Lincoln County Comprehensive Plan

2018

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BACKGROUND

LOCATION INFORMATION

Lincoln County is located in southwest Minnesota. The county, which covers approximately 30 miles south to north and approximately 18 miles east to west, borders the state of South Dakota to the west. The county is composed of 15 townships, five cities with populations over 100, and two unincorporated areas. The largest city in Lincoln County is Tyler, with a 2010 population of 1,143. Three other Minnesota counties border Lincoln: Yellow Medicine to the north, Lyon to the east, and Pipestone to the south. The nearest metropolitan area to Lincoln County is Sioux Falls, South Dakota. The county seat is Ivanhoe. Lincoln County's total land area is 540 square miles, and water makes up about 10 square miles. This county is mainly an agricultural or rural county. Prior to settlement the county was a tall- and medium-grass prairie.

Lincoln County Regional Location Map

LINCOLN COUNTY COMPREHENSIVE PLAN

The Lincoln County Comprehensive Sustainable Development Plan of 2000 represented a partnership among Lincoln County; Prairie Partners, Inc. of Brookings, South Dakota; the Southwest Regional Development Commission (SRDC) of Slayton, Minnesota; and the Minnesota Office of Environmental Assistance. Public participation was an integral part of the project and was the first step in the planning process. Information gathered from the public are key elements throughout this plan. This revision of the Lincoln County Comprehensive Plan, undertaken by the Lincoln County Environmental Services Office and SRDC, is intended to update background and trend information to 2016.

Population Variances

For the greater part of the twentieth century, the population in Lincoln County has been declining, with the 2016 population estimate at 5,783. Demographics show that the population is about evenly divided between rural residents and those within incorporated municipalities. No towns in the county are classified as urban areas (>2,500 people). After World War II, continuous capital investment in equipment in the agricultural economy displaced the need for labor. The population has steadily declined since that time. The County has proportionately fewer younger individuals and proportionately greater percentages of elderly residents. While the population of Lincoln County is predominately white, rural southwest Minnesota has been seeing an increase in the numbers of new immigrants choosing to settle in the area. These populations are primarily attracted to the availability of work in the agricultural and meat processing industries. Consideration should be given to flexibility in residential housing requirements in the rural areas of the county, particularly surrounding large dairy operations, if such expansions should occur in Lincoln County as they have elsewhere in western Minnesota.

Housing

Single-family dwellings comprise the bulk of the housing units in the county. There was an increase in total number of units between the 2000 and 2013 Census. In 2010 there were 3,108 housing units, up from 3,043 housing units in 2000. The 2016 American Community Survey estimates 3,112 housing units in the county. Out of the 3,108 housing units in 2010, 2,574 (82%) were occupied compared to the 2016 ACS which estimates 79.6% are occupied.[1,2] The number of vacant units can be deceiving as it would include seasonal (vacation) homes and those that

would be considered unlivable by some due to the condition of the home. Therefore the actual number of available units is likely lower. Overall the housing stock is at a very low value. The county median value of owner-occupied housing units 2009-2013 was $86,100 which was about 46% of the state median value of $187,900[3], up from 36% of the state's median housing value in 2000. The 2016 ACS placed this number at $89,600 which is up 4% from the County's 2009-2013 median housing value.[4]

Agricultural Trends

Agriculture remains the primary source of the County's economic base. In a comparison of the 2007 and 2012 USDA Census of Agriculture, the number of farms decreased in all farm size ranges except those 1,000 acres or more.[5] This continues a trend of fewer but larger farms as commodity prices make it more and more difficult to sustain all but the largest farms economically without a source of outside income. Many elderly landowners migrate to the incorporated cities when they are no longer able to manage the farm and subsequently rent out their tillable land.

Commercial/Industrial Land Use Trends

Commercial development such as retail business, convenience stores, and gas stations remain within the incorporated areas of the county. Industrial land uses occur throughout the county. This covers gravel, sand pits, warehousing, fertilizer plants and other similar uses. The newest land use is industrial energy, specifically wind energy conversion systems which are readily identifiable and dot the county's hilly rural areas. Future trends in renewable energy will also likely see a surge in solar generation as the cost of development continues to decrease and farmers are discouraged from producing on marginal lands. Ongoing regulatory changes at both the federal and state levels involving buffer strips and set-backs from waterways will likely also impact land use in Lincoln County.

Recreational Land-Use

This land use occurs in both cities and rural settings. Included among these categories are city and county parks and wildlife refuges and preserves. Lincoln County has a wealth of natural resources in the geography, water, people and wildlife. Within the county there are three county parks, four city parks and 60 Wildlife Management Areas (WMA). There are no state or national parks or federal refuges in the county. The county has over 30 lakes, eight of which are

significant and accessible to the public. The Laura Ingalls Wilder Historic Highway, U.S. Highway 14, runs through Lincoln County and is of national significance.

Natural Resource Protection

Recreation is an industry itself in many parts of the county. While recreation was once a luxury, today increasing numbers of people can enjoy the recreational opportunities provided by the County. Snowmobiling, skiing, annual horse shows, antiques auctions, and traditional lake activities are a potential economic development tool for the county, as well as refuge and wildlife productions areas (set-asides). The county has more refuges and WMA's than other surrounding counties, but there is no organized effort to promote "sportsman's industries."

Lincoln County's countywide zoning and comprehensive development ordinances have served the county well in regulating land use within the county. Parks and recreational facilities need to be promoted. Not only does the regional tourist need to be made more aware of the possibilities of the natural facilities within the county, but foreign dollars could also be pursued, for those looking to spend lengthier stays in a natural setting. With the plethora of ethnic backgrounds within the county, this type of industry could be capitalized on, as well as promotion of the county as a sportsman's mecca. Water and land are the county's two largest resources. The county's current comprehensive land use regulations are a much needed complement to the pre-existing land use ordinances. A three-pronged approach to improving and maintaining surface water quality within the county would include education of landowners and the public user of water bodies. A countywide incentive program should encourage sustainable land management practices. Thirdly, county land use must be regulated based on resource sustainability.

Tourism and a Shift from Farm to Non-Farm Industries

As agrarian economies change, the shift in population indicates that younger workers will migrate toward the urban centers to find employment. As Lincoln County attempts to maintain their employment opportunities, the county needs to keep an eye toward industrial diversification to help the county protect against local economic crises caused in the event of economic downturn in single sectors.

Lincoln County should consider the promotion of historic attractions. As the Laura Ingalls Wilder Highway (Highway 14) is recognized as a national historic highway, bed and breakfast industries could be encouraged around the lake areas. With increased tourism, there will be an

increasing interest/demand for golf courses. There are opportunities for unique "niche" businesses in towns that accommodate tourists. The senior market could be tapped by development of entertainment centers that attract that age group. With increased tourism, opportunities abound for housing, hotels, health care and tourism industries, including winter sports activities. There has been no major effort to market winter sports opportunities, which could be implemented by listing snowmobiling trails in Lincoln County on state maps.

Infrastructure

Lincoln Pipestone Rural Water supplies the current water needs for the county. The condition of sewer systems varies in the County. Some are updated, while others need major rehabilitation or replacement. People are generally satisfied with the electric service for reasonable rates. There is aggressive competition in telephone services, with three telephone companies providing services in the county. Cellular telephone coverage has improved within Lincoln County in the past few years with the installation of more cellular towers. Unfortunately, choice of carriers remains an issue as it does in most of Southwest Minnesota with Verizon being the only carrier to offer coverage in the rural areas. Even with the development of cellular infrastructure there remain dead spots within the system in parts of Lincoln County. Lack of broadband coverage is a major concern for economic development within the County. The Minnesota Office of Broadband Development reports as of February 28, 2015 that only 40.89% of Lincoln County residents have access to at least 10Mbps download/6 Mbps upload speeds across all broadband platforms, including mobile.[6] The City of Hendricks has undertaken a broadband project with the Interstate Telecommunications Cooperative (ITC) which was the recipient of a $700,000 grant from the Minnesota Office of Broadband Development through the Broadband Grant Program to provide Service to 377 homes and farms, 57 businesses and eight community institutions, all currently underserved.[7] In addition, Lincoln County is part of a consortium of six counties that was funded by the Blandin Foundation to conduct feasibility studies within the counties to determine the best way to build out broadband infrastructure in anticipation of making further application to the Broadband Grant Program.

Transportation systems within the county are fairly typical for a rural area. Communal housing types required to meet the needs of an aging population will be located primarily in the cities.

The aging population will not only need a variety of services, but will also be concerned with affordability of utility rates.

Lincoln County is a rural county that needs to build on its strengths of agriculture and natural resources to become sustainable. The sustainable goals for the county are:

- Sustain the agricultural base economy while protecting the environment.
- Sustain and continue to develop wind energy generation.
- Take advantage of sustainable economic opportunities that evolve out of wind energy such as tourism.
- Develop a sportsman's/wildlife viewing guide services.
- Guide growth or development to protect natural resources, such as water and soil.
- Develop industries and businesses that add value to the crops and livestock produced within the County.
- Retain our young people in the County and develop initiatives to attract new people to the area.
- Maintain the quality of life for the residents by supplying an adequate and efficient amount of support and services.

Notes

[1]*2012 Census of Agriculture-County Data, Minnesota, Page 233, United States Department of Agriculture, National Agricultural Statistics Service.*

[2]*Source, United States Census Bureau, 2016 ACS, FactFinder for Lincoln County, Minnesota*

[3] *Source, United States Census Bureau, QuickFacts for Lincoln County, Minnesota.*

[4] *Source, United States Census Bureau, 2016 ACS, FactFinder for Lincoln County, Minnesota.*

[5]*2012 Census of Agriculture-County Data, Minnesota. Page 233, and 2007 Census of Agriculture, County Data, Minnesota, page 256 United States Department of Agriculture, National Agricultural Statistics Service*.

[6]*Broadband Availability in the State of Minnesota, Minnesota Department of Employment and Economic Development, Office of Broadband Development, February 28, 2015.*

[7]*Minnesota Department of Employment and Economic Development, mn.gov/deed/programs-services/broadband/grant-program/*

CHAPTER 2
DEMOGRAPHIC ANALYSIS

INTRODUCTION

By understanding an area's demographics, or its population characteristics, many other aspects can be analyzed, such as future commercial growth, labor force needs, and community infrastructure needs. Along with economic and social effects, population also has an effect on the environment. Future waste generation and natural resource usage can be anticipated by the population trends.

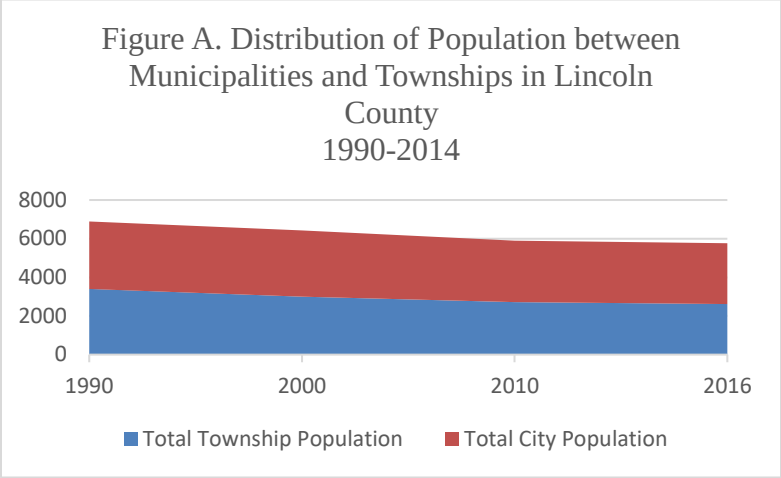
POPULATION

General Population Trends

Lincoln County is a small rural county with an estimated 2016 population of 5,783. There are no municipalities that are classified as urban areas (greater than 2,500 people) in the County. For the greater part of the twentieth century, the population in Lincoln County has been declining, though in the 1990's, it seemed to stabilize. Figure A illustrates the overall decline in population and also shows that the decline is largely due to rural population loss, as the municipalities' population remained stable.

