethanol and Soy biodiesel industries will become increasingly beneficial to the industrial economy of Dickinson County and should be encouraged to develop plant facilities within the county. Future industrial land uses is a difficult variable to plan for due to the many factors governing location, available land, transportation access, work force, availability of utilities and services, etc.

The following **"Industrial" Land Use Policies** are to be used when considerations are given toward revising the boundaries of industrial areas:

- 1. Encourage industries to locate in planned or existing industrial areas in an effort to avoid a scattering of those uses throughout the rural county.
- 2. Require industrial development to be served by public utilities with the possible exception of:
  - a) Industries which must be located near raw materials, such as gravel quarries
  - b) Non-labor intensive industries
  - c) Industries which do not produce significant amounts of industrial waste.
- 3. Give industrial uses the same zoning protection as would be expected for residential zones.
- 4. Locate industrial areas with direct access to adequate transportation systems, including highways, railroads, bike trails and airports.
- 5. Promote the benefits of and encourage continued development of alternative energy industries such as wind generation and alternative fuels.

#### CIVIC/PUBLIC LAND USE

Civic and public land uses include those properties including utility, educational, religious, cultural, medical, protective, governmental, and other uses that are strongly vested with public/social importance. Civic and public land uses usually bring a relatively light intensity to neighboring properties and have the flexibility to be scattered across many zoning districts. These uses are largely benign in their impact on surrounding properties, thus the scatted pattern of public uses is appropriate. Public utilities must be careful not to construct facilities or place equipment in areas of significant residential growth. Increased traffic and congestion at predicable times is often associated with uses such as churches or other public properties. While periodic increases in traffic are often acceptable, congestion and safety issues should be addressed in the development of future public/civic uses.

Examples of public/civic uses related to the tourism industry in Dickinson County is the United Methodist Church Camp located along the north shore of West Okoboji Lake, the Lutheran Church Camp on East Okoboji Lake, and the YMCA Camp Foster on East Okoboji Lake. Also, the Dickinson County Conservation Office is located at Horseshoe Bend Recreation Area about three miles south and three miles west of Milford. Public/civic land uses are encouraged to continue and expand, but the high value of land adjacent to the lakes has become and will continue to be a discouragement for the development of non-profit public or civic uses.



The following **"Civic/Public" Land Use Policies** are to be used when considerations are given toward development of these areas:

- 1. Civic and public land uses should be allowed to locate in most residential and commercial zoning districts due to their relatively benign impact on surrounding uses.
- 2. Civic and public land uses should not be allowed to locate in industrial zones or those areas classified as sensitive natural areas. Certain civic or public land uses such as cemeteries and public utilities should be allowed to locate in agricultural zones, but other civic or public use located within an agricultural area should be intensely reviewed as to its purpose and use.
- 3. Special consideration should be given to traffic impact and flow, the provision of lighting or street lights, and the potential for negative noise impacts when locating civic or public uses adjacent to existing residential uses.
- 4. Adequate provision of public infrastructure, utilities, water, sewer, public safety and fire protection must be accounted for when permitting large scale civic or public uses, especially those uses that draw in large amounts of participants such as churches, concert venues, and sporting venues.

#### PARKS AND RECREATIONAL LAND USE

Recreational land uses include parks, golf courses, recreational trails and other county or state owned recreational lands. The quality of life in Dickinson County is a most important factor in an effort to continue its growth and prosperity. The appeal of recreation opportunities is often overlooked as an important community development factor. Recreation and natural resources provide many benefits and amenities to quality of life. In order to present an attractive and beautiful setting for residents to live in and guests to visit, it must have a sound system of parks and a variety of recreational activities. Alternative transportation systems such as recreational trails should be included in residential development and recreation planning to link these locations to each other, as well as to retail and industrial areas.

Figure 16 - Photo of Horseshoe Bend Recreation Area



Figure 17 - Photo of Okoboji View Golf Course

the Judd Wildlife Area. According to the previously identified standard for the number of recreational acres per person, Dickinson County should be able to accommodate park and recreational needs for a rural population base of 70,050. Even with the county's total population of 16,424, and a recommended standard of 243 acres of recreational land, the county exceeds its recommended standard for the county's entire population. Future park and recreation improvements or expansions will only enhance the beautiful parks in place today.

Dickinson County maintains a strong parks and recreational system. However, these "green" amenities cannot afford to remain static. As the composition of the county changes over time, so must recreation systems change to meet future standards demands. Planning suggest that recreational land uses comprise 1.5 acres per 100 population. Based on the County's 2000 census rural population of 4,661, standards would suggest a recommended total acreage of parks and recreational amenities in Dickinson County should equal approximately 70 acres. In reality, there is 467 acres of identified county maintained parks and recreational uses in Dickinson County with the largest of these facilities being Horseshoe Bend and



The following **"Parks and Recreation" Land Use Policies** are to be used when considerations are given toward revising the boundaries of recreational areas:

- 1. Land purchases for purposes of recreation uses or park areas should concentrate on the central "lakes" region. Develop a "map of potential areas" to be acquired by public entities.
- 2. Encourage the development of new public accesses to the lakes in Dickinson County.
- 3. Continue to maintain and improve upon the existing state and county parks system.
- 4. Identify and establish a database of all county owned public areas, in addition to identifying future areas desired to be owned by public entities.
- 5. Promote the expansion of trail development countywide, especially along the west side of Okoboji and Spirit Lakes.

- 6. Ensure regulatory compliance of the state as it pertains to the use and management of state owned parks and recreation areas.
- 7. There should be more opportunities for off-lake recreational activities.

## NATURAL RESOURCE/CONSERVATION LAND USES

In addition to the parks and recreational activities within Dickinson County, there are many passive recreational and natural resource amenities. One of the State's largest publicly owned tracts of land is located just to the east of East Okoboji Lake. The Spring Run Complex is a public wildlife and recreation area of more than 1,600 acres and serves as the primary watershed for East Okoboji Lake, Minnewashta Lake, and Upper and Lower Gar Lakes. The Spring Run Complex, in addition to countless other public wildlife and natural resource areas, also serve an important dual purpose to Dickinson County. Not only do these natural areas provide opportunities for passive activities such as walking, hiking, birdwatching, or places for pets to run; they also serve a number of environmental benefits, primarily a natural filtration system for the Iowa Great Lakes watershed. Natural resource areas filter and capture contaminants carried by excess water runoff in addition to absorbing much of the excess storm water shed from surrounding developed land. The region's prairie potholes and marshes are also nature's means of recharging the region's ground water.

There are many individuals, organizations and special interest groups who are concerned with watershed protection and water quality protection in Dickinson County, especially concerning the Iowa Great Lakes region. These people, passionate about their cause, are devoted to educating and assisting residents and businesses about the benefits of planting natural materials to absorb water runoff prior to carrying foreign materials or contaminants into lakes.

Development occurring within designated natural resource or environmentally sensitive areas should be met with an increased review resulting in a determination of impact to the natural environment based upon the proposed built environment. Development, if allowed, should be minimal in its

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impact to the environment, should be of a minimal density and also take into account watershed impact, drainage, and utilities. Any type of commercial, industrial or high-density multiple family residential projects should be discouraged from locating within designated environmentally sensitive or critical areas. Uses permitted in these places should be considered for low density single family residential, lakeshore residential, low impact civic uses, or low impact recreational land uses.

In the past, wetlands have been drained in favor of agriculture and urban developments, but it has more recently been recognized that wetlands are an integral part of a complex ecological system. In the case of Dickinson County the adjacent marshes filter water that eventually enters the major lake system. Thus, if one part of the ecological system is affected, the whole is also altered. Therefore, it is important that County leaders maintain a regard for preservation of environmentally sensitive areas.

Figure 18 - Photo of Spring Run Complex



The following **"Natural Resource/Conservation" Land Use Policies** are to be used when considerations are given toward those environmentally sensitive areas in Dickinson County:

- 1. Recognize that Dickinson County contains many natural areas that must be protected from urban development, and provide measures within the zoning ordinance to accomplish this task.
- 2. *Recognize that urban development is acceptable when adjacent to some environmental areas, but at the same time establish construction provisions to preserve environmental features.*
- 3. Preserve flood plains and wetlands that are typically not suited for urban development. This would also include protection and preservation of those sensitive natural areas that include hydric soils.
- 4. The best preservation of environmentally sensitive areas lies with public ownership, but in the best interest of the county tax structure, preservation through limited agricultural zoning districts that leave these lands in private ownership may be advisable.
- 5. Encourage the conversion of all abandoned waste disposal sites and excavation areas to recreational areas or other available alternatives.
- 6. Guide urban development to areas where soil characteristics are compatible with such development, and consider construction techniques to overcome soil limitations.
- 7. Develop a storm water management control agency, a storm water district, which would be responsible for the control and management of storm water runoff through the county and implement a countywide management plan.
- 8. Update silt control ordinances in zoning and subdivision ordinances.
- 9. The County should weigh the benefits versus the effects of establishing a dredging program for specifically Minnewashta and Lower Gar Lakes for enhancement of all lake resources. Direct consultation and oversight from the IDNR is mandated in this endeavor. There is some supporting data to show that dredging of the lakes, especially shallow water bodies could lead to some short term negative affects due to the disruption of nitrogen stored in the bottom muck, eventually resulting in even worse algae blooms.



Figure 19 - Photo of Swan Lake Wetlands

- 10. Establish policies or ordinances to promote the capture or recycling of storm water.
- 11. Explore the potential and feasibility of designating "environmental zones" to outline and subsequently protect naturally sensitive environmental areas.
- 12. A plan and program should be incorporated to map and identify all sensitive natural resource areas within the Iowa Great Lakes watershed and throughout Dickinson County.

## TRANSPORTATION AND INFRASTRUCTURE

A well planned and designed transportation system is essential to the overall development of a county and its incorporated cities. It is not expected that new major arterial lines of transportation will be added, but existing modes must be continually updated and improved. Development of a new airport within Dickinson County has been discussed and is recognized as a viable alternative to the restricted use and functionality of Dickinson County's two existing airports in Milford and Okoboji. Over the next five years, the county is addressing a proactive road replacement, maintenance, and bridge/culvert replacement program in order to improve the transportation efficiency and road condition in Dickinson County.

The following **"Transportation/Infrastructure" Land Use Policies** will assist the county in improving its transportation system.

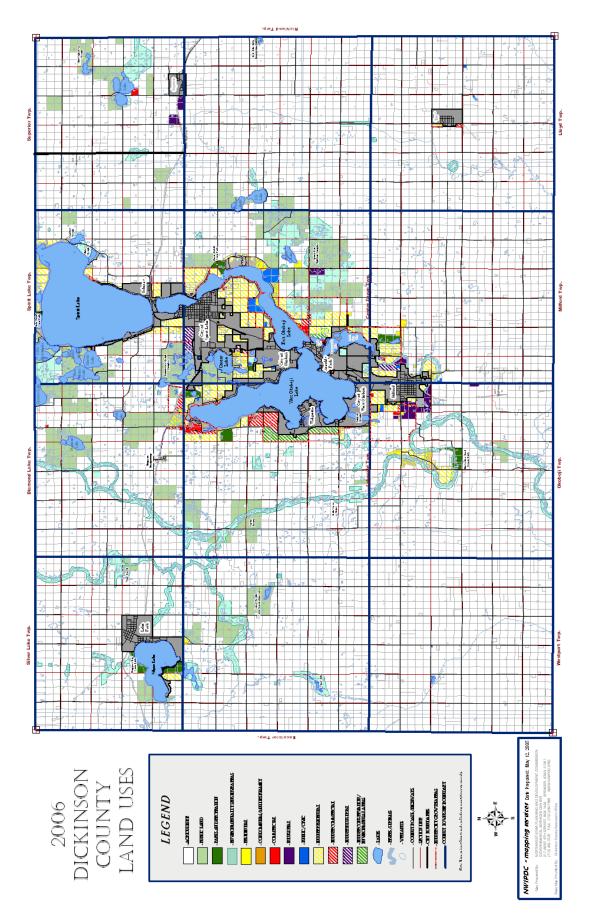
- 1. The County should jointly collaborate with the cities to plan for needed transportation improvements to increase the economic development attractiveness in recruiting new businesses and industries to the area.
- 2. The County should pursue abandonment of all nonessential rural roads that no longer have a reason for existing.
- 3. The County should look into the continued viability and safety concerning the two municipal airports in Dickinson County. A study should be commissioned to find the most feasible and effective location for a new countywide airport, or consider utilizing the services of nearby larger regional airports.
- 4. Continue planning and consideration for a long term bypass of U.S. Highway 71 around the developed "Iowa Great Lakes" region.
- 5. Continue efforts to promote the repair, expansion or relocation of Iowa Highway 86 around the west side of West Lake Okoboji in the central portion of the county.
- 6. Recreational trail construction will be included in the planning of new road construction and in the reconstruction of any existing roads in the county. A high priority shall be given to routes around Big Spirit Lake, West Okoboji Lake, East Okoboji Lake and Center Lake, and to those routes than connect residential, retail, recreational and industrial corridors.
- 7. Coordinate with and support the Iowa Great Lakes Sanitary District on future growth plans and service areas.

#### FUTURE LAND USE PLAN AND MAP

Dickinson County has established a sound planning base for its physical growth. The resulting documents must be updated on a regular basis. The administrative officer, members of the Planning and Zoning Commission and members of the Board of Adjustment have very important responsibilities and it is imperative that they are individuals who are conscientious of the county's best interest and tend not to be single interest oriented. Determining proper land use for a specific area is a product of many factors. Land use determinants include such things as public interest, social values, human behavior, economy, convenience, physical characteristics, and the political climate. The unpredictability of how various interrelated land use determinants will affect each other combined with an effort to control and plan future development based on these factors, necessitates a combination of objectivity and subjectivity.

The future land use plan is not a legal document like a zoning ordinance, but rather is a philosophy of future growth within the unincorporated areas of the county. The future land use map then becomes the guide in determining whether future zoning change requests should be approved or denied. The illustration of the future land use plan for rural Dickinson County can be seen in the attached Land Use Map. Because this is a long range plan based upon projections to the year 2025, many changes may become necessary due to unforeseen criteria. Thus, the future land use plan and map must always be open to periodic updating and revision that should be done in compliance with the county's overall growth goals and objectives. Other variables including planned or possible expansion of services, environmental or natural conditions, and potential economic recruitment also provide insight into future land use patterns. Finally, when creating the land use map, the county has followed existing land use patterns to predict and guide future land use development. Most planned residential growth is expected to occur adjacent to or near the fringe of existing residential neighborhoods. Similarly, planned commercial and industrial growth is also planned for areas adjacent to complimentary land uses.

The Dickinson County future land use map has been created with the assistance of the Northwest Iowa Planning and Development Commission staff. The land use map was created by completing a survey of the entire county. The survey information was then transferred to the map and checked by local officials and members of the Planning and Zoning Commission prior to adoption of the map. The information presented on the land use map has been color coded according to standard land use procedures indicating the following general categories of land use: agricultural, single-family residential, multiple-family residential, commercial, industrial, parks and recreation, public natural resource land, environmentally sensitive areas, and public/civic. For purposes of mapping, the lots were coded with regards to the primary use or intent of the land.



## VII. ADDITIONAL DEVELOPMENT ISSUES

## ANNEXATION

Annexation is the process through which contiguous fringe territory is added to an existing municipality. Laws that regulate annexation and corporate growth vary greatly from state to state, necessitating a brief narrative of the annexation procedures as they relate to Iowa. Annexation usually is not a simple process, but rather one that requires considerable thought and consideration as to benefits and cost requirements prior to an official act. Once a parcel of land has been annexed, the resulting economic, physical, and cultural results will be evident for many years. Annexation may become further complicated by recommendations developed by the legislature based upon input by land use preservation groups and those opposing urban sprawl trends occurring in other parts of Iowa. Cities, as well as county governments, must be kept abreast of current legislative proposals as they relate to annexation. The purpose of this section will be to provide a general overview of the steps involved in annexation.

Growing communities and counties often find themselves in situations where annexation of adjacent developing land into the city's limits must be considered in order to provide adequate space for growth; and sometimes to protect the city's interests when the pattern of development outside a municipal boundary threatens to have a negative impact on a community in the future. In Iowa, a city may annex land by one of five (5) different methods:

- 1. Voluntary annexation not in an Urbanized Area
- 2. Voluntary annexation in an Urbanized Area
- 3. "80/20" voluntary annexation not in an Urbanized Area
- 4. "80/20" voluntary annexation in an Urbanized Area
- 5. Involuntary annexation.

The City Development Board oversees the annexation process in Iowa. This board is comprised of community officials and representatives from across the state operating under the direction of the Iowa Department of Economic Development and has been granted authority by the State of Iowa to review and make recommendation on annexation proposals.

#### Voluntary Annexations

Voluntary annexation is a relatively simple process that is handled at the local level between a municipality and the property owner(s) requesting annexation. These annexations are classified as either being in an urbanized area or not. An "urbanized area" is that land which is adjoining or located within two miles of another city. For those voluntary annexations in an urbanized area, state involvement is limited to a review by the City Development Board as to the completeness of the annexation and petition in satisfying the requirements of the <u>Code of Iowa</u>. If the voluntary annexation if not located within an urbanized area, the annexation may be directly filed and recorded with the Secretary of State. As the name would imply, voluntary annexations, when in the best interest of a city and county, and in keeping with the land use policies established herein, should be welcomed. The resulting increase of tax base and future development potential generally translates to positive outcomes for communities.

#### Table 1 - Voluntary Annexation Procedures

#### VOLUNTARY ANNEXATION NOT IN AN URBANIZED AREA

- a) Submit application for voluntary annexation
- b) The city shall provide a copy of the application to the Board of Supervisors.
- c) The city provides published notice in an official newspaper.
- d) The city council approves the annexation by resolution.
- e) The city files a copy of the resolution, map and legal description of the annexed territory with the Secretary of State, Board of Supervisors, public utility, Iowa DOT
- f) Records a copy of the legal description, map, and resolution with the County Recorder.
- g) The annexation is complete upon acknowledgement by the Secretary of State that the legal description, map and resolution have been received.

#### VOLUNTARY ANNEXATION IN AN URBANIZED AREA (within 2 miles of another city)

In addition to the above activities for a voluntary annexation, those voluntary annexations that adjoin or are within two miles of another city must.

- Provide notice of the application to cities whose boundaries adjoin the territory or that are within two miles of the territory, each affected public utility, the Board of Supervisors, and the regional planning authority.
- Upon city council approving the annexation by resolution, the city forwards the annexation proposal to the City Development Board.
- City Development Board considers the annexation proposal and approves or denies the proposal and issues its written ruling.
- If the annexation is approved and no appeal is file within thirty days of the issuance of the written ruling, the Board files and records documents to complete the annexation.

#### "80/20" Voluntary Annexations

The primary difference between a voluntary annexation and an "80/20" annexation is that a city may include up to 20% of the total land area to be to annexed containing land owners not wanting to annex into the community, as long as the remaining 80% voluntarily agree to the annexation. Also, public land may be included in 80/20 annexations regardless of written consent. If a public landowner does not consent, the public land does not affect the 80/20 ratio calculation. The City Development Board may request how much land being annexed is vacant or undeveloped, and whether municipal services are provided to residents in the annexed area.

#### Table 2 - <u>"80/20" Voluntary Annexation Procedures</u>

# 80/20 VOLUNTARY ANNEXATION INCLUDING LAND WITHOUT THE OWNERS CONSENT $\underline{BOTH}$ IN AND NOT IN AN URBANIZED AREA

- a) City receives an application and includes up to 20% of territory without the consent of the owner to avoid creating islands or to square up the city's boundaries.
- b) The city holds a consultation with the County Board of Supervisors and Township Trustees at least fourteen business days prior to mailing of application.
- c) At least fourteen business days prior to any action, the City shall by Certified Mail provide a copy of the application to the non-consenting property owners and each affected public utility.
- d) The City most hold a public hearing on the application before taking official action.
- e) At least fourteen days prior to any action, the City shall provide written notice of the application and the time and place of the public hearing to the County Board of Supervisors, each non-consenting owner, each owner of property that adjoins the territory, and each public utility that serves the territory.
- f) The City Development Board considers the annexation proposal. The Board hears input on whether the proposal is complete and properly filed. If the application is accepted, a date for public hearing is set.
- g) The City Development Board holds a public hearing for the County and property owners. After hearing all evidence the Board decides whether to approve or deny the annexation.
- h) If the annexation is approved, the Board notifies the parties and thirty days following the notification the Board files and records documents to complete the annexation if no appeal is file.
- i) If the annexation is denied the Board notifies the parties.

#### Involuntary Annexations

Involuntary Annexations are initiated by the city and are opposed by the majority of landowners in the proposed annexation area. Before a city attempts such a process, they should review Chapter 368 Code of Iowa, as amended and the most recent City Development Board Administrative Rules appearing in the Iowa Administrative Code. Furthermore, contacting the City Development Board to review and provide necessary coordination and advice on proceeding with the annexation should be also considered. Involuntary annexations can easily become a complex legal matter; thus, care should be given to assure that all requirements of the City Development Board are met. The city must be prepared to defend its actions by indicating how and when community facilities, services, and utilities can be extended into the proposed annexation. Once approved by the board, involuntary annexations must also be approved by a simple majority of the residents of the proposed annexation area and the residents of the city in a referendum vote. The city should explore annexation where necessary in the public's best interest to assure that development directly adjacent to the city limits does not continue unabated in a fashion that conflicts with the city's current or future land use policies. The city may be able to justify involuntary annexations based on the best interest of the public when, for example, adequate land area for a particular land use is not immediately available within the current city limits potentially causing the city to miss out on the creation of jobs or provision of expanded services for the residents of the community.

Petitions requesting involuntary annexations must indicate how municipal services will be provided by the city to the annexed area within three years of July 1 of the fiscal year in which the city taxes are collected against property in the annexed territory. At the end of the third year, the city must submit a report to the City Development Board describing the status of the provision of services within the annexed territory. If the city fails to provide services or fails to show progress in providing services, the City Development Board has the power to cut ties between the city and all or part of the annexed territory. If good cause is shown, the city may request an additional three years to provide municipal services.

#### Table 3 - *Involuntary Annexation Procedures*

#### INVOLUNTARY ANNEXATION

- a) Notice of intent
- b) Prior to filing a petition with the Board, the petitioner must send a letter of intent by certified mail to each city whose urbanized area contains a portion of the territory, the regional planning authority, affected public utilities, property owners listed in the petition, and the Board of Supervisors.
- c) Prior to filing, the City must hold a public meeting on the petition, of which a notice is to be published.
- d) The City files a petition with the City Development Board
- e) Board Review of Petition for completeness and proper filing. If accepted as complete, a committee is formed.
- f) A Committee holds a public hearing to hear evidence for and against the petition.
- g) The Committee holds a decision meeting to approve or deny the petition for annexation.
- h) The Board works with the county to set an election date. After the election the county reports the results of the election to the Board. The Board publishes the election results.
- i) If the petition is approved at election, and no appeal is filed within thirty days of the publication of the election results, the Board files and records the documents necessary to complete the election.
- j) Three years following the completion of involuntary annexation of territory the Board reviews the status of the provision of services provided by the City to the annexed territory, and determines if further action is required.

Future growth of the cities in Dickinson County is inevitable, and county officials should realize this trend will continue. Growth and annexation of land in Dickinson County from the cities is expected to occur primarily along lakeshore properties and currently undeveloped infill properties located

between the Cities of Spirit Lake, Okoboji, Arnolds Park, West Okoboji and Milford. Also, proposed future development and potential annexations could be expected along U.S. Highway 71 or Iowa Highways 86 and 9 if development continues to progress along these routes.

In summary, when considering the impact future annexations will have upon the county at large, it is evident there is a need for county officials to clearly understand and review all proposed future annexations. The county should review, but approve voluntary annexations in most cases. After all, these landowners are not only willing but also wanting to become a part of a municipality. However, regarding attempts from cities to initiate involuntary annexations, the county needs to offer more input and comments regarding the need to control unorganized urban sprawl and to protect the developmental interests of Dickinson County. In all cases a proposed annexation will result in both benefits and disadvantages; thus, the county must look at both sides and make a value judgment. At the same time, both the cities and Dickinson County should be aware that annexations, whether voluntary or involuntary, also present disadvantages that often offset advantages. Studies have indicated:

- 1. Annexations based solely upon speculative growth or anticipated tax generating revenue sources should be discouraged.
- 2. Large annexations may spell trouble if a municipality is forced to supply utilities to the furthest point in the annexation.
- 3. Except in cases where developed areas are annexed, service and utility costs usually occur prior to any benefit from increased tax revenue is available to off-set them.
- 4. Large annexations should be preceded by a study that will evaluate service requirements and revenue/expenditure relationships likely to result from the annexation.

If the cities in Dickinson County are to consider undertaking possible involuntary annexations, it should be aware that the burden of proof is upon the annexing body as to the ability to offer the annexed area facilities and utilities in a better quality and quantity than the area is currently accustomed to. Annexation solely to increase revenue is not a justifiable process in the eyes of Iowa law. Cities must give detailed information on how it proposes to finance major capital improvements needed to adequately serve the area to be annexed.

## EXTRATERRITORIAL ZONING AND LAND USE

Once again, cities in Iowa may extend zoning and land use policies to affect the area inside a radius of two miles from the community's existing corporate limits. However, two restrictions apply that limit a city's ability to apply these land use regulations in Dickinson County. Agricultural land uses in the State of Iowa are immune to zoning of any type regardless of proximity to city boundaries. Additionally, exclusive jurisdiction over non-agricultural land uses in the two-mile buffer is not available to cities within zoned counties. This is the case in Dickinson County as the county practices and enforces zoning and subdivision regulations.

Nonetheless, cities and counties may establish intergovernmental agreements (often referred to as 28E, referencing the State Code) authorizing a city or county to have specific levels of input into the other entity's land use matters. These 28E provisions may range from granting complete zoning control of the two-mile radius to the city to allowing the county to occupy a non-voting seat on a city's planning and zoning commission (or vice versa), or simply requiring that the city and county planning and zoning commissions meet jointly on occasion to discuss upcoming land use issues.

Development issues discussed or addressed within a 28e policy agreement between a city and county should cover such topics as:

- Primary land use
- Secondary land use
- Utilities water, sewer, electric
- Infrastructure roads, storm sewer
- Public roads concrete/asphalt/unimproved

## SMART GROWTH PLANNING PRINCIPLES

Across the nation there is a growing concern that current development patterns, considered by some to be dominated by "urban sprawl" are no longer in the best long-term interest of cities, suburbs, small towns, rural communities, or natural areas. Although supportive of growth, cities and counties are beginning to question the costs of building further out from the central community. Spurring the smart growth movement are shifts in demographics and population, a revived environmental ethic, and increased fiscal concerns over development.

Regarding the smart growth movement in Iowa, during Governor Vilsack's 2004 State of the State Address, the Governor stressed the responsibility for natural resource protection in planning Iowa's future growth. Governor Vilsack reminds lawmakers and citizens of Iowa, "We sometimes fail to recognize how important the environment is to improve quality of life in Iowa. Living in Iowa means accepting responsibility for preserving and protecting our natural resources," and the state's budget, even in tight fiscal years, "must reflect that responsibility." Noting the previous year's water quality summit in Ames, the Governor stated, "broad consensus that our approach must be based on a respect for the natural lay of our land rather than artificial boundaries." Additionally, the Governor called for better coordination of the state's current protection efforts and for "a watershed approach" – locally led and locally based – to water quality improvements in high-priority watersheds.

The smart growth concept is based upon two general areas of interest; one is issues facing counties today and the second is based upon the recommended smart growth principals used to create policy and means to address the previously addressed issues. The information referenced below is summarized from the "Smart Growth Online" resource provided by the smart growth network (www.smartgrowth.org).



#### OVERVIEW OF SMART GROWTH ISSUES:

<u>*Quality of Life*</u> – smart growth offers a framework to build "community" and help create and preserve a sense of place. This can be accomplished through housing and transportation issues, green spaces, recreation and cultural attractions, and policies or incentives to encourage mixed-use neighborhoods.

 $\underline{Design}$  – smart growth creates neighborhoods that offer health, social, economic, and environmental benefits for all. This is achieved by promoting resource efficient design and incorporate green building practices, low-impact developments, and walkable neighborhoods.

- Zoning regulations
- Building Codes
- Design Standards
- Subdivision review and standards
- Plat review

Economics – smart growth encourages small business investment and development and adds to the variety of employment opportunities. Efficient government services are the key to this, as are the public and private investments which focus on quality of life improvements.

*Environment* – many of the current environmental challenges we are facing today are due in part to the way neighborhoods, communities, and cities have been built up during the past half-century.

<u>*Health*</u> – smart growth reduces health threats from air and water pollution and indoor air contaminants through resource efficient building design along with promoting transportation options such as public transit, bike lanes or trails, and pedestrian walkways. These alternatives also encourage residents to participate in a more active, healthy lifestyle.

<u>*Housing*</u> – smart growth promotes housing options for diverse lifestyles and socioeconomic levels. It accomplishes this through mixed-use development, affordable housing alternatives and compact development that revitalizes existing neighborhoods.

 $\underline{Transportation}$  – smart growth protects public health, environmental quality, conserves energy, and improves the quality of life by promoting new or innovative transportation choices.

#### PRINCIPALS OF SMART GROWTH:

- Creates a range of housing opportunities/choices
- Creates walkable neighborhoods
- Encourages community/county and stakeholder collaboration
- Fosters distinctive, attractive neighborhoods and communities with a strong sense of place
- Promoted mixed land uses

- Preserves open space, prime agricultural lands, natural beauty and critical environmental areas
- Takes advantage of compact building design
- Makes development decisions predictable, fair and cost effective

## VIII. PHYSICAL FEATURES

Dickinson County, located in northwest Iowa, is in the first tier of counties south of Minnesota and in the third column of counties east of the South Dakota boundary. The county is comprised of a total land area consisting of 243,840 acres, or 381 square miles, of which nearly 16,000 acres or about 6.5 percent of the county is water. Nearly 74 percent of Dickinson County is cropland; 5 percent woodland; and 21 percent non-cropland, pasture, or idle land.

Physical features, an important element in land use planning, has been largely ignored in the past in determining future land uses. Modern emphasis on environmentally sensitive areas and the availability of advanced information on geological structure and soils have made it possible to place more emphasis on physical features analysis in land use planning. Climate, location, geologic structure, topography, drainage, surface waters, and soils each uniquely affect the types of land use that are best suited for a particular tract or parcel of land. Some of these factors, such as topography, drainage or soils, weigh more heavily when determining acceptable land use for an area. The purpose of this section is to determine those limiting factors as they relate to Dickinson County, so that adequate consideration may be given to them when determining directions for future land use. The following material is primarily accessed from the <u>Soil Survey of Dickinson County</u>, Iowa. This survey was made cooperatively by the Natural Resources Conservation Service; the Iowa Agriculture and Home Economics Experiment Station, the Cooperative Extension Service; Iowa State University; and the Department of Soil Conservation, State of Iowa.

## **GEOLOGIC STRUCTURE**

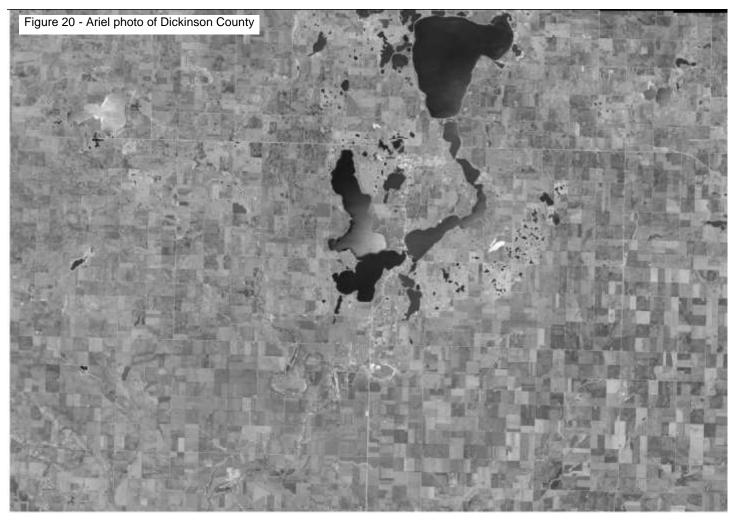
The geologic structure of Dickinson County is cretaceous undifferentiated bedrock overlain by layers of glacial drift and loess. The depth of the bedrock varies from several cases of isolated exposure to a depth of several hundred feet. Because the geologic structure is consistent and stable within the county and does not limit construction and development, it is not an extremely important factor to consider when planning for future land use.

## CLIMATE

Climate becomes a major factor in land use planning when it relates to agricultural production and construction seasons for roads and buildings. Furthermore, climate is essential to the successes or failures of Dickinson County's tourism industry. Climate limits both construction and tourism activities to certain times of the year. Most development and tourism activities will occur from April through October. The climate in Dickinson County is classified as "Dfa" on the Koppen-Geiger system of world climate classification. In the winter it is generally cold, while quite hot temperatures and occasional cool spells characterize the summer. During the winter, precipitation frequently occurs as snow. During the warmer months, it falls mainly as showers, which are often heavy. The total annual precipitation is about 27 inches. Of this, 20 inches or 75 percent usually falls during April through September. In the winter, the average temperature is 17 degrees F, and the average daily minimum temperature is 8 degrees. In summer, the average temperature is 71 degrees and the average daily maximum temperature is 83 degrees. This temperature range allows for a frost-free growing season of approximately 140 days. The average relative humidity in mid-afternoon is about 60 percent. Humidity is higher at night, and the average at dawn is about 80 percent. The sun shines 75 percent of the time possible in summer and 60 percent in winter. The prevailing wind is from the northwest. Average wind speed is highest, 12 miles per hour, in spring.

#### SURFACE WATER

Surface waters in Dickinson County consist of tributaries, lakes, and rivers that make up the Little Sioux River drainage basin. The Little Sioux River and several tributary streams flow year around. However, the majority of creeks in the county is intermittent and carries water only in periods of heavy rainfall or spring thawing. Runoff corresponds to the annual precipitation rate. Dickinson County contains a unique surface water resource known as the Iowa Great Lakes System. The large lakes, small lakes and wetlands make up a true lake district that is exclusively found in the plains states. In addition to being a valuable recreation and residential development asset, these bodies of water provide municipal drinking water supplies for the communities in the county.



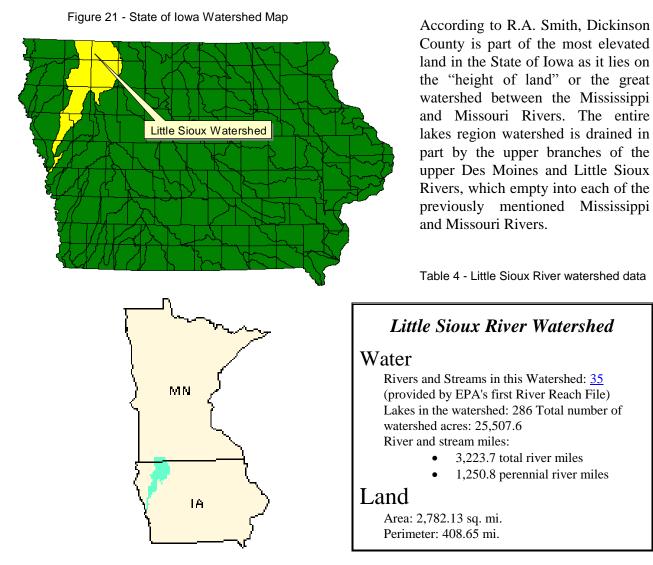
Water quality is an important concern for county residents because of growing demands for water. With a growing permanent population base and an expanding summer seasonal population, the resulting increasing development causes greater demand on water resources.

Farmland drainage with siltation, commercial fertilizers, pesticides, herbicides, and feedlot effluent affect water quality. Urbanization also presents problems with rainwater run-off and accompanying pollutants that drain into the lakes, along with private sewage disposal systems from development within the lakes watershed area. When considering future land uses, the county should take into account water quality and the valuable natural resources of its unique lake environment. If issues

regarding these areas are related to land use, the planning and zoning commission should consult the Dickinson County REAP Five Year Program Plan, the Comprehensive Surface Water Quality Strategy for the Iowa Great Lakes Region and/or other relevant surface water-related plans to ensure land use planning remains consistent with the goals and objectives of other adopted plans.

As stated in R.A. Smith's, "<u>A History of Dickinson County Iowa</u>," many descriptions of the Iowa Great lakes have been written and published, but in his opinion the most interesting and readable is contained in Prof. T.H. MacBrides's report on the Geology of Dickinson County. "South of Spirit Lake lies Okoboji, in its two sections stretching somewhat in the form of the letter U, open to the north partly in Center Grove, partly in Lakeville township...This is by many estimated the most beautiful water in the series. Its greater depth, more picturesque winding shores give it some advantage over Minne Waukon (historical name for Spirit Lake)...West Okoboji Lake, or simply Okoboji, as it is commonly called, extends nearly six miles in greatest length and almost three at the point of greatest breadth...These lakes taken altogether form one of the attractions of Iowa. Their preservation in their pristine beauty is a matter of more than local interest."

## DRAINAGE/WATERSHED



## AQUIFERS AND GROUND WATER

In the Iowa Department of Natural Resources' published analysis of Iowa's underground water supply titled <u>*The Iowa State-Wide Rural Well-Water Survey*</u>, Dickinson County falls under the North-Central Iowa Hydrogeologic Region, which is described as follows:

"Low to moderate relief, high relief along major river valleys, area of the youngest: glacial deposits in the state, shallow to deep bedrock; bed rock varies from Paleozoic carbonate aquifers to Cretaceous Dakota aquifer."

The well source in the county is dependent mainly from the Dakota sandstone aquifer. The wells in the region average 130 feet in depth and have the lowest levels of nitrates of any of the other hydrogeologic regions in the state. In general, this region proved to have the overall lowest level of contamination when considering all forms of water contaminants. The study determined that the tendency to have deep wells to reach the groundwater in Dickinson County is an important variable in water quality. The deeper wells exhibit lesser degree of contamination. When Dickinson County is guiding its future development, water source resources should be used as reference when considering development and the impact of new water supplies in rural areas.

## **TOPOGRAPHY/LANDFORMS**

The landscape varies throughout Dickinson County, with elevations ranging from 1,275 feet to 1,575 feet. Most of the county falls within the Des Moines Lobe landform region of the country, which was formed by the Wisconsin Glacier during the Pleistocene Era 13,000 to 14,000 years ago. The Des Moines Lobe is made up of many flat areas often interrupted by "knob and kettle" topography, which consists of scattered hills interspersed with several depressions and sloughs. "Knob and kettle" topography is characterized by a poorly defined surface drainage pattern that gives the county a host of environmentally sensitive areas such as the prairie potholes which provide critical wildlife habitat.

The uniqueness of this landform region results from its geologically recent encounter with ice sheets from the North. The result is an exceptionally clear picture of the land surface nearly as the ice left it. In the 11,000 to 12,000 years that have passed since the ice melted, weathering and erosion have made some progress in modification of the landscape. Slope angles have changed and earth materials from hill summits have started the descent to lowland positions. Even though some of the initial relief has been reduced, the topography and landforms of the Des Moines Lobe remain characteristic of terrain recently occupied by glacial ice.

The southwestern portion of the county falls in the Northwest Iowa Plains landform region and offers a sharp contrast to the topography of the Des Moines Lobe. Long gentle slopes and wide shallow valleys characterize this region. Since the area has gone much longer without glaciating, drainage patterns are defined and well established and ponding areas are not as prevalent as within the Des Moines Lobe. In both landform regions of the county, the surface is covered by loess, which is a fine-grained, glacially deposited material. Since loess is a very productive parent material for soil formation, it creates an important source for agricultural activity and land use. Since Dickinson County has many environmentally sensitive areas situated within vital productive agricultural land, topography is a very important factor for consideration when planning for future land use.

#### SOILS

Soil conditions determine several important land use decisions when planning where future growth and development will occur. Where urban and economic growth occurs on a fragile and balanced ecosystem the types of soils and their suitability or lack thereof to development becomes of great importance. Factors such as structure suitability, percolation rate, water holding capacity, productivity, slope, and nutrient composition are all important in determining future growth patterns. These factors all have various effects on placement of public utilities, residential and commercial development, construction or placement of recreational areas, as well as local agricultural usage.

According to the Soil Survey of Dickinson County completed by the U.S. Department of Agriculture, there are six major soil associations characterized within the county. They include Wilmonton-Everly-Ocheyedan; Ransom-Sac-Primghar; Wadena-Estherville-Coland; Clarion-Nicollet; Canisteo-Nicollet-Okoboji; and Nicollet-Clarion associations.

The Clarion-Nicollet, Nicollet-Clarion, and Canisteo-Nicollet-Okoboji associations comprise about 70 percent of the soils in the county. These associations are described as level to strongly sloping, somewhat poorly drained to very poorly drained, loamy and silty soils formed in glacial till on uplands. Since most of the county is in the glaciated region, these soils are found in terrain described as rolling, "hummocky" with low areas of "pot holes." These areas require drainage before they can be productive for row crops. Most of the hummocks have lost half or more of their original topsoil, leaving six to 12 inches. In some cases the soil has eroded down the slope and settled in the potholes. Conservation practices are difficult to apply, because the slopes are not even and the drainage patterns are not normal. Ninety percent (90%) of the soils in these associations could be controlled by leaving thirty-five to sixty percent (35%-60%) ground cover of crop residue on the surface after planting. This practice alone would bring soil losses to acceptable levels.

The Wilmonton-Everly-Ocheyedan association, along with the Ransom-Sac-Primghar association, appears in the southwest corner of the county. Both associations are characterized as nearly level to moderately sloping, somewhat poorly drained and well drained. However the Wilmonton soils are loamy and silty soils formed in loamy and silty sediments and the underlying glacial till, and the Ransom soils are silty soils formed in loess and the underlying glacial till. Slopes in these associations are more uniform drainage patterns and conservation practices are less difficult to layout. Since the slopes are gentle, wind and water erosion can be controlled with conservation tillage practices on the contour.

The more strongly sloping areas along the Little Sioux River comprise the Wadena-Estherville-Coland Association. These soils are generally strongly sloping loamy soils formed in glacial sediments and the underlying sand and gravel. Soils in this area require special treatment to allow most agricultural uses due to slope and light texture. Terracing can sometimes be used for row cropping if the sandy subsoil is not disturbed. However, these areas are mostly suitable for hay land and pasture. While slope is factored into soil type descriptions, a closer look at the topography of Dickinson County is necessary to manage development in areas where erosion and run-off might negatively effect the environment. Housing and/or commercial developments in fragile topographical or limited soil suitability areas should be carefully managed as a valuable resource that contributes to the aesthetic appeal of the County, but also acting in the best interest of watershed protection and public recreation. When the planning and zoning commission and zoning administrator are reviewing sites for zoning compliance and building permits, the intended use should be cross referenced in the soil survey with the particular soil type for the property being reviewed. Obviously, certain uses should not be permitted on certain soil types. Also, when considering placement of zoning classifications in an area and permitted uses within those classifications, the best suited uses for a particular soil type should be taken into account. If the zoning administrator or planning and zoning board are unsure of how to interpret the soil survey on a particular issue, the Dickinson County Soil Conservation Service office should be consulted.

A listing of all the soil types with detailed information may be obtained in the <u>Soil Survey of</u> <u>Dickinson County, Iowa</u>. Furthermore, attached as Appendix 1 to this plan, is a copy of detailed schedules of soil suitability depending upon types of use. There is a "Prime and Other Important Farmlands" schedule, along with a "Dwellings and Small Commercial Buildings" schedule which details which soils are best suited for foundations and basements in Dickinson County. Also included in Appendix 1 are a "Roads and Streets, Shallow Excavations, and Lawns and Landscaping" schedule, and a "Sewage Disposal" schedule that identifies soils capable of handling the effects and leeching from septic tank absorption fields and sewage lagoons.

#### HYDRIC SOILS

Hydric soils are formed during periods of saturation of ground water or flooding during the growing season that causes development of anaerobic conditions. Depletion of oxygen is caused by the saturation of soils combined with anaerobic microbiological activities. This promotes the accumulation of organic matter, iron, and other reducible elements.

According to the U.S. Army Corps of Engineers, Wetlands Delineation Manual, hydric soils are defined as: "A hydric soil is a soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions that favor the growth and regeneration of hydrophytic vegetation" (US Department of Agriculture (USDA) Soil Conservation Service (SCS) 1985, as amended by the National Technical Committee for Hydric Soils (NTCHS) in December 1986).

Based on the above definition, the following criteria for hydric soils have been developed by the U.S. Department of Agriculture.

- 1) All Histosols except Folists; Soil nomenclature follows USDA-SCS (1975).
- 2) Soils in Aquic suborders, Aquic subgroups, Albolls suborder, Salorthids great group, or Pell great groups of Vertisols that are:
  - a. Somewhat poorly drained and have a water table less than 0.5 ft from the surface for a significant period (usually a week or more) during the growing season, or
  - b. Poorly drained or very poorly drained and have either:

i. A water table at less than 1.0 ft from the surface for a significant period (usually a week or more) during the growing season if permeability is equal to or greater than 6.0 in/hr in all layers within 20 inches; or

ii. A water table at less than 1.5 ft from the surface for a significant period (usually a week or more) during the growing season if permeability is less than 6.0 in/hr in any layer within 20 inches; or

- c. Soils that are ponded for long or very long duration during the growing season; or
- d. Soils that are frequently flooded for long duration or very long duration during the growing season.

A hydric soil may be either drained or undrained, and a drained hydric soil may not continue to support hydrophytic vegetation. Therefore, not all areas having hydric soils will qualify as wetlands. Only when a hydric soil supports hydrophytic vegetation and the area has indicators of wetland hydrology may the soil be referred to as a "wetland" soil. A drained hydric soil is one in which sufficient ground or surface water has been removed by artificial means. Although it is important to record such evidence of drainage of an area, a hydric soil that has been drained or partially drained still allows the soil parameter to be met. However, the area will not qualify as a wetland if the degree of drainage has been sufficient to preclude the presence of either hydrophytic vegetation or a hydrologic regime that occurs in wetlands.

Attached as Appendix 2 to this plan is a summary of the soils types and classifications found in Dickinson County meeting the definition of hydric soils. Within this summary of hydric soils is information relative to the soil classification, individual soil type or component, landform type associated with the soil (i.e. potholes, oxbow, floodplain, ground moraines, etc.) and the hydric rating.

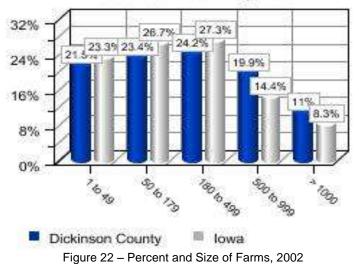
## IX. AGRICULTURE

## AGRICULTURAL ECONOMY

Agriculture is historically and remains one of the primary economic sectors in Dickinson County. Although more than 200,000 acres of land in Dickinson County are utilized for agricultural purposes, the number of farms in the county continues to decline at a steady pace. Economies of scale continue to dictate fewer farms remaining in operation, with remaining operations continuing to grow larger. The Agricultural Census of 1997 shows the number of farms in Dickinson County declining to 551 with an average size of 381 acres. Only five years later in 2002, the number of farms continued to decline to 492 with an increased average farm size of 413 acres. In comparison to the State of Iowa, in 1997, the average farm size was 334 acres, and five years later increased to an average of 350 acres per farm. The average farm size over the last five years in Dickinson County has remained at a higher average then the state.

The data presented below comes from Iowa State University SETA (Social and Economic Trend Analysis). Specifically, SETA has begun a relatively new program titled "Take Charge," where a majority of this demographic and statistical data is derived from. Take Charge is an economic development educational program developed and supported by the North Central Regional Center for Rural Development. This program is intended to help participants examine trends and characteristics, to better understand the local economy, to assess opportunities for economic growth and to promote teamwork.

Percent of Farms, 2002



The data shown below provides information on the distribution of farms by farm size (in acres). In 2002, the smallest farms (less than 50 acres) accounted for 1 percent of Dickinson County farms, compared to 1.4 percent statewide. In contrast, 30.9 percent of farms in the county had more than 500 acres. Statewide, the percentage of farms in this category was 22.7 percent.

Table 5 – Change in Size of Farms, 1997-2002								
	Dickinson County			Iowa				
Farms	1997		2002		1997		2002	
Size in acres	Ν	%	n	%	n	%	n	%
1 to 49	101	18.3%	106	21.5%	19159	19.8%	21089	23.3%
50 to 179	134	24.3%	115	23.4%	26504	27.4%	24250	26.7%
180 to 499	162	29.4%	119	24.2%	29747	30.8%	24719	27.3%
500 to 999	111	20.1%	98	19.9%	15115	15.6%	13063	14.4%
1,000 or more	43	7.8%	54	11%	6180	6.4%	7534	8.3%

Source: www.seta.iastate.edu/takechage/, Iowa State University, 2005

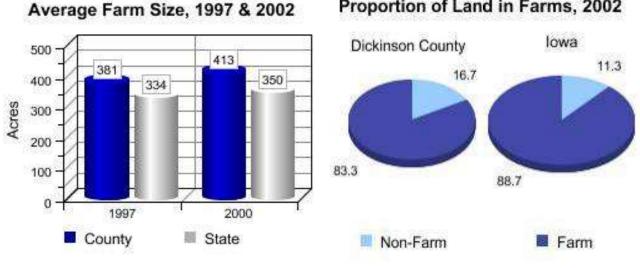
Proportion of Land in Farms, 2002

Below is data from the 2002 Census of Agriculture on the number and size of farms for Dickinson County and the State of Iowa. Farmland comprised 83.3 percent of the land area in Dickinson County, relative to 88.7 percent statewide in 2002. There were a reported 492 farms in the county, with an average of 413 acres per farm. This average farm size was smaller than the statewide average of 350 acres per farm.

*Cautionary Note*: In 2002, the U.S. Department of Agriculture changed its data collection methods to improve its coverage of "small farmers". Due to this change, the numbers from the 2002 Census of Agriculture are markedly different from past censuses. To help accommodate this change in methodology, the Department of Agriculture adjusted the counts of 1997 - these adjusted numbers are noted with the label "Adj. 1997". As a result of these changes and adjustments, readers should use extreme caution in the interpretation of longitudinal trends.

Table 6 - Average Farm Size and Number of Farms, 1997-2002					
	Dickinson County		Iowa		
	1997	2002	1997	2002	
Number of Farms	551	492	96,705	90,655	
Land in farms (acres)	210,180	203,174	32,313,119	31,729,490	
Land in farms - Average size of farm (acres)	381	413	334	350	
Approximate land area (acres)		243,878		35,756,387	
Proportion in farms (percent)		83.3%		88.7%	

Figure 23 -





With changing trends in farming experienced in Dickinson County, northwest Iowa, and the state, continued shifts in farming can be expected in the future. One of the criteria that will have a significant impact on future trends in the agricultural economy in Dickinson County is the value of agricultural land. The land value measure dictates to farmers and farm corporations how much equity they have in their land based against their debt and often times is the factor allowing agricultural operations to borrow funds for new equipment and operations.

## AGRICULTURAL LAND VALUES

Dickinson County is fortunate to have some of the most nutrient rich black topsoil in the state, therefore keeping land values higher than statewide averages. The following data explores the difference between agricultural land values between Dickinson County, the northwest Iowa district, and the state of Iowa as a whole. Dickinson County maintains a high level of agricultural land value due primarily to the natural presence of good topsoil rich in nutrients.

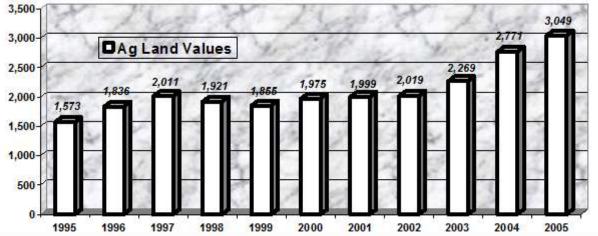
Year	Dickinson County (weighted avg.	District (NW Iowa)	Iowa (weighted avg.
	for all grades)	(weighted avg.)	for all grades)
2005	\$3,049	\$3,393	\$2,914
2004	\$2,771	\$3,118	\$2,629
2003	\$2,269	\$2,683	\$2,275
2002	\$2,019	\$2,434	\$2,083
2001	\$1,999	\$2,240	\$1,926
2000	\$1,975	\$2,198	\$1,857
1999	\$1,855	\$2,059	\$1,781
1998	\$1,921	\$2,174	\$1,801
1997	\$2,011	\$2,263	\$1,837
1996	\$1,836	\$2,071	\$1,682
1995	\$1,573	\$1,755	\$1,455

Table 7 - Dickinson County and Iowa Agricultural Land Values, 1995-2005

Source: SETA, Iowa State University - December 2005

This data originates from the Ag Land Values Survey which is conducted annually by the Iowa Agricultural and Social and Economic Trend Analysis at Iowa State University. The following figure shows an estimated 94 percent increase in agricultural land values between 1995 and 2005. Furthermore, dramatic increases have been experienced since 2002, beginning when land values jumped 12.4 percent between 2002 and 2003. This was followed by a significant 22.1 percent increase between 2003 and 2004. Finally, another 10 percent increase occurred from 2004 to 2005.

Figure 24 - 1995 to 2005 Agricultural Land Values



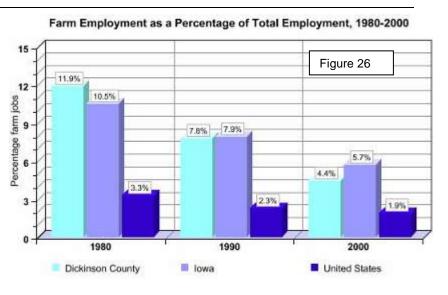
The map presented below depicts average land values across the State of Iowa during 2004. As indiciated on the map, it is clear to see that Dickinson County is situated amidst some of the richest, prime agricultural soils found across the nation. Northwest Iowa, on average, offers the highest land values found across the state.



Source: Iowa State University, University Exptension, 2005

#### FARM EMPLOYMENT

Farm employment in the United States represents a declining share of total employment. In 1980, the national percentage of jobs in farming was 3.3 percent. By the year 2000, the percentage of farm jobs had declined to 1.9 percent. Dickinson County's changing dependence on farm employment is illustrated below. County values are displayed over time and are compared to state and national averages.



#### Table 8 - Percentage Farm Employment

Year	Dickinson County	Iowa	United States
1980	11.9%	10.5%	3.3%
1990	7.8%	7.9%	2.3%
2000	4.4%	5.7%	1.9%

Source: www.seta.iastate.edu/takechage/, Iowa State University, 2005

## VALUE ADDED AGRICULTURE

In a 2004 report issued from the Iowa Agricultural and Home Economics Experiment Station, value added agriculture in Iowa has focused on working with producer groups and individual entrepreneurs to build long term economic, environmental and socially sustainable capacities. Emphasis has been on working with existing value-added groups, development of value chains, and working to develop quality systems to ensure food safety and accountability. Future value added programs being explored in Iowa, specifically in partnership with the cooperation of Iowa State University and the Iowa Agricultural Experiment Station, include capacity for building and training for value added agricultural groups, with a special emphasis on beginning farmers. Other efforts taking place include developing niche value markets for specialized products to assist producers in determining the highest market for their products.

## ALTERNATIVE ENERGY

## Wind Generation

From the site "www.itsgood4us", a great deal of information pertaining to alternative energy sources and its benefits is provided to consumers of energy. Wind energy is clean, renewable, pollution free and produced locally with no imports. Consistent, strong winds are located in the interior of the continent in places like north central Iowa, west Texas, South Dakota, etc. In the U.S., today, only 1% of the nation's energy is produced by the wind, compared to Denmark which produces 20%.

Dickinson County is no stranger to wind generation and harnessing this natural resource has provided economic development and environmentally respected opportunities in the county. Dickinson County was the location of one of Iowa's first wind generation projects in 1992 when the

Spirit Lake Community School District built a .25 MW wind turbine. The energy produced from this wind generator is sold to Alliant/IES Utilities. The school district felt they experienced enough success in the first wind turbine project, that in December 2001, a second wind generator was erected. This new wind turbine is larger and produces three times the amount of energy at .74 MW.

Dickinson County experienced wind generation on a grand scale when the county's first "wind farm" was planned and constructed in western Dickinson County in 2003. The Flying Cloud Wind Farm was constructed with 29 wind turbines producing 43.5 MW of energy. This \$55 million project is owned by PPM Energy and sells this clean energy to Alliant Energy. Furthermore, exciting news was announced in the Figure 27 - Photo of Flying Cloud Wind Farm near Lake Park



Photo courtesy of www.lakeparkia.com

summer of 2005 that Alliant Energy has plans to develop a 150 MW wind farm consisting of 60 wind generators. The proposed "Endeavor Wind Farm" will be located to the west of the Flying Cloud Wind Farm, near the Dickinson County/Osceola County border. The California based Clipper Windpower company will be developing the wind farm on behalf of Alliant. This new wind farm will be equipped with new state-of-the-art 2.5 MW wind turbines. Overall, the state of Iowa is listed as the tenth (10<sup>th</sup>) highest state in regards to wind generation potential. As of November 2005, Iowa produces 632 MW of wind energy, with an additional 302 MW being planned.

## Ethanol

According to iowacorn.org, there are fifteen (15) dry corn ethanol milling plants in production within the State of Iowa. Eight (8) more ethanol plants are either under construction or in planning phases. One of these ethanol plants being proposed for construction will be located in Dickinson County. The County Board of Supervisors recently approved the construction of an ethanol producing facility just west of the City of Superior in eastern Dickinson County. Only final approval from the Iowa Department of Natural Resources and the EPA are needed prior to breaking ground on this new and exciting value-added agricultural project in Dickinson County. The closest ethanol plants currently in production are Otter Creek Ethanol plant in Ashton (Osceola Co.) and Voyager Ethanol plant in Emmetsburg (Palo Alto Co.).