Population declines are generally attributed to changes that have occurred within agriculture throughout the century. As with other basic materials and commodities, the real price of agriculture commodities has declined. In order to maintain acceptable levels of income growth and increase the standard of living, farmers invest in capital equipment.

The population declines have been clearly evident within the schools of Lincoln County. The three schools located in Lincoln County include Lake Benton, Lincoln, Hendricks, and the senior high of the Russell-Tyler-Ruthton RTR school district. Enrollment figures from the 2017-2018 school year for the districts reflect the continued population decline of the county, with enrollment in Hendricks being 104 total students, Lake Benton 136 total students, Lincoln-Ivanhoe 80 total students (Lincoln-Ivanhoe high school closed in 2014). RTR had 570 total students, with 150 in the high school located in Tyler.[1]



Despite the long-term trends, it must be noted that in the first half of the 1990s, population largely stabilized in Lincoln County. Substantial upturns in the farm economy (despite some repeated natural disasters) have improved farm income and appear to have slowed the rate of farm consolidation. There has also been increased permanent housing being sited on the county's lakes. This lake population contributes to stabilize township populations in the county. The lakes provide some high amenity locations that can retain or attract residents who would otherwise locate closer to places of employment or find other high amenity locations for retirement.

Population by Age

Between 1990 and 2016, there was an overall 16% decline in population in Lincoln County. As seen in Table 1, the ten-year age cohorts show an interesting trend. The overall totals in 2016 show a small increase in total population, with certain cohorts, particularly 10-19 age cohort showing a somewhat unexpected increase between 2010 and the 2016 estimates and is largest age cohort in Lincoln County. A significant increase in the 80-84 and 85+ age cohorts is noted. An increase in the age cohort for couples of child bearing age corresponds with an increase in the age cohorts that represent those children is likely related, as the documented effects of what the University of Minnesota terms "Brain Gain" reaches out to even Lincoln County. The overall "working class" (20-64) age group slowed its decrease, showing a drop of just 5.1% as the overall population decrease stabilized and slowed.

Population by Age Cohort for Lincoln County, 1990-2016

Age Group	1990 pop.	1990 share	2000 pop.	2000 share	2010 pop.	2010 share	2016 pop.	2016 share
0-9	895	12.99%	757	11.77%	751	12.74%	745	11.91%
10-19	1,025	14.88%	892	13.87%	659	11.18%	770	12.31%
20-29	598	8.68%	550	8.55%	518	8.79%	674	10.78%
30-39	828	12.02%	771	11.99%	620	10.52%	567	9.07%
40-49	697	10.12%	852	13.25%	703	11.92%	514	8.22%
50-59	717	10.41%	678	10.55%	872	14.79%	544	8.70%
60-69	818	11.87%	676	10.51%	660	11.19%	600	9.59%
70-79	779	11.31%	683	10.62%	597	10.13%	591	9.45%
80-84	268	3.89%	282	4.39%	218	3.70%	598	9.56%
85+	265	3.85%	288	4.48%	298	5.05%	651	10.41%
Total	6,890	100.00%	6,429	100.00%	5,896	100.00%	6,254	100.00%
0-19	1,920	27.87%	1,649	25.65%	1,410	23.91%	1,515	24.22%
20-39	1,426	20.70%	1,321	20.55%	1,138	19.30%	1,241	19.84%
20-64	3,233	46.92%	3,208	49.90%	3,042	51.59%	2,909	46.51%
65-85+	1,737	25.21%	1,572	24.45%	1,444	24.49%	1,455	23.27%

Source: 2016: Minnesota State Demographic Center, December 2017
Source: 2016: U.S. Census Bureau, 2016 American Community Survey
Source: 2010: U.S. Census Bureau, 2010 Census

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Source: 2016: Minnesota State Demographic Center, December 2017
Source: 2016: U.S. Census Bureau, 2016 American Community Survey
Source: 2010: U.S. Census Bureau, 2010 Census

The aging of a community can also be demonstrated by the median age. According to the U.S. Census, the median age stayed fairly steady for Lincoln County rising slightly from 35.3 to 35.5 years of age between 1970 and 1980. However, it rose to 41.4 in 1990 and to 43.0 in 2000, an increase of 21.1% from 1980 to 2000. However, from 2000 to 2010, the rate of increase slowed, with the 2010 median age being 44.9, an increase of only 4.4%. This compares to a State average of 29.2 in 1980, 35.4 in 2000, and 37.4 in 2010. Lincoln County is leading the State trend toward a more elderly population.

Table 2 shows the median age trends according to the U. S. Census for each political subdivision in Lincoln County. Between 1990 and 2016, the only consistent trend is that the City of Hendricks continues to get younger. Arco is the city with the oldest median age in the county. Such statistics also demonstrate the volatility of statistical trends in communities with such small populations; small changes in population characteristics can dramatically affect percentages of increase or decrease.

Table 2. Median Age for Political Subdivisions in Lincoln County, 1990-2000

	1990	2000	% Change 90-00	2010	% Change 00-10	2016	% Change 00-16
Alta Vista township	33.2	45	36%	48.9	8.7%	48.9	8.7%
Arco city	40	37.5	-6%	49.5	32.0%	50.9	35.7%
Ash Lake township	40	46.3	16%	47.8	3.2%	57	23.1%
Diamond Lake township	34.6	36.5	5%	39.8	9.0%	53.7	47.1%
Drammen township	32.9	31.5	-4%	37.5	19.0%	31.3	-0.6%
Hansonville township	36.8	39.5	7%	47.3	19.7%	43.2	9.4%
Hendricks city	64.7	56.8	-12%	53.9	-5.1%	50.5	-11.1%
Hendricks township	39	41.6	7%	46.7	12.3%	42.8	2.9%
Hope township	32.5	38.2	18%	43.5	13.9%	48.4	26.7%
Ivanhoe city	44.1	45.3	3%	49.5	9.3%	49.4	9.1%
Lake Benton city	51.6	46.6	-10%	48.8	4.7%	45.3	-2.8%
Lake Benton township	31.3	40.3	29%	45.3	12.4%	53.8	33.5%
Lake Stay township	35.1	42.5	21%	45	5.9%	43	1.2%
Limestone township	35.8	39.2	9%	38	-3.1%	42.7	8.9%
Marble township	36.5	40.8	12%	39.8	-2.5%	52	27.5%
Marshfield township	33.8	35.2	4%	40	13.6%	39	10.8%
Royal township	40.4	39.5	-2%	45.5	15.2%	57.2	44.8%
Shaokatan township	36	41.3	15%	46.1	11.6%	45.5	10.2%
Tyler city	45	44.9	0%	46.1	2.7%	41.3	-8.0%
Verdi township	38.1	39.1	3%	39.5	1.0%	55.3	41.4%

Source: U.S. Census Bureau, 2010 Census; 2016 US Census, ACS

Township Population

The township population in Lincoln County continues to trend downward, although the population loss has slowed significantly. As can be seen by Table 3, no townships have shown a consistent increase in population between 1990 and 2016.

Table 3. Township Population Change for Lincoln County

	1990	2000	% Change 90-00	2010	% Change 00-10	2016	% Change 00-16
Alta Vista township	252	212	-15.90%	175	-17.45%	171	-2.29%
Ash Lake township	224	177	-21.00%	151	-14.69%	147	-2.65%
Diamond Lake township	216	231	**6.90%**	207	-10.39%	196	-5.31%
Drammen township	180	141	-21.70%	118	-16.31%	114	-3.39%
Hansonville township	150	122	-18.70%	90	-26.23%	84	-6.67%
Hendricks township	255	220	-13.70%	201	-8.64%	192	-4.48%
Hope township	331	292	-11.80%	272	-6.85%	272	**0.00%**
Lake Benton township	234	244	**4.30%**	241	-1.23%	239	-0.83%
Lake Stay township	187	143	-23.50%	156	**9.09%**	148	-5.13%
Limestone township	195	159	-18.50%	136	-14.47%	134	-1.47%
Marble township	214	195	-8.90%	161	-17.44%	156	-3.11%
Marshfield township	242	231	-4.50%	242	**4.76%**	229	-5.37%
Royal township	271	205	-24.40%	189	-7.80%	187	-1.06%
Shaokatan township	216	192	-11.10%	178	-7.29%	161	-9.55%
Verdi township	234	240	**2.60%**	206	-14.17%	186	-9.71%

Source: U.S. Census Bureau

Whereas in the past certain areas of the county have shown wide variations in business patterns, median age and population, the trends seem to have reached a somewhat stable pattern. Median age continues to rise and the population continues to shrink, albeit at a much slower rate than before. If these trends continue, Lincoln County will continue to grow smaller and older, with population divisions between the townships and the cities having reached an equilibrium of sorts.

Population by Household

Table 4 shows population in households, number of households, and persons per household in Lincoln County from 1990 to 2014. Consistent with the patterns recognized in the other population categories, household population continues to decline but at a smaller rate than in the past. The number of households has seemingly stabilized, with a 1.5 percent decrease in

households and a corresponding decrease in household size of less than one percent between 2010 and 2016, according to the State Demographer's Office.

Table 4. Population by Household in Lincoln County

	1990	2000	% Change	2010	% Change	2014	% Change
Population in Households	6,890	6429	-6.69%	5,896	-8.29%	5,628	-4.55%
Number of Households	2,704	2653	-1.89%	2,574	-2.98%	2,535	-1.52%
Persons per Household	2.55	2.34	-8.24%	2.24	-4.27%	2.22	-0.89%

Source: Household Data, MN State Demographer's Office

The 1990s brought a decrease in both population and total households due to the population as a whole declining. The new century has shown this trend continuing, with a slight uptick in the percentage changes between 2000 and 2010 but the rate of change slowing as we get closer to 2017.

Table 5. Municipality and Township Household Population in Lincoln County

	Municipalities					Townships				
	1990	2000	2010	2014	2016	1990	2000	2010	2014	2016
Population in Households	3,283	3,425	3,173	3,139	3,012	3,401	3,004	2,723	2,649	2,616
Number of Households	1,537	1,528	1,489	1,482	1,483	1,169	1,125	1,085	1,066	1,052
Persons per Household	2.10	2.13	2.03	2.01	2.02	2.90	2.65	2.50	2.48	2.48

Source: Household Data, MN State Demographer's Office

Another difference between the municipalities and townships are persons per household. The municipalities' average household size of 2.02 can be explained by retired farmers, without children living with them, moving to town, as well as empty nesters whose children have left and gone elsewhere to work or further their education. The higher persons per household size for the townships is because of the younger families, with children, moving into the homes that the retired farmers move out of. The large homes and yards in the rural parts of the County are also more attractive to people who have children and larger families.

Population Projections

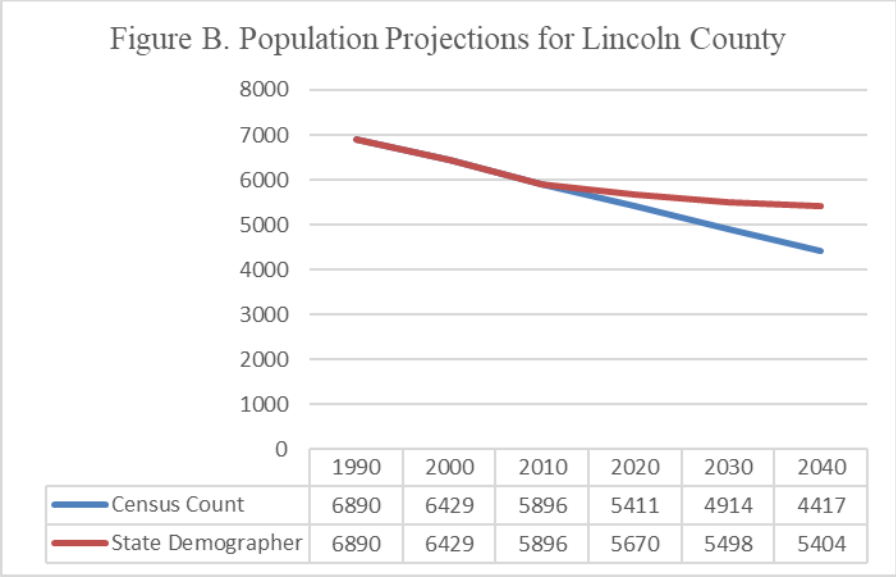
Population is driven by numerous factors, and any method used to project population is only as good as assumptions used in the projections. Also, when dealing with smaller populations, such as Lincoln County or subdivisions of Lincoln County, it becomes even more difficult to accurately make projections. Increased population creates a demographic inertia that will tend to resist impacts for major events. In contrast, single events in a small population, such as a loss or

gain of a significant employer, can upset all assumptions about trends. To account for this imprecision, this plan will identify two sets of population projections. These alternative projections will establish a range of population that can be expected within the County over the planning period.

Population has been trending down in recent years in Lincoln County, and in many areas of rural southwestern Minnesota. Extending that trend in a straight line from 1990 to 2010 Census counts would indicate a population of approximately 4,400 in the year 2040. The Minnesota State Demographer offers more detailed estimates, taking into account other factors such as changes in employment, migration (from tax records), and building permits. The State Demographer foresees Lincoln County's 2040 population at a little under 5,500.

Table 6. Population Projections for Lincoln County

Year	Census Count	State Demographer	Straight Line
1990	6,890		
2000	6,429		
2010	5,896		
2020		5,670	5,411
2030		5,498	4,914
2040		5,404	4,417



By the year 2040, the population of Lincoln County will most likely be between 4,400 and 5,500. The larger discrepancy in the population projections occurs in the 2020 projections. A straight

line analysis based on past census figures would equate to a continued decrease in the population of Lincoln County. However, the State Demographer is actually predicting only a slight decrease in population between 2010 and 2020 and again between 2020 and 2030. It will be interesting to see if the State Demographer's projections can buck the historical trend of population loss in Lincoln County.

Household Projections

Household numbers are directly related to overall population, so as projections are calculated for future household numbers, the largest assumption is that the projected population is accurate. This allows for maximum planning for infrastructure needs. Table 7 below uses the State Demographer's projections to estimate future household characteristics in Lincoln County.[2]

Table 7. Household Projections for Lincoln County Based on State Demographer Forecast

	1990	2000	2010	2020	2030	2040
Population in Households	6890	6429	5896	6053	6066	5660
Number of Households	2704	2653	2574	2380	2400	2278
Persons per Household	2.55	2.34	2.24	2.54	2.53	2.48

Source: Household Data, MN State Demographer's Office, 2015

Table 8. Household Projections for Lincoln County Based on Straight-line Forecast

	1990	2000	2010	2020	2030	2040
Population in Households	6890	6429	5896	5411	4914	4417
Number of Households	2704	2653	2574	2514	2441	2376
Persons per Household	2.55	2.34	2.24	2.15	2.01	1.86

While the current trend line sees a continued decline in both population and households, the State Demographer's projections show a rebound in households by 2020 and growth in both households and population by 2030. This results in a drastic difference in future needs. As seen in the previous section, where there used to be quite a gap between household populations in the municipalities and the townships, the trend is for that gap to continue to close.

GOAL 1: Retain existing youth and encourage families to move into the area.

Objective: Increase individuals residing in the County in the 0 to 29 age group.

Policies

1. Encourage expansion of daycare facilities through licensing and education.
2. Monetarily support and actively seek financing for housing renovation and new construction.
3. Work with local units of government to develop favorable job creation.
4. Encourage a strong educational system within the County.

Strategies

1. Turnaround demographic trends of an aging population by attracting new families to the area.

GOAL 2: Preserve the quality of life for the aging population.

Objective: Maintain and enhance services and support for the aging population.

Policies

1. Continue support for the public transit and examine potential expansion.
2. Continue support for access to services such as meals on wheels with an emphasis on home health care.

Strategies

1. Keep elderly population in the County and ensure sufficient access to services.
2. Provide services to retain and expand businesses in area to allow appropriate access for the area's residents.

Notes

[1]*Source: National Center for Education Statistics, Public Schools in Lincoln County, Minnesota, CCD public school district data for the 2012-2013 school year.*

[2]*Source: MN_County_Projections_Totals_2015-2045f (1) Minnesota State Demographer's Office.*

CHAPTER 3
LAND USE

LAND USES

The County Comprehensive Plan provides a policy guide to public decisions regarding land use. Understanding demographic trends (Chapter Two) provides a context for demand. This chapter provides a lens to clarify how that demand is seen on the land.

Agriculture is the primary land use in the county. The US Department of Agriculture (USDA) has been tracking agricultural land uses since the 1930's. The most current of these inventories by the USDA Statistical Service identified 290,940 acres in 699 farms in 2012, a seven percent increase from 271,345 acres identified in 761 farms in 2002. These acres included all acres used for farmsteads, feedlots and cropland. Total cropland in 2012 increased to 256,638 acres versus 238,738 acres in cropland in 2002. This is an increase of seven and a half percent in ten years.

As the agriculture industry continues to consolidate, there is growth in the number of the largest. In the five-year period from 2007 to 2012, the only increase in farms was in farms over 1000 acres. Similarly, in terms of income from farms, the county's only increase has been in the category of sales more than $100,000. The number of farms in this category rose from 238 in 2007 to 291 in 2012. Since 1992 there has been an increase farms under 179 acres in every 5 year period until a decrease from 2007-2012. The table below shows this pattern.

Table 9. Farms by Size in Lincoln County

	1992	1997	2002	2007	2012
Farms <179 Acres	229	299	284	402	344
Farms >1,000 Acres	39	54	62	68	78

Farming operations over 1,000 acres have continued to increase since 1992. In 2002 there were 62 farms over 1000 acres in Lincoln County. In the past ten years the number of these farms has increased by 25 percent. Furthermore, the number of farms with sales over $100,000 has increased from 183 farms in 2002 to 291 farms in 2012, an increase of fifty-nine percent.

Table 10. Farm Operations with Sales

Farm Sales:	1997	2002	2007	2012
LESS THAN 1,000 $	172	252	290	202
1,000 TO 2,499 $	34	29	16	9
2,500 TO 4,999 $	32	20	24	6
5,000 TO 9,999 $	48	29	29	20
10,000 TO 19,999 $	65	59	37	26
20,000 TO 24,999 $	24	12	15	13
25,000 TO 39,999 $	62	58	33	31
40,000 TO 49,999 $	31	26	28	27
50,000 TO 99,999 $	109	93	74	74
100,000 OR MORE $		183	238	291
100,000 TO 249,999 $	119	107	103	103
250,000 TO 499,999 $	45	46	58	87
500,000 OR MORE $	14	30	77	101
Total	755	761	784	699

Source: US Census of Agriculture

There were 182 farms in Lincoln County in 2012 with cattle or calves. This is down from 219 in 2007, a decrease of 17%. There were 28,391 cattle or calves in 2007 and 21,741 in 2012, representing a decrease of 23%. There were 38 farms with pigs or hogs in 2007 with an inventory of 121,279 animals. In 2012 there were 18 farms with pigs or hogs with an inventory of 93,371 representing a decrease of 53% in number of farms and a 23% decrease in animal inventory.[1]

The number of feedlots required to be registered from 2010 to 2014 in Lincoln County was 430. In Lincoln County the feedlot program is conducted through a cooperative arrangement between the MPCA and county government. The County feedlot program has responsibility for implementing state feedlot regulations for facilities with fewer than 1,000 animal units (AU), or those that do not require federal permits. These responsibilities include: registration, permitting, inspections, education and assistance, and complaint follow-up.

Livestock manure is a valuable resource if managed properly. Land application removes livestock manure from feedlots and provides fertilizer for crops. There are many ways to ensure that land-applied manure does not run off into waters, and is not over-applied beyond crop

nutrient needs. Manure management plans are required when producers need to apply for a feedlot permit, or when a facility has 300 or more AU and does not use a licensed commercial applicator. Manure management plans help ensure that application rates do not exceed crop nutrient needs, and that setbacks from waters and drain tile intakes are observed.

In summary, agricultural trends in Lincoln County reflect the changing face of agricultural across the region. As the number of farms decreases, there is seen a corresponding increase in the size of farms. Also to be taken into consideration is the consolidation of various farms under one operator. This operator may pay rent to farm numerous acreages owned by non-resident landowners or elderly residents no longer engaged in active farming. Both of these conditions will need to be considered by the County when developing land use regulations.

RENEWABLE ENERGY/ENERGY CONSERVATION

The best wind energy resources in Minnesota are located on Buffalo Ridge in southwestern Minnesota. The first commercial Wind Energy Conversion Systems (WECS) in Lincoln County were constructed in the mid to late 1990s. According to the Minnesota Department of Commerce, there have been seven large systems requiring permitting in Lincoln County since 1997, permitted at just over 500 Megawatts. There are currently 497 turbines located in Lincoln County, with a generating capacity of 389.15 Megawatts according to National Renewal Energy Laboratories (NREL) data. According to data from the Minnesota Department of Revenue for taxes payable in 2015, there were 958,232.38 Megawatt hours of electricity generated by wind power in Lincoln County.

Since Lincoln County has a delegation agreement with the Minnesota Public Utilities Commission, (PUC) to permit WECS in the 5-25 MW range, any project under 25 MW can be permitted locally, while anything 25 MW and over requires a PUC permit. As wind technology continues to improve, the generating capacity of individual turbines continues to rise, thus a current project with a smaller footprint may have a larger generating capacity than an older project utilizing smaller, less efficient turbines. One area that may need to be addressed in the future is the possible decommissioning of the older WECS turbines. This could have an impact on land use patterns as some of the older systems go off-line as they reach the end of their useful lives. Detailed information concerning county permitted WECS is available from the Lincoln County Environmental Office, making it unnecessary to reproduce here.

Solar energy is another area of renewable energy development where it is possible that Lincoln County may see future development. Solar currently comes in three modes, solar photovoltaic, thermal – air heat, and thermal- hot water. As a power alternative, solar has also grown in attractiveness to reduce energy consumption as well as to export the power. Solar photovoltaic is the generation of electricity and can be used on site or placed on the distribution system. An example of a solar array is the 2 MW Slayton solar farm, where the power generated goes to the distribution system to be used locally. Any large solar facilities will likely be located near access points to the transmission system (substations). Due to the potential of generating more runoff concentrated at the base of the panels, care should be taken with relationships to water erosion as well as in shoreland areas. Depending on the need, any of the three solar technologies can be used on site to reduce the need for traditional energy sources. Ordinances concerning the placement and permitting of solar should be integrated into the Lincoln County land use ordinances in anticipation of possible future development.

In 2018, Lincoln County participated in an Existing Energy Conditions Study performed by the Great Plains Institute. This study focused on municipalities within Lincoln County and showcased current energy use patterns and made suggestions as to how to integrate energy savings into the local planning process. Lincoln County encourages its residents to engage in energy conservation practices as well as encouraging the use of renewable energy. Energy conservation can reduce the amount of energy needed to sustain a dwelling or business, reduce costs, and contribute to a cleaner environment. Lincoln County also encourages the inclusion of energy saving systems into any new developments or new construction within the county.

RESIDENTIAL LAND USE

This category includes all residences within the county, whether they are in municipalities or in townships. In conjunction with the consolidation of farm operations mentioned above, rural residence numbers have declined as former farmsteads are razed and the land put back into production. The population in unincorporated areas of Lincoln County has declined almost 16% since 2000. The only townships that have shown an increase in residences are Lake Stay and Marshfield on the east side of Lincoln County. Anecdotal evidence suggests that this is largely as a result of workers employed in the City of Marshall in Lyon County to the east, which is a regional employment center, establishing rural residences within easy commuting distance to

their jobs. A number of rural residential developments also exist around the lakes in Lincoln County, but these residences have not produced an increase in the township populations as a whole.

Rural Housing

Those people wanting to live within the rural areas of the County must remember that they will be moving into an agricultural area, thus, they will deal with reciprocal setbacks as there will be various noises, dusts, and odors. These things come from normal agriculture practices and include noise from livestock, fans, motors, machines, dust from tillage and harvesting, odor from manure and livestock, herbicides, pesticides, silage, compost, and other agriculture products. Agriculture is a 24 hours a day, seven days per week, 365 days a year operation. As long as potential rural dwellers realize this, there is potential for Lincoln County to meet the needs of rural housing demand.