In the early days of ethanol, for every one unit of energy it took to plant, harvest and process ethanol, it had a negative "energy balance." However, since those days, steady improvements have been made in corn yield and efficiency of harvesting and ethanol processing. According to www.itsgood4.us, latest studies shows corn ethanol with a positive energy balance of 1:1.64; a 64% net increase in energy. Also, there are two developments that promise dramatically higher yield; sweet sorghum ethanol and cellulosic ethanol.

Modern gasoline engines are now set up to run E10. In Iowa, about 60% of the gasoline sold is E10. To use higher percentages like E85, engines need appropriate seals, hoses and engine settings (timing, etc.). Vehicles set up to run E85 have been selling for a number of years and are sold as "Flex Fuel" vehicles. Such vehicles have a fuel sensor in the fuel line to monitor the mix of gasoline and ethanol present and adjust the engine appropriately for the fuel being used. The stimulus for these vehicles being available was the 1992 EPA act that mandated government vehicle fleets use renewable fuels. There are people that have such "Flex Fuel Vehicles (FFVs) and are not even aware they can run E85. Currently, 33 gasoline stations across the state distribute E85 fuel. One such E85 pump in Dickinson County is located at the Cenex Pump 24 Express in Milford.

## Soy Biodiesel

Standard diesel fuel is made from petroleum, but is heavier and less refined than gasoline. According to www.itsgood4.us, biodiesel is a fuel suitable to run in diesel engines that is derived from contemporary sources of oil like soybean oil, canola oil (from rape seed) or even modern algae. Since biodiesel has not collected impurities over millions of years, it is a very clean and pure fuel source to burn. Biodiesel is so similar to petroleum diesel fuel that no modification to the diesel engine is required. Soy biodiesel is becoming readily available, yet it is far from being on every corner gas station. Several locations in Dickinson County will deliver soy biodiesel to the farm, including Farmers Cooperative in Terril, Farmers Exchange Coop in Lake Park, Star Energy in Milford, and the Great Lakes Cooperative in Milford and Superior. However, to purchase soy biodiesel at the pump for a car, truck, or other equipment will be a difficult endeavor. There are no pumps offering soy biodiesel in Dickinson County; the nearest available pump is at Houseman Oil in Estherville.

Biodiesel is no more toxic than table salt and more biodegradable than sugar. The EPA has classified biodiesel as a suitable clean up agent for petroleum spills. As expressed in the previous section, ethanol made from corn offers an energy balance of around 1:1.64 (a 64% gain in net energy), as of a USDA study in 2004. Accordingly, biodiesel made from soy oil has an energy balance of 1:3.24 (224% net energy gain) and a yield of 49 gallons per acre. Biodiesel made from rape seed (canola)

oil has an energy balance of 1:4.3 (330% net energy gain) and a yield of 127 gallons per acre. In 2004, an estimated 74 million acres of soybeans were harvested across the nation. At 49 gallons per acre, that is 3.626 billion gallons of potential soy biodiesel. In 2003, 23% of the fuel consumed for transportation was diesel fuel, or the equivalent of 39.8 billon gallons.

## X. NATURAL RESOURCES AND THE ENVIRONMENT

Surface water constitutes the single greatest reason why Dickinson County has become the wonderful natural resource and tourism region it is today. Surface water is also the reason for a large majority of Dickinson County's current economic prosperity and tourism industry. The surface waters influencing the county the greatest are Spirit Lake, West Okoboji Lake, East Okoboji Lake and Silver Lake. Spirit Lake is Iowa's largest natural lake, followed by West Okoboji Lake as the second largest natural lake. East Okoboji, the state's fifth largest natural lake is situated between Spirit Lake and West Okoboji Lake. Furthermore, there are several smaller marshes, fens, ponds, and sloughs located within Dickinson County. These smaller prairie ponds and marshes play an important role in the ecosystem and watershed drainage of the larger "lakes region" watershed.

## LAKES AND NATURAL RESOURCE AREAS

There are a myriad of lakes, public recreation and natural resource areas that make Dickinson County one of the most natural counties in Iowa. Thousands of years ago, glacial movement across northwest Iowa left many scattered wetlands, low-lying depressions, and unique geological features. Today, many of these areas are open and accessible to the public to be utilized by sportsmen, naturalists, and those who enjoy the outdoors.

Important to the whole of the lakes region, the bodies of water that comprise Iowa's Great Lakes, including Spirit Lake, West Okoboji Lake, East Okoboji Lake, Center Lake, Minnewashta Lake, Upper Gar Lake and Lower Gar Lake. The following information has been obtained through the Iowa Department of Natural Resources website in the fish and fishing section. Further data on these lakes and contour maps of each lake may be obtained by going to <u>www.iowadnr.com/fish/fishing/lakes.</u>

Lakes	Water Acreage	
Big Spirit	5,684	
West Okoboji	3,847	
East Okoboji	1,835	
Silver Lake	1,141	
Kettelson Hogsback complex	966	
Little Spirit	618	
Swan	396	
Lower Gar	273	
Center	272	
Grovers	241	
Diamond	166	
Minnewashta	126	
Prairie	109	
Pleasant	84	
Welch	75	
Upper Gar	37	
TOTAL:	15,870 acres	

Table 9 - Acreage of the Major Lakes in Dickinson County

The Iowa Department of Natural Resources owns and operates 38 public areas totaling 19,911 acres within Dickinson County. The name, location, and brief description of 28 of the state areas defined as lakes, marshes, or wetlands are listed below. The remaining 10 public recreation areas in Dickinson County are identified and described in the following chapter, "Parks and Recreation."

#### • Spirit Lake –

Spirit Lake is situated approximately 1 mile north of the City of Spirit Lake. At 5,684 acres, Spirit

Figure 28 - Aerial photo of Spirit Lake



Photo Source: Iowa DNR website – www.iowadnr.com

Lake is Iowa's largest natural lake. It is approximately 6 miles north/south and 4 miles east/west. Due to its circular shape and large open body of water, its 15.25 miles of shoreline is less that that of its neighboring lakes to the south. The average depth of Spirit Lake is around 17 feet with a maximum recorded depth of 24 feet. The northern edge of Spirit Lake borders the Iowa/Minnesota State line and a majority of its 34,471 watershed acres (approximately 75 sq. miles) are located in southern Minnesota. Spirit Lake offers two state parks and 4 public accesses to this popular fishing lake. Spirit Lake claims some 40 species of fish with 13 species of sport fish sought after by many outdoor enthusiasts.

## • Little Spirit Lake –

Little Spirit Lake is located to the northwest of Spirit Lake and is considered an Iowa/Minnesota border lake. This means that approximately the southern 40% of the lake is situated in Iowa and the northern 60% is in Minnesota. The lake is 618 acres in size and offers 10.1 miles of shoreline. A shallow lake, Little Spirit is only 6 feet deep on average with its deepest point of 10 feet. Since Little Spirit is a border lake, anglers must comply with Minnesota bag limits and fishing seasons as well as Iowa's fishing regulations.

## • West Lake Okoboji –

West Lake Okoboji is located to the south and west of the City of Okoboji and northwest of the City of Arnolds Park. West Lake is the largest of a chain of five connecting lakes, which is considered part of Iowa's Great Lakes. According to information obtained from the Iowa Department of Natural Resources (IDNR), West Lake Okoboji is comprised of 3,847 surface acres of water with an average depth of 38 feet and maximum depth of 136 feet. There are 19.8 miles of shoreline





Photo Source: Iowa DNR website – www.iowadnr.com

around West Lake and the natural drainage basin is fed by 13,668 acres of land or approximately 22 square miles. Three State Parks are located along the shores of West Lake, including Pillsbury Point, Gull Point, and Pike's Point that is located adjacent to the City of Okoboji's northern city limits. West Lake Okoboji is considered a blue water lake formed by glacial movements retreating north, and is only one of three blue water lakes in the world. More than 47 species of fish can be found in West Lake, with approximately 11 species of popular sport fish.

#### • East Lake Okoboji –

East Lake Okoboji is the other natural lake delineating the City of Okoboji's eastern city limits. East Lake and West Lake Okoboji meet at the Highway 71 viaduct where the cities of Okoboji and Arnolds Park also meet. East Lake is a 1,835-acre lake with an average depth of 10 feet and a maximum depth of 22 feet, according to IDNR data. Of the 16.8 miles of East Lake shoreline, only 6 percent is state owned and about 85 percent is developed. In 2002, the northeast shore of East Okoboji was dedicated as one of Iowa's newest state parks. The Elinor Bedell State Park offers access to fishing from shore, camping, picnicking, and playground facilities. The lake's watershed is comprised of 12,212 acres or approximately 19 square miles.





#### • Center Lake –

Center Lake, for its namesake, is located between the northern halves of West Okoboji and East Okoboji lakes. This lake is a small shallow natural lake of 272 acres with an average depth of nearly 10 feet and a maximum depth of 15 feet. Although the entire northeastern shoreline, located in the City of Spirit Lake, has been developed, public lake access remains good at Center Lake with approximately 25% of its 4.7 miles of shoreline as timber and wetlands.

## • Minnewashta Lake –

This lake is the second is a string of three small lakes located on the south edge of East Okoboji Lake eventually leading to the outlet creek of the Iowa Great Lakes. Minnewashta is 126 acres in size with 2.3 miles of shoreline. The Lake is located in the City of Arnolds Park to the south of Okoboji. Average depth of Minnewashta is 10 feet with the deepest point of 16.5 feet. Most anglers fishing Lake Minnewashta are in search of its bass and panfish populations.



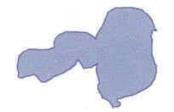
#### • Upper Gar Lake –

Upper Gar Lake connects the south bay of East Okoboji Lake to Minnewashta Lake. At 37 acres, Upper Gar is the smallest of the Iowa Great Lakes chain. This lake is basically a shallow channel connecting two larger bodies of water. The average depth of Upper Gar is 3.5 feet, therefore warranting a maximum 5-mph speed limit on the lake.

#### • Lower Gar Lake –

The southernmost lake in the entire Great Lakes chain, Lower Gar is a large shallow lake with the outflow creek existing at the southwest corner of the lake. Lower Gar is comprised of 273 surface acres; however the average depth of the lake is 3.6 feet. During years with low water levels it can be difficult for boat traffic to navigate the shallow muddy waters. Lower Gar does drain a sizable 11,374 acre watershed primarily from the Spring Run wildlife management area.





#### Silver Lake -

The largest lake in the western third of Dickinson County, Silver Lake is a 1,141 acre natural lake located along the southwest edge of the City of Lake Park. The lake is surrounded by timber and marsh, and adjoins Silver Lake Fen.

## Swan Lake -

The largest lake in the eastern third of Dickinson County, the Swan Lake complex is located 2 miles north of the City of Superior and is 396 acres in size. Swan Lake area is 90 percent shallow lake-marsh with the remainder upland timber.



#### • Diamond Lake –

This small lake is located approximately 2 miles north of West Lake Okoboji in Dickinson County. Diamond Lake is 166 acres and used primarily by waterfowl enthusiasts for hunting in the fall. Some people also use the small lake for canoeing and other outdoor recreational activities. The entire area consists of 563 acres of water, timber and upland.

#### • Welch Lake –

This lake is also located nearly 2 miles north of West Lake Okoboji, near Diamond Lake. Welch Lake is a small shallow natural lake utilized by the Iowa Department of Natural Resources, Spirit Lake Fish Hatchery as a walleye rearing lake. The fish hatchery will take walleye fry and raise them to approximately 3-4" fingerlings before releasing them across Iowa's other lakes.

Grovers Lake -

This area is located 6 miles northwest of the City of Spirit Lake and covers 241 acres. The area is comprised of lake, marsh, prairie and timber.

#### • Spring Run Complex/ Wildlife Management Areas -

The Spring Run complex is comprised of 3,160 acres, of which nearly a third is surface water or marshland and the remaining two-thirds are in upland acres. This large complex of land is located one mile east of East Okoboji Lake. There are three small lakes located in Spring Run, with Prairie Lake being the largest, followed by Lily and Pleasant Lakes. The latter two lakes are heavily covered with aquatic vegetation and primarily used by waterfowl enthusiasts during the fall hunting seasons. Spring Run, along with the three small lakes and many marshes play an important role in the drainage of the watershed into East Lake Okoboji. This natural filtration system for storm water runoff and erosion control plays a critical part in the stability of the entire lake's area ecosystem.

#### - Prairie Lake

This two-thirds marsh-lake, one-third prairie-timber area is 109 acres in size and located 2 miles east and 1 1/2 miles south of the City of Spirit Lake.

#### - Pleasant Lake

Located 2 miles east and 1 mile north of the City of Arnolds Park, this 84-acre area is comprised of four-fifths shallow lake and marsh and one-fifth upland.



## • Kettelson Hogsback Complex –

This large natural area offers more than 2,000 acres of primarily marsh and upland with some areas of timber and native prairie. The complex is located just to the west of Spirit Lake. A series of small lakes including Hottes, Marble, McBreen, Timber and Sunken lakes are all located within the Hogsback area west of Spirit Lake. Similar to the natural benefits of the Spring Run complex, this area serves in the same environmental capacity to the Spirit Lake watershed.

## Christopherson Slough -

Comprised of 3/4 marsh and 1/4 open timber, Christopherson Slough, which is 535 acres in size, is located 3 miles north of the City of Superior.

## • Jemmerson Slough Complex –

This area to the north of West Lake Okoboji and adjacent to the City of Spirit Lake is the smallest of the natural resource areas around the Iowa Great Lakes region. At 932 acres of marsh and upland acres, Jemmerson Slough has about 300 acres of surface water that is heavily covered with wetlands vegetation and provides solitude for thousands of waterfowl, birds, and small animals. With access to the public, the area does experience quite a bit of hunting pressure during the fall of the year.

## Cory Marsh -

This area is entirely marshland and comprises 41 acres 2 miles east and 1 mile north of the City of Lake Park.

## • East Okoboji Slough -

This 2-acre marsh area is located 1/2 mile west of the City of Orleans.

Garlock Slough -

Located 1 mile north and 1 1/2 miles west of the City of Milford, this 202-acre area is roughly half marsh and half upland prairie.

## • Hale's Slough -

This marsh area is located 2 miles north of the City of Orleans and is 85 acres in size.

## Trickle Slough -

This area, which is 19 acres in size, is located 4 miles northeast of the City of Orleans and is made up entirely of grassland marsh.

• Yager Slough -

This 56-acre marsh is located 3 miles southeast of the City of Lake Park.

#### Henderson Woods Area -

Timber makes up this entire 18-acre area, which is located directly east of the connection of Minnewashta and Lower Gar Lakes, near the City of Arnolds Park.

- Iowa State Preserves(near the Iowa Great Lakes) -
  - 1. <u>Cayler Prairie</u>, A wet prairie and marsh area of 160 acres located approximately 3 miles west of West Okoboji Lake. The irregular landscape of this prairie was formed by the retreat of glacial ice. As the ice melted, it formed potholes and ridges.

- 2. <u>Freda Haffner Kettlehole</u>, is a 110 acre preserve located 2 miles southwest of West Lake Okoboji. This area owned and managed by the Nature Conservancy of Iowa contains two kettleholes, which are formations resulting from where a large piece of glacial ice broke off and melted, creating a gravelly deposited wetland.
- 3. <u>Silver Lake Fen</u> is one of many natural fens in northwest Iowa. This 10 acre fen was dedicated as a State Preserve in 1972. Fens are water-saturated peat deposits fed by underground aquifers discharging at the surface.

## LANDOWNERS OPTIONS (for protection of natural resources)

For those individuals, families, or estates who own property within Dickinson County the Iowa Natural Heritage Foundation offers property owners an option to have the natural heritage or pristine natural environment on their property protected forever, just as it was when they bought the land and lived there. As outlined in a pamphlet from the Iowa Natural Heritage Foundation, there are four primary ways to protect and continue good land stewardship perpetually.

The most popular and permanent way of protecting natural land while being able to remain living on the property is through **Conservation Easements**. The land remains in individual ownership and can even be passed down to future generations; however, the easement places certain restrictions upon the land. For instance, property owners can choose to set aside the development rights to ensure the property will always be farmed or left in a natural state. Limitations are stated in the agreement and tailored to suit the needs of the property and the landowner as well. The protection afforded by Conservation Easements is permanent and legally binds all present and future owners of the land. According to the Iowa Natural Heritage Foundation, "Iowa Law (<u>Iowa Code, Chapter 457A</u>) allows the Department of Natural Resources, any county conservation board and any city in Iowa to hold a conservation agreement. Many other federal, private, and non-profit organizations are also able to hold conservation easements."

As also outlined in the Natural Heritage Foundation's pamphlet, the remaining three methods of leaving a legacy of land to the environment for future use and enjoyment include:

- Bequest for Conservation
- Donation with Reserved Life Estate
- Bargain Sale

For those people wishing to protect the nature of the land and environment on their property, but wish to control ownership of the property, there are also options available. Specifically, mutual convenants, leases, and preserve dedications work well. Donating land for conservation purposes can be achieved through land for trade, donation to establish a lifelong income, donation of a partial interest, and donating land as payment of inheritance tax are proposed alternatives. Finally, individuals who may wish to simply sell their land for conservation have the option of selling their land at fair market value, an installment sale, or sale with reserved life estate. For more information or for confidential advice on land protection, contact Mark Ackelson, President of the Iowa Natural Heritage Foundation in Des Moines, Iowa.

#### STORM WATER MANAGEMENT

In an article published in the July 2001 issue of <u>Source Water Protection Practices Bulletin</u>, by the United States Environmental Protection Agency (EPA), the management of storm water runoff is discussed in regards to prevention of drinking water contamination. For clarification purposes, the EPA describes 'Storm water runoff' as: "rain or snow melt that flows off the land, from streets, roof tops, and lawns. The runoff carries sediment and contaminants with it to a surface water body or infiltrates through the soil to groundwater."

During storms and heavy periods of rainfall, storm water travels across impervious surfaces collecting contaminants and ground sediment, eventually transporting them to water bodies (i.e. streams, rivers, ponds, lakes, etc.). Storm water is also intentionally directed into bodies of water through storm water drainage systems. Storm sewers are used to divert water away from streets, parking areas, rooftops, and other impervious services channeled through a series of piping eventually leading to a storm water collection basin or directly injected into a water body.

The EPA wants the public to know that non-point source pollution, including storm water runoff is one of the most important sources of contamination of the nation's waters. As stated in the article, "According to a nationwide survey, 77 of 127 priority pollutants were detected in urban runoff." These pollutants or contaminants can range from heavy metals to toxic chemicals, pesticides and herbicides, sediments, organic compounds, and other various substances. The EPA points out several storm water management practices that help to alleviate direct storm water discharge into water bodies and allows a more natural dissolution of storm water runoff.

Suggested storm water management control practices include:

- Land Use Controls zoning and subdivision regulations can be utilized to keep encroaching developments from impeding upon nearby drinking water sources or ground water recharge areas (i.e. natural wetlands, marshes, small streams or creeks).
- Minimizing Directly Connected Impervious Areas the reaction of water moving from one impervious surface to the next causes increased retention of sediment and contaminants into water bodies. For instance, water runoff from rooftops should be directed over grass instead of concrete. Porous designs in large expanses of parking lots or roads also promote infiltration of storm water.
- **Structural Designs** are designed to create manmade areas that retain or hold storm water runoff and allow for proper ground infiltration. Examples of structural designs are:
  - Grassy swales Buffer strips
  - Filter strips Storm water ponds (wet ponds)
- **Constructed wetlands** are similar to wet storm water ponds, however, they contain much more aquatic vegetation and natural plantings around the wetland. Constructed wetlands treat and retain storm water runoff and generally have less natural biodiversity than natural wetlands.
- Infiltration Basins and Trenches are long narrow stone-filled trenches, 3 to 12 feet deep where storm water runoff is stored and slowly infiltrates into the soil below, where filtering between the rocks and soil also helps to remove pollutants.

## **URBAN CONSERVATION PRACTICES**

Information obtained from a 2004 Natural Resource Conservation Service booklet titled Conservation Strategies for Growing Communities suggests there are several urban conservation practices that could be simply accommodated during pre-construction, construction, and post construction to make a remarkable difference in the amount of storm water runoff being allowed to infiltrate and pollute local waterways. Following is a listing of suggested management practices to support urban conservation and eliminate unnecessary storm water runoff.

**Soil Erosion** – erosion is a three step process involving the detachment, transportation, and deposition of soil particles.

Types of Soil Erosion:

- 1. Sheet and Hill Erosion 2. Gully Erosion
- 3. Stream Bank Erosion
- 4. Wind Erosion
- **Erosion Control Practices** after construction, the planting of fast growing vegetation such as grasses and wild flowers can prevent the runoff and erosion of construction sites caused by heavy rainfalls.

Erosion Control Practices:

- Compost Blankets
  Grading Strategies
- 4. Rolled Erosion Control Products
- 5. Vegetative Establishment
- 3. Mulching
- Sediment Control Practices is often confused with erosion control, but is actually the trapping of detached soil particles that are already moving in the erosion process.

Sediment Control Practices:

- 1. Compost Filter Berms
- 2. Compost Socks
- 3. Filter Strips
- 4. GeoRidge

- 5. Inlet Protection Devices
- 6. Rock Check Dams
- 7. Sediment Control Basins
- 8. Silt Fences
- Low Impact Development (LID) is an alternative approach to traditional storm water management that retains and infiltrates rainfall on-site.

Low Impact Development Practices:

- 1. Bioretention Cells
- 2. Bioswales
- 5. Permeable Paving Alternatives
- 6. Rain Gardens 3. Infiltration Trenches
  - 7. Soil Quality Restoration
- 4. Native Landscaping
- In the State of Iowa, the Department of Natural Resources (IDNR) does have measures in place to monitor and regulate storm water runoff and discharges through its use of storm water discharge public notices on projects. Furthermore, in accordance with the Clean Water Act, all industrial facilities must complete a National Pollutant Discharge Elimination System (NPDES) permit prior to construction of storm water drainage systems.

However, the measures implemented by the State have not resulted in appropriate steps to control all inflow of contaminants and sedimentation into the Iowa Great Lakes. According to the IDNR's 2002 Impaired Waters list, two lakes in Dickinson County are affected. Little Spirit Lake in northern Dickinson County was listed for turbidity and algae problems with a medium priority. Also, Upper Gar Lake south of East Okoboji Lake was cited for having a noxious aquatic plant problem resulting in a high priority rating from the State. This is an improvement though, because according to the 1998 list, Lower Gar Lake was also listed as impaired water due to its turbidity and high siltation

## PROTECTIVE/ENVIRONMENTAL ORGANIZATIONS

With the proliferation of recreational activities, natural resources, and tourism activities occurring within the Iowa Great Lakes region of Dickinson County, there is an abundance of special interest groups offering opinions on how best to manage, preserve, and enhance the lakes' resources. There are many individuals, both permanent and seasonal residents of Dickinson County who take a vested interest in the best possible utilization and protection of both the Iowa Great Lakes and supporting watershed. Below is a listing of fifteen organizations looking out for the protection of Dickinson County's natural resources.

- Center Lake Association
- Clean Water Alliance
- Conservation Foundation of Dickinson County
- Ducks Unlimited (Dickinson County Chapter)
- Friends of Lakeside Labs
- East Okoboji Lakes Improvement Corporation
- Inter Lakes Association (all IGL protection associations)
- Iowa Great Lakes Water Safety Council

- Iowa Lakes Association
- National Water Safety Congress
- Okoboji Protective Association
- Okoboji Yacht Club
- Pheasants Forever (Dickinson County Chapter)
- Spirit Lake Protective Association
- Three Lakes Improvement Association

## NATURAL RESOURCE CONSERVATION SERVICE (NRCS) CONSERVATION PROGRAMS FOR LANDOWNERS

The Natural Resources Conservation Service (NRCS) provides: "*leadership in a partnership effort to help people conserve, maintain, and improve our natural resources and environment.*" The NRCS works through county soil and water conservation districts to protect and improve natural resources across the state. Primary areas of assistance and programs include:

- 1) Conservation Technical Assistance
- 2) Conservation Compliance Plans
- 3) Wetlands
- 4) Water Quality
- 5) Resource Conservation and Development (Iowa NRCS has 14 RC&D areas)
- 6) Soil Surveys
- 7) Watershed Program
- 8) CORE 4 (common-sense approach to improving farm profitability while addressing environmental concerns)

In addition to the eight primary fields of technical assistance listed above, the Iowa NRCS is known for its grants and financial assistance programs to assist private landowners implement conservation

practices intended to protect the environment, encourage conservation efforts, and educate the public and private sectors on means to sustain, protect, and revive the fragile native landscapes found across the state. The NRCS and local SWCD staff serving Dickinson County are located at the local USDA Service Center. Numerous other organizations and agencies provide conservation assistance or programs, including local Pheasants Forever Chapters, Ducks Unlimited, the Nature Conservancy, the Iowa Natural Heritage Foundation, Iowa State University Extension, and Resource Conservation and Development offices.

Following is a brief summary of the technical assistance programs identified in NRCS's "Guide to Conservation Programs for Iowa Landowners." This guide is a reference to financial and technical assistance for conservation on private lands.

#### Conservation Technical Assistance:

Assists land users to plan and install resource management systems to improve/protect natural resources on their land.

#### Environmental Quality Incentives Program (EQIP):

Assistance to landowners to develop and implement conservation plans addressing specific natural resource concerns.

#### Conservation Reserve Program (CRP):

Reduces erosion, increase wildlife habitat, and improve water quality through the application of conservation plans.

#### Forest Land Enhancement Program (FLEP):

Assists landowners to develop and implement a forest management plan.

#### Conservation Security Program (CSP):

Rewards landowners for past conservation work and provides assistance to help develop conservation plans.

#### State Cost-Share:

Cost-share & incentives on permanent or management conservation practices to control erosion and reduce sediment.

#### State Watershed Protection Practices:

Addresses local water quality protection needs, including tree plantings, conversion practices, and erosion control.

#### Iowa Water Protection Fund:

Water quality improvement practices in watersheds above priority lakes and streams, and to protect ground water.

#### Iowa District Initiative:

Provides funding to accelerate the implementation of federal conservation programs to protect water quality/fragile land.

#### State Loan Program:

Provides no interest loans to eligible landowners for the construction of permanent soil conservation practices.

#### Local Water Protection Loan Program:

Permanent soil conservation practices designed to improve water quality and prevent water runoff from open feedlots.

#### Wastewater Assistance Fund:

Provides low interest loans to repair or replace on-site septic systems. Landowners may borrow \$2,000 to \$10,000.

#### **Conservation Reserve Enhancement Program:**

Provides incentives to landowners to establish wetlands for water quality improvement in tile-drained regions of Iowa.

#### Shelterbelt Program:

Provides funding for tree and shrub planting for energy conservation and wildlife habitat.

#### Farm Pond Program:

Provides quality fishing opportunities for licensed anglers. IDNR provides fish free of charge if state criteria are met. *General Non-Point Source Program (Low-Interest Loans):* 

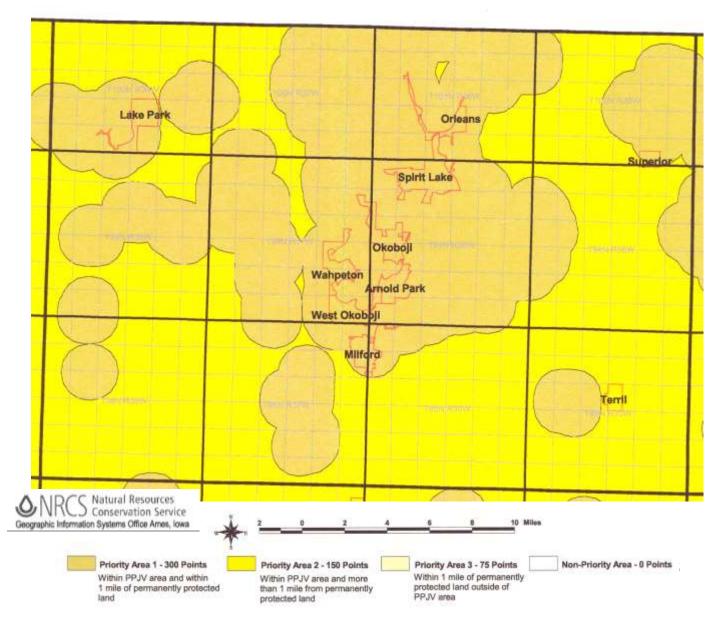
Includes restoration of wildlife habitat, stormwater management, storage remediation, and flood prevention areas.

#### Livestock Water Quality Facilities Program (Low-Interest Loans):

Includes lagoons, manure management, processing equipment, vegetative filters, and manure management plans.

#### Wildlife Habitat Incentives Program (WHIP)

WHIP is a voluntary program that provides cost share to private and public landowners to establish wildlife habitat. The Natural Resources Conservation Service (NRCS) works with participants to develop a wildlife habitat management plan. This plan becomes the basis for entering into a 5 to 10 year agreement with landowners to implement the plan. Projects establishing habitat for threatened and endangered species or declining species receive a higher priority. Applications are accepted through a continuous signup process at the local NRCS office. Financial assistance may include up to 60% of restoration costs, to a maximum of \$25,000. Other organizations may provide the remaining 40% cost-share.