Some rural households will most likely continue to be abandoned. This is not just because they are in a rural setting, but rather, some of these rural sites are aging and in need of repair and some sites may also possess old, inadequate wells. Often, only lower income families will choose to live in these aged structures. Some owners of these rural sites choose to rent them out and decide not to spend a great deal of money in keeping them in good repair. After they have become uninhabitable, there is no incentive to keep them around and they are plowed under. Farmers also realize the benefit of not having to pay taxes on the site, so it is actually in their best interest to have the site removed. However, these sites are an important part of history and many favor the preservation of these sites. The current tax structure could be altered to promote the retention of these rural farm sites.

Rural housing development should be encouraged by designing development sites based upon the presence of adequate infrastructure such as paved roads and adequate water supplies. If need warrants, development could be allowed to take place within a half mile of an existing hard surface road. Proposed development at long distances from existing paved roads or those that depend on older/inadequate bridges should be discouraged, saving the road authority money on appropriate road and bridge maintenance costs.

General rural housing development should require a plat to ensure proper planning. Rural housing could be encouraged in portions of the county, such as areas adjacent to large dairy or swine operations that require many employees. These developments wouldn't necessarily follow the 1 residence per 40-acre standard. Low-density development, such as 1 residence per 5 or 10 acres may include lands adjacent to incorporated areas within the County, potentially 2nd, 3rd and 4th tier development on lakes within the county with the presence of infrastructure being essential for any new development. The County may consider amending ordinances to permit housing to accommodate agricultural operations, while ensuring appropriate public or private infrastructure is in place to support it.

COMMERCIAL/INDUSTRIAL LAND USE

Commercial development in Lincoln County is largely located within the municipalities. This classification includes retail businesses, convenience stores, gas stations, etc.

Industrial land uses occur throughout the county. This category of land uses covers gravel and sand pits, warehousing, fertilizer plants, and other similar uses. The more traditional uses or activities such as warehousing and grain elevators are usually located in or on the fringe of municipalities.

RECREATIONAL LAND-USE

Recreational land uses occur in cities and in rural areas. These facilities include city and county parks and wildlife refuges and preserves. Recreational land uses are a possible area of growth for Lincoln County and should be managed to provide the most economic impact possible. The County should make sure that their many natural amenities are marketed to those who would be most interested, hunters, fishers, bird watchers and others. With the designation of Hole in the Mountain Park as a regional park, that should open up a variety of options for further developing the park and bringing more people into rural Lincoln County. Even a small influx of new recreational users will bring many positive benefits to the local economy.

FUTURE LAND USE GUIDANCE

When developing future land use, the county needs to consider several principles of land development. These five principles were initially identified in the 1979 land use plan.

Specialization – Certain types of land uses are not compatible with others. Incompatible land uses that are adjacent to one another will cause future problems and conflicts between landowners. In the past, land planners have viewed residential land use as the least intrusive land use and one that can be located almost anywhere. It is generally accepted that residential land will not disrupt industrial uses because of traffic, smells, or noise. When residential development is located too close to other land uses that generate noise, smells, and traffic, conflicts occur. An imbalance in land use is created when one land use is allowed to locate anywhere without any governing rules or regulations.

Separation – Land use areas should have buffers and boundaries which are easily identified. A variety of buffers can separate land use types or classifications. A traditional buffer is a

landscape strip or set back. At the county level, land planning buffers between different types of land use may need to be an entire land use type. This type of buffering currently occurs with zoning regulations for shorelines, feedlots and wind energy production. These zoning ordinances have buffers, which limit development of particular land uses and activities. In each case separation is needed for the protection of a resource, quality of life, or health and safety issues.

Intensive/Unique Development – Intensive land uses and construction activities that accompany these land uses should be guided to the best or the most compatible locations. Siting facilities should be based on infrastructure and/or natural resources.

Protection of Natural Resources – This principle is concerned with protecting and conserving soil, water, and air. Resources need to be managed in ways that sustain their use. For example, good soil conservation practices ensure that the land will be viable for agricultural land uses in the future in addition to protecting water resources by minimizing soil runoff.

Protection of Agricultural Land Uses - Agriculture is the number one land use and the economic engine for the county. Agricultural production at all scales needs to be protected as a natural resource and an economic resource that fuels the county economy. Lincoln County's past and future is linked to agriculture. Protection of agriculture from scattered and leapfrogging residential or other development will become an issue in the future. Lincoln County has developed a Rural Preservation Management System to safeguard the agricultural lifeblood of the county.

LAND USE POLICIES GUIDANCE

Agricultural Land Use Policy – Agriculture is both the dominant land use and economic engine in the county. As identified in the original 1979 plan**,** conservation of agricultural production, land and facilities need to be protected from scattered non-farm development in rural areas of the county. Within agricultural land uses, considerations should be made for the different types of producers. Producers vary in size from large corporate producers to small organic/specialty family farms. Each of these producers has different land area requirements based on production facilities and nutrient management requirements. Some of the large-scale operations are not compatible with more urban development; however, smaller producers are compatible with urban development. A third type of rural agricultural use, the hobby farm, is not product driven.

This classification of agricultural land could be combined with small producers or could be treated as a separate type large lot rural land use.

Individual producers, landowners, and managers should be encouraged to use best management practices (BMP's) to conserve soil and water resources. Incentive programs currently exist through the Soil and Water Conservation District. Additional incentives need to be considered. The county could develop some type of tax incentive for the protection of resources. These incentives would be similar to incentives given to manufactures and other business that build the economic health of the county. The incentives could be based on or modified on cost-benefit ratios that have been developed at the state and federal levels

Renewable Energy Policy – Wind turbine farms are large rural land or space users. The wind turbine is a unique and specialized land use that takes special consideration. This use promotes sustainable energy in the county and is an additional tax-dollar generating activity. Considerations should be made for safety and aesthetics of the wind turbine farms. Lincoln County has adopted a Windpower Management Ordinance which provides guidelines for windpower development within the county. The county should also consider the inclusion of an ordinance specific to the development of commercial solar arrays within the county. These would generally be sited at or near existing sub-stations with excess capacity.

Recreational and Public Land Uses Policy – This policy should strive to conserve the natural resources of the county. The county has started this with its shoreline protection zoning ordinance. The natural resource conservation policy should not be developed or viewed as a policy to restrict uses; rather it is to guide the proper uses based on the individual resources.

Residential Land Use Policy – New residential construction and restoration of abandoned homesteads should be permitted based on existing infrastructure, site conditions, and compatible uses. There should be multiple residential classification within the county to take into account the variety of situations that exist within the county and the potential for future changes. New classifications not currently existing are: rural residential and lakeshore land use. These classifications would include residential units that would be outside existing towns and unincorporated towns. As sizes in agricultural production, particularly in dairy operations, continue to increase, the county should consider a means, such as through a conditional use permit, to allow greater residential density in areas adjacent to large operations for possible

employee housing. All other residential development should be directed to existing towns and developments.

Commercial and Industrial Land Use Policy – Commercial land uses should utilize existing areas in towns and specific or special use areas should directly relate to that commercial use. An example is to place a bait shop next to an existing boat ramp facility. In general, industrial uses need to be directed to existing industrial locations; however, the intensity and actual activity need to be considered when placing the facility. There may be cases where the noise, odor, or transportation facilities are primary reasons for locating or not locating a facility outside of existing industrial zones or areas.

Rural Water System Land Use Policy – In the past, rural development has been limited by accessibility of water. The rural water system has expanded and can continue to add more customers in remote parts of the county if those customers are willing to pay the price. Limited access to water is no longer a default obstacle that limits growth in the county. For this reason, the county should consider strong methods of guiding land uses to the most appropriate areas.

SUSTAINABLE LAND USE PRACTICES

Sustainable Land Use Practices considers the specialization, separation, intensity and protection of resources. Preferred land use practices generally can be divided between rural county land and community/lakeshore development.

Rural county land uses are generally agricultural and conservation in nature. Community lakeshore developments consist of incorporated/unincorporated towns and lakeshore housing areas.

Sustainable land practices for rural lands consist of the following:

1. Best management practices for erosion control.
2. Buffers to protect waterways.
3. Wellhead/Aquifer protection areas.
4. Grazing management systems.
5. Animal waste management systems.
6. Rural housing growth management.
7. Hunting preserves buffer zones.

8. Wind-turbine safety zones.

SUSTAINABLE LAND PRACTICES FOR COMMUNITIES AND LAKESHORE DEVELOPMENTS.

1. Utilize existing infrastructure (i.e., roads, water systems, etc.)
2. In-fill between existing houses in existing towns.
3. Utilize setbacks/buffers for lakeshore development.
4. Provide separation of residential uses from intensive agricultural and industrial uses.
5. Place commercial activities in locations that enhance community image (i.e., limit strip development, in-fill in existing commercial zones, etc.).

Future Land Use Implementation – County-wide land use ordinances and a land management system have been developed by the county. The Lincoln County Environmental Office is responsible for the management of land uses within the County and provides services and technical expertise to local jurisdictions within the County on land use issues such as Flood Plain Management, Shoreland Management, Urban Expansion Management, Rural Preservation Management, Feedlot Management and Regulation, Windpower Management and Regulation, Solid Waste Management and all other planning and zoning regulations that effect the county.

AGRICULTURE

GOAL 1: Protect, preserve and promote agricultural opportunities for farm families.

Objective: Avoid the loss of more farmers and preserve the agricultural base.

Policies

1. Avoid siting major public facilities on prime agricultural lands, whenever possible.

   Strategies

   1. Ensure that feedlot and zoning regulations are continually reviewed and updated when necessary, and properly enforced.

   2. Take into consideration the possibility of rural residential uses for employees of large dairy or swine operations.

GOAL 2: Promote responsible agricultural practices.

Objective: Preserve and protect valuable resources in the production of our abundant land.

Policies

1. Encourage BMP as a means to optimize farm profits, conserve soil, and protect ground and surface water quality.
2. Continue the support of the Soil and Water Conservation District.
3. Work with the National Resource Conservation Service in implementing Best Management Practices.

   Strategies

   1. Develop BMP to reduce erosion, improve water quality and preserve fertile topsoil.

GOAL 3: Preserve harmony between the rural and small town lifestyles.

Objective: Encourage growth within municipalities.

Policies

1. Promote the growth of commerce, industry and urban housing in cities where infrastructure is already in place and where they will not interfere with commercial agriculture.
2. Formulate and update zoning ordinance to meet growth and development needs.

   Strategies

   1. Enhance development and growth while encouraging intelligent land use decisions.
   2. Implement GIS at the County level to assist in efficient land use decisions.

RENEWABLE ENERGY

GOAL 1: Be involved in the development of renewable energy by working with all parties involved.

Objective: Continue to take an active role in the development of renewable energy projects that benefit community interests.

Policies

1. Support coordination in the siting and development of renewable energy structures.
2. Become more involved in the utility right-of-ways

Strategies

1. Continue to take an active role in legislation effecting wind energy.
2. Assist property owners in education on wind rights.
3. Assist property owners with education on the potential for commercial solar arrays on agricultural land.

RESIDENTIAL

GOAL 1: Integrate residential developments with other mixed-use development with urban areas.

Objective: Encourage housing developments within or near municipalities.

Policies

1. Support residential development that is tied to the agricultural base.
2. Promote residential development that matches demographic and workforce needs.

Strategies

1. Require conditional use permits for housing developments within agriculturally zoned areas.
2. Create guidelines for appropriate lake shore development.

COMMERCIAL/INDUSTRIAL LAND USE

GOAL 1: To promote opportunities for commercial industrial enterprise in appropriate areas.

Objective: To encourage commercial and industrial uses which strengthen the economic base.

Policies

1. To ensure that new commercial and industrial uses do not conflict with existing uses.

Strategies

1. Ensure that adequate zoning regulations are in place to direct new commercial and industrial uses in the appropriate location.

RECREATIONAL LAND USE

Refer to Chapter 5 for goals on recreational uses.

CHAPTER 4
INFRASTRUCTURE

INTRODUCTION

The Lincoln County Comprehensive Plan for Infrastructure, Facilities and Transportation contains overall (goals), objectives and policies that are designed to guide the County toward the accomplishment of its goals/visions for the next 10 years. The plan for infrastructure, county facilities and transportation plays a role as a tool which is utilized to help the County to achieve its goals/visions.

INFRASTRUCTURE

Infrastructure is the foundation for a sustainable community's growth. It provides the framework of facilities and services needed to sustain all land-use activities. Facilities are important for providing services that communities value, thus they can increase the attractiveness of an area for development. Infrastructures includes streets and roads, communications, water and sewer and other utilities, school and safety public facilities such as fire, ambulance and police, and parks and recreation facilities.

Water and Sewer

Water and sewer are public facilities that, along with transportation, tend to facilitate county development and these services are necessary to increase the suitability for development. Within Lincoln County, water and sewer infrastructure is provided by the Rural Water System. Lincoln-Pipestone Rural Water System services the entire county. Current needs are met using from twelve inch main lines, down to two inch service lines to households. Underground storage and pumping stations are located in Verdi, Lake Benton, and Hendricks Townships. Elevated storage tanks are also located north of Hendricks and east of Ivanhoe. No new facilities are projected at the time of this publication. Rural residences in Lincoln County rely on Subsurface Sewage Treatment Systems (SSTS). These septic systems can provide a high degree of sewage treatment. Three SSTS or septic system businesses were licensed in 2014, including Kurt Larsen's Septic Services, Liberty Septic Inc., and Victor Construction Inc. In addition, the municipalities of Ivanhoe, Lake Benton, Hendricks, Tyler and Arco have their own wastewater treatment systems.

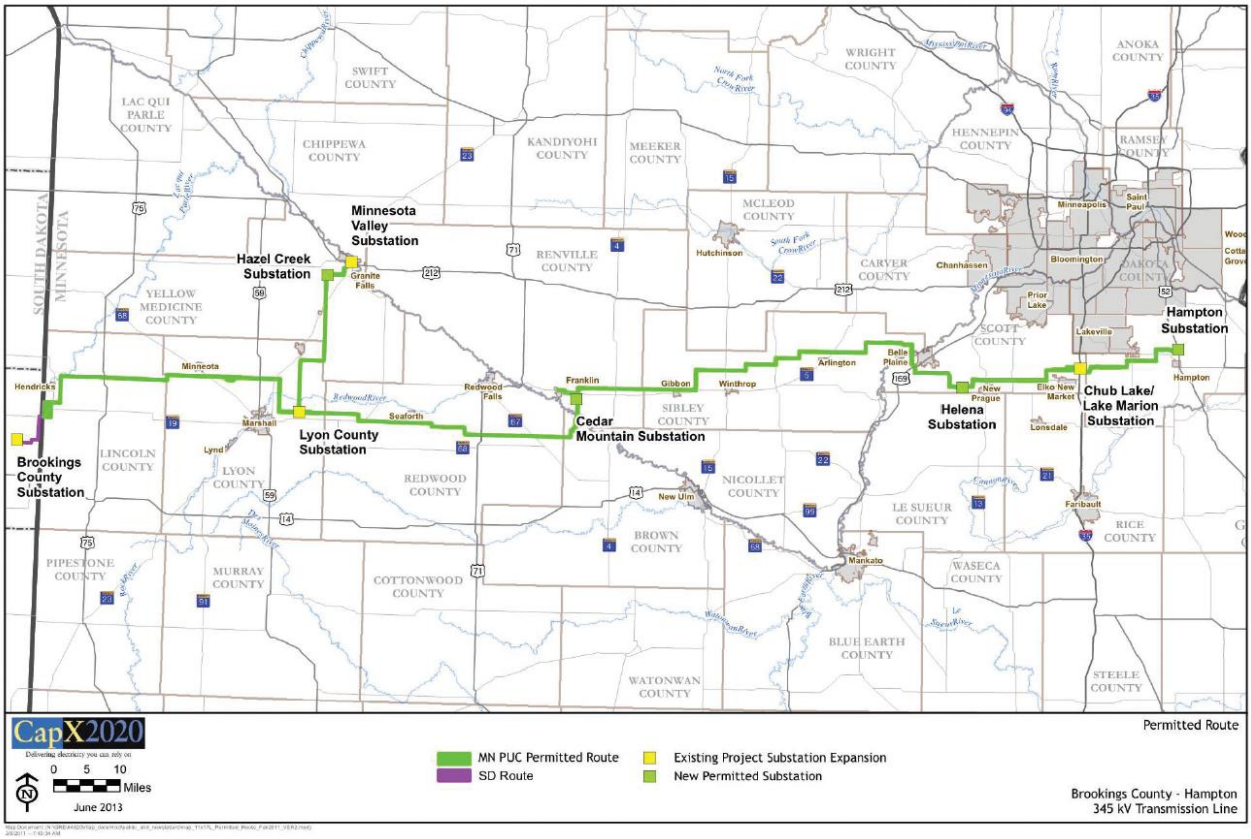
Electrical Generation and Utilities

Telephone service in the county is provided by Citizens Utilities, ITC and Frontier Communications. Currently T-1 lines are being installed in the county. As in most of southwest Minnesota, the primary cellular service carrier in Lincoln County is Verizon, although it remains difficult in portions of the county to access services. For the most part, competing carriers provide coverage on major highways only, leaving Lincoln County in a non-competitive environment.

Lyon-Lincoln Electric Cooperative, Inc. is the electrical provider for much of the county, but there are also areas serviced by Ottertail Power, Xcel Energy, H-D Electric Co-op., and the City of Tyler is served by a municipal utility. The main transmission lines in the county can accommodate three-phase power. Electrical power can be brought to most any location in the county. In addition, Ottertail and Xcel (formerly NSP) and CapX2020 also have transmission lines located in the county.

The CapX2020 utilities applied for a route permit with the Minnesota Public Utilities Commission (MN PUC) in 2008 to construct the Brookings County – Hampton 345 kilovolt ("kV") transmission project designed to improve the reliability of the bulk electric system serving Minnesota, helping meet projected electric growth and connecting to new renewable generation resources in southern Minnesota. The transmission line facilities are constructed across Lincoln County between the Brookings County Substation and Lyon County Substation. The project was energized March 26, 2015.

Figure C. CapX2020 Transmission Lines



The Northern Border Pipeline Company provides the natural gas transportation and the Williams Brothers Pipeline Company provides the crude oil transportation across the county.

Education

The construction of school infrastructure is focused on efforts to provide the most benefits to the community for the investment. School facilities and the size/character of sites, as well as the availability of facilities for use by community members outside of normal school hours are concerns. Facilities serving schools benefit surrounding communities the students, parents and other residents, helping to improve the economic prospects of the community and enhancing the quality of life.

Six school districts cover Lincoln County: RTR (Russell-Tyler-Ruthton) Lake Benton, Minneota, Canby, Ivanhoe, and Hendricks. Nine public schools, including elementary schools, high schools and special education schools are located in the county in the four school districts -RTR, Lake Benton, Ivanhoe and Hendricks. Lake Benton Extended School Year (ESY) is the Special

Education school that provides special services for Grade one to Grade six students with disabilities (special physical, mental, or learning needs).

Table 11. Schools Located in Lincoln County

School Name	Location	City	District	Grades
RTR High School		Tyler	RTR	9-12
MN Virtual School				6-12
RTR ALP				9-12
Lake Benton Elementary	101 Garfield St	Lake Benton	Lake Benton	EC-6
Lake Benton ESY				1-6
Lincoln Elementary School	421 N Rebecca	Ivanhoe	Ivanhoe	PK-6
Hendricks Elementary School	200 E Lincoln	Hendricks	Hendricks	EC-6
Hendricks High School				7-12

TRANSPORTATION

A complete and sufficient transportation system is vital to the economic stability of an area. It provides a means by which agricultural, industrial, and commercial products can be transported or effectively marketed. Changes in the Transportation system can have both positive and negative impacts. Communities that cannot attract economic activities because of transportation deficiencies cannot afford to pay for facilities (streets, sewer, water, etc.) improvements. These improvements would normally by paid by the tax base, which is supported not only by a strong economic community but also by people that are attracted to a community because of job potentials. However, the expansion or reconstruction of a transportation system could in effect improve the economic stability of a city and at the same time improve its chances to expand its economic community and thus the opportunity to provide jobs for people.

The economic well-being of Lincoln County lies with the production, marketing, and transportation of basic agricultural products; and tourism generated activities. The County is dependent on the transportation system to reach the region, state, national and international markets. The transportation corridors provide vital links between the people and businesses of the County to people, social events, cities, businesses, recreational facilities, and health services both within the County and outside the County. Transportation is important to both the economic well-being of the area as well as providing access for the residents. Lincoln County

has projected a 2015 to 2019 construction list and mapped the county 5 year plan (bridge section).

The Minnesota State Department of Transportation (MnDOT) defined the Statewide Transportation Improvement Program (STIP) projects for the area transportation improvement plan from 2016 to 2019. Three of the projects are in Lincoln County (table below).

Table 12. Area Transportation Improvement 2016 – 2019 Projects in Lincoln County

Year	Route	Agency	Description	Length	STIP Total
2018	MN 19	MNDOT	ELLA - SD/MN State Line to US 75 (Ivanhoe), 3" Mill & 3" Overlay	12.4	$2,800,000
2019	CSAH 17	Lincoln County	MN 271 To US 75, Bituminous Overlay	8.1	$925,000
2019	US 75	MNDOT	**AC** MN 19(Ivanhoe) to Canby, 3" Mill & Overlay (Cost is $4.4, District 8'S Share Is $1.2M)	17	$4,750,000

Source: MNDOT

MnDOT also included two STIP projects in 2016 and 2017, regarding the preservation of highway pavement and bridges, considering safety and mobility in the 2015-2024 10-year capital highway work plan.

Table 13. 10-year capital highway work in Lincoln County

Year	Route	Scale	Description	Length	STIP Total
2016	MN23	Across the county	Corridors of commerce I-90 to Willmar, construct passing lanes	0	$10,300,000
2017	US 14	Within the county	State line to Lake Benton, mill and overlay	8.3	$2,800,000

Source: MNDOT

Figure D. STIP Map with Construction Year

Existing Highway System

The existing highway system within Lincoln County is a grid pattern, and generally follows the basic land survey section lines, with the exceptions where physical characteristics such as lakes and terrain or other considerations provide obstacles and cause deviations in the pattern. Overlaying the basic grid pattern are Minnesota State Highways 23 and 68 in the southeast and northeast corners of the County, respectively.

King of Trails

In 1917, a North-South Trail Association was formed as the forerunner of the "King of Trails Highway Association." In 1917, the "King of Trails" (KT) route was established. By 1920, the KT was marked and became one of the best marked roads in America. It was later designated by the State of Minnesota as "The Historic King of Trails." The official designation was granted by the Minnesota Legislature in 2001.

The King of Trails Scenic Byway (US Highway 75) stretches 414 miles along Minnesota's western border, and crosses Lincoln County north to south. It provides great opportunities to visit the communities, historical sites, colorful festivals, national monuments, and state parks along the way, and to appreciate the history and natural beauty of the prairie. Highway 14 through Lincoln County is part of the Laura Ingalls Wilder Historic Highway, a road connecting historic

areas related to the life of author Laura Ingalls Wilder, best known for writing the Little House on the Prairie series of books.