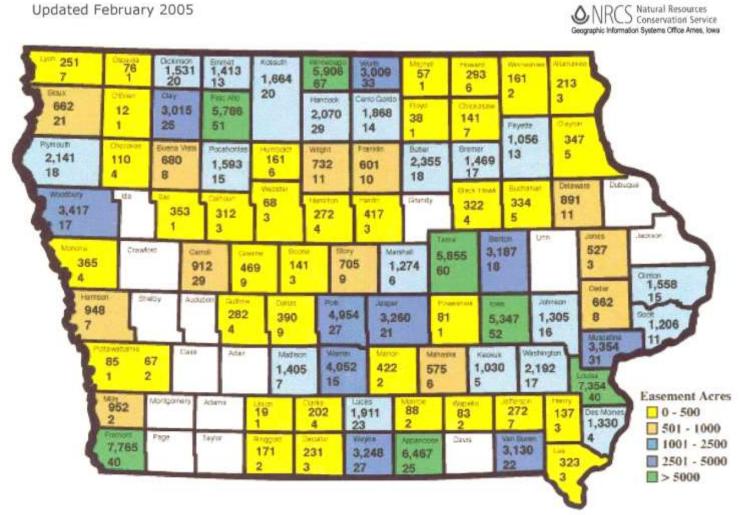


#### WETLAND PRIORITY AREAS - DICKINSON COUNTY, IOWA

#### Wetlands Reserve Program (WRP):

To develop and implement a conservation plan for restoration of wetlands previously altered for agricultural use. Land that has been owned for one year and that could be restored to wetland conditions. Landowners may restore wetlands with permanent easements, 30 year easements or 10 year contracts. Permanent easements pay 100% of the agricultural value of the land and 100% costshare for restoration; 30 year easements pay 75% of the agricultural value and 75% cost-share for restoration; 10 year contracts pay 75% cost-share of restoration only. Wetlands were restored, enhanced or created on 6,377 acres in Iowa during FY 2004 with assistance from the Wetlands Reserve Program (WRP). Over 126,000 acres of wetlands have been restored or are in the process of being restored under these programs in Iowa since 1992.

### WETLAND EASEMENTS AND ACRES - STATE OF IOWA 1992-2005



Dickinson County – 1,531 Wetland Reserve Program Acres 20 Wetland Reserve Program Easements

Updated February 2005

**Top Figure Reflects Acres.** Bottom Number Reflects Easements.

# XI. PARKS & RECREATION

Dickinson County offers abundant and varied recreational areas and parks. The county is home to the Iowa Great Lakes, a series of natural lakes that offer all sorts of water based recreational activities. Additionally, many marshes and prairie areas cater to the desires of sportsmen, hikers, and nature lovers. The county provides access to many of these areas via the Dickinson County trail system, yet another recreation facility.

Recreational resources provide many benefits and amenities to an individual's, family's, and the county's quality of life. For Dickinson County to present an attractive and beautiful setting for residents to live in and guests to visit, it must have a sound system of parks and a variety of recreational activities. The county



maintains a strong parks system, and there are many active and passive recreational areas in Dickinson County. However, these "green" amenities cannot afford to remain static. As the composition of the county changes over time, so must the parks systems change to meet new demands. To better indicate the quantity and variety of recreational opportunities, an itemized listing of each county and state facility, citing each site's size and the facilities available is included below.

# COUNTY PARKS AND RECREATION AREAS

#### Horseshoe Bend Recreational Area

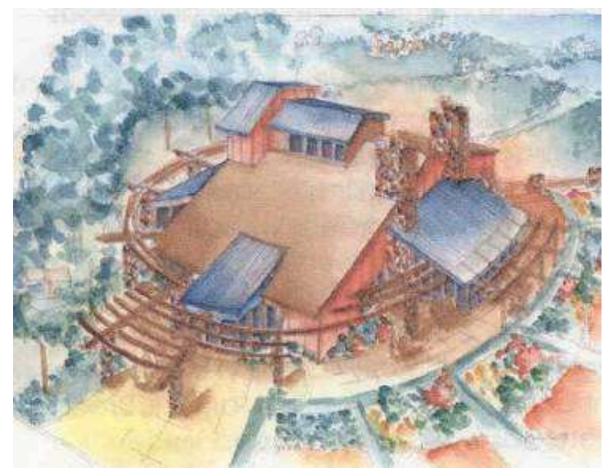
At 180 acres, Horseshoe Bend is the largest of Dickinson County's county parks and recreation areas. Horseshoe Bend is located approximately 3.5 miles southwest of Milford, nestled down in the Little Sioux River valley amongst the hills and valleys. This park offers 5 non-electric campsites, drinking water, and flush toilets. There is an enclosed shelter house available for rent to the general public. Activities at Horseshoe Bend include biking, hiking, snowmobiling, and skiing. Horseshoe Bend is most widely recognized for its winter activities of skiing, sledding, and tubing down its steep and fast hills, with a tow device for an easy lift back to the top. Horseshoe Bend becomes alive with activity during the winter, especially after a heavy snowfall. During the summer months, Horseshoe Bend is an activity center of river fishing and a designated canoe access site for the Little Sioux River.

# Kenue Park

Located in the heart of the lakes region, adjacent to Okoboji's northern city limits, Kenue Park receives a great deal of use from local residents and tourists alike. This 45-acre natural park offers guests an opportunity to experience some of the original land uses surrounding the Iowa Great Lakes, including a recently restored wetland, natural plantings, prairie areas, and an overlook on top of a glacial kame (hill formation). Other amenities of the park include picnic tables, drinking water, flush toilets, and a physical fitness/exercise course. A turn of the century rural schoolhouse is located on the grounds, open during the summer months and operated by local volunteers. The Conservation Commission hired a consultant to begin a feasibility study in 2004 of how to improve and implement new design changes and amenities into Kenue Park. Anticipated future changes occurring at Kenue Park may include the addition of more restored wetlands, new native prairie plantings, and trying to

create a natural/original prairie atmosphere. The study will also take into consideration the historic, current, and proposed land uses of the entire Kenue Park recreation area. During the summer of 2003, the Dickinson County Conservation Commission purchased an old restaurant and relocated it to a site adjacent to Kenue Park in anticipation of becoming the new Dickinson County Nature Center.

Figure 30 - Proposed Dickinson Co. Nature Center (next to Kenue Park)



The Dickinson County Nature Center (DCNC) will serve as a resource center, the center of a web of history and technology with links to site, community, regional, and national resources. As an "innovative learning ground", it will become a symbol of what this land once was, and what it has become. An overall theme adopted for the new DCNC is "*IF THE LAND COULD TALK WHAT WOULD IT SAY?*" The Nature Center Gardens will embrace the building and offer an entry to the site. These gardens represent a transition between the sustainable design of the building and the embedded history of the land. Key elements designed into the proposed future DCNC include a natural stone entry drive off of 170<sup>th</sup> Street, established prairies and oak savanna, rain gardens, and natural flowering trees. Once arrived at the building site, a series of dioramas will welcome visitors and lead them into the building. Visitors will step into a completely refurbished building and experience the openness and connection to the exterior through a series of several large windows. Periscopes help visitors view nearby sustainable practices already in place.

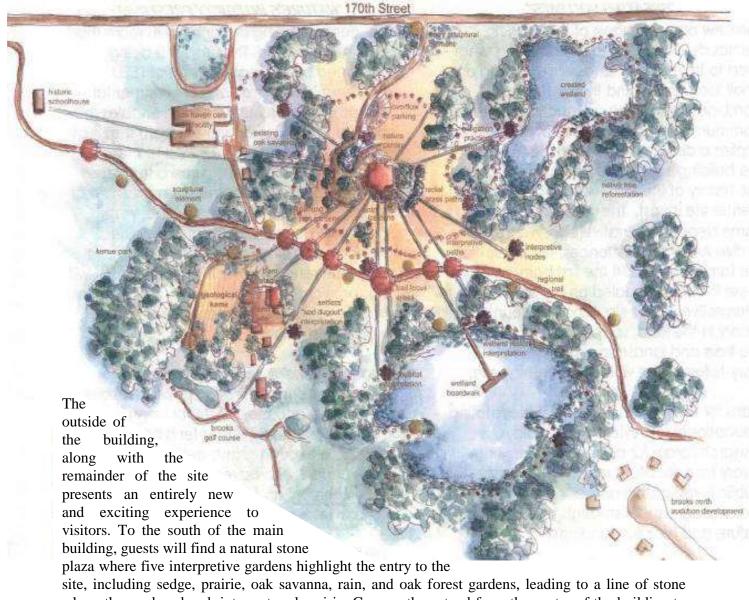


Figure 31 - Dickinson County Nature Center "Master Plan" for proposed facility improvements, 2005-2010

site, including sedge, prairie, oak savanna, rain, and oak forest gardens, leading to a line of stone where the gardens break into restored prairie. Grass paths extend from the center of the building to the interpretive paths across the site. The Dickinson County Nature Center will establish an innovative learning ground for years to come, and tell a story of what the land once was and the wonderful value it holds for the residents and visitors to Dickinson County. People can learn from the land and rediscover personal connections with nature.

The DCNC is being designed with more than just nature in mind. The entire project is being designed to comply with the requirements of LEED (Leadership in Energy and Environmental Design). This concept of sustainable design enables the project to become a showcase of low impact development and an example of what people can do to help sustain and maintain quality land, water, and air. The DCNC will incorporate using recycled materials and alternate renewable energy resources.

### Judd Wildlife Area

This wildlife public recreation area is Dickinson County's second largest county park at 156 acres. Judd Wildlife Area is located approximately 4.5 miles south of Milford or 1 mile south of Horseshoe Bend. Judd contains 55 acres of native prairie and offers residents of Dickinson County upland and waterfowl hunting opportunities. The remainder of the land at Judd Wildlife Area consists of river bottom and timber. River fishing and canoeing opportunities also exists at Judd Wildlife Area because of its proximity next to the Little Sioux River.

#### Orleans Beach Area

Although located within the City of Orleans, the public beach, park, and parking lot located next to the State spillway are actually a Dickinson County park. The Orleans Beach consists of 2 acres and offers its guests drinking water and modern restroom facilities. The beach is accessible by automobile, biking, walking, or boat. Aside from the beautiful sandy beach, there is playground equipment to keep the children occupied and park benches.

#### Spring Run Shooting Range

Similar to the arrangement with Orleans Beach, the county operated Spring Run Shooting Range is located in the middle of the 1,600 acre State owned Spring Run wildlife management area. The shooting range is located 3 miles southeast of Spirit Lake and consists of 5.5 acres. The activities occurring at this county park are primarily limited to those practicing their marksmanship at the shooting range.

#### Spooky Hollow Canoe Access

This County Park is the smallest of Dickinson County's county parks at <sup>1</sup>/<sub>4</sub> acre. The Spooky Hollow site is a canoe access and parking area for those river enthusiasts wishing to launch or land their watercraft. Spooky Hollow access is located 3 miles west of Milford, north of County Hwy. A-43.

#### Superior Marsh

Superior Marsh is a county park consisting of 40 acres located along the Dickinson/Emmet County line about one and one-half miles northeast of Superior. Superior Marsh does not retain much in the way of traditional park amenities. Rather, the marsh is a natural wetland and upland wildlife area that presents an excellent opportunity for waterfowl and upland hunters or bird watching enthusiasts.

#### Twin Forks Canoe Access

Similar to Spooky Hollow access, the Twin Forks access is also a mere quarter-acre in size, but provides a point of entry or exit to the Little Sioux River along with parking for vehicles. Canoeing and fishing dominate the activities that take place at the Twin Forks access.

#### Westport Park

Westport is a county park of 6 acres in size located 9 miles west of Milford on County Hwy. A-43 and one mile south. At Westport Park, picnicking facilities are available for public use along with fishing on a 2-acre pond.

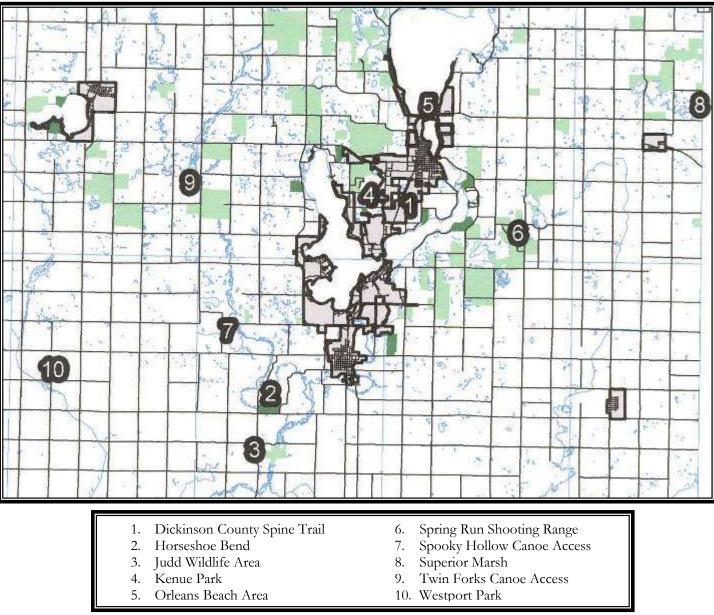


Figure 32- Dickinson County Conservation Commission - Parks and Recreation Areas

Source: Outdoor Adventure Guide, Iowa Association of County Conservation Board's, 2002

# STATE PARKS

A total of ten (10) state parks are located in Dickinson County. This accounts for 14.1% of the 71 state parks in the State of Iowa. However, of the ten parks in Dickinson County, only 4 of the 10 are located within the unincorporated portion of the county. The remaining six state parks are located in one of the county's nine communities. Below is a summary of the four state parks located within the rural portion of Dickinson County.

### Elinor Bedell State Park

Elinor Bedell State Park is Iowa's newest state park. It is located along the northeastern shores of East Okoboji Lake and represents one of the last remaining open spaces in Iowa's number one tourism destination. The eighty (80) acre park was created through a generous gift from Berkley and Elinor Bedell, lifelong residents of the great lakes area and founder of Pure Fishing, Inc. (fishing lure and accessories manufacturer). Elinor Bedell State Park promotes an appreciation and enjoyment of natural prairies, wetlands, and oak savanna landscapes which once dominated the scenery in Dickinson County. An extensive trail system links these restored landscapes providing the public with interpretation, education and recreational experiences.

There is a campground with eight RV campsites with full hookups. There are modern restrooms and a dumpsite. Each campsite has a picnic table and fireplace. Another highlight of the Bedell State Park is the Shelby Duis memorial playground. A child friendly playground designed to be a safe and fun environment for small children. Next to the playground, overlooking East Okoboji Lake, is a shelter house for rent that includes a kitchenette, bathrooms and fireplace.

#### Mine-Waukan State Park

Mini-Waukan is located along the northern shores of Spirit Lake in northern Dickinson County. This State Park is situated adjacent to the Iowa/Minnesota state line. Mini-Waukan provides a public and full access boat ramp and dock in its 20 acre site. Also, there is a shelter house, restrooms, and picnic facilities for public use. Mini-Waukan does not have any campsites on the grounds.

#### Pikes Point State Park

Located adjacent to Okoboji's northern city limits along Lake Shore Drive, Pikes Point State Park presents area residents and visitors to the area a wonderful beach and playground area along the northeast shores of West Okoboji Lake. Pikes Point is a relatively small state park at 15 acres, but offers guests picnic tables, grills, a shelter house, playground equipment for children, and several hundred feet of West Okoboji beach. The beach is an unsupervised swimming area. Opportunities are also available for shoreline fishing along the point.

#### Claire Wilson State Park

Claire Wilson Park is the smallest state park in Dickinson County and likely in the entire State of Iowa. Located on the isthmus between Okoboji and Arnolds Park, Claire Wilson Park is a small parcel of land located between U.S. Highway 71 and the old railroad. Neither the cities of Okoboji or Arnolds Park want the land as part of their communities, so this area ended up being developed into a park which the Dickinson County Conservation Commission maintains on behalf of the state.

The remaining six state parks in Dickinson County are:

- Emerson Bay State Park located along the southwest shore of West Okoboji Lake in the City of West Okoboji. This 12-acre modem camping facility provides users with a trailer dumping station, 60 electric and 57 non-electric camping sites, and access to an unsupervised swimming area.
- Lower Gar Access State Park located along the western shore of Lower Gar Lake in the City of Arnolds Park.

- Marble Beach State Park located along the western shore of Spirit Lake in the City of Orleans. This area which adjoins Spirit Lake is composed of open timber and grasslands. The area is 64 acres in size and is located 2 miles northwest of the City of Orleans. The area also contains 100 electric campsites and 124 non-electric sites with a trailer dumpsite as well. Activities within the area in addition to camping include adjacent boat rental service, boat launching area, hunting and snowmobiling.
- Templar Park State Park located along the southwestern shore of Spirit Lake in the City of Orleans.
- Trappers Bay State Park located along the northern shore of Silver Lake in the City of Lake Park. This 57-acre area adjoins the City of Lake Park, and provides access to Silver Lake and snowmobiling areas.
- Gull Point State Park Gull Point is the most widely recognized state park in Dickinson County and likely the State of Iowa. By far the largest state park in Dickinson County at 156 acres, Gull Point offers 112 campsites, 60 with electrical hookups. One of the main features of Gull Point is the 1930's era lodge built by the Civilian Conservation Corps. This lodge is the largest such facility in the state and will accommodate up to 140 people. This facility is a wonderful setting for group functions such as reunions, weddings, and other such parties. Other highlights of Gull Point are the self-guided interpretive trail and public beach.

Other park or recreational areas owned and maintained by the State of Iowa in Dickinson County include:

- Abby Gardner Sharp Cabin and Cemetery This is the original cabin and site of the Spirit Lake massacre of 1857. The cabin is open to the public.
- Hattie Elston area (boat ramp)
- State Pier at Arnolds Park Amusement Park
- Pillsbury Point This is a 6-acre area located in Arnolds Park. This area not only provides access to West Lake Okoboji, but provides hiking, swimming and snowmobiling opportunities.
- Triboji Beach area (boat access & lagoon) This is a 5-acre area located on the northwest shore of West Okoboji Lake. This facility provides a boat launching ramp.
- Lower Gar/Minnewashta Boat Access
- Arnolds Park Boat Access (across from Triggs)
- Isthmus Park & Access This 7-acre park is located on the north shore of East Okoboji. The park has an unsupervised swimming area and is located near boat launching areas. The park is open to snowmobiling during the winter months.
- Highway 9 Bridge Boat Access
- East Okoboji Beach (boat ramp)

#### **COUNTY TRAILS**

#### Iowa Great Lakes Trail

The longest and most widely used trail system throughout Dickinson County is the Iowa Great Lakes Trail. Recently renamed; the former Dickinson County Spine Trail winds through the heart of the Iowa Lakes region Great of Dickinson County and serves as the "spine" for more than 60 miles of additional trail routes. Branching off from the Iowa Great Lakes trail is the Kenue Park Trail and several signed bike routes on low-traffic hard surfaced roads to offer an even more extensive look at the scenery across the region.



Figure 33 - Photo of Iowa Great Lakes Trail

The Iowa Great Lakes Trail specifically follows a course over 14 miles through five cities in Dickinson County encompassing approximately 32 acres. Beginning in Milford the trail meanders through the heart of Arnolds Park and Okoboji, continues through Spirit Lake, and concludes at Orleans along the shores of Spirit Lake. The trail winds through many wildlife areas and along the shores of Lower Gar Lake, Minnewashta Lake, East Okoboji Lake, and Spirit Lake giving trail users a truly diverse experience. Comprised of paved asphalt, the trail is comfortable for biking, hiking, jogging, walking, cross-country skiing, or even snowmobiling.

#### Kenue Park Trail

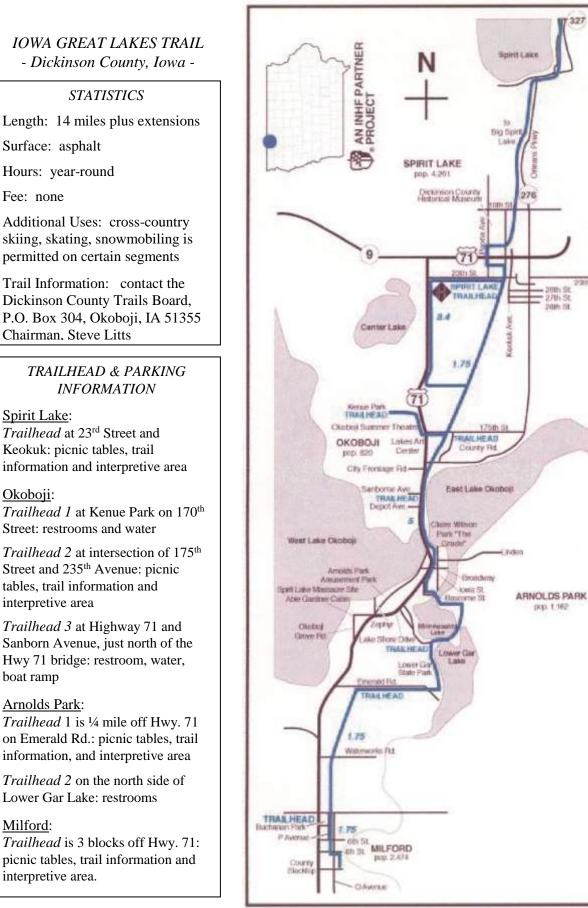
The Kenue Park Trail is a 2-mile spur branching off from the Iowa Great Lakes Trail. The Kenue Park Trail meanders through the Lakes Art Center property in the City of Okoboji where several interpretive art pieces line the trail. The Kenue Park Trail is paved asphalt and approximately 8 feet wide to accommodate bikers and pedestrians, or skiers and snowmobiles during the winter.

#### Kettelson Hogsback Nature Trail

A meandering IDNR trail cut through the heart of a wetland complex to the west of Spirit Lake.

#### Barney Peterson Memorial Trail

This trail is located within Gull Point State Park and is a hiker's delight. The trail is 1.3 miles of a self-guiding interpretive trail and is an excellent place to observe many varieties of wildlife and birds. During the winter, this trail is open to cross country skiing.



In order for future trail development to become a reality in Dickinson County, the county working in cooperation with the local municipal governments and the Dickinson County Trails Board, along with additional private, public, or non-profit entities must take the initiative to work with property owners to secure the use of easements or outright purchase of property in order to have the rights for future trail utilization on the property.

# PARKS AND RECREATION RESPONSIBILITIES

Dickinson County's parks and recreational responsibilities include the Conservation Commission's maintenance of all county parks and recreation areas, in addition to support for the Dickinson County Nature Center and other sponsored County Conservation Commission programs. The county also supports the continued development of the Spine Trail across Dickinson County. Recreation needs and priorities of the county are considered and funded by the Board of Supervisors, The Dickinson County Trails Board, and other private or public funding sources. The County Conservation Commission staff assists daily operations.

In addition to publicly provided recreational amenities and parks or open space by Dickinson County, the private sector also plays an increasing role in providing future recreation amenities. Generally speaking, the private sector in Dickinson County provides recreation typical of high intensity uses such as amusement park activities, resorts, camping, boating, biking, and other outdoor activities.

The agencies which are responsible for provisions of recreational facilities at a regional level include the Iowa Department of Natural Resources. The Iowa Department of Transportation, Iowa Department of Economic Development, The Iowa Natural Heritage Foundation, State Archeologists, and the State Historical Society are other state agencies which also exert direct and indirect influence on state recreational programs.

# DEMAND FOR RECREATIONAL ACTIVITIES

For many years the demand for outdoor recreation has been increasing rapidly. One of the most often used and least understood concepts in outdoor recreation planning is the concept of "demand". The magnitude of demand is influenced by eight (8) socioeconomic factors.

- 1) AGE: The amount and type of recreation one pursues is related to age. The older the participant, the fewer and more passive are the pursuits.
- 2) INCOME: The number of recreation pursuits of an individual is related to income. The higher the income, the more numerous the pursuits, and the more active are pursuits in those activities requiring relatively high expenditures for equipment.
- 3) EDUCATION: Education affects recreation participation in much the same way as income. The higher one's educational attainment, the more numerous the pursuits.
- 4) OCCUPATION: The number and variety of leisure activities are related to occupation and occupational prestige. The higher an individual's occupational prestige, the more varied and active the pursuits.

- 5) RESIDENCE: Suburbanites are more active and pursue a greater variety of recreation pursuits than do urban dwellers, which in turn, have a more active participation rate than do those who live in rural areas.
- 6) MOBILITY: Outings tend to be weekend (overnight) or all day excursions. The outing destination is usually a public, non-urban area within a three-hour drive from the point of departure.
- 7) OPPORTUNITY FOR ACTIVITIES: Increasing the number of recreation facilities within a given area may create a geometric increase in recreation participation. When the facilities are provided, people use them; their presence may in fact, create a demand.
- 8) NATURAL CHARACTER: Leisure patterns, leisure items, and leisure facilities are often used as status symbols (conspicuous consumption, conspicuous display). Different age groups present the need for specific recreational activities. These activities can be further defined as active or passive.

# GENERAL CONSIDERATIONS OF PARK AND RECREATION DEVELOPMENT

- As land costs become increasingly expensive, acquisition of parklands can become challenging, requiring not only that local governments have plans in place to keep up with new resident demands, but also that jurisdictions have funding mechanisms precisely related to desired service levels.
- What is the citizen demand for various parks and recreation resources? That is, how much or how often are county residents and visitors using parks, bike trails, natural resource areas, etc?
- What is the capacity for various recreation resources? That is, how many residents and visitors can a park or trail system accommodate? Or put another way, if there is demand for future park or recreation areas, how many will facilities or acres of land will Dickinson County need to meet that demand?
- Active parks and recreation areas (i.e. sports fields) require a substantial amount of land due to their size and parking requirements.
- > Events venues create large land requirements because one acre of venue area requires approximately 2 acres of off-street parking.
- Open space is considered separate from other parks and recreation facilities due to diversity of needs, uses, forms, and understanding of this concept. Open space is defined as broad term for land largely free of residential, commercial, and industrial development that can provide wildlife habitat, access to recreation, scenic viewscapes, passive recreation, compatible parks and recreation facilities. Open space is not considered part of the demand/capacity standards because open space serves purposes beyond accommodating recreational needs, and in many cases is a component of community planning with values that lay outside of typical parks and recreation demands. Benefits that can accrue solely from open space include:
  - Economic benefits open space can enhance the quality of life which in turn attracts business and improves property values
  - Fiscal benefits- in some cases, it costs the local government less to purchase property and conserve it than to pay for infrastructure and services required for development, similarly in some cases the purchase of watersheds can lead to decreased treatment costs.

- Protected river corridors keeps construction out of the floodplain and prevents losses to personal property
- Environmental and aesthetic benefits

# STATE OF IOWA PROJECTED RECREATION TRENDS

According to the Iowa Department of Natural Resources' 2001 "SCORP" Plan, or State Comprehensive Outdoor Recreation Plan, the state believes there are several factors including a growing minority population, a shifting population from rural to urban, and a continued aging population which will all have significant impacts on the projected needs and trends of future recreational activities in Iowa.

Projected implications and recreational trends facing the future of recreational planning include:

#### Addressing minority needs

• Persons raised in other cultures will bring new outdoor recreation pursuits that previously may not have been in demand in Iowa.

#### An increasing shift from rural to urban settings

- Demand for recreational opportunities "close to home" will continue to increase.
- Surveys consistently show urban dwellers participate more frequently in outdoor recreation pursuits than do rural residents.
- Demand for development on lands adjacent to or near urban areas often lead to pricing of property to where it becomes prohibitive for development of recreational activities.

#### A continual aging of the population

- Recreation opportunities must be made available to meet the needs for more passive leisure time opportunities.
- Opportunities for persons with disabilities will most likely need to increase.
- Many feel that more recreational opportunities aimed at the younger segments of the population will add incentives for those to remain in the state.

# Iowa's Issues and Priorities Facing Outdoor Recreation

When planning for future outdoor recreation, it becomes necessary to identify issues and priorities facing outdoor recreation in Iowa. Considering the wide array of interests in outdoor recreation, what is an issue or priority to one group may be of little concern to another. The SCORP Committee was formed with the intention of bringing together into one group, a very diverse committee of persons with a strong interest in outdoor recreation, representing every spectrum of outdoor recreation possible. The following is a list of specific outdoor recreation issues that should be given special attention as developed by the SCORP Committee.

- Better marketing of outdoor recreational opportunities using the latest technologies.
- Develop partnerships between various agencies, special interest groups and government organizations, state and local, to best preserve and promote outdoor recreational opportunities.
- Educate all ages, with an emphasis on the young, in outdoor skills and stewardship ethics.
- Educate public and policy makers on the importance of outdoor recreation.