Road Jurisdiction

The jurisdiction of roads determines who is responsible for the construction and maintenance of roads. During the days of early statehood, the primary jurisdiction of roads was considered to be the responsibility of the town boards, counties played a secondary interest, and the state was responsible for few to no roads. From early statehood to the 1930's, the state took the responsibility for the 70 constitutional routes, in order to provide a network of uniformly constructed and maintained roads. During the Depression years (1930's) the prevailing sentiment shifted to placing jurisdictional responsibility at higher levels of government, where it was thought they could be better maintained. The 1921 new road law passed by the Minnesota Legislature created four systems of roads:

1. Trunk Highway System. Statewide, 70 routes were established under a 1920 Constitutional amendment (6877 miles). In Lincoln County, the State Highways include 19, 68 and 271; and the US Highways are 14 and 75. County State Aid Highways (CSAH) are roads or streets that were established and designated under county jurisdiction in accordance with Minnesota Statutes Chapter 162. The state provides funding assistance to maintain the CSAH system.
2. County Roads (CR). These roads are established, constructed, and improved by the County Boards. They are under the sole authority of the County Board.
3. Township Roads. A road established by and under the authority of the town board, or reverted to township jurisdiction by the County Board. These roads are constructed and maintained by Town Boards
4. City Street. - Any street under the jurisdiction of a municipality not otherwise designated as a Trunk Highway, County State Aid Street/Highway or County Highway.

Centerline Miles were calculated by measuring down the center of all lanes of traffic for each specified route. Lane Miles were calculated by multiplying the centerline roadway length by the number of through lanes. In 2014, the CSAH system roadway had 255.66 centerline lane miles and 511.31 lane miles (an average of 2.0 lanes per centerline). Centerline miles increased 0.4

percent from 2008. Meanwhile, the centerline miles of the County system, township system, and Municipal Streets had increased by 2.3 percent, 4.0 percent and 5.3 percent respectively.

Table 14. 2014 Roadway Miles in Lincoln County Per Road Jurisdiction

	US & State Hwy System	CSAH System	County System	Township System	Municipal Streets
Centerline Mileage	83.98	255.66	133.34	561.09	32.02
Lane Mileage	168.28	511.31	266.68	1,122.17	64.04

Source: MN Department of Transportation (2014)

Due to lack of funds necessary to maintain township roads and bridges, corrective measures to ensure passenger safety have been implemented. These measures include minimum maintenance roads and road closures.

Functional Classification

The Functional Classification System classifies roadways as to each of the roadway's role in moving traffic. Highways and streets are grouped in classes according to the character of service they are intended to provide. MnDOT, with the assistance of the Southwest Regional Development Commission, updated the functional classification system based on the new 2013 FHWA guidelines. All functional classification categories will now exist in both urban and rural areas. Specifically, all Principal Arterial sub-categories and all Collector sub-categories will be recognized in both urban and rural forms. Functional Classification categories of Principal Arterial, Minor Arterial, Collector and Local, in Lincoln County are:

- Principal Arterials. Typically serve activity centers, from central business districts to larger town centers; important air, rail, bus and truck terminals; regional shopping centers; large colleges, medical complexes, military bases and other institutional facilities; major industrial and commerce centers; and important recreation areas. There are 20.76 miles of Principal Arterial roads in Lincoln County.
- Minor Arterials. Provide service to all remaining major traffic generators not served by a Principal Arterial, and they provide for trips of moderate length, serve geographic areas that are smaller than their higher Arterial counterparts and offer connectivity to the higher Arterial system. In rural settings, Minor Arterials should be identified and spaced at intervals consistent with population density, so that all developed areas are within a

reasonable distance of a higher level Arterial. Additionally, Minor Arterials in rural areas are typically designed to provide relatively high overall travel speeds, with minimum interference to through movement. There are 63.22 miles of Minor Arterial roads in Lincoln County.

- Rural Collectors. Collectors, which may have an important land access function, serve primarily to funnel traffic between Local and Arterial roadways. Collectors provide access to residential neighborhoods. Collectors are broken down into two categories: Major Collectors and Minor Collectors.
    - Rural Major Collectors. These routes provide service to more commercial development than Arterial. The larger towns not served by higher systems and other traffic generation of equivalent intra-county importance such as consolidated schools and county parks; link these places with nearby large towns or cities or with arterials; and serve important intra county travel corridors. In the County, there are 165.80 miles of Major Collectors.
    - Rural Minor Collectors. Serve residential areas that have yet to be served by a roadway within higher classification categories. In rural areas, Minor Collectors should have approximately equal distance between Arterial or Major Collector routes for equal population densities, such that equitable service is provided to all rural areas of the State. There are 86.97 miles of minor collectors in the county.
- Local. Locally classified roads account for the largest percentage of all roadways in terms of mileage. They are not intended for use in long distance travel, except at the origin or destination end of the trip, due to their provision of direct access to abutting land. Bus routes generally do not run on Local Roads. They are often designed to discourage through traffic. As public roads, they should be accessible for public use throughout the year. Local Roads are often classified by default. In other words, once all Arterial and Collector roadways have been identified, all remaining roadways are classified as Local Roads. In Lincoln County, there are 705 miles of local roads.

Table 15. 2014 Functional Classification Miles in Lincoln County

	Principal Arterial	Minor Arterial	Major Collector	Minor Collector	Local
Centerline Mileage	20.757	63.219	165.804	86.969	705

Source: MnDOT Transportation Information System (2014)

Weight Restrictions

During the spring of each year, the load carrying capacity of highways is reduced as a result of thawing and excess water in the subgrade. Spring axle load restrictions are determined by testing the road while simulated truckloads pass over the road sections. The spring load restrictions for axle load are set when 85% of the road section is able to handle the weight.

The Minnesota Department of Transportation has a policy to maintain the Truck Highway network at a ten ton capacity. When road segments fall below this capacity, the District Office makes a determination of whether to allow ten ton loads, placing the section at higher risk of deterioration or to post the road at a lower level. Spring Weight Restrictions are applied to routes less than 10 tons year round and cause the greatest difficulty to commerce and industry where there is limited access. In Lincoln County, there are two places that have the need for ten ton access and are not located along a Truck Highway system:

- Verdi has a regional tank farm (rail to highway) that disperses liquid fertilizer to locations in a tri-state area. A ten-ton access from Verdi north on CSAH 2 to TH 14 was constructed in 1993 to address the heavy commercial traffic generated by the tank farm. Lincoln County is projected to reconstruct the 10 ton roadway to Verdi in 2016.
- The City of Hendricks has a large capacity grain storage facility located within the city limits. Lincoln County plans to upgrade CSAH 17 from Hendricks to TH 75 to 10 tons, which will give Hendricks better access to and from the east.

Bridges also receive the load postings, the replacement and rehabilitation for the bridges regarding the load carrying capacity is in Lincoln County Road and Bridge Construction 2015 – 2019 Plan, refer to bridge section. The bridge south of Tyler on CSAH 7 is set to be quickly replaced, hopefully in 2016, as CSAH 7 from Tyler to Ruthton is a critical route for grain haulers.

Overweight construction equipment for wind turbines is one of the biggest problems during spring restrictions. The equipment can weigh in the hundred thousands of pounds and it causes the problem getting across the bridges. Since the permit fee in Lincoln County based on the weight of the permitted move cannot cover the cost of damage on bituminous roadways, the County will limit the routes to gravel roads only.

County Road 134, which is a bituminous paved road, is in bad shape. The bituminous paved road helps to seal the surface from rainfall, and thus protects the base and subgrade material. However, compared to well-maintained gravel roads, bituminous roads have higher construction and sometimes higher maintenance costs. The County is considering reclaiming the bituminous and turning the roadway back to gravel. The heavy cranes involved in the construction of wind energy conversion systems can have gross weights of more than one hundred thousand pounds and can easily damage bituminous roadways. Lincoln County tries to limit their operation to gravel roads only. The damage on a gravel road is usually easier to correct with lower costs.

Bridges

Local roads play an essential role in the overall state transportation network and local bridges are acritical component of the local road systems. State support for the replacement or rehabilitation of local bridges continues to be crucial to maintaining the integrity of the local road systems and is necessary for the County and the townships to proceed with the replacement or rehabilitation of high priority deficient bridges. State Transportation Bond Funds and Federal Funds are often the funding source to replace or rehabilitate bridges. The Lincoln County Engineer's Office has identified 57 of 169 functionally obsolete or structurally deficient bridges on the CSAH, County Road and Township systems that are a high priority and require replacement or rehabilitation within the next few years (Table 18).

The State Bridge Office currently inspects 204 bridges with all structures 10 FT and over within Lincoln County, including 31 Trunk Highway bridges, 90 County bridges, 82 Township bridges, and one city bridge. Of these, there were 19 deficient County bridges and 29 deficient Township bridges in 2016 (table below).

Table 16. Lincoln County Average Age and Condition of Structures for Bridges - 2016

	Inter State	Trunk Highway	County	Town ship	City	Total	Area	Ave Age	Ave S.R.
All Structures 10 FT and Over	0	31	90	82	1	204	268,639	42	88
All Structures 20 FT and Over	0	18	41	48	0	107	190,498	41	86
Local Structures 10 FT and Over			90	82	1	173	205,553	39	86.4
Local Structures 20 FT and Over			41	48	0	89	141,714	36	85.0

Source: Minnesota Department of Transportation Bridge Office, March 2016

Table 17. Number of Deficient Bridges in Lincoln County-2016

Structures 10 FT and Over	**Number of Deficient Structural**
All Route Systems	48
Interstate and Trunk Highway	0
County Highway	19
Township Road	29
City Street	0

Structures 20 FT and Over	**Number of Deficient Structural**
All Route Systems	23

Source: Minnesota Department of Transportation Bridge Office, March 2016

Bridge deficiencies are identified based on those classified as either structurally deficient (SD) or functionally obsolete (FO) and having a low sufficiency rating, or a deficient railroad over highway structure, and by bridge performance.

A sufficiency rating includes many factors, including actual structural condition of a bridge, detour length, traffic count, the approach, bridge length & width, and structural characteristics. As bridge projects are identified, the County will continue to review each to determine if flood retention down-sizing of culverts is feasible. Area II Minnesota River Basin Projects, Inc. has assisted in funding assistance when a culvert downsize is justified.

Based on the understanding of the current bridge condition and performance, the county will focus on risk management including deferring non-critical and/or long term fixes and performing maintenance activities to avoid hazardous conditions.

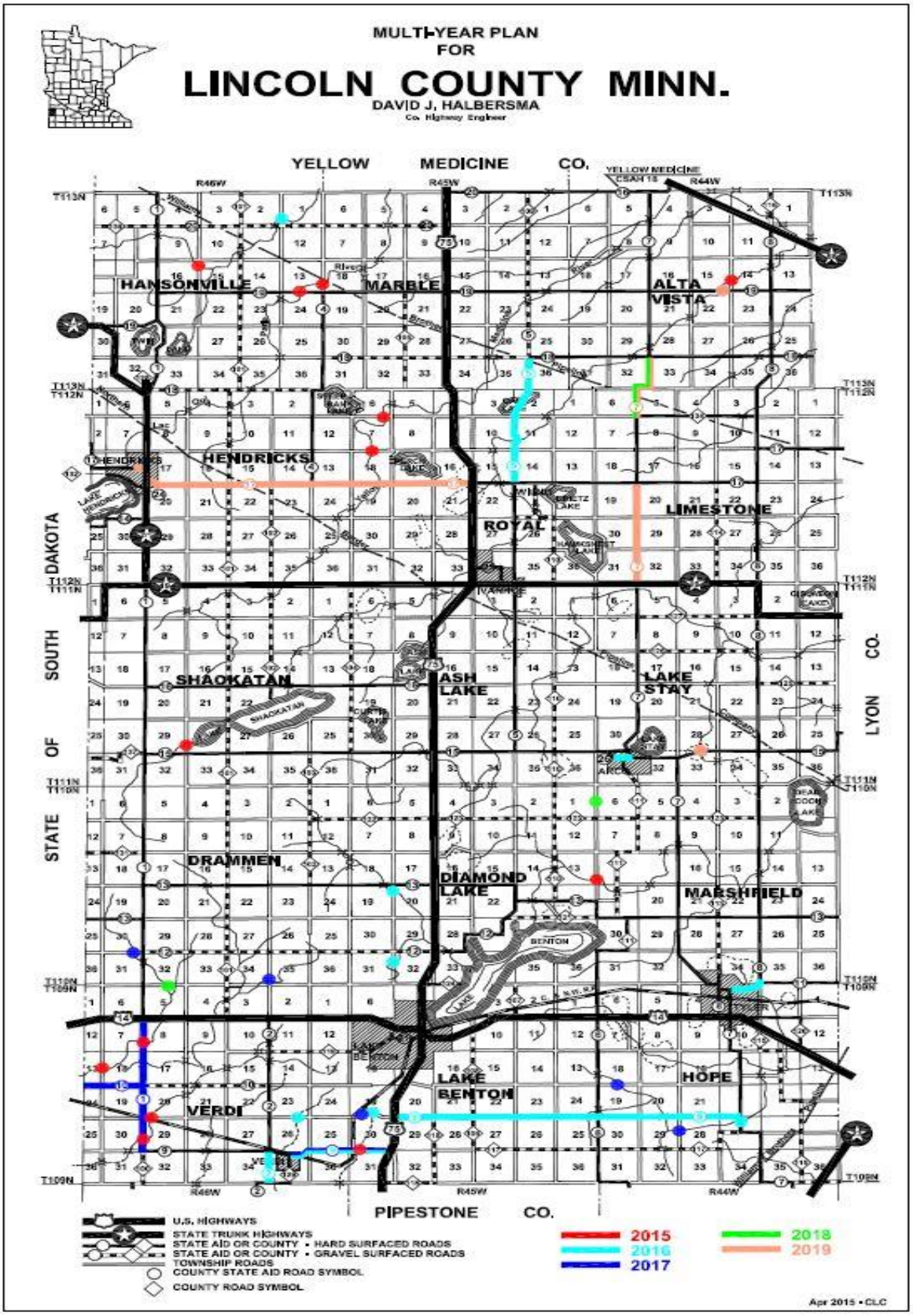
Table 18. Lincoln County Road and Bridge Construction 2015 – 2019