- Acquire more lands and waters representative of various ecological communities and landforms throughout the state, and manage these areas carefully to be left in their present state.
- Recreational developments should be appropriate uses of the particular land area and should incorporate the needs of protecting sensitive natural areas.
- Need to renovate and maintain existing facilities to ensure there is equal access for all users.

Iowans have a wide variety of outdoor recreation opportunities to choose from and several general surveys have been conducted to determine what outdoor recreation activities Iowans prefer and how often they participate in them. Other specific surveys have been undertaken to gather detailed information regarding outdoor recreation activities. These surveys serve as a vital source in understanding attitudes and opinions toward outdoor recreation issues in Iowa. This information can be used for a variety of purposes including future outdoor recreation development and funding. The Iowa Department of Natural Resources commissioned the Center for Social and Behavioral Research (CSBR) at the University of Northern Iowa to conduct a survey to assess Iowans' participation in outdoor recreational activities and their opinions about the protection and management of Iowa's natural resources. The outdoor recreational activities with the highest participation rates were:

- Picnicking (72.9%)
- Hiking or nature walks (61.1%)
- Swimming in a pool (48.4%)
- Fishing (45.3%)
- Nature studies such as bird watching (41.3%)

With the exception of picnicking, participation rates varied across age groups. Generally, participation was lower among those aged 65 or older, but nature studies such as bird watching were more common among older respondents. One-fifth (21.3%) of those surveyed reported outdoor recreational activities were inhibited by limited or unsuitable recreational areas or facilities in Iowa. Commonly mentioned inhibited activities were: biking on paved trails, power boating or water skiing, hiking or nature walks, and fishing.

Approximately one-third of those surveyed were unsure of the fishing quality in Iowa's state parks and recreational areas. Similar percentages were unsure of how present fishing quality compares with that of 5 years ago.

The five features survey respondents gave the highest importance to:

- Picnic areas
- Hiking or nature trails
- Playgrounds
- Fishing
- Beaches with open water swimming

Iowans report open spaces are important to their quality of life, and they support public ownership of these spaces. Generally, the public's opinion is that spending more money to manage and protect natural resources is important.

### DICKINSON COUNTY LONG RANGE PARKS PLAN

Beginning in January 1998 the Conservation Board began an in-depth examination of its operations and programming to determine if changes were in order to assure the DCCB was addressing the needs of the public. Public input was requested at meeting on long range Planning. The following is a list of items voiced by the public that were of concern.

#### Goal #1- Canoe areas

- Development of canoe access at Horseshoe Bend
- Development of canoe access at Judd Wildlife Area

#### Goal #2 - Insure trail maintenance is addressed

- Continue trail expansion, as planned
- Incorporate greenbelts/parks with trails
- Construct trails on west side of Spirit Lake
- Incorporate educational/nature trails with trail plans

#### Goal #3 - Nature Center/Kenue Park

- Pursue greenbelt along US 71, as part of Kenue
- Make Kenue handicapped accessible
- Promote Westport School House to area schools
- Children's museum, as part of Nature Center

#### Goal #4 - Acquisition

- Northern part of Little Sioux River for land acquisition
- Forest areas for land acquisition
- Lakeshore for land acquisition, before its developed
- River areas for land acquisition

#### Goal #5 - Management/Maintenance

- More natural areas, less mowing
- Continue to manage Westport for wildlife
- Multiple usages of areas, i.e. hunting/camping
- Passive recreation less crowded activities
- Utilize funding for employees, not equipment

#### Goal #6 - Expand Naturalist program

- Include programming for the aged
- Naturalist to work on industrial environmental items
- Insure Naturalist program continues

# Goal #7 - Expand recycling programs to businesses

Toxic Cleanup Days every 2-3 years

#### Goal #8 - Promotions/Advertising

- Brochures for DCCB areas/activities
- Web page, as part Chamber's

#### Goal #9 - Funding

- Citizen involvement to insure adequate funding
- Utilize hotel/motel tax
- Utilize Conservation Foundation for funding
- Explore other funding sources
- Where will funding come from?
- Joint grants with other agencies

#### Goal #10 - Programs

- Integrated Roadside Vegetation Management
- Necessary to have law enforcement?
- Continue supporting scholarships for teachers
- Aid cities on promoting lake accesses
- Water quality

When those attending the public meeting were asked, "*What one item is your major concern*" the following list was compiled from answers given:

Continue with KEMA project Build Nature Center (x2) Concentrate on greenbelts/forest land acquisition Continue Environmental Education (x2) Intern for Naturalist Canoe accesses at Horseshoe and Judd Wildlife Area Land acquisition & natural enhancement Greenbelts (x2) Land acquisitions in "outer" areas of the county Hazardous material disposal/recycling for businesses Trail maintenance Citizen involvement to insure adequate funding Shooting range (x2)

Information gathered at the Long Range Planning meeting was reviewed by the DCCB to determine what items to include into its future plans.

Funding Continue with KEMA project Development of canoe accesses on Little Sioux River Hazardous material disposal Promotion of DCCB areas Land Acquisition Trail expansion Trail maintenance Coordination with other environmental groups Land use plans for DCCB areas Aging population Naturalist intern Continue with environmental education Keep Westport as a DCCB area Natural enhancement of DCCB areas Shooting range

# XII. TOURISM & RETAIL TRADE

# DICKINSON COUNTY RECREATIONAL/TOURISM ACTIVITIES

Aside from local, county or state parks, there are many recreational amenities to visit in Dickinson County. Ongoing weekly, monthly and annual activities occurring in Dickinson County are often sponsored or organized by the Iowa Great Lakes Chamber of Commerce or one of the local community's chamber or development groups. Every year the Iowa Great Lakes Chamber of Commerce and the Okoboji Tourism Committee publish a visitor's guide which lists all of the parks, recreational facilities, events and activities occurring in Dickinson County (specifically the Iowa Great Lakes region). A brief overview of the recreational amenities located in or occurring within the rural portions of Dickinson County include:

*Indian Hills Golf Course* – A public nine-hole golf course with a clubhouse and challenging water/sand hazards. Indian Hills is located along Highway 9, two miles west of Spirit Lake, near the northern shore of West Okoboji Lake.

*Okoboji View Golf Course* - A public eighteen-hole golf course located across Highway 86 from the west shore of West Okoboji Lake (south of Village West resort). This golf course is one of the longer golf courses in Dickinson County and provides an affordable, yet challenging play.



*Woodlyn Hills Golf Course* – A public eighteen-hole golf course located approximately 2 miles east of Milford along County Hwy. A-43. The northern portion of the course is near the southern shore of Lower Gar Lake.



*Little Swan Lake Winery* – Relatively new to Dickinson County, the Little Swan Lake Winery is quickly becoming a local favorite attraction, in addition to attracting many visitors as well. Little Swan Lake is growing grapes of their own and currently offers around 12 different varieties of red and white wines. In addition to making and selling wine on the property, the Little Swan Lake winery offers events such as monthly "Happy Hours" with live music and meals and an annual "Grape Stampede."

*Flea Markets (Vick's Corner, Wahoo Market, Treasure Village)* – Three weekends each year; Memorial Day, July 4<sup>th</sup>, and Labor Day, there are three sites situated along Highway 86 which are transformed into expansive flea markets, swap meets and antique dealers. Thousands of visitors wander through the hundred of vendors that ascend upon Dickinson County these three times each year.

*Treasure Village/Children's Theatre* – This child-oriented amusement park and theatre has convened for 33 years to present live plays on stage for children of all ages. There is also a 27-hole miniature golf course and an ice-cream parlor.

In addition to the six primary tourism activities mentioned above, which are located in rural (or unincorporated) Dickinson County, there are many more tourism related businesses and activities which encompass the entire scope of Dickinson County's tourism industry.

# Dickinson County tourism activities:

- Iowa RockNRoll Hall of Fame
- Iowa Great Lakes Maritime Museum
- Higgins Museum of Banking
- Okoboji Yacht Club Sailing School
- Grand National Walleye Cup (GNWC) fishing tournament
- Iowa State Fish Hatchery
- Iowa Lakeside Laboratories
- The Queen II Excursion Boat
- The Abbie-Gardner-Sharp Cabin and Spirit Lake Massacre Monument
- Dickinson County Museum
- The Annual Okoboji Winter Games
- Arnolds Park Amusement Park
- The Ranch Amusement Park
- Iowa Great Lakes Trails



Image courtesy of: www.arnoldspark.com

- Emerald Hills Golf Club
- Brooks Golf Club
- Inn Golf Course

Furthermore, located within Dickinson County are the following tourism related businesses, according to information obtained from the Okoboji Tourism Committee:

- ➢ 37 resorts or lodging facilities
- ➢ 15 campgrounds or camping facilities
- ➢ 11 recreation/tourism based businesses
- ➢ 45 restaurants or eateries

The Iowa Great Lakes Chamber of Commerce and Okoboji Tourism Committee work together to create an atmosphere in support of the businesses and professionals necessary to stimulate a growing and prosperous lakes region. Specifically, Okoboji Tourism Committee is responsible for organizing annual tourism generating events such as the Walleye Weekend (1<sup>st</sup> weekend of May), Okoboji Winter Games, and the Couples Golf Event. Each of these events and many more, are intended to and successfully draw in millions of tourism dollars through increased visitors to the area. Furthermore, the Iowa Great Lakes Chamber of Commerce and Okoboji Tourism also assist the University of Okoboji Foundation with some of their fundraising and recreational events in Dickinson County. Additional information regarding other benefits and programs offered through the Great Lakes Chamber of Commerce can be obtained through the chamber's website www.vacationokoboji.com.

The mythical and often sought after University of Okoboji has come to capture the hearts and minds of those living in and visiting Dickinson County; in addition to all those considering themselves U of O "Alumni". Although not an actual University, the University of Okoboji has been an active fundraiser, foundation, supporter and promoter of local events and activities in Dickinson County for

more than twenty years. Following is a list of some of the main events sponsored and promoted through the U of O.

- U of O Hoops Classic
- Wrestling Tournament
- Soccer Tournament (sponsored by Coca-Cola)
- Rugby Tournament
- USTA McDonald's Junior Tennis Classic Tournament

Aside from the natural lakes themselves, probably the most widely recognized and a visited destination in Dickinson County is the Arnolds Park Amusement Park complex, including the Maritime Museum, Queen II excursion boat, and the Iowa RockNRoll Hall of Fame. The amusement park itself is a collection of 17 unique rides, including the legendary wooden roller coaster. Furthermore, there is a miniature golf course, a go-kart track, many games, souvenir stands, food venders, the Tipsy House, mirror maze, caricature artist, and many other fun and eclectic activities to entertain the young and young at heart.

- Cycling Classic Campus Ride
- World Tennis Classic
- Softball Tournament
- Couples Golf Tournament
- Oktoberfest Bike Ride
- U of O Homecoming (including an environmental cleanup drive and marathon)



Image courtesy of: www.arnoldspark.com

Also, as part of the Arnolds Park Amusement Park campus, visitors and patrons will be entertained through the numerous concerts held at the roof garden venue or at the stage on the green space. In addition to visiting the Maritime Museum, the Iowa RockNRoll Hall of Fame or catching a ride on the Queen II excursion boat, one can shop at the queen's court or enjoy an afternoon of relaxation at the Arnolds Park public beach.

# **RETAIL TRADE ANALYSIS**

Since tourism is at the heart of Dickinson County's livelihood, a look into the county's retail trade statistics translates into how successful the tourism industry actually is to Dickinson County. Aside from the agricultural industry, tourism is the next greatest revenue generating industry in Dickinson County. Every year, hundreds of businesses rely upon the tourists to generate revenues during the traditional 3 month "tourist season" from the end of May through August. Dickinson County is also unique in the fact that there are a number of businesses that strictly operate their business in conjunction with the tourism season and close the business for the remainder of the year.

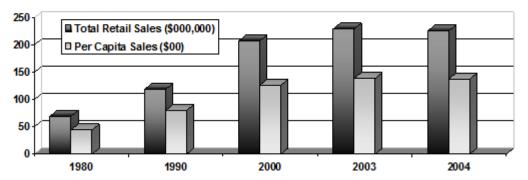
The informative retail data and trends for retail trade shown in this section are made available from Iowa State University Extension. The data may help explain retail employment gains and losses over the last decade. Characteristics of retail activity are often indicative of the overall economic vitality of a county.

Fiscal Year	Total Retail	Number of	Per Capita	Pull Factor
	Sales	Firms	Sales	
2004	\$225,730,000	806	\$13,765	1.39
2003	\$229,440,000	816	\$13,885	1.42
2000	\$207,820,000	885	\$12,653	1.34
1990	\$118,650,000	802	\$ 7,992	1.23
1980	\$ 69,620,000	706	\$ 4,434	0.99

Table 10 -	Rotail	Trada	Analycic	- 1980-2004
	rtetan	riaue	Analysis	- 1300-200-

Source: Office of Social and Economic Trend Analysis, Iowa State University, 2005 Data Source: Iowa Department of Revenue and Finance

Figure 34 - Retail Sales and Per Capita Sales for Dickinson County, 1980-2004



According to a 2005 retail trade analysis provided by Iowa State University, *SETA (Social and Economic Trend Analysis)*, Dickinson County experienced retail sales of near \$226 million during 2004. This figure has increased by nearly 18 million or 8.6 percent from 2000. However, the increase in retail sales is fully understood when examining the long term retail sales in Dickinson County. Retail figures have increased an astonishing 90.3 percent or nearly doubling their sales since just 1990 or 15 years ago. Even more impressive is that retail sales have increased to \$226 million from just \$70 million during 1980. This represents an increase of more than \$150 million in retail sales or 224 percent. In 1980 there were 706 retail establishments collecting sales tax in Dickinson County. By 1990 the number of retail establishments had increased by nearly 100 to a total of 802. By the year 2000, retail establishments reached a high of 885, but then declined over the past four years to settle in at 806, near the 1990 number of establishments.

Figure 35- 2004	Minnesota					
Retail Sales Figures for Dickinson and Surrounding Counties	Osceola Co. \$33.38 M	Dickinson Co. \$225.73 M	Emmet Co. \$83.86 M			
	O'Brien Co. \$96.00 M	Clay Co. \$199.78 M	Palo Alto Co. \$50.20 M			
	20	04 Total Retail Sa	ales			

A good indicator of the strength and vitality of a county's retail economy is to look at the "pull factor." The pull factor is a numerical indicator of the amount of retail activity taking place within or out of a jurisdiction. The number "1" indicates that the appropriate amount of retail sales is taking place for the size of jurisdiction and population residing within a given area. Any number below a "1" indicates that fewer people are shopping in the county than is expected indicating a retail "leakage". Whereas any number above a "1" indicates the county is drawing in more retail sales that the local population should be able to sustain, indicating a retail "surplus". In 1980, Dickinson County's pull factor was 0.99 indicating that retail sales were slightly below expected figures. However, by 1990, the pull factor of 1.42 indicating a substantial retail draw occurring in Dickinson County. These factors indicate persons from outside of the county are likely spending approximately 42 percent more than the projected retail sales in Dickinson County.

When looking into the surplus or leakage of a county's retail sales, it is often a good idea to take a comparable look into how surrounding counties are performing as well. When examining the pull factor, a leading indicator of retail surplus or leakage, of adjacent counties to Dickinson it becomes clear that Dickinson County is in a league of their own when comparing retail sales figures. Nearly all of the counties surrounding Dickinson County, except for Clay County, are experiencing substantial retail leakage, indicating that these counties are not able to sustain their retail markets. Below is a map depicting the pull factors for Dickinson and surrounding counties.

Osceola Co.	Dickinson Co.	Emmet Co.
0.50	1.39	0.79
O'Brien Co.	Clay Co.	Palo Alto Co.
0.66	1.18	0.52
2004 ]	Pull Factor Comp	arison

Figure 36 - 2004 Pull Factor Comparison for Dickinson County and Surrounding Counties

The following tables and charts, obtained from the SETA "Take Charge" website, <u>http://www.seta.iastate.edu/takecharge/</u>, report data on retail sales, obtained from the Economic Census, published every five years by the U.S. Census Bureau. These figures are utilizing the latest data available from the 2002 Economic Census. The retail sector includes all retail stores, such as grocery stores, furniture stores, department stores, etc. It does not include restaurants, which are part of the Accommodation and Food Services sector. County retail sales totaled \$207.80 million in 2002. Statewide, total retail sales grew 16.7 percent over the same time period.

Expected sales are an estimate of the amount of retail trade that could be expected in the county based on population, income and average state spending. The surplus or leakage is the difference between reported sales and expected sales. If reported sales exceed expected sales, the county has a retail sales "surplus." If the opposite is true, there is a retail sales "leakage." Dickinson County had a \$64.20 million dollar surplus of retail sales in 2002, compared with a \$4.00 million dollar surplus in 1997.

	Dickinson County		Ιο	wa
	1997	2002	1997	2002
Sales (\$000,000)	\$172.20	\$207.80	\$26,723.80	\$31,195.00
Number of Establishments	143	117	14,695	13859
Population Estimate	16048	16424	2854396	2926324
Sales Per Capita	\$10,728.00	\$12,651.00	\$9,362.00	\$10,660.00
Pull Factor	1.15	1.19	1.00	1.00
Expected Sales (\$000,000)	\$168.20	\$143.60	NA	NA
Surplus/Leakage (\$000,000)	\$4.00	\$64.20	NA	NA
Surplus/Leakage as % of Expected	2.4%	44.7%	NA	NA

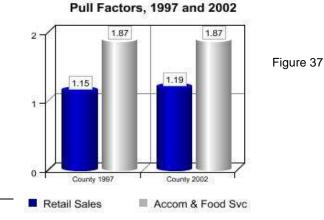
Table 11 - Total Retail Sales, 1997 & 2002

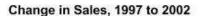
Data for the Accommodation and Food Services sector are reported in the table below. This sector is comprised of restaurants, bars and other food service providers such as cafeterias as well as lodging businesses, such as hotels and campgrounds. County retail sales totaled \$38.80 million in 2002, an increase of 33.3 percent from 1997. Statewide, total retail sales grew 33.9 percent over the same time period. Dickinson County had a \$21.80 million dollar surplus of "Accommodation and Food Services" sales in 2002, compared with an \$11.70 million dollar surplus in 1997.

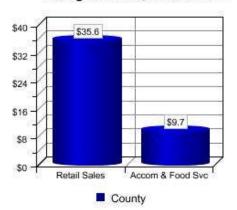
Table 12 - Total Accommodation and Food Services,	1997 and 2002

	Dickinson County		Ιο	wa
	1997	2002	1997	2002
Sales (\$000,000)	\$29.10	\$38.80	\$2,762.80	\$3,699.00
Number of Establishments	98	85	6,830	6586
Population Estimate	16048	16424	2854396	2926324
Sales Per Capita	\$1,810.00	\$2,360.00	\$968.00	\$1,264.00
Pull Factor	1.87	1.87	1.00	1.00
Expected Sales (\$000,000)	\$17.40	\$17.00	NA	NA
Surplus/Leakage (\$000,000)	\$11.70	\$21.80	NA	NA
Surplus/Leakage as % of Expected	67.2%	128.2%	NA	NA

Source: www.seta.iastate.edu/takechage/, Iowa State University, 2005







# TRADE AREA CAPTURE

Another method for determining the amount of retail sales activity occurring within Dickinson County is to calculate the county's trade area capture. The purpose of the "Trade Area Capture" formula is to examine how many customers or potential purchasers are drawn to Dickinson County to shop for any type of product at any given time. The trade area capture estimates the portion of customers the county actually draws from within and outside its boundaries. The trade area capture analysis is also be used by retail sectors to understand trade growth or decline.

Table 13 -

TRADE AREA CAPTURE FORMULA
A / [B x (C / D)]
A = Total Retail Sales for Dickinson County B = Per Capita Sales for the State of Iowa C = Dickinson County Per Capita Income D = State of Iowa Per Capita Income

When comparing the trade capture area of Dickinson County for the years 1990 and 2000, the trend indicates a growing trade capture area. In other words, the county is gaining more sales from other communities and counties outside of Dickinson County.

Dickinson County's trade area capture for the year **2000** is as follows:

A (Total Retail Sales) B (State Per Capita Sales)	= \$225,730,000 = \$9,427
C (Dickinson County per Capita Income)	= \$29,435
D (State per Capita Income)	= \$26,554

#### Trade Area Capture for the Dickinson County (2000) = 21,572 customers (2000 pop. 16,424)

This means that businesses in Dickinson County captured the sales of 21,572 customers from its population base of 16,424 or 131% of its expected customers. In this case, the county theoretically captured all of its sales from all its customers within the county plus attracted another 31% of its customer sales from outside the county.

Dickinson County's trade area capture for the year **1990** is as follows:

A (Total Retail Sales)	= \$118,650,000
B (State Per Capita Sales)	= \$6,480
C (Dickinson County per Capita Income)	= \$18,594
D (State per Capita Income)	= \$17,389

# Trade Area Capture for the Dickinson County (1990) = 17,111 customers (1990 pop. 14,909)

This means that businesses in Dickinson County captured the sales of 17,111 customers from its 1990 population base of 14,909 or 115% of its customers. Again, in 1990 the county theoretically captured all of its sales from all its customers within the county plus attracted another 15% of its customer sales from outside the county.

# XIII. ECONOMIC DEVELOPMENT

An analysis of past and present economic trends is necessary to determine patterns, trends, and amount of potential economic growth expected in the future. Economic development has become synonymous with community development in Iowa. Many consider economic development one of the most critical aspects of community development. The economic base of any county is comprised of two components, employment and income. In this section, Dickinson County's employment, income and local manufacturing and industry trends are examined and compared to those of Iowa. Economic analysis provides important indicators as to the relative health of the county and potential growth in each of the land use categories.

#### **EMPLOYMENT TRENDS**

Looking at the fifteen year trends in unemployment for Dickinson County and the State of Iowa show similar tracks, and tend to indicate a ten year cycle of high and low unemployment periods. Overall, the number of unemployed persons in Dickinson County from 1990 to 2005 has been quite low, especially considering other regional and national trends. One can easily see how unemployment reached a higher level from 1992 to 1994 and then dipped to an all-time low rate by 1999. Once again in 2004, unemployment climbed to the same levels as 1992. It appears as if the unemployment cycle reached its high in 2004 and is beginning to decline by the end of 2005.

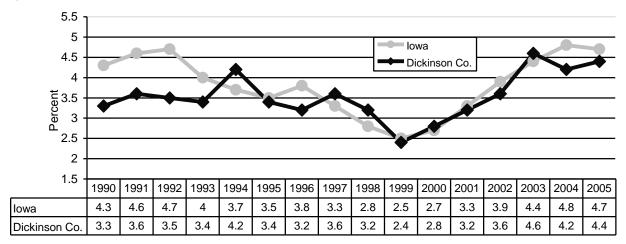


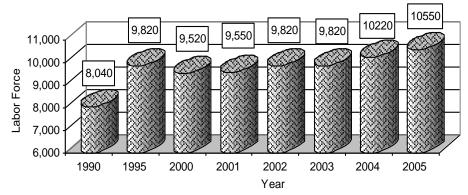
Figure 38 - Unemployment rates for Dickinson County and Iowa, 1990-2005.

*Note: Data for 2005 is year-to-date averages from January through November. Source: Iowa Workforce Development, Labor Market Information, 2005* 

As mentioned in the previous "Tourism and Retail Trade" chapter, Dickinson County is unique in the fact that there are many seasonal businesses which rely upon the summer tourism business to keep them employed. Looking at the monthly unemployment rates for Dickinson County in 2005 shows the fluctuations in unemployment due to the seasonal and tourism climate of the county. In January, unemployment was at 7.8 percent. This is most likely due to a combination of winter layoffs as well as the off-season for the tourism workforce. Unemployment continued to be at or near 6 percent in February and March, but then dramatically declines to a low of 3 percent in July and 2.9 percent in August, during the middle of the summer tourism season. By October and into November, unemployment rates can be seen going back up to 3.7 and 4.3 percent respectively.

According to Iowa Workforce Development, Dickinson County's total labor force stands at 10,550 persons, compared to 8,040 in 1990 and 9,520 persons by 2000. Obviously the overall workforce is continuing to increase in Dickinson County which is a good indicator of new and increasing jobs being created in the county providing opportunities for employment and residency in Dickinson County. These labor force figures are based on the yearly average, since employment varies greatly in Dickinson County from the summer tourist season to the winter off-season. For example, in 2005, the labor force reached a high of 11,330 employees in June, as compared to the low of 9,660 employees in November. The overall growing labor force seems to bode well for Dickinson County, as population projections indicate the county's population is also growing.

Figure 39 - Labor force trends in Dickinson County, 1990-2005

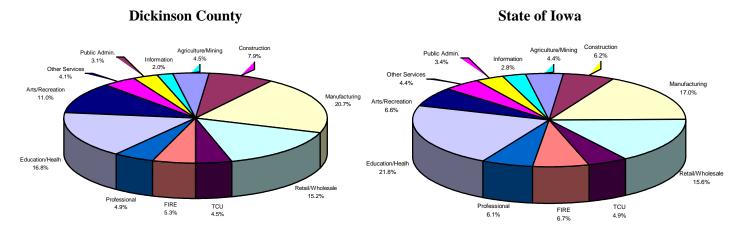


*Note: Data for 2005 is year-to-date averages from January through November. Source: Iowa Workforce Development, Labor Market Information, 2005* 

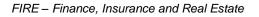
# **INDUSTRY TRENDS**

The two charts represented below display industry trends and employment by industry sector for Dickinson County as compared to Iowa.

Figure 40 - Employment by Industrial Sector, Dickinson County, 2000



TCU – Transportation, Communications and Utilities Source: U.S. Census Bureau, 2000 Census



It is clear the industry employing the most people in Dickinson County is the manufacturing sector, capturing nearly 21% of the workforce. This may be contrary to the belief of many who think that that tourism supported businesses are the number one industry in Dickinson County. However, the fact that 11% of the working population is employed in the arts, entertainment, recreation, and accommodation fields again indicates the level of importance that the tourism industry plays in Dickinson County. The retail/wholesale employment sector comprises nearly 15.2% of employment in Dickinson County, slightly lower than the 15.6% statewide average. Also, those working in the education, health, and social services fields account for nearly 17% of total employment; less than the state average of nearly 22% working in these employment sectors.

The table shown below displays Iowa Workforce Development data comparing employment changes between 1990 and 2000 in Dickinson County. This data indicates, to some degree, how industry trends have varied within the county over the past 10 to 15 years. The most drastic change from 1990 to 2000 in any of the industrial sectors occurs in the arts, entertainment, and recreation industry that experienced a nearly 867% increase in employment. However, these figures are skewed due to new definitions and classifications used during the 2000 census versus 1990 census classifications. Aside from this anomaly, the largest numeric growth change occurred in the manufacturing sector, which experienced a net increase of 552 jobs. However, considering the largest percentage increase, the construction industry increased the most by experiencing a 78 percent increase in employment. The sector that experienced the largest decline in numbers of employed is in retail trade, where a loss of 421 jobs or a decrease of 28% occurred.

	1990	2000	% change
Agriculture and Mining	689	383	-44.4%
Construction	377	673	78.5%
Manufacturing	1,203	1,755	45.9%
TCU*	270	377	39.6%
Retail Trade	1,515	1,094	-27.8%
Wholesale Trade	270	196	-27.4%
Information	NA	168	NA
FIRE**	398	449	12.8%
Professional/Management	376	417	10.9%
Education/Health/Social Services	1,076	1,422	32.2%
Arts/Entertainment/Recreation	96	929	867.7%
Other Services	375	344	-8.3%
Public Administration	196	261	33.2%
TOTAL	6,841	8,468	23.8%

Table 14 - Employment trends by Industrial Sector, Dickinson County, 1990-2000

\*Transportation, Communications, Utilities \*\*Finance, Insurance, and Real Estate Source: U.S. Census Bureau, 2000 Census

These trends indicate that an increasing number of employment opportunities exist in Dickinson County and the overall labor force is experiencing growth in nearly all of the industrial sectors. Below is a brief analysis of labor force trends occurring in each of the individual employment sectors. <u>Agriculture and Mining</u> – One of the historically largest employment sectors in rural agricultural counties, this category continues to see a decline in the number of employees, a decrease of more than 44% from 1990 to 2000. It should be noted however, that this category does not take into account farmers. This industry sector includes hired farm hands, those who work for large scale industrial farming operations, cooperatives, or industrial confinement operations, and any mining industries.

<u>Construction</u> – This industry segment is typically symbolic of growth and vitality in a given community or county, particularly the housing market. Dickinson County's construction industry showed a growth of nearly 300 employees, an increase of more than 78 percent. This trend would lead one to believe the construction industry is active and busy in Dickinson County.

<u>Manufacturing</u> – As one of the most urbanized counties in northwest Iowa and the northern anchor to the Corridor of Opportunity, Dickinson County has positioned itself to become a manufacturing hub in northwest Iowa. The trends in this industry sector also go to support this notion through a 46 percent increase in the manufacturing sector between 1990 and 2000.

 $\underline{\text{TCU}}$  – Transportation, Communication and Utilities has not traditionally been considered a growth sector for industrial development, but Dickinson County experienced almost 40 percent growth in these employment fields.

<u>Retail/Wholesale Trade</u> – Considering the nature of the tourism related activities and businesses occurring in Dickinson County, one would assume there would be growth especially in the retail trade sector. However, both employment sectors experienced a loss of near 28 percent with a combined loss of nearly 500 employees.

<u>Information</u> – This industry sector is a new classification in the 2000 census and therefore cannot be compared to previous data. Those working in the information sector are those working within the computer, internet, or programming fields. In 2000, there were 168 persons reported employed in this sector.

<u>FIRE</u> – Finance, Insurance and Real Estate, similar to the TCU category, has not historically been a large or growing industrial sector. However, a gain of more than 50 employees accounting for a 13 percent increase shows that this segment of employment is still thriving in Dickinson County.

<u>Professional/Management</u> – Similar to other professional employment sectors such as TCU or FIRE, this industry segment experienced an increase of almost 11 percent.

<u>Education/Health</u> – One of the historically larger industry sectors in Dickinson County, this group consisting of educators, healthcare workers, and social service employees increased by more than 350 persons, an increase of more than 32 percent, to now become the second largest employment sector in the county.

<u>Arts/Entertainment/Recreation</u> – Changes in definitions and classification of employment and industry between 1990 and 2000 explain the anomaly created by the 867 percent increase.

<u>Other Services</u> – As part of a larger classification previously listed as "Services" prior to 1990, a reclassification of employment definitions results in a slight decline of slightly more than 8 percent.

<u>Public Administration</u> – Historically, the segment of employment that groups together government employees and other public sector employees; this industry classification reported a 33 percent increase resulting in 65 additional persons.

# 2005 Dickinson County Major Industries and Employers:

(Those businesses and industries with 25 or more employees)

Industry/Employer	Est. # of Employees		Industry/Employer	Est. # of Employees
Stylecraft Furniture	647	$\succ$	Terril Tele Technologies	60
Polaris	500	$\triangleright$	Echo Plus	60
Pure Fishing	400	$\triangleright$	Cycle Country Accessori	ies 53
Hospitality Industry (Arnol	lds Park) 350	$\triangleright$	Citation Homes	50
Hospitality Industry (Okob	oji) 325	$\triangleright$	Rosenboom Machine &	Tool 50
Spirit Lake Comm. School	270	$\triangleright$	Harris-Lake Park School	s 47
Dickinson Co. Memorial H	Iospital 230	$\triangleright$	Terril Community Schoo	ols 42
Maritime Museum Propert	ies 150	$\triangleright$	Brown Medical Industrie	es 40
(Arnolds Park Amusement	Park)	$\triangleright$	Milford Nursing Center	40
Dickinson County (governa)	ment) 110	$\triangleright$	Stollar Fisheries	35
Northern Iowa Die Cast	100	$\triangleright$	Emerald Hills Golf Cour	rse 30
Okoboji Comm. Schools	85	$\triangleright$	Oak Hill Marina	25
Okoboji Summer Theatre	75	۶	Tom's Plumbing	25

Source: <u>http://www.lakescorridor.com/</u>, Iowa Great Lakes Corridor of Opportunity, 2005

# **INDUSTRY/EMPLOYMENT PROJECTIONS**

The Iowa Workforce Development compiles current levels of industry employment for workforce regions across the state and projects the level of anticipated employment in 10 years for each of these industries. This employment projection for 2012 is only available on a regional basis. The data for Region 3 includes the counties of Dickinson, Clay, Emmet, Palo Alto, and Kossuth. With the exception of Kossuth County, the remaining region is the primary labor shed for Dickinson County, so the data presented for Region 3 workforce projections should provide useful data in regards to the growth of employment in Dickinson County's labor shed area.

Industry Description	2002 Est. Employment	2012 Projected Employment	Total Growth	Percent Change	
Self employed/Family worker	3,475	3,735	260	7.5%	
Utilities	100	85	-15	-15.0%	
Construction	465	465	0	0.0%	
Wood product manufacturing	215	315	100	46.5%	
Fabricated manufacturing	700	740	40	5.7%	
Transportation manufacturing	1,465	1,780	315	21.5%	
Miscellaneous manufacturing	580	510	-70	-12.1%	
Electronics /appliances	195	225	30	15.4%	
Building materials	495	605	110	22.2%	
Gasoline stations	470	535	65	13.8%	
General merchandise	1,015	1,130	115	11.3%	
Miscellaneous retailers	260	335	75	28.8%	
Water transportation	55	75	20	36.4%	
Truck transportation	470	625	155	33.0%	
Warehousing and storage	35	50	15	42.9%	

NW IA Planning & Development Commission

Industry	2002 Est.	2012 Projected	Total	Percent Change
Description	Employment	Employment	Growth	
Publishing industries	200	225	25	15.5%
Telecommunications	135	155	20	14.8%
Internet service providers	10	20	10	100.0%
Insurance and related activities	380	445	65	17.1%
Real estate	155	160	5	3.2%
Professional, scientific & technical	550	750	200	36.4%
Management	90	130	40	44.4%
Administrative and support services	1,180	1,765	585	49.6%
Education	2,675	2,645	-30	-1.1%
Hospitals	1,290	1,520	230	17.8%
Nursing and residential care	1,720	2,280	560	32.6%
Performing arts	70	75	5	7.1%
Museums and historical sites	15	20	5	33.3%
Accommodation/hospitality	505	495	-10	-2.0%
Food service and drinking places	2,365	2,740	375	15.9%
Repair and maintenance	240	290	50	20.8%
Federal government	110	115	5	4.5%
State government	235	205	-30	-12.8%
Local government	1,570	1,675	105	6.7%

Source: Labor Market and Economic Research Bureau, Iowa Workforce Development

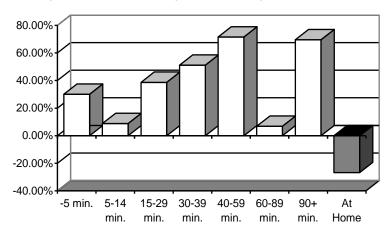
# **COMMUTING PATTERNS**

According to the 2000 census data, the average commute time for Dickinson County residents was 15.5 minutes. While 80 percent of county residents drove themselves back and forth to work, there were 10 percent who carpooled, another 5 percent worked at home, and 3.5 percent walked to work. These statistics indicate that although most county residents are still driving to work, the short commute time suggests most residents are working either in or nearby Dickinson County.

The changes in commuting patterns over the past 10 years suggest two trends are happening. First, there are more people working in Dickinson County, but those that are commuting are driving significantly farther than 10 years previous. As seen below, those persons that drove less than 5 minutes to work increased by 30 percent. However, when comparing the percentage of these

workers who drove less than 5 minutes in 1990 to 2000, the overall percentage of the total workers did not increase significantly. Secondly, significant increases in the percentage of residents that commute long distances were experienced in Dickinson County. For instance, those persons that commute between 40 minutes to 1 hour to work increased by more than 71 percent. Also, those persons that commute further than 90 minutes (one way) to work increased by nearly 70 percent.

Figure 41 - Percent Change in Commuting Times, 1990-2000



These statistics seem to indicate that residents of Dickinson County are happy with the quality of life, as shown by the willingness to drive significant distances to work. On the other hand, these figures also seem to indicate a lagging in the creation of good paying jobs versus the number of persons moving into the county. Obviously, a number of Dickinson County residents are seeking employment outside of the county.

Year	1990	2000	# change 1990-2000	% change 1990-2000
Total Workers, 16 & Over	6,936	8,309	1,373	19.8%
Less than 5 minutes	691	898	207	30.0%
5 to 14 minutes	3,369	3,667	298	8.8%
15 to 29 minutes	1,642	2,277	635	38.7%
30 to 39 minutes	399	603	204	51.1%
40 to 59 minutes	130	223	93	71.5%
60 to 89 minutes	101	108	7	6.9%
90 or more minutes	69	110	48	69.6%
Worked at home	577	423	-154	-26.7%

Table 16 – Travel Time to Work for Workers in Dickinson County, 2000

Source: Office of Social and Economic Trend Analysis, Iowa State University, 2006

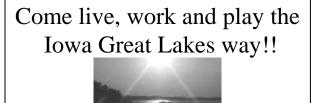
# ECONOMIC DEVELOPMENT COMMISSION

# Iowa Great Lakes Corridor of Opportunity

The Iowa Great Lakes Corridor of Opportunity was formed in 1992 as a joint two-county economic development commission to further the economic and business climate of Clay and Dickinson counties. The Corridor was formed as a non-profit organization able to offer joint services to participating public entities in areas of mutual advantage for the entire two county region. The

"Corridor of Opportunity" is a separate entity for legal purposes but serves the economic development needs of each contributing local government, including Dickinson County.

According to the Corridor of Opportunity's website, <u>www.lakescorridor.com</u>, "The Iowa Great Lakes Corridor of Opportunity is known for its significant recreational opportunities, a workforce with a strong work ethic, diversity of



business and the University of Okoboji. The University may be mythical, but the quality of life and vibrant business community are authentic within the Iowa Great Lakes Corridor of Opportunity."

The Corridor has experienced several recent changes which will help foster and promote a healthier, stronger, and expanded economic base in northwest Iowa. During the summer of 2005 a new executive director was named to the Corridor. Furthermore, in 2005 and 2006, the Corridor announced the expansion of the region's boundaries to include Emmet County and Buena Vista County. Once a two-county economic development group stretching from Spencer to Spirit Lake, the four-county corridor now includes Estherville to the east and Storm Lake to the south. One of the

reasons for the Corridor's recent expansion after successfully operating for 13 years as a two county economic development commission is because the State of Iowa looks more favorably at those regions comprised of at least three counties. The Corridor of Opportunity will now be eligible for future grant opportunities through the Iowa Department of Economic Development.

The Corridor of Opportunity offers a competitive financial assistance package to potential business expansions or relocations. A brief summary of assistance programs offered to member governments through the Corridor of Opportunity include:

- Grow Iowa Values Fund
  - Under the Iowa Values Fund, the State of Iowa offers low interest loans and forgivable loans to companies that create new employment opportunities and make new capital investments. The amount of funding is based in part, on the number of jobs created along with the quality of jobs created, wages paid, and amount invested. Previously, this program was called the CEBA or "Community Economic Betterment Account." Another financial assistance program similar to CEBA, but utilizing federal dollars is the EDSA or "Economic Development Set Aside" program. The EDSA program is also administered by the same state agency that administers the Iowa Values Fund.
- Tax Increment Financing
  - Tax increment financing or TIF, offered under the auspices of the Iowa urban renewal legislation, is a financing tool which allows a community to set aside a portion of the new tax revenue generated by an expanding or new company and then utilizing those added tax revenues to help fund economic development projects or infrastructure to directly benefit new economic development projects.
- Training Cost Assistance
  - The state's New Jobs and Training Program is designed to provide education and training for employees of new and expanding companies at little or no cost. The INJTP program is very flexible and can be tailored to fit different company's needs. Training can be used for on-the-job training, institutional and consultant services, trainings facilities, materials, training equipment and supplies, subcontracted services, travel for training, vocational and skills assessments, and other educational programs.
- Tax Credits
  - Businesses entering into an agreement under the state's training program and increasing their work force by at least 10% may qualify for a "New Jobs Tax Credit" which is applied towards their corporate income tax. The tax credit can be carried forward for up to 10 years.

# **INCOME DISTRIBUTION**

As employment opportunities increase in Dickinson County, the county will realize benefits including a greater tax base potentially leading to an increase in population. Studying the income distribution of a county compared to other counties can indicate overall wealth and subsequent purchasing power, providing some insight into the relative economic health of the county.

One way of analyzing incomes for a county is to examine median income levels. The 2000 median income for households in Dickinson County was \$39,020 for households and \$47,739 for families. The mean retirement income earned by those retired person in Dickinson County was \$13,014 in

2000. When Dickinson County median income figures are compared to the State of Iowa as a whole, the two are fairly close, but the state median figures are slightly higher. The median income for all households in Iowa was \$39,469 and \$48,005 for families during 2000. While the county's median income was slightly lower that the state's in 2000, income growth in the county over the last ten years compared to the state was very comparable. The Dickinson County median household income saw a 55 percent increase from the 1990 figure of \$25,211. This is compared to the state's 51 percent. Similarly, Dickinson County's median family income increased more than 56% from the 1990 figure of \$30,659, as compared to a 52 percent increase for the state.

Along with age and population figures, it is important to look at income distribution to examine what the residents of Dickinson County are earning in wages and salaries. This information will help determine the amount that residents can afford for current and future housing and living expenses, along with potential purchasing power. Table 5 shows household income for Dickinson County residents according to 2000 Census figures. It is should be noted that between 1990 and 2000 families in the two lowest income levels decreased in actual numbers, but all other income categories (\$15,000 to \$200,000+) have increased. The fact that higher income levels are increasing is a positive indicator of household and family income earnings in Dickinson County.

\$ In Income	# of Households	% of Total Households	# of Families	% of Total Families
Less than \$10,000	495	7.0%	151	3.2%
\$10,000-14,999	490	6.9%	154	3.2%
\$15,000-24,999	1,055	14.9%	455	9.6%
\$25,000-34,999	1,060	14.9%	679	14.3%
\$35,000-49,999	1,459	20.6%	1,123	23.6%
\$50,000-74,999	1,458	20.6%	1,236	26.0%
\$75,000-99,999	541	7.6%	484	10.2%
\$100,000-149,999	338	4.8%	311	6.5%
\$150,000-\$199,999	85	1.2%	67	1.4%
\$200,000 or more	113	1.6%	95	2.0%
Total Households	7,094	100.0%	4,755	100.0%

Table 17 - Dickinson County Household and Family Income Distribution, 2000

Source: U.S. Census Bureau, 2000

# **XIV. POPULATION & HOUSING**

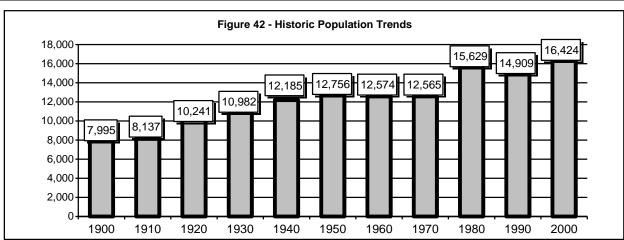
All of Dickinson County, but especially the Iowa Great Lakes region of Dickinson County, is unique in regards to population and housing trends unfamiliar and unseen to any other county in Northwest Iowa. Being known as Iowa's number one tourism destination in the State brings with it people, income, successes, and challenges that all affect the population and housing of the area as explored in this next section of this plan. Shifts and growth in population play a critical role in the planning process. Analysis of past trends and current population structure is important in making future population projections. Those projections, along with information about population characteristics such as age and household size, are fundamental in considering the need for future infrastructure improvements and the need for the development of residential, commercial and industrial areas. This section will examine past trends, current structure, future projections, and discuss their impact on the future of Dickinson County.

# PAST POPULATION TRENDS

Dickinson County's residents, tourists, and county officials have all seen a small rural county develop over the course of the past 100 years into the bustling tourism-oriented, urban county it has become today. Since 1900, the first decade in which Dickinson County was recorded in a census, the county has experienced growth every decade except for a small decline from 1950 to 1970 and during the 1980s decade. During the 50s decade, Dickinson County dropped 182 residents or a decline of 1.4%. The 1980s decade presented Dickinson County with its largest recorded population decline of 720 residents, or 4.6%. However, the two decades which offered periods of greatest growth for Dickinson County were relatively recent, being the 1970s and the 1990s. The 1970s saw Dickinson County grow by its largest margin in history, with an estimated 3,064 new residents. The 1990's decade also experienced periods of significant growth for Dickinson County and resulted with a net increase of 1,515 new residents, an increase of 10.2 percent.

YEAR	1890	1900	1910	1920	1930	1940
POPULATION		7,995	8,137	10,241	10,982	12,185
YEAR	1950	1960	1970	1980	1990	2000
POPULATION	12,756	12,574	12,565	15,629	14,909	16,424

Table 18 - Historic Population Trends, Dickinson County





# CURRENT POPULATION STRUCTURE

As of the 2000 Census, Dickinson County has a total population of 16,424 persons, of which 4,661 are rural residents. From 1990 to 2000, the rural unincorporated population of Dickinson County has increased from 4,325 to 4,661, a difference of 336 residents and a 7.8 percent increase. This trend alone is unique to Dickinson County, in that it is only one of a handful of counties in the entire state that experienced an increase in the rural population. Every other county across northwest Iowa experienced a loss of rural population. The continued expansion of the rural population base in Dickinson County will become a key factor for future community and economic development efforts.

Of the total population, 48.7 percent, or 8,001, are male, while 51.3 percent, or the remaining 8,423 residents, are female. This proportion of males to females is typical of the area due to the longer life expectancy of females. As seen in the chart below though, there appears to be a stronger presence of males in Dickinson County in the very young age groups, as well as the ages of 20 to 35. There is nearly a 13% difference in the number of male individuals in the 20 to 24 age bracket versus the number of females of the same age group. There is a stronger presence of females in Dickinson County in the 75 and older age brackets. This trend would go to support the statistic of women having the longer life expectancy.

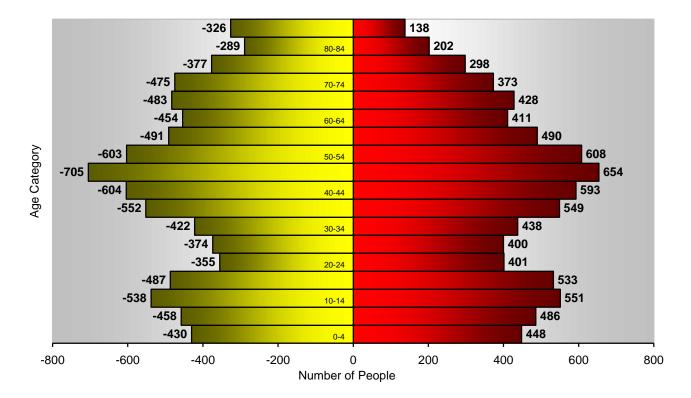


Figure 43 - Age Distribution Graph, 2000

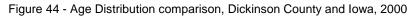
The median age of 43.3 years for Dickinson County residents is substantially higher than that of the State of Iowa which is at 36.6. Median age in Dickinson County has been increasing since the 1970 Census. One of the primary reasons for the median age of Dickinson County experiencing a 35% increase over the statewide average again reverts back to the tourism and resort nature of the lakes region. There are a large percentage of senior individuals who have chosen Dickinson County as

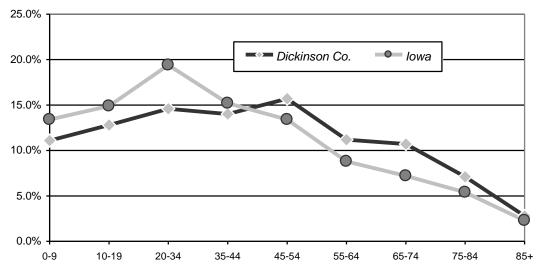
their place to retire. The aging factor in Dickinson County and the lakes is also unfortunately reflected in the declining enrollment of the local school districts. Nearly 21 percent of the county's 2000 population or 3,389 persons meet the U.S. Census' definition of elderly, which includes persons aged 65 and older. This demonstrates a clear need for special consideration when providing future county services and planning future land use growth decisions.

Age Cohort	Dickinson County	Percent	State of Iowa	Percent
0-9	1,822	11.1%	391,016	13.4%
10-19	2,109	12.8%	436,967	14.9%
20-34	2,390	14.6%	566,723	19.4%
35-44	2,298	14.0%	445,199	15.2%
45-54	2,570	15.7%	392,794	13.4%
55-64	1,846	11.2%	257,412	8.8%
65-74	1,759	10.7%	211,935	7.2%
75-84	1,166	7.1%	159,160	5.4%
85+	464	2.8%	65,118	2.3%
Total	16,424	100.0%	2,926,324	100.0%

Table 19 - Age Distribution of Population, 2000 (Dickinson County and Iowa)

Source: U.S. Census Bureau, 2000 Census





The 2000 Census indicated 211 or 1.3% of the county's residents were members of a minority race. More than 98 percent of the county's population were identified as Caucasian, while 34 residents were American Indian, 29 individuals are Black or African American and 30 more residents are identified as Asian. According to statistics, there are 70 persons that declared "two or more races". Of all races, 109 persons in Dickinson County declared they were of Hispanic or Latino decent constituting 0.7% of the total population. These numbers of minorities are important when determining the services that are to be provided. As these segments of the population continue to grow, the county's policies and goals with respect to personnel and service provisions may need to be evaluated and adjusted.

## RURAL VERSUS URBAN

Roughly 71 percent of Dickinson County's 1990 population resided in one of the county's 10 incorporated cities, which range in size from Spirit Lake (population 4,261) to Superior (population 138). Dickinson County's cities have fared better in attracting and retaining residents over the past 20 years than the county's unincorporated, or "rural" area, even though the county's rural population increased during the 1990's. During the population boom of the 1970s, the cities added 2,524 residents, for a 30.7 percent increase in population. The county's rural population grew, too, but at a much lower, 12.4 percent rate. While population declines were seen by both the cities and the county's rural area during the 1980s, the cities' numbers fell by only 1.5 percent, while the unincorporated Dickinson County realized an 11.4 percent decrease. Similarly, from 1990 to 2000, the county's incorporated or "urban" population grew by 11.0 percent from 10,593 to 11,763 residents, while the rural unincorporated population posted a gain of 7.8 percent from 4,325 to 4,661 residents.

Individually, population trends among Dickinson County's cities have varied widely over the past 20 years. During the 1980s, the populations of only four cities grew, while the remainder saw population losses. However, this trend quickly turned around during the 1990's when all but one of the cities in Dickinson County experienced population gains varying from 2.7 percent (Lake Park) to 64.3 percent (West Okoboji). Only the City of Wahpeton declined in population during the 1990s, dropping from 484 to 462 residents for a loss of 4.5 percent. The two largest population gainers during the 1990s, West Okoboji and Arnolds Park both benefited from the development of lakeshore lots and the redevelopment of lakefront property. On the other hand, property gains experienced in Spirit Lake and Milford were partially related to several annexations occurring during the late 90s.

The unincorporated areas around Dickinson County's lakes claim a disproportionate share of the county's rural population. The rural population is concentrated most heavily in Center Grove Township, which includes most of East Okoboji Lake's shoreline, as well as Center Lake and part of West Okoboji Lake. Rural population is also concentrated heavily in Lakeville Township, which includes most of West Okoboji Lake's shoreline, and Spirit Lake Township, which includes Spirit Lake's shoreline. Westport and Excelsior townships, neither of which includes any incorporated cities, are the least densely populated. As farm sizes grow and the incorporation of more and larger corporate farms emerges, the population shift away from rural townships to the "urban center" of Dickinson County can be expected to continue. Most likely, Dickinson County will see a greater disparity of rural versus urban population shifts in coming decades.

## FUTURE POPULATION PROJECTIONS

Accurate estimates of population for a county are important factors in determining future needs for services, housing, and infrastructure. Analysis of population projections can provide some insight into the type and quantity of future development and allows local officials to set land use policies to guide expected development. A few reputable agencies, including the Iowa State Demographer's office and the private consulting firm of *Woods & Poole Economics, Inc.* have developed population and demographic projections at the county level.

One method used to determine future population is to explore and analyze the data presented in *Woods and Poole Economics, Inc.* population projections. *Woods and Poole Economics, Inc.* is an independent corporation located in Washington D.C. that specializes in long term county economic

and demographic projections. Woods and Poole, Inc. maintain a database for every county in the U.S. which contains projections through 2030 for more than 550 variables. Using *Woods & Poole Economics, Inc.* data is perceived to be more accurate than other sources or methods of calculating population projections. *Woods & Poole Economics, Inc.* data accounts for in-migration and out-migration, as well as economic factors; whereas other projection models such as the cohort-survival method bases its numbers strictly on births and deaths within a given population.

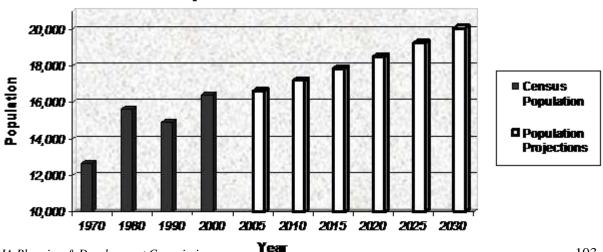
Of particular interest is the declining size of households in Dickinson County. Between 1970 and 2000 the average persons per households has decreased from 2.87 to 2.27. Future projections indicate a continuing trend in declining household size, down to a projected low of 2.11 in 2025. The decline in household size is typically attributed to an aging population, the decline in family size, and an increase in the divorce rate which can create additional households with no increase in population. With a projected declining household size, but a projected increasing population, this will have a tremendous impact on the number of future housing units required in future years to accommodate the county's housing needs. As experienced in recent trends throughout Dickinson County, Woods and Poole data predicts the county's population will continue to increase, with a population topping 20,000 by the year 2030.

YEAR	DICKINSON COUNTY POPULATION	PERSONS PER HOUSEHOLD FOR COUNTY
*1970	12,565	2.87
*1980	15,629	2.55
*1990	14,909	2.34
*2000	16,424	2.27
2005	16,610	2.21
2010	17,200	2.17
2015	17,850	2.14
2020	18,510	2.12
2025	19,250	2.11
2030	20,060	2.12

Table 20 - Projected Population & Persons per Household, 2005-2030

\* Source: U.S. Census Data 1970, 1980, 1990, 2000; 2005 to 2030 are projections by Woods & Poole Inc. 2005







Another factor impacting Dickinson County's future population trends, but not yet discussed is the impact that proposed future annexations will have upon the county. With most of the rural portions of the Iowa Great Lakes region in Dickinson County already developed with primarily residential properties, any future annexation by the cities in Dickinson County will most likely result in the loss of several hundred county residents and many housing units. For example, if a city in Dickinson County annexes a rural subdivision of 100 housing units, with a countywide average of 2.0 persons per household, the county's rural population would decrease by 200 persons. Although the overall county population is not going to change in this scenario, the continued annexation of rural properties will continue to have significant impacts on rural revenues received through taxation and the perhaps even the provision of rural county services in some circumstances. The loss of one significant rural housing subdivision can result in the loss of millions of dollars in assessed property which in turns generates tax revenue to assist in the provision of county services such as road repair, county sheriff's services, and human services.

When considering population projections, potential socioeconomic variables are not factored in. The projections are based strictly on past population trends and do not take economic and sociological forces into consideration. These variables alone are quite difficult to project and forecast and then to apply them to population projections is even more difficult. A number of assumptions would have to be made and the margin of error at each level of application increases. Factors that may affect population estimates include business expansions, the availability of new housing units, new subdivision development, or a rise or decrease in the cost of living. In some cases a lack of services will drive prospective homeowners to other areas where services are more readily available.

## HOUSING VALUATIONS

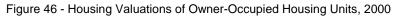
Dickinson County's housing stock is comprised of a variety of housing styles and values. Current census figures show 11,375 housing units in the county. In order to get indications of the current housing stock; it is useful to identify changes in the current housing market and vacancy rates. Dickinson County is currently experiencing a very tight housing market. According to the table below, from 2000 census data, the largest category of home values was in the \$50,000 to \$99,999 price range. Dickinson County has an unusually high percentage of homes valued above \$300,000.

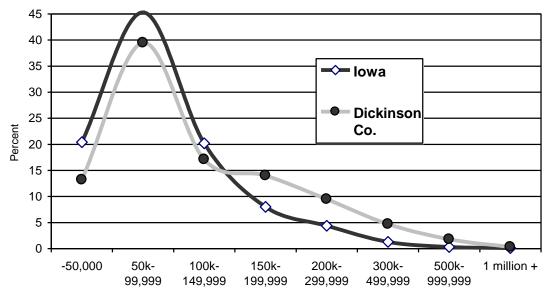
Valuatio	Valuations of 4,332 Specified Owner-Occupied Housing Units – Dickinson County, 2000								
Value in 2000	<\$50,000	\$50,000- \$99,999	\$100,000 \$149,999	\$150,000 \$199,999	\$200,000 \$299,999	\$300,000 \$499,999	\$500,000 \$999,999	\$1 million or more	Median value (\$)
# of Homes	570	1,709	740	608	411	203	77	14	¢09 900
% of Homes	13.2%	39.5%	17.1%	14.0%	9.5%	4.7%	1.8%	0.3%	\$98,800
Source: 2	2000 U.S. Cer	nsus Data						1	1

Table - 21

Valuatio	Valuations of 665,442 Specified Owner-Occupied Housing Units – Iowa, 2000								
Value in 2000	<\$50,000	\$50,000- \$99,999	\$100,000 \$149,999	\$150,000 \$199,999	\$200,000 \$299,999	\$300,000 \$499,999	\$500,000 \$999,999	\$1 million or more	Median value (\$)
# of Homes	135,833	301,591	134,212	53,228	29,483	8,938	1,743	414	\$82,500
% of Homes	20.4%	45.3%	20.2%	8.0%	4.4%	1.3%	0.3%	0.1%	\$82,300
Source: 2	2000 U.S. Cer	nsus Data							

Table - 22





It is expected this trend will continue, and the greatest number of new homes will be found in the higher price ranges. The trend will also continue to produce higher priced housing that may not be as easily accessible for people who are first-time homebuyers or one-income families. Programs for first-time homebuyer assistance, down-payment assistance, or moderately priced new housing subdivisions might benefit prospective new homebuyers in Dickinson County. Housing financial assistance program address those state and federal programs available to improve the condition, quality, and ownership of single family housing in Dickinson County. Assisting housing needs may be attained through the use of a wide range of state and federal housing program.