Proposed Construction	Roadway	Road/Bridge No	Agency
2015	Various Roadways	Sealcoat	County
	CSAH 9	Bridge LT 10'	County
	CSAH 19	Bridge #3448	County
	CSAH 1	Bridge 7206	County
	CSAH 1	Bridge 41502	County
	110TH Ave Verdi Twp	Bridge L2113	Verdi Twp
	120th Ave Verdi Twp	Bridge L2026	Verdi Twp
	160th Ave Hansonville/Marble	Bridge L2049	Hansonville
	130th Ave Hansonville Twp	LT 10' CMPA	Hansonville
	260th Ave Alta Vista Twp	Bridge L9194	Alta Vista
	320th St Royal Twp	Bridge L2063	Royal Twp
	330th St Royal Twp	Bridge L9244	Royal Twp
	130th Ave Shaokatan Twp	Bridge L2054	Shaokatan
	230th Ave Marshfield/Diamond	Bridge 2990	Marshfield
2016	Various Roadways	Sealcoat	County
	CSAH 9*	Reconstruction	County
	CSAH 26M ARCO	Base and resurface	County
	CSAH 2*	Agg Base & Bitum	County
	CSAH 9	2" Overlay	County
	CSAH 8M	1 ½" overlay + ADA	County
	CSAH 5	Overlay	County
	CSAH 7	Bridge 41506	County
	150th Ave Hansonville Twp	Bridge L2065	Hansonville
	180th Ave Diamond Lake Twp	Bridge L2086	Diamond Lake
	180th Ave Diamond Lake Twp	Bridge L2087	Diamond Lake
	120th St Verdi	Bridge L2027	Verdi Twp
	120th St Lake Benton Twp	Bridge 8386	Lake Benton
2017	Various Roadways	Sealcoat	County
	CSAH 1	1 ½" Overlay	County
	CSAH 10	1 ½" Overlay	County
	CSAH 9*	Agg Base & Bitum	County
	175th Ave Lake Benton Twp	Bridge 8367	Lake Benton
	130th St Hope Twp	Bridge L2064	Hope Twp
	150th Ave Drammen Twp	Bridge L2050	Drammen Twp
	170th St Drammen Twp	Bridge L2032	Drammen Twp
	250th Ave Hope Twp	Bridge L2075	Hope Twp
2018	Various Roadways	Sealcoat	County
	CSAH 7*	Reconstruction	County
	230th Ave Marshfield	Bridge L2068	Marshfield
	160th St Verdi	Bridge L2031	Verdi Twp
2019	Various Roadways	Sealcoat	County
	CSAH 7*	Agg Base & Bitum	County

Proposed Construction	Roadway	Road/Bridge No	Agency
	CSAH 7	Overlay	County
	CSAH 17	Overlay	County
	CSAH 17	Mill & Overlay & ADA	County
	CSAH 15	Bridge L1978	County
	CSAH 19	Bridge L1988	County

*Indicates part of two year project.
Source: Lincoln County Hwy Engineer

Figure E. Lincoln County Road and Bridge Construction 2015 - 2019



Benefits to contacting adjacent jurisdictions: Brookings County SD., Lyon County, and Yellow Medicine County. When developing the County Five-Year Road and Bridge Construction Plan, it would be beneficial to contact the adjacent road jurisdictions to determine if and when they are planning road and bridge work. As of this writing, Pipestone and Lincoln Counties share the County Engineer position, so contacting Pipestone County separately is unnecessary.

Maintenance

Lincoln County pursued the Living Snow Fence Program. The Lincoln County Highway Department Maintenance staff identified areas for living snow fences and the Lincoln Soil and Water Conservation District (SWCD) designed and implemented 2.5 miles of federal/state highways and 2.3 miles of county roads for living snow fences from 2003 to 2010, in cooperation with MnDOT and the Lincoln County Highway Department The Minnesota Soil and Water Conservation Districts (MASWCD) and the Minnesota Department of Transportation (MNDOT) awarded the SWCD with the 2010 annual Living Snow Fence Achievement Award.

In 2010, the county established a Right-of-Way Policy to reserve the right to ask for the removal of crops planted in the right-of-way, or to remove them at the owner's expense, and to reserve the right to invoice landowners for costs to restore/replace damaged or missing R/W markers and all other road signs and for turf restoration due to tilling/crops. In 2009, the county established a Road Closure Policy to establish the means by which requests to close county state aid highways and county roads are to be processed.

Trails

Lincoln County is discussing the development of a county local hard surface trail system to connect the regional trails, natural areas such as parks, lakes and other point of interests, the major trailheads, the natural surface trails, water trails, and ATV/OHV/OHM trails. In addition, there is lakeshore development occurring on the south side of Lake Hendricks and there is the potential that there may be in the future a joint project with Brookings County, South Dakota. The County is also examining the potential for trail development in or near the Hole in the Mountain Park area that would connect to residential development at the lake as well as to the City of Lake Benton. See the Lincoln County Regional Trail Plan for more information.

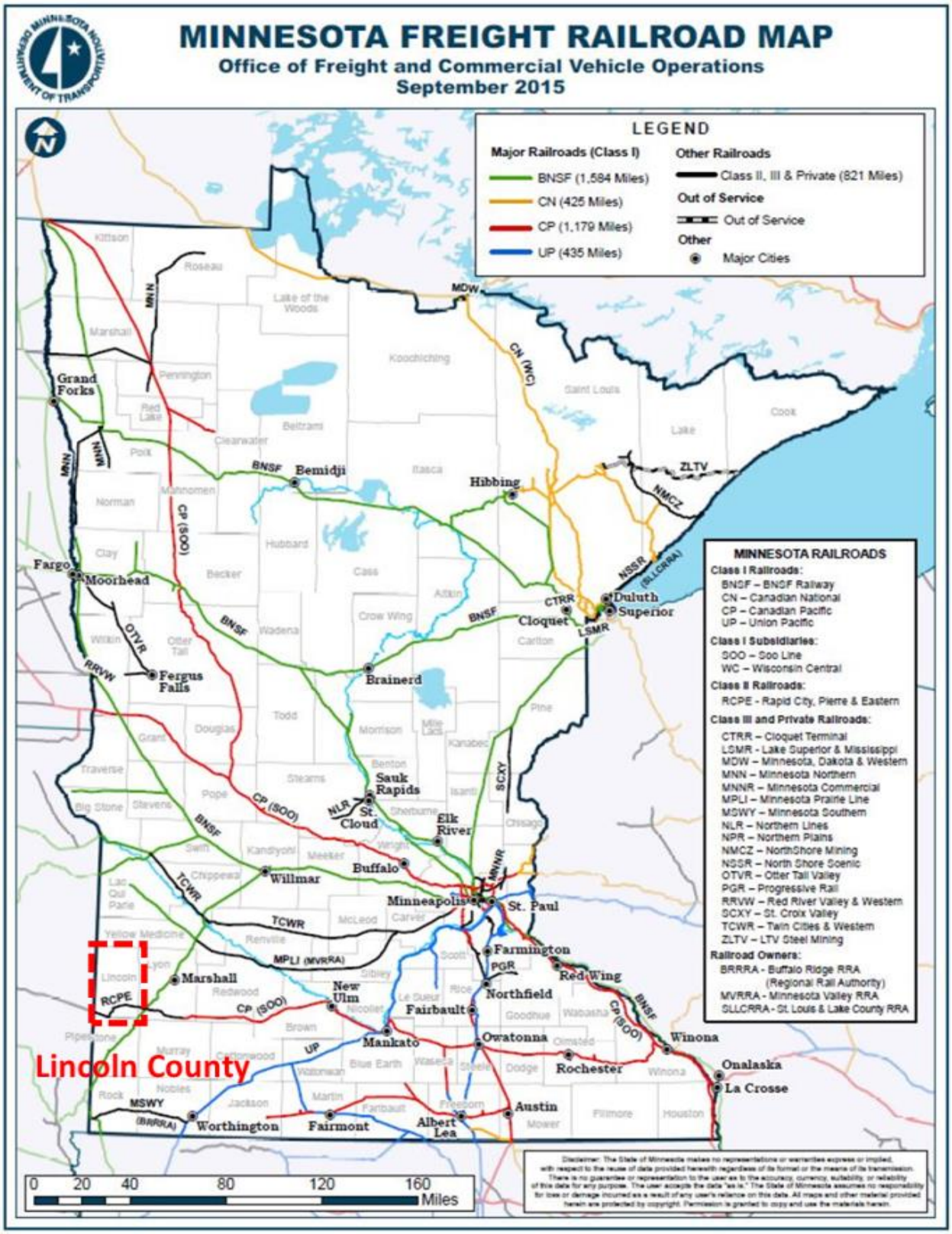
Railroads

Railroad service in the county is being provided by Rapid City, Pierre and Eastern (RCPE) Railroad and Burlington Northern Santa Fe (BNSF) Railway. The railroads are divided into three classes by the Surface Transportation Board.

- Class I railroads are those that have annual operating revenue exceeding $346.8 million.
- Class II railroads have annual operating revenue between $27.8 million and $346.7 million.
- Class III railroads have annual operating revenue of less than $27.7 million.

RCPE Railroad, regarded as a Class II Railroad has twenty-two miles of track in Lincoln County, while BNSF Railway, the Class I Railroad, has 1.24 miles of track in the county (see Map in Figure F). There is one crossing for BNSF and 22 crossings for RCPE.