- Tab Abatement (local government)
- Tax Increment Financing (local government)
- Homeless Assistance Grants Program (IDED)
- Iowa Housing Fund (IDED, HUD)
- Local Housing Assistance Program (IDED)
- Affordable Housing Tax Credits (IFA)

- Housing Assistance Fund (IFA)
- Affordable Housing Program (FHLB)
- Community Investment Loan Program (FHLB)
- 3/2 Option (Fannie Mae)
- Fannie 97 (Fannie Mae)
- Start-up Mortgage (Fannie Mae)
- Community Seconds (Fannie Mae)
- Lease-Purchase Loans (Fannie Mae)
- HomeStyle Mortgage (Fannie Mae)
- Homeownership Loans (USDA)
- First Time Homebuyer Program (USDA)
- Rural Rental Housing Loans (USDA)
- Housing Preservation Grant Program (USDA)

#### Funding agencies (KEY)

Local Government -	Dickinson County or cities in the county
IDED -	Iowa Department of Economic Development
IFA -	Iowa Finance Authority
USDA (RD) -	United States Department of Agriculture, Rural Development
HUD -	United States Department of Housing and Urban Development
FHLB -	Federal Home Loan Bank (Des Moines, IA or Sioux Falls, SD locations)
Fannie Mae -	Fannie Mae Iowa (Des Moines location)

### HOUSING OCCUPANCY CONDITIONS

The table below indicates occupancy and vacancy rates according to 2000 Census data. The number of total housing units has increased, as the vacancy rate has also increased for single-family households. The vacancy rate for single family housing is a little more than 5 percent with a nearly 11 percent vacancy rate for rental properties. A vacancy rate of near 5 percent is considered healthy for both buyers and sellers. The table below clearly indicated the seasonal nature of housing and population in Dickinson County. Of the more than 11,000 housing units in Dickinson County, slightly more than 7,100 or 62% are occupied, leaving nearly 4,300 vacant housing units. This statistic would seem alarming in any other given situation, but a closer look reveals that of the 4,300 vacant housing units in Dickinson County, close to 3,700 are considered to be seasonal. Seasonal housing accounts for more than 32 percent, or almost one-third, of all housing units in the county.

Table	- 23

Vacancy Status – 2000									
COUNTY	TOTAL HOUSING UNITS	OCC. HOUSING UNITS	TOTAL VACANT UNITS	HOU	ANT SING ITS	SEASO RECRE		Owner Vacancy Rate	Renter Vacancy Rate
				#	%	#	%		
Dickinson County	11,375 100%	7,103 62.4%	4,272 37.6%	600	5.3	3,672	32.3	2.8%	10.9%

Source: U.S. Bureau of Census, 2000

## HOUSING UNIT PROJECTIONS

The average household size in Dickinson County during 1990 was 2.34 persons per household. This figure had slightly decreased to 2.27 pph by 2000, according to census figures. The fact that household size is decreasing in Dickinson County is a trend taking place throughout the region, state, and nation. Using average household size and population projections one can predict future housing needs. Between 1990 and 2000, Dickinson County's total housing units increased from 9,723 to 11,375 (+17%). This gain in housing units can most likely be attributed to the county's growing population, an increase in tourism and tourism related seasonal housing, and to an increasing trend of fewer persons per households. Also, the economic boom of the late 1990's decade afforded many people the opportunity to build new houses with declining interest rates and a generous lending market.

Year	2010	2020	2030
Projected Population	17,200	18,510	20,060
Projected Household Size	2.21 pph	2.12 pph	2.12 pph
Units Needed For Population Increase	7,783	8,731	9,462
Average Demolition of 1 House per year	5	15	25
Total Housing Units Needed	7,788	8,746	9,487
Current 'year-around' Housing units in 2000	7,703	7,703	7,703
Increase From 2000	85	1,043 (+958)	1,784 (+741)

Table 24 - Projected Housing Units needed in 2010, 2020 and 2030

# **XV. TRANSPORTATION & INFRASTRUCTURE**

Dickinson County's surface transportation network includes one highway included in the Iowa Commercial and Industrial Network, U.S. Highway 71. The other highway designated as a "principal arterial" by IDOT is Iowa Highway 9 between Spirit Lake and the Emmet County Line.

The county's secondary roads system includes 655 miles of rural roads, including 173 miles of paved roads, 453.3 miles of gravel roads and 26.2 miles of dirt roads. During the past two decades, the Secondary Road Department experienced a significant increase in traffic on paved county roads, as both residents and visitors sought alternate routes in order to avoid the "lakes" area traffic congestion experienced during the summer tourism season. Additionally, farm-to-market roads also received a considerable increase in use as axle loads for trucks and trailers continue to increase.

Dickinson County has also seen a population increase and remains one of the fastest growing rural counties in Iowa. As a result, development and increased traffic has put pressure on new paving projects. Short cuts and/or gravel road bypasses have significantly increased traffic in and around the cities in the lakes area. Dickinson County has been active with all of the cities in the county upgrading roads with joint city-county jurisdiction. The shift in traffic trends has also forced the reprioritization of services. The county instilled a "level of service" ordinance to which 74.4 miles of road are now classified as level "B" service. The ordinance continues to be modified on an as-needed basis. The two requirements in determining a level "B" road are first, there are no residences along the road; and second, the road is not on a bus route.

The Secondary Road Department has put a major emphasis on bridge replacement projects in recent years. The bridge replacement work was focused on the winter season, which was tremendously successful due to the mild winters in the recent years, and the fact traffic is reduced in the off-tourism and post harvest season.

The future is bright in Dickinson County with robust development and economic growth. The Road Department will continue to emphasize a balance between rehabilitation of existing paved roads and the accommodation with developing areas. The reconstruction of US 71 through the lakes to three, four, and five lanes has been a huge improvement. However, increased stoplights and over 14,000 vehicles per day will continue to "bottle neck" the traffic during the summer months. As a result, Dickinson County officials will need to continue to focus on alternate routes and increasing traffic on the secondary road system.

Over the continuation of the next fifteen to twenty years in Dickinson County, both the Board of Supervisors and staff will continue to emphasize and participate in the rehabilitation and repair of existing roads rather than new paving. The county inspects 80 bridges annually, and roughly 25 percent of these bridges are slated for replacement or repair over the next several years. Gravel roads serving uninhabited areas of the county have been left unplowed during the winter as an alternative to minimum maintenance roads. To date, the county has discovered that the designation of minimum maintenance roads has generated minimal savings. Continued growth in the Lakes region and continued resources on the eastern and western borders of the county may necessitate the future expansion or development of county maintenance facilities.

## STREETS

Dickinson County's street and road network is an indispensable resource for the county. Few other elements so drastically affect development. Traffic systems have evolved from a constantly changing set of determinants. A few of these determinants governing current and future roadway design are:

**Psychological Factors:** 

- 1. The population masses using a traffic system tend to follow the fastest course.
- 2. When a properly designed traffic system is not provided, the driving public establishes one by finding alternative routes, regardless of adjacent land uses and other planning considerations.
- 3. The driving public tends to drive according to environmental conditions of the roadway.

### Economic Factors:

- 1. Streets and roadways comprise a large percentage of land acreage within the county and, consequently, substantial capital assets are tied up in the total land value of the roadways.
- 2. The current capital expenditures for road improvements, maintenance costs, construction costs, etc., of the roads are a substantial portion of county, state, and federal expenditures.

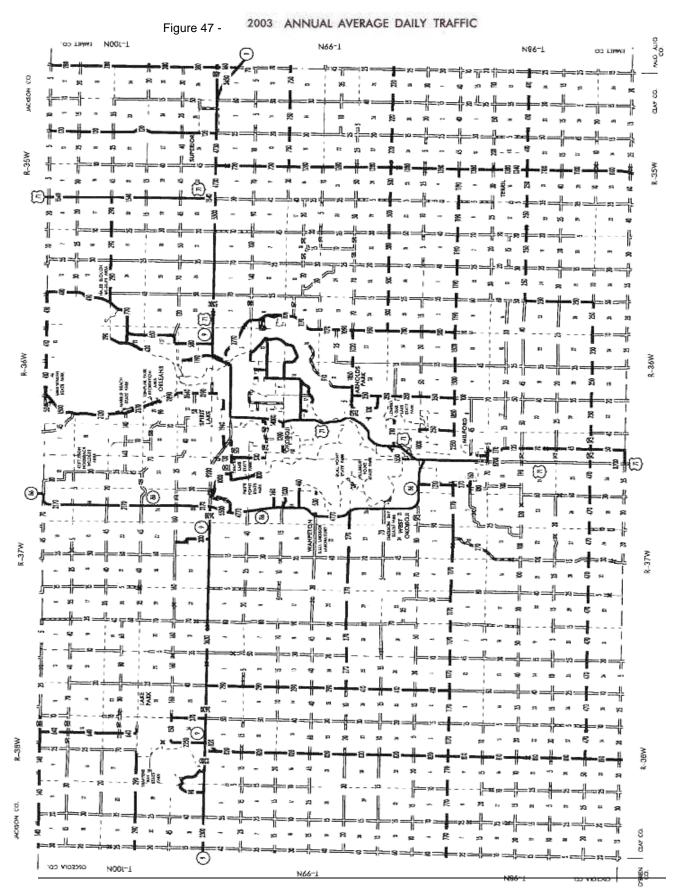
#### **Physical Factors:**

- 1. Street grades and the grades of abutting properties may restrict driver sight distances.
- 2. Street and county road intersections can have severely restricted sight clearances as a result of private/public signs, trees, and crops during certain times of the year.
- 3. Poor intersection design can prohibit proper legal turns of vehicular traffic. Aside from proposed hazards, these conditions also severely reduce traffic flow capacities.
- 4. Poor street alignment, right-of-way cross-sectional grading and drainage techniques, etc. can contribute additional safety hazards.

## **TRAFFIC FLOW**

Traffic flow has increased substantially in parts of Dickinson County over the past four years, whereas other areas of the county have seen declines in traffic flow. In 1999 the Highway 71 improvements through the Iowa Great Lakes area were completed and have henceforth seen a 37% increase in traffic. Traffic counts near Center Lake (in the City of Spirit Lake) on Highway 71 increased from 10,200 in 1999 to 14,000 by 2003. On the eastern side of the county, traffic decreased from 4,840 in 1999 to 3,700 in 2003 at the intersection of Highways 71 and 9. On the other side of the county, traffic increased near the City of Lake Park from 3,260 (1999) to 3,630 (2003). Traffic has also appeared to increase in the southern portion of the county, climbing to 8,700 vehicles in 2003 from 8,100 in 1999 just south of Milford on Highway 71. Below is a map indicating the most recent traffic flow figures gathered from the Iowa DOT in 2003.





## STREET CLASSIFICATION (DEFINITIONS)

An understanding of the following standard thoroughfare definitions is necessary for the proper understanding of the county's streets plan, as well as reading and comprehending the IDOT's Federal Functional Classification map.

The values contained herein, specifically under design criteria are to be considered basic design guidelines that serve as framework for satisfactory design of new street and highways facilities. The County's Engineer is encouraged to develop the design based on this framework and tailored to particular situations that are consistent with the general purpose and intent of the design criteria through the exercise of sound engineering judgment. Cost effective design is encouraged along with the joint use of the transportation corridor and the consideration of the environment.

The following street classification definitions are in accordance with the 2004 Iowa Statewide Urban Design Standards for public improvements. Streets and highways are functionally classified according to the character of service they are intended to provide. This classification recognizes that individual roads and streets do not serve travel independently. Rather, most travel involves movements through networks of roads and can be categorized relative to such networks in a logical and efficient manner. Thus, functional classifications of roads and streets are also consistent with categorization of travel. The three major functional classifications for urbanized areas are Arterials, Collectors, and Local Streets and are consistent with American Association of State Highway and Transportation Officials (AASHTO).

### ARTERIAL STREETS

1. <u>Major/Principal Arterial (Primary Highway Extensions)</u> - The major/principal arterials serves the major center of activities of urbanized areas, the highest traffic volume corridors, the longest trip, and carries a high proportion of a total urban travel on a minimum of mileage. The system should be integrated both internally and between major rural connectors. The major/principal arterial system carries most of the trips entering and leaving the area as well as most of the through movements bypassing the central City. In addition, significant intra-area travel such as central business districts and outlining residential areas between major inter-City communities and between major suburban centers are served by principal arterials. Frequently, the major/principal arterial carries important intra-urban as well as inter-City bus routes. Finally, in urbanized areas, this system provides continuity for all rural arterials. Access to the principal arterial is specifically limited in order to provide maximum capacity and through movement mobility. Although no firm spacing rule applies in all or even in most circumstances, the spacing between principal arterials may vary from less than one mile in highly developed central areas to five miles or more in developed urban fringes.

2. <u>Minor Arterial (Primary and Non-Primary)</u> - The non-primary arterial inter-connects with and augments the principal arterial system. It accumulates trips of moderate length at somewhat lower level of through movement mobility than principal arterials. This system places more emphasis on land access but still has specific limits on access points. A minor arterial may carry local bus route and provide inter-community continuity but ideally does not penetrate identifiable neighborhoods. This system includes urban connections to rural collector roads where such connections have not been classified as urban principal arterials. The spacing of minor arterials may vary from 1/8 to 1/2 mile in highly developed areas to 2 miles in suburban fringes but is not normally more than 1 mile in fully developed areas.

#### COLLECTOR STREETS

1. <u>Major Collector</u> - This type of street provides for movement of traffic between arterial routes and minor collectors and may at moderately lower speeds collect traffic from local streets and residential and commercial areas. A major collector has control of access to abutting properties with a majority of access at local street connections. Normally, a slightly higher emphasis is placed on through movements than direct land access.

2. <u>Minor Collector</u> - This type of street provides movement of traffic between major collector routes and residential and commercial local streets as well as providing access to abutting property at moderate low speeds. A consideration for through movements and direct land access is normally equal.

LOCAL STREETS

The local street provides for the movement of traffic between collectors and residential and commercial areas. Local streets provide the direct access to abutting residential and commercial property and carries low traffic volumes at low speeds on relatively short trips. Certain jurisdictions allow private streets in specific situations. Private streets are similar to the local streets but generally are located on dead-end roads less than 250 foot in length, short loop streets less than 600 feet in length or frontage roads parallel to public streets.

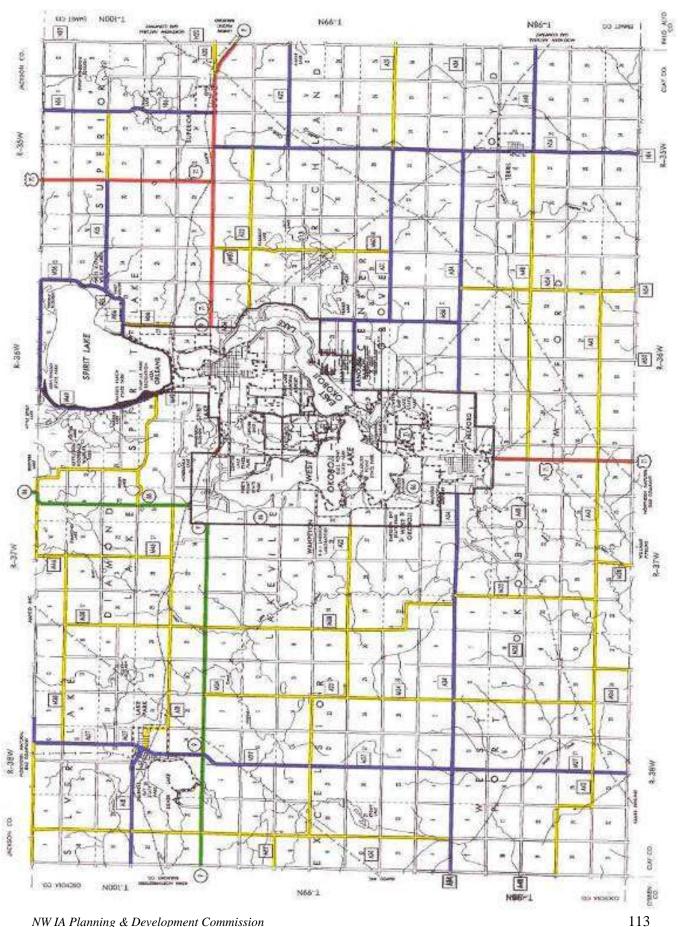
#### FEDERAL FUNCTIONAL CLASSIFICATION OF ROADS

The Iowa DOT 2003 Federal Functional Classification map depicts major transportation routes across Dickinson County. Classifications of roads found in the county include principal arterial, minor arterial, major collector, minor collector, and local streets. The county's federal functional classification map can be seen on the following page.

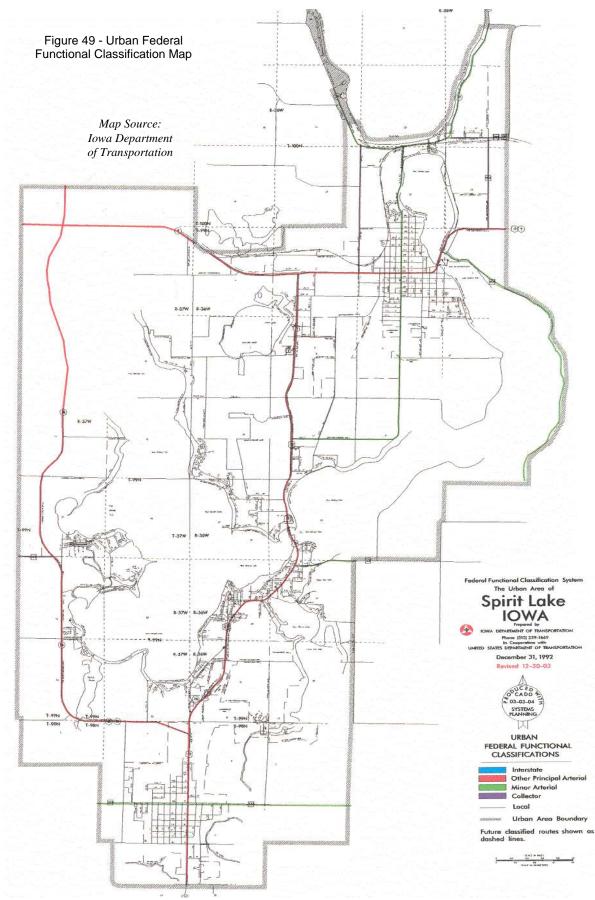
Furthermore, following the county's rural classification map is another federal functional map indicating the street classifications located within the "Spirit Lake, Iowa" urban area (Iowa Great Lakes region of Dickinson County). Previously, the Iowa Department of Transportation only recognized communities in excess of 5,000 population as small urban centers, and therefore mapped with designated federal functional classification routes. Since 2003, the IDOT decided to consider the Iowa Great Lakes region a small urban center as a whole, with a combined population of 10,194.

Federal Functional Classification Map	RURAL
Dickinson County	FEDERAL FUNCTIONAL
Figure 48 -	CLASSIFICATIONS
IOWA DEPARTMENT	Interstate
OF TRANSPORTATION	Other Principal Americal
Proves \$510,239-1449	Minor Americal
In Cooperation	Major Collector
United States	Minor Collector
Department of Transportation	Lacel
DECEMBER 31, 1992	Future classified routes shown as dashed bries.
The spin law prime and the second	County line roads on the south and east are classified by the adjacent county.

NW IA Planning & Development Commission



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## DICKINSON COUNTY 5-YEAR ROAD CONSTRUCTION PLAN

The Dickinson County Engineering Department has prepared and annually updates and prioritizes its long-range road construction program. In June 2005, the Engineering Department provided the most recent 5-year road construction program for purposes of including in this comprehensive plan. The following road construction plan begins with FY 2006 and projects road projects through FY 2010. There are 42 overall projects identified and prioritized over five years. Below is a prioritized list of the County's proposed road projects along with a map on the following page which corresponds with the identified projects.

## FY 2006

- 140<sup>th</sup> Street, H.M.A. resurface (joint project with Orleans)
- 125<sup>th</sup> Street/253<sup>rd</sup> Avenue, H.M.A. resurface
- County Hwy. M-56, C.I.P. and H.M.A. resurface and widen
- County Hwy. A-15, H.M.A. resurface
- 110<sup>th</sup> Street/290<sup>th</sup> Avenue, culverts
- Woodlyn Hills/202<sup>nd</sup> Street, H.M.A. resurface
- Replace Chaffin Bridge
- County Hwy. M-27, seal coat
- Replace Triggs Bridge (joint project with Arnolds Park)
- 170<sup>th</sup> Street (County Home Road), H.M.A. resurface
- 160<sup>th</sup> Street/270<sup>th</sup> Avenue (Hummel Road Bypass), grading

# FY 2007

- 160<sup>th</sup> Street/270<sup>th</sup> Avenue (Hummel Road Bypass), paving
- 327<sup>th</sup> Avenue, H.M.A. pave (joint project with Superior)
- Meyerick Bridge, replace with culvert
- County Hwy. A-48 east of Terrill, H.M.A. resurface
- Powell Bridge (County Hwy. A-48), replace with culvert
- County Hwy. A-43 west of Terrill, H.M.A. resurface
- 180<sup>th</sup> Avenue (A-43 to A-34 on M-38), grading
- Shuck's Road cut-off, grading
- Hartman Bridge, replace with culvert
- Nattress Bridge, replace with culvert

## FY2008

- 240<sup>th</sup> Avenue (Peoria Ave.), H.M.A. resurface (joint project with Spirit Lake)
- Arthur Heights, H.M.A. resurface
- County Hwy. M-56, shoulder widen and paving
- Lower Gar Outlet, install pre-cast box culvert
- Old Hwy. 71 Milford Twp., H.M.A. widen/resurface
- Moore Lake Development, H.M.A. resurface
- Center Lake Road, H.M.A. paving

## FY 2009

- Diamond Lake Road, H.M.A. paving
- County Hwy. M-27 (north of Lake Park), widen shoulder
- County Hwy. N-22 (joint project with Emmet County), H.M.A. resurface
- 240<sup>th</sup> Street (Dick Long Road), grading
- Kaneb Bypass Road, H.M.A. resurface
- Cranston Culvert, replace culvert
- Spooky Hollow Bridge, replace bridge with new bridge

## FY2010

- Highway 9 (near Pioneer Beach) turning lane (joint project with IDOT)
- County Hwy. N-14, rehab work/culvert extension
- County Hwy. N-14, rehab work/guardrail rehab
- Dingle Bridge, replace bridge with culvert
- Johnson/Chaffin Road, grading
- Horseshoe Bend Bridge, replace bridge with new bridge
- 100<sup>th</sup> Street, culvert replacement

# Insert County Engineer's 5-year Construction Program Map

## COUNTY PUBLIC TRANSIT SERVICES

The Regional Transit Authority (RTA) dba as *RIDES* is the local transit provider for Dickinson County. *RIDES* is the regional transit provider for a nine (9) county region in Northwest Iowa. Specifically for Dickinson County, *RIDES* provides transit service to the communities of Spirit Lake, Lake Park and Wahpeton on a fixed route every Tuesday. The Regional Transit Authority provides service to the cities of Milford, Arnolds Park, Okoboji, Spirit Lake, Harris, and Lake Park on Mondays through Fridays from 7:00 a.m. to 9:00 p.m. on an on-call basis.

Other services provided to Dickinson County residents include the Medivan. When residents of the county need transportation assistance to healthcare appointments, *RIDES* provides a safe, reliable form of transportation. *RIDES* will take residents to a Spencer area doctor or hospital appointment and a return trip home for only 24 cents per mile. Also, taxi service is offered in Spirit Lake and Okoboji every Tuesday, Wednesday and Friday from 9:00 a.m. to 3:00 p.m. General Taxi rides are \$2.00 per ride or \$1.50 for seniors. Finally, *RIDES* also provides the taxi service for the Dickinson County Dinner Date program on every Tuesday, Wednesday and Friday and Friday. Dinner Date is a meal and socialization program for Dickinson County senior residents. Dinner Date participants can ride the transit system for a suggested 50 cent contribution. General out-of-county routes for the *RIDES* transit service are accommodated for \$2.50 per ride.

## AIRPORT CONSIDERATIONS

Two airports currently within operate Dickinson County. The Spirit Lake Municipal Airport, located within the City of Okoboji has a functional level classification of III (Statewide Significance), and provides primary access for adjacent cities and nearby areas by small engine or twin engine aircraft, as well as some larger twin engine and limited jet operations. The Milford Municipal Airport, also known as the Fuller Airport, has a functional level classification of IV (Local Significance), and provides services to local aviation needs in the small single/twin engine aircraft. Space limitations have restricted expansion of both facilities, and safety concerns have threatened the Okoboji site's continued operation.

Figure 50 – Aerial Photo of Spirit Lake Municipal Airport



Photo Source: AirNav.com

The locations of Dickinson County's two airports at Milford and Okoboji present serious planning problems in that both airports are surrounded by land that is highly suited for urban-type land uses. There are several proposals as to the future of both airports, but the assumption for purposes of this plan is that each will be expanded on its current site. Therefore, to allow for future expansion, the area west of the Milford Airport, and the area north of the Okoboji site has been given a future land use classification of Agriculture. Through the use of this Agricultural classification and a larger Agricultural zoning district, it is hoped that urban land use types will be kept out of these areas in an effort to eliminate future conflicts with noise and air pollution, health hazards, etc.

If public bodies are approached to allow additional residential development adjacent to airport sites, special considerations must be incorporated into the dwelling design and enforced through the use of protective covenants. Multi-family structures are an adequate airport buffer if soundproofing is incorporated into the dwelling design. Development must be kept out of the necessary runway clear zones. Since the exact relocation or expansion of each site is not known, adequate space must be kept free of urban development to give the facility a fair chance of expansion. However, within the near future, Dickinson County in cooperation with the airport boards, must determine future direction so eventual development of the surrounding areas is not needlessly held up.

There are those in Dickinson County that favor abandonment of both current airports in collaboration with a new Dickinson County Regional Airport. In years past, the IDOT has addressed the Dickinson County airport issue and considers development of a new county airport necessary. If a new airport is developed, prime agricultural land will probably need to be taken out of production in the interest of developing a site for the new airport. Upon completion of a new airport, both existing airports would be sold and probably best utilized for local residential or public/civic development. A third proposal being discussed also suggests that both local airports in Dickinson County could be abandoned without a new airport being built in Dickinson County. This alternative would require all air traffic in Dickinson County to relocate to the Northwest Iowa Regional Airport located in Spencer, approximately 12 miles south of Milford.

# WATER USE AND SUPPLY

There are five primary sources of water usage in Dickinson County. By far, the largest number of water users in Dickinson County is the livestock production facilities which supply water to approximately 85,038 units. However, livestock production only accounts for 222 million gallons of water per year, whereas the public water supplies in Dickinson County account for 900 million gallons of water per year. Public water supplies are those sources that are supplying water to residents of Dickinson County. Other water usage in the county consists of private use and farms accounting for 1,027 units and 62 millions gallons per year. Irrigation and mining are the remaining two water uses and account for a combined 20 units for 83 million gallons per year. These figures are provided by the Iowa Plan Survey, 1994.

Public Water supplies account for more than 900 million gallons of water per year in Dickinson County. According to figures from Iowa State University's Social and Economic Trend Analysis, there are 23 public water supplies in Dickinson County. Below is a table depicting the size and usage of Dickinson County's public water systems.

System Name	Туре	# of Connections	Source type	Total Annual Use (mgy)
Central Water System	HD	3	Surface (lake)	158.3
Lake Park Country Club Dr.	HD	42	Purchase	1.2
West Okoboji Harbor	HD	144	Wells	4.4
City of Arnolds Park	City	802	Purchase	81.6
City of Milford	City	812	Surface	126.6

Table 25 – Dickinson County Public Water Systems

System Name	Type	# of Connections	Source type	Total Annual Use (mgy)
City of Okoboji	City	833	Purchase	83.0
City of Spirit Lake	City	2,598	Surface (lake)	202.0
City of Superior	City	73	Wells	4.5
City of Terril	City	200	Wells	15.7
City of Wahpeton	City	492	Surface (lake)	35.0
City of West Okoboji	City	293	Purchase	15.8
City of Lake Park	City	505	Surface (lake)	40.0
Harlan Beach Trailer Park	MHP	42	Wells	1.3
Anglers Bay Park	Rec	0	Wells	NA
Cutty's of Okoboji	Rec	0	Wells	26.3
Hedge Row Resort	Rec	0	Wells	0.9
Min-Wakan State Park	Rec	0	Wells	NA
Okoboji View Golf Course	Rec	0	Wells	1.5
United Methodist Camp	Rec	0	NA	6.4
Woodlyn Hills Golf Course	Rec	0	Wells	0.4
YMCA Camp Foster	Rec	0	Purchase, Wells	1.9
Clay Regional Water	RW	503	Purchase	54.8
Osceola Rural Water	RW	508	Purchase	38.5
TOTAL				900.1

Source: Iowa Plan Survey, 1994 Note: HD: Housing Development, MHP: Mobile Home Park, Rec: Recreation, RW: Rural Water

# RURAL WATER SYSTEMS

## Osceola Rural Water Association

Osceola Rural Water is headquartered in rural Osceola County, just north of Sibley and serves rural clients in all of Osceola, most of O'Brien, and a portion of western Dickinson County. In Dickinson County, Osceola Rural Water provides a water supply to residents living along the northeastern, northern, and western edge of West Lake Okoboji. This covers the Monarch Cove Subdivision, and those residents living north of the Okoboji City limits, around the north end of the lake to the Triboji subdivision and south to Village West Resort and covering those properties south to the Wahpeton city limits.

Pertaining to its Dickinson County clients, Osceola Rural Water purchases its water supply from the City of Milford to serve its 508 connections in Dickinson County. Osceola Rural Water customers used 38.5 millions gallons per year according to the Iowa Plan Survey.

#### Figure 51 – Osceola RW Tower



Following this section is a map depicting the service territory and locations of water mains and water towers provided by the Osceola Rural Water Association. As seen in the map, Osceola Rural Water's service area covers much of the northwestern portion of Dickinson County, most of the properties surrounding the west side of West Okoboji Lake, and some areas along the northeastern shores of West Okoboji Lake.

## Clay Regional Water Association

Figure 52 – Clay Regional water tower



Clay Regional Water system is located in Spencer, Iowa and provides a water supply to residents in Clay and Dickinson Counties, and portions of Emmet, Palo Alto, Buena Vista, and O'Brien counties, and Jackson County, MN. Clay Regional water was formed in 1977 under the name Clay County Rural Water District to assist rural homeowners by providing quality water in an area of the state where it is difficult to find good water sources through traditional wells. Clay Regional Water's mission statement is: "To serve as a regional utility organization and to provide the appropriate services reasonably necessary for the public health, economic development, convenience and comfort of its members."

In providing services for its Dickinson County clients, Clay Regional Water purchases bulk water from the Central Water System in Okoboji to supply its 503 hook-ups. Clay Regional Water customers in Dickinson County used 54.8 million gallons per year according to the 1994 Iowa Survey Plan.

On the page following Osceola Rural Water Association's service territory map, is a similar map depicting Clay Regional Water's service area, water mains, service connections, lift stations, and water towers for their service area in Dickinson County. As depicted in the map, Clay Regional Water has a service territory which covers approximately the eastern two-thirds of the county, including virtually all of the land east of West Okoboji Lake.

# Osceola Rural Water – Service Area Map

# Clay Regional Water – Service Area Map

## **RURAL WASTEWATER SYSTEMS**

Wastewater treatment is provided to Dickinson County by the Iowa Great Lakes Sanitary District (IGLSD) located on 210<sup>th</sup> Street in Dickinson County one mile east of Highway 71. The sanitary district owns and maintains the wastewater system that provides services to seven (7) cities, all lakeshore except the east side of lower Gar Lake, and a large portion of unincorporated land around the Iowa Great Lakes region. The sanitary district is responsible for planning, maintenance, and improvements to the treatment plant and its many trunk and service lines. Aside from collection of domestic waste, the IGLSD provides for the collection and treatment of commercial and industrial wastewater as well.

As most who live in and visit Dickinson County can relate to, the summer population of the county swells from a permanent population of around 20,000 to more than 100,000 persons. This can present many challenges when dealing with public utility systems such as wastewater services. Even during the 1930's, the fluctuating numbers of summer visitors and permanent residents created a need and desire to maintain a pollution free environment. Local, county, and state officials concurred that a need for a regional collection and wastewater treatment system was needed.

According to Cecil Coombs, P.E. with Howard R. Green Company from a September 2000 article in *Water Engineering & Management*, the Iowa State Conservation Commission conducted a study in 1949 of sanitary sewage needs for the Iowa Great Lakes region. Later that year an election was held to create a Sanitary District to construct, operate, and maintain a regional collection and treatment system. The District became a reality and the boundaries were officially established.

Today, the Iowa Great Lakes Sanitary District consists of 95 miles of sanitary sewers, 63 sewage pump stations, and one central wastewater treatment facility. Total area within the district has expanded over the years to more than 23,450 acres with approximately 11,550 acres covered by water.

Similar to the water service area maps on the previous pages, the following two maps show the service area and wastewater mains maintained by the Iowa Great Lakes Sanitary District. The Iowa Great Lakes Sanitary District is limited in its service area to about the middle third of Dickinson County, or that part of the county referred to as the "Iowa Great Lakes" region.

# Iowa Great Lakes Sanitary District – Service Area Map

# Iowa Great Lakes Sanitary District – Wastewater mains Map

# **XVI. COUNTY SERVICES**

The Dickinson County courthouse is open Monday through Friday from 8:00 a.m. to 4:30 p.m. There are many county services, departments, and programs operated from within or nearby the courthouse. Listed below is a summary of Dickinson County services and contact information for these county departments or programs:

- 911 Center, Courthouse, (712) 336-3987
- Assessor, Courthouse., (712) 336-2687
- Auditor, Courthouse, (712) 336-3356
- District Associate Court, Courthouse, (712) 336-1586
- Clerk of District Court, Courthouse, (712) 336-1138
- Conservation Board, 1924 240th St., Milford, (712) 338-4796
- County Naturalist, (712) 338-4238
- County Attorney, 1812 Ithaca Avenue, Spirit Lake (712) 336-4003
- District Court, Courthouse, (712) 336-1886
- Emergency Comm. Center, Courthouse, (712) 336-2525
- Engineer, Courthouse, (712) 336-2944
- Community Services, Courthouse, (712) 336-0775
- Human Services, Local Office-1710 Gary Avenue, Spirit Lake, (712) 336-2555
- Public Health Nurse, Hospital, (712) 320-8020
- Recorder, Courthouse, (712) 336-1495
- Road Maintenance, 1004 19th. Spirit Lake, (712) 336-3222
- Sheriff, Courthouse, (712) 336-2793
- Treasurer, Courthouse, (712) 336-1205
- Veterans Affairs, Courthouse, (712) 336-0883
- Zoning And Sanitation, Courthouse, (712) 336-2770

Dickinson County Board of Supervisors, Courthouse, (712) 336-2677

Wayne Northey –	District 1
Mardi Allen –	District 2
David Gottsche –	District 3
Paul Johnson –	District 4
Pam Jordan –	District 5

### Zoning & Subdivision Review

Dickinson County has established and enforces zoning regulations. Permits are required for:

- 1. All building, including decks, fences, portable storage buildings and moved-in buildings.
- 2. Drilling of new wells.
- 3. Installation of on-site wastewater treatment systems.
- 4. Landscaping activity on lakeshore lots.
- 5. Silt fence installation during certain construction activity.

The county zoning department also enforces the Subdivision Ordinance in place for division of land into three or more parts for the purpose of sale or development. Also, flood plain maps of the unincorporated areas available for public viewing.

### **COURTHOUSE**

Beginning with a ground breaking in August 2004, the construction of a new Dickinson County Courthouse has made great progress in a little over a year's time. This project was approved after a September 2003 referendum which allowed the county to borrow the nearly \$15 million needed to

Figure 53 - Floor Plan of the new Dickinson County Courthouse, 2005



*Image source:<u>http://www.co.dickinson.ia.us/</u> courthouse update courthouse.* 

the construct new courthouse. Support for this project was overwhelming with a 67% approval the referendum vote. The on Dickinson County Courthouse project is the largest financial project undertaken by the Board of Supervisors in the county's 140 year history. Planning for a new courthouse began several vears earlier, but the project picked up momentum when a grass roots campaign started supporting a new courthouse and several county town hall meetings were held explaining the proposal and details of the new

The new courthouse was designed to be built in 2 phases. Phase 1 is being built adjacent to the existing courthouse. Upon completion of Phase 1, all offices from the existing courthouse will move

into the new building. The old courthouse will then be demolished and phase 2 will be built on land occupied the existing bv courthouse. According to the construction schedule, phase 1 of Dickinson County the new Courthouse should be completed in the spring of 2006 with the final project being completed by the spring of 2007. The building itself is an impressive structure and will surely become a landmark structure for Dickinson County in the future. Included in the building to date are 65,000 brick, 32,700 concrete block, more than 257 tons of

Figure 54 - Architect's drawing of the new Dickinson County Courthouse



Image source: <u>http://www.co.dickinson.ia.us/</u> courthouse update

structural steel, 14,000 heavyweight rubber shingles, a state of the art 4 unit efficiency boiler system, an oversized electrical system, and a 300 KW emergency generator to keep the 911 system up and running in the event of a power outage.

### FIRE PROTECTION SERVICES

Dickinson County Townships are serviced by several fire departments. Listed below are the individual municipal fire departments located in Dickinson County, and the rural townships served by these departments.

*Spirit Lake Fire Department*: This county-seat community has one (1) fire station in operation with 28 volunteer fire fighters. Their area of service includes the City of Spirit Lake, Center Grove Township, Diamond Lake Township, Superior Township, and Lakeville Township. Spirit Lake Fire Department's services include:

- Fire Protection
- ➢ Fire Prevention
- ➢ Fire Rescue
- Emergency Medical Services
- Thermal imaging device
- > 1<sup>st</sup> Responders (including water rescue and thermal imaging device)
- Hazardous Materials- this service is currently at an operational service level. The operational level includes the ability to act defensively to contain the material. The technical level ensures that individuals understand how to act aggressively to stop contamination from continuing.

*Okoboji/Arnolds Park Fire Department:* The Okoboji/Arnolds Park Fire Department consists of 32 volunteer fire fighters. Their area of service includes the southern half of Center Grove Township, Camp Foster to County Road A34 and the city limits of Arnolds Park /Okoboji to Spring Run. Okoboji/Arnolds Park Fire Department services include:

- Fire Protection
- ➢ Fire Prevention
- > A trained underwater search and rescue team.
- > Operational level of service in response to hazardous materials operations.
- Emergency Medical Services at the intermediate level.
- ▶ Water rescue with PWC's & Air boat.

*Milford Fire Department*: The Milford Fire Department consists of 28 volunteer fire fighters. Their area of service includes all of Okoboji Township, part of Milford Township, West Port Township, Lakeville Township and Excelsior Township. Services provided from the Milford Fire Department include the following;

- Fire Protection
- ➢ Fire Prevention
- Lakes Area Extraction "Jaws of Life"
- > Emergency Medical Services at the intermediate level.
- > Operational level service in response to hazardous materials.

*Lake Park Fire Department:* The Lake Park Fire Department consists of 20 volunteer fire fighters. The area they serve includes the following;

- ➢ All of the City of Lake Park
- Silver Lake Township
- Diamond Lake Township
- ➢ Lakeville Township
- Excelsior Township

*Terril Fire Department*: The Terril Fire Department consists of 20 volunteer fire fighters. Terril provides local and rural fire protection, and is capable of handling hazardous materials. The Terril fire department's area of service includes;

- > All of the City of Terril
- Lloyd Township
- Parts of Milford
- ➢ North part of Clay Co.
- Small portion of western Emmet County

*Superior Fire Department:* The Superior Fire Department consists of 13 volunteer fire fighters and four volunteers are certified on rescue. Their department provides fire protection services and response to hazardous materials at the operational level. The area they serve includes the following;

- ➢ All of the City of Superior
- All areas of Superior Township
- North part of Richland Township

## COUNTY LAW ENFORCEMENT

The Dickinson County Sheriff's Office is responsible for enforcing the laws of the State of Iowa and the ordinances of Dickinson County. Currently, the department employs eight full-time deputies, four full-time jailers, two part-time jailers, four full-time dispatchers, two part-time dispatchers and one office manager. Aside from patrolling the unincorporated areas of the county, the Sheriff's Office also contracts with the City of Wahpeton. The Office is responsible for approximately 366 square miles of both land and water in Dickinson County.

The Dickinson County Jail is a 19-bed facility and employs four full-time jailers and one part-time jailer. The jail is staffed 24 hours a day, seven days a week. The Jail is a secure detention facility holding pre-trial detainees as well as male and female sentenced inmates. The Jail receives new bookings directly from Sheriff's Patrol and other county law enforcement agencies such as the Arnolds Park Police Department, Lake Park Police Department, Milford Police Department, Okoboji Police Department, Spirit Lake Police Department, Superior/Terril Police Department and the Iowa State Patrol.

As the Dickinson County Sheriff's Office (DCSO) moves toward Community Oriented Policing, it is important to have citizen-police interaction and cooperation. One way to accomplish this goal is through an exchange of ideas and education. The DCSO's Citizen's Police Academy program is an excellent means to achieve this end. The academy is designed to acquaint the public with the operations of the Sheriff's Office. It is our intention that after the completion of the six week program, participants will have a better understanding of the police officer's role in the criminal justice system and an appreciation of the many challenges facing law



Image source: <u>http://www.dickinsoncountysheriff.com</u>

enforcement in today's society. The course is structured to provide as much information as possible in enjoyable and interesting ways.

Other programs and services offered through the Dickinson County's Sheriff's Office include:

- D.A.R.E. Drug Awareness Resistance Education; a program targeted to elementary aged school children teaching them about drug awareness and substance abuse.
- L.A.W.S. Lakes Area Warrant Service; a team comprised of members of the Dickinson County Sheriff's Office, Okoboji Police Department, and the Spirit Lake Police Department. Formed in 2002, this group was formed to create a core group of law enforcement officers that respond to calls with an inherent risk of danger to society. The primary intent of this group is to serve warrants for narcotics investigations.
- S.A.L.T. Seniors and Lawmen Together; a group of volunteers who patrol the trails of the Iowa Great Lakes region during the summer months.
- Citizens' Academy
- Crime Stoppers
- Iowa Sex Offender Registry
- E-911 Service Board

## EMERGENCY MANAGEMENT

Emergency management is a coordinated effort, involving local, state, and federal government agencies as well as volunteer organizations and businesses. Within an integrated emergency management framework, these entities assist citizens and their communities to prepare for, respond to, recover from, and eliminate or reduce the effects of natural, man-made, civil, and technological emergencies and disasters. As prescribed by Iowa Code, The Dickinson County Office of Emergency Management is overseen by a commission comprised of the mayor of each community in the county



as well as the Sheriff and a representative of the Board of Supervisors. A coordinator is appointed by the commission to oversee the day-to-day activities of the office. The coordinator reports directly to the commission. The Dickinson County Emergency Management Office is located in the Courthouse.

Recently, Dickinson County has been certified as "Storm Ready" by the Sioux Falls National Weather Service Office. The certification includes the county as well as the cities of Arnolds Park, Milford, Okoboji, Spirit Lake, Terril and Wahpeton. "StormReady", a program started in 1999 in Tulsa, OK, helps arm America's

communities with the communication and safety skills needed to save lives and property, before and during the event. StormReady helps community leaders and emergency managers strengthen local safety programs. These communities are better prepared to save lives from the onslaught of severe weather through better planning, education, and awareness. No community is storm proof, but StormReady can help communities save lives.**SOLID WASTE & RECYCLING SERVICES** 

## Solid Waste Collection and Landfill

Solid waste collection services are provided by Waste Management Services. Waste Management, Inc. (WM) also owns and operates the Dickinson County Landfill. The landfill is located at 2575 190<sup>th</sup> Street, Spirit Lake (or approximately 1 miles east of the Triggs Bridge in Arnolds Park on 190<sup>th</sup> Street. Currently, the Dickinson County Landfill is operating on a capacity of 4.4 million tons. Waste Management, Inc. collects and processes more municipal waste than any other solid waste company

in North America. Based out of Houston, TX, Waste Management, Inc. provides waste collection services to approximately 25 million residential and 2 million commercial customers.

## **Recycling Services**

Curbside and drop-off recycling services are offered to rural residents of Dickinson County. Recycling services for rural households is provided by H & H Recycling of Spirit Lake. Recyclables are picked up once every two weeks. The schedule alternates weeks between the Big Spirit Lake/East Okoboji neighborhoods and the West Okoboji/Montgomery neighborhoods. Drop-off sites for recyclable materials is available on a rotating basis for a 24-hour period at Elevators in Milford, Terril, Lake Park, Superior, and the Hy-Vee and Fareway stores in Spirit Lake.

Beginning in 2004, Dickinson County opened a recycling center located one-half mile east of the intersection of U.S. Highway 71 and 13<sup>th</sup> Street (County Hwy. A-34). The site is located on the site of a county gravel pit. The recycling center was funded by tipping fees from the Landfill Commission and is operated under the auspices of a 28e intergovernmental agreement between the Landfill Commission and the County Conservation Board. The Dickinson County recycling center currently accepts green waste (yard waste, tree trimmings, and organic materials) and white goods (appliances). Recently, a new building was constructed at the site and the county has begun accepting electronics and waste tires at the recycling center for a nominal fee. The county is working toward obtaining approval as a regional recycling center.

# XVII. PLAN IMPLEMENTATION

The preceding chapters form the core of the Dickinson County Comprehensive Plan with narratives, maps, charts, tables, and statistics concerning desirable future development patterns. This section addresses those possible means of implementing the objectives and policy recommendations. This section will identify those actions which are needed and recommended in order to implement the intent and policies outlined in this comprehensive plan.

Because the scope of the Dickinson County Comprehensive Plan is long term in nature, its policy recommendations and the idea of implementing such policies may seem daunting. It is for this reason the County and specifically the Planning Commission should utilize the plan to assist in developing annual or short term improvement programs such as the road improvement plan, capital improvements, financial budgeting, parks and recreation 5 year master plan, among other examples. Additionally, the Planning Commission should evaluate the comprehensive plan on an annual basis in consideration of changing development patterns which may occur in any given year.

The "Land Use Trends and Policy Recommendations" Chapter should be thoroughly reviewed to determine whether or not changes are needed for the "enforcement" controls or ordinances that are prepared by the county to achieve compliance with this plan. This may include reviewing the county's zoning and subdivision regulations to establish land use and development standards. Amendments to these control ordinances may include reviewing and rewriting the text in these documents, or amending the official zoning map. Either way, changes recommended for "enforcement" controls should be in compliance with and consistent with the comprehensive plan's future land use map.

## **IMPLEMENTATION STRATEGIES**

Dickinson County is growing and changing. Change often times conjures up thoughts of having to give up something. This is why people often try to cling to the past. Most people like things the way they are, even though they know change is inevitable. Some people resist change simply out of fear of the future; they are more comfortable with the past. Dickinson County's leaders of today and tomorrow are charged with the task of identifying, leading, and being the first to accept and embrace the bright future that the county has ahead.

- 1. Create a three-year action plan addressing county growth, city growth and annexation policies.
- 2. Establish an annual comprehensive plan review workshop.
- 3. Annually update an inventory of county trails; identifying completed and proposed short term and long term trail development.
- 4. Dickinson County, as a growing population center, must exhibit a welcoming and accommodating character to new residents of the county.
- 5. Establish guidelines and adopt policies to protect one of the state's most unique environments, including the environmentally sensitive lakes, rivers, marshes, prairies, and other natural areas of Dickinson County.
- 6. In establishing any new policy, remember to protect the rights and interests of property owners in Dickinson County. Consistency and fairness is a must.
- 7. It would be beneficial to Dickinson County to have the services of a qualified building inspector oversee code enforcement of residential and commercial building construction.

One concept that has been discussed and should be further considered is the development of a "lakes corridor map." A corridor map, versus an "official future land use map" will be able to provide the county a sense of development trends and growth patterns for the seven adjoining lakes communities. A corridor map would expressly have all of the land use patterns and future growth areas identified for each of the seven municipal entities, as well as the county's unincorporated existing and future land uses. Also pertaining to the development of a lakes corridor map, would be the next logical step in considering the adoption of unified "corridor development standards" to be reviewed by a "joint development board." The unified creation, adoption, and enforcement of standardized development standards would be necessitated through intergovernmental agreements by each of the willing and participating governmental entities.

Unified development standards do not have to be tied solely to land uses, but may also consider subdivision regulations or roadway standards, storm water retention or distribution standards, wastewater and water provisions, or zoning controls. Other issues that may be discussed in regards to unified corridor development could include design standards, parking provisions, sign regulations, and other control measures. The intent behind bringing these eight governments (seven cities and the county) together is because of the close geographic and natural resource ties shared by these governments currently linking them together. These eight governments already exist as one common "micropolitan" area stretching from the north shore of Spirit Lake to the southern city limits of Milford. If these borders already exist in terms of transportation planning, workforce data, and census data, then these boundaries should also exist for development and design standards.

Establishing planning or performance benchmarks is one method that other communities and counties utilize in determining accountability to the implementation of the Comprehensive Plan. A benchmark system permits the county to develop general descriptions of what it hopes to achieve by implementing the land use objectives and policy recommendations outlined in the plan. After identifying desired outcomes, the county can then set thresholds or goals for the achievement of the desired outcomes. Periodically, the county should track and review the achievement of desired outcomes from implementing this comprehensive plan. Below is a list of potential benchmarks Dickinson County can utilize in determining if it has met the desired objectives and policy recommendations:

- ✤ The sales price of vacant and buildable land.
- The rate of conversion of vacant land to improved land.
- The number of acres of prime agricultural land protected from development.
- The average sales price of single-family housing.
- The number of new single family and multiple family building permits issued.
- ✤ The achievement of attaining 5 percent vacancy rate in housing.
- The achievement of mixing the types of housing with traditional single family, multiple family, townhouses, row housing, compact design, and mixed-use developments.
- An increase in the amount (in acres) of county parkland per capita.
- An increase in the amount (in acres) of environmentally sensitive land protected by development regulations or state/federal programs.
- ✤ A reduction, or at least no new acreage of residential development located in floodplains.
- The achievement of an identified number of miles (determined by the county) of street repair, resurfaced, or new pavement.
- ◆ The creation and enforcement of unified development standards in the lakes corridor region.

# CITED REFERENCES AND INFORMATION SOURCES

- 1. Census 2000, Unites States Census Bureau, Geographic area: Dickinson County and Iowa
- 2. United States Census Bureau, 1990 Census, 1980 Census, 1970 Census.
- 3. 2005 State Profiles, Woods & Poole Economics, Inc., Washington D.C. Geographic area: Dickinson County, Iowa, 2005
- 4. *Iowa's Counties: Selected Population Trends, Vital Statistics, and Socioeconomic Data*, Willis Goudy, Sandra Charvat Burke, and Margaret Hanson, Census Services, Department of Sociology, Iowa State University, Ames, Iowa, 2001 Edition
- 5. *Estimated Population (1996) and Population (1850-1990) for Incorporated Places in Iowa*, Willis Goudy, Census Services, Iowa State University, Ames, Iowa, 1997
- 6. A History of Dickinson County Iowa, R.A. Smith, 1902
- 7. History of the Iowa Great Lakes Region, John W. Parson, 1988
- 8. History of County Governments in Iowa, Iowa State Association of Counties, Des Moines, Iowa, 1992
- 9. Soil Survey of Dickinson County, Iowa, Robert J. Vobora and Joseph Kristoff, Jr., Soil Conservation Service (a.k.a. Natural Resource Conservation Service), United States Department of Agriculture, 1998
- 10. *Iowa's Groundwater Basics, A geological guide to the occurrence, use & vulnerability of Iowa's Aquifers, Jean Cutler Prior, and others, Iowa Department of Natural Resources, 2003*
- 11. Iowa Department of Transportation, Division of Planning and Programming, 2004
- 12. The Case for Multifamily, The Urban Land Institute, Second Edition, 2003
- 13. *Iowa SCORP State Comprehensive Outdoor Recreation Plan*, The Iowa Department of Natural Resources, 2001
- 14. Stormwater-Low Impact Development, Lot level approaches to stormwater management are gaining ground, Mary Catherine Hager, January/February 2003
- 15. *The Landowners Option-A guide to the voluntary protection of land in Iowa, Iowa Natural* Heritage Foundation, Des Moines, Iowa, 1999
- 16. Vacation Okoboji, Okoboji Tourism Committee, Arnolds Park, Iowa, 2004
- 17. *Source Water Protection Practices Bulletin*, United States Environmental Protection Agency (EPA), Office of Water, EPA 816-F-01-020, July 2001
- 18. *Iowa Great Lakes Corridor of Opportunity Regional Analysis 2003*, Iowa Great Lakes Corridor of Opportunity, Spencer, Iowa, 2003
- 19. Annual Report of Accomplishments and Results, Iowa Agricultural and Home Economics Experiment Station, Iowa State University Cooperative Extension Service, Federal Fiscal Year 2004.
- 20. Dickinson County Hazard Mitigation Plan, 2003
- 21. Conservation Strategies for Growing Communities, Natural Resources Conservation Service, Iowa NRCS, 2004
- 22. Outdoor Adventure Guide, Iowa Association of County Conservation Board's, 2002

# **REFERENCED WEBSITE RESOURCES**

- 1. <u>komodo.gis.iastate.edu/new\_site/</u> Iowa Geographic Map Server, GISU-ISU GIS Facility Topographic, contour, and aerial photos (orthographic maps) of Dickinson County
- 2. <u>www.msp.dot.state.ia.us/trans\_data/traffic/index.html</u> Iowa Department of Transportation, Traffic Flow Map & Federal Functional Classification Map
- 3. <u>www.iowaworkforce.org/lmi/</u> Iowa Labor Market Information, Iowa Workforce Development, 1990-2003
- 4. <u>www.census.gov/econ/census02/</u> U.S. Census Bureau, 2002 Economic Census site
- 5. <u>www.seta.iastate.edu/</u> SETA – Office of Social and Economic Trend Analysis, Iowa State University, Ames, Iowa
- 6. <u>www.seta.iastate.edu/takecharge</u> SETA – Take Charge: current trends, characteristics and analysis of Dickinson County
- 7. <u>www.iowagreatlakes.com/</u> Iowa Great Lakes web site; information about county services
- 8. <u>www.airnav.com/airport</u> Airport information and statistics for the Milford & Spirit Lake Municipal Airport
- 9. <u>www.dnr.state.wi.us/org/es/science/landuse/education</u> Wisconsin Department of Natural Resources; data regarding land use definitions
- 10. <u>www.lowimpactdevelopment.org</u> Low Impact Development Center website; information about LID's
- 11. <u>www.vacationokoboji.com</u> Official website of the Iowa Great Lakes Chamber of Commerce and Okoboji Tourism
- 12. <u>www.iowadnr.com/wildlife/</u> Iowa Department of Natural Resources; information of state lakes and state preserves
- 13. <u>www.watersafetycouncil.org/</u> The Iowa Great Lakes Water Safety Council; protective and environmental organizations
- 14. <u>www.keepokobojiblue.com/lakeorgs</u>. Keep Okoboji Blue website
- 15. <u>www.co.dickinson.ia.us/</u> Dickinson County, Iowa's website
- 16. <u>www.ia.nrcs.usda.gov/</u> Iowa Natural Resource Conservation Service; conservation development practices
- 17. <u>www.lakescorridor.com/</u> Iowa Great Lakes Corridor of Opportunity
- www.dickinsoncountysheriff.com/ Dickinson County Sheriff's Office; programs and services
- 19. <u>www.wm.com/</u> Waste Management; operations and services of Dickinson County Landfill
- 20. <u>www.smartgrowth.org</u> Smart Growth Online; research about the principals and issues of smart growth

#### **REFERENCED WEBSITE RESOURCES (continued)**

- 21. <u>www.extension.iastate.edu/</u> Iowa State University Extension web site; Iowa Farmland Values
- 22. <u>www.awea.org/</u> American Wind Energy Association
- 23. <u>www.lslwinery.com/</u> Little Swan Lake Winery
- 24. <u>www.nwiarides.org/</u> RIDES, dba Regional Transit Authority
- 25. <u>www.clayregionalwater.com/</u> Clay Regional Water Association; rural water provider in Dickinson County
- 26. <u>www.ruraldev.usda.gov/ia/</u> USDA Rural Development – Community Programs, water and wastewater
- 27. <u>www.nationalregisterofhistoricplaces.com/IA/Dickinson/</u> The National Register of Historic Places, Dickinson County Iowa database
- 28. <u>www.energy.iastate.edu/</u> Renewable Energy Source, Iowa Wind Projects
- 29. <u>www.itsgood4.us/</u> Alternative Fuels web site (ethanol, wind energy, soy biodiesel)
- 30. <u>www.e85fuel.com</u> Database of National Ethanol Vehicle Coalition
- 31. <u>www.iowacorn.org/ethanol/</u> Ethanol Plants in Iowa
- 32. <u>www.iasoybeans.com/</u> Iowa Soybean Association; Biodiesel at the pump and delivery
- 33. <u>www.arnoldspark.com/</u> Official website of the Arnolds Park Amusement Park
- 34. <u>www.lakeshealth.org/</u> Lakes Regional Healthcare