Figure F. Minnesota Freight Railroad Map



Source: MnDOT

BNSF Railway									
Location	**Road Design**	**ADT**	**Train #**	**Tracks #**	**Train Speed**	**Vehicle Speed**	**Paved**	**Protection**	**Accidents prior 5yrs**
Florence (2Mi SW) (Lyon-Lincoln Rd)	T1	84	13	1	49	55		Stop Sign & Crossbuck	0
RCPE Railroad									
Tyler (280th Ave)	T82	36	4	1	40	55		Stop Sign & Crossbuck	0
Tyler (270th Ave)	M17	503	4	1	40	55		Stop Sign & Crossbuck	0
Tyler (Willow St)	M14	416	4	1	40	30		Stop Sign & Crossbuck	0
Tyler (Tyler St)	CSAH7	2449	5	2	40	30		Gates	0
Tyler (CSAH 8)	CSAH8	909	4	1	40	30		Gates	0
Tyler (250th Ave)	T90	113	4	1	40	55		Stop Sign & Crossbuck	0
Tyler (240th Ave)	T96	18	4	1	40	55		Stop Sign & Crossbuck	0
Tyler (230th Ave) was D-6174 Stop Order X-70 SUP 48	CR111	139	4	1	40	55		Gates	0
Lake Benton (220th Ave)	T100	36	4	1	40	55		Stop Sign & Crossbuck	0
Lake Benton (210th Ave)	CR107	144	4	1	40	55		Stop Sign & Crossbuck	0
Lake Benton (N Center St)	CSAH22	729	5	2	40	30		Gates	0
Lake Benton (Benton St)	CSAH21	474	4	1	40	30		Gates	1
Lake Benton (120th St)	T7	49	4	1	40	55		Crossbuck	0
Verdi (CSAH9)	CSAH9	184	4	1	40	55		Flashing Lights	0
Verdi (160th Ave)	T125	96	4	1	40	55		Stop Sign & Crossbuck	0
Verdi (CSAH9)	CSAH9	184	4	2	40	30		Crossbuck	0
Verdi (N Center St)	T167	25	4	2	40	30		Stop Sign & Crossbuck	0
Verdi (CSAH2)	CSAH2	89	4	1	40	55		Stop Sign & Crossbuck	0
Verdi (140th Ave)	T132	102	4	1	40	55		Stop Sign & Crossbuck	0
Verdi (130th Ave)	T133	84	4	1	40	55		Stop Sign & Crossbuck	0
Verdi (CSAH1)	CSAH1	264	4	1	40	55		Stop Sign & Crossbuck	0
Verdi (110th Ave)	T138	86	4	1	40	55		Stop Sign & Crossbuck	0

Table 19. Railroad Crossings

The current rail speed is 49 mph for BNSF and 40 mph for RCPE. The current train count is 13 per day for BNSF and is 4 to 5 per day for RCPE, with a projected increase of 10 to 37 in long range plans. The impact on Lincoln County will primarily be in relation to the safety of the rail crossings. As the expansion occurs, there will be an increased number of trains and train speeds, and the safety risk to the traveling public will increase.

Aviation

The Tyler Municipal Airport is a general aviation airport located in Tyler in southeast Lincoln County near US Highway 14. The Tyler Municipal Airport has one existing runway (14-32) and one proposed runway (NE).

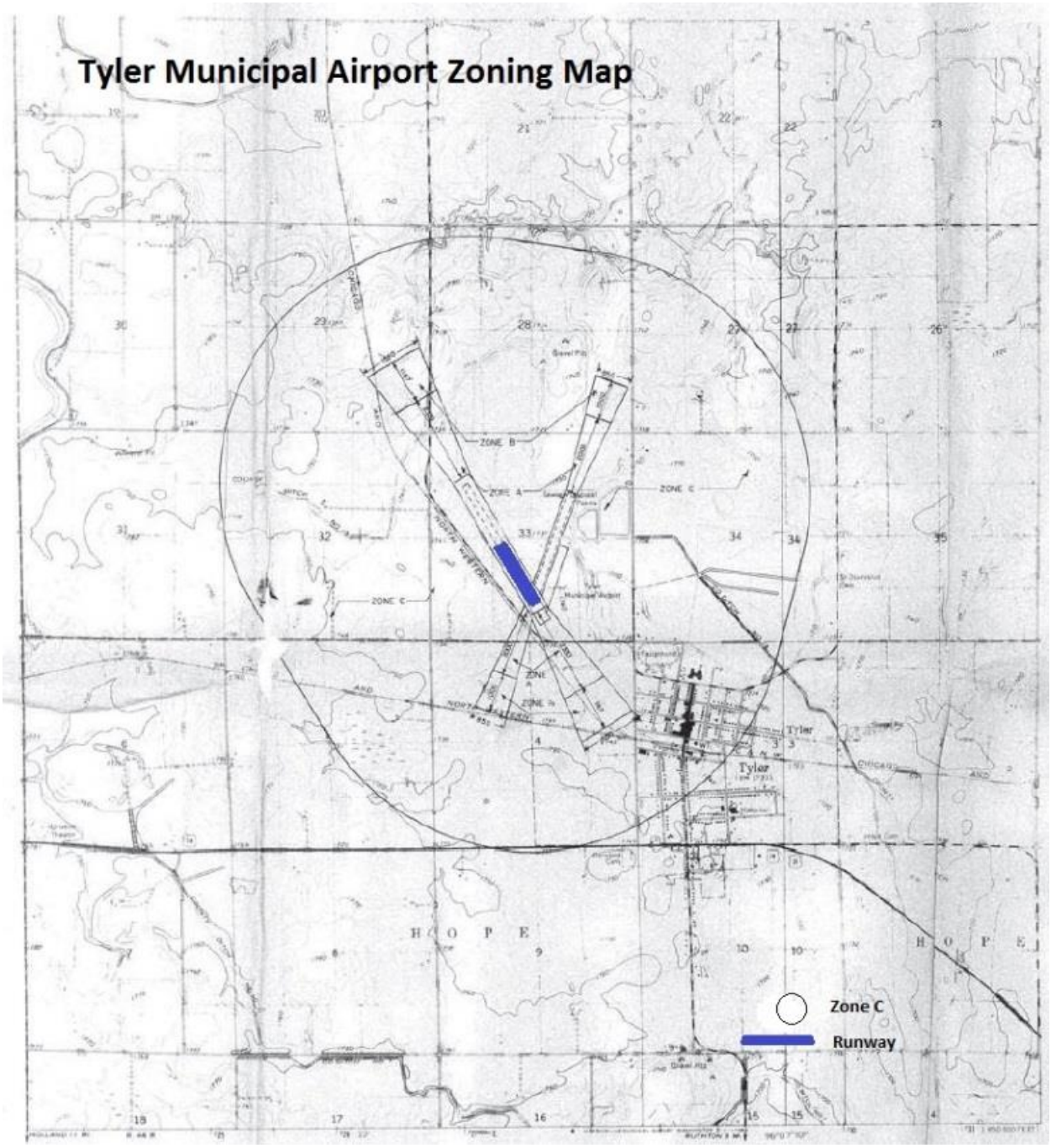
A runway is a "defined rectangular area on a land aerodrome prepared for the landing and takeoff of aircraft". Runways may be a man-made surface (often asphalt, concrete, or a mixture of both) or a natural surface (grass, dirt, gravel, ice, or salt). - International Civil Aviation Organization (ICAO).

Safety Zone Boundaries are set forth to carry out the purpose of the zoning ordinance, to restrict those uses which may be hazardous to the operational safety of aircraft operating to and from the airport, and furthermore, to limit population and building density in the runway approach areas, thereby creating sufficient open space to protect life and property in case of an accident. There are safety zones A, B and C created and established. (Tyler Municipal Airport Zoning Ordinance).

- Safety Zone A: All land in that portion of the approach zones of a runway, which extends outward from the end of the primary surface a distance equal to two-thirds of the planned length of the runway.
- Safety Zone B: All land in that portion of the approach zones of a runway, which extends outward from Safety Zone A a distance equal to one-third of the planned length of the runway.
- Safety Zone C: All that land which is enclosed within the perimeter of the horizontal zone, and which is not included in Safety Zone A or Safety Zone B.

There are use restrictions for each safety zone and there are also boundary limitations required for the zones. The distance of safety zones A and B for the existing runway is 2,333 feet and 1,167 feet. Safety zone C for the runway covers the City of Tyler, which requires height and general restrictions. Refer to the Tyler Municipal Airport Zoning Ordinance.

Figure G. Tyler Municipal Airport Safety Zones



INFRASTRUCTURE AND COUNTY FACILITIES

GOAL 1 Maintain a balanced transportation system comprised of highways, rail, aviation, and limited public transit.

Objective: To ensure that adequate transportation systems are available for various public and private uses

Policies

1. Cooperate in the delivery of public transit services to transit dependent rural residents.
2. Ensure that rail developments address the safety of the residents.
3. Employ environmental responsible highway maintenance projects.
4. Begin the development of a GIS database and to update data on an annual basis. This information can then be used by the County Highway Department in forecasting road and bridge needs.

Strategies

1. Continue practices which reduce future maintenance expenses.
2. Work with RCPE Railroad officials as a group to ensure that the safety issues involved with the crossing in the Cities and the County are addressed on a consistent basis.
3. To annually update the CSAH Five year CIP (Capital Improvement Program); annually update their four year Bridge CIP, and develop a five year County Road CIP which will be updated annually.

GOAL 2 Development of a county highway system that is appropriate and supportive of a rural lifestyle, the transport of agricultural products to market and economic development of the county's cities.

Objective: To maintain and enhance a transportation system that meets the needs of the residents and the business sector.

Policies

1. To pave and maintain roadways identified as major roadways within the comprehensive plan.
2. To elevate the current County system to serve the majority of the rural population.
3. Plan for the appropriate replacement of bridges.

Strategies

1. Continue the practice to maintain ten ton routes to isolated communities and large traffic heavy haul generators.
2. Continue to evaluate the Functional Classification System, especially in relation to the Collector System.
3. Utilize Mn/DOT bridge inventory database to monitor bridge replacement needs.

GOAL 3: Promote increased access and use of technology.

Objective: To ensure that the residents, businesses, and government within Lincoln County have access to technology.

Policies

1. Provide financial support to ensure County staff and the Board are trained in the use of new technologies.

Strategies

1. Continually evaluate the need to implement new technology within the County including the use of GIS.
2. Support legislation that entices telecommunications companies to expand to rural areas.

GOAL 4: Insure adequate protection of our groundwater supplies and safe drinking water supplies for county residents.

Objective: Protect ground water recharge areas in the County, giving special attention to the Lincoln-Pipestone Rural Water System (LPRW).

Policies

1. Control land uses to minimize detrimental effects to the ground water.

Strategies

1. Continue to update and undertake activities identified in the present County Water Plan. Appendix A illustrates the major goals of the Plan and the issues surrounding those areas.
2. Continue to maintain and preserve the County drainage system.

CHAPTER 5
PARKS, RECREATION AND NATURAL RESOURCES

INTRODUCTION

Lincoln County has a wealth of natural resources in its geography, water, people, and wildlife. Within the county there are three county parks, four city/town parks and 60 Wildlife Management Areas (WMA). Lincoln County has six percent of the state's 1,380 WMA's. There are no state or federal parks in the county. Lincoln County has over 30 lakes, eight of which are significant and are accessible to the public. The Laura Ingalls Wilder Historic Highway, US Highway 14 that runs thorough Lincoln County, is of national significance.

RECREATIONAL AREAS AND SUSTAINABILITY

Recreation has become increasingly more common for many individuals. While recreation was once a luxury, today in increasing numbers, people can enjoy the recreational opportunities provided by Lincoln County. However, like all resources, recreational areas and parks must be managed as sustainable resources. All too often, a recreational area falls victim to its own success. Overcrowded, dirty, and poorly maintained, these facilities quickly go from favored recreational areas to unused resources. Thus, the challenge of sustainability is utilizing a resource without threatening its existence. Some of the issues that relate to the sustainable use of parks and recreation are the following:

- Parks and recreational areas attract tourism, helping a community to be sustainable.
- Parks and recreational facilities help attract new businesses and employees.
- Parks and recreational facilities need to be used in a sustainable manner.
- Parks and recreational facilities improve the quality of life in Lincoln County's communities.

The following two tables show the facilities that are located in the county.

Table 20. Parks Facilities in Lincoln County

Facility	Facility	Facilities						
Name	**Location**	**Camping Sites**	**Trails**	**Boat Ramp**	**Picnicking**	**Swimming Beach**	**Play-ground**	**Down Hill Skiing**
Hole in the Mountain County Park	Lake Benton City	Yes	Yes	No	Yes	No	No	No
Norwegian Creek County Park	Lake Benton Lake	Yes	Yes	Yes	Yes	Yes	Yes	No
Picnic Point County Park	Lake Shaokatan	Yes	Yes	Yes	Yes	Yes	Yes	No
Anderson Park - City	Lake Stay-Arco	Yes	**???**	Yes	Yes	Yes	Yes	No
Lake Hendricks Park and Camp Grounds	Hendricks	Yes	Yes	Yes	Yes	Yes	Yes	No
Gilson Field Campground	Ivanhoe	Yes	Yes	No	Yes	No	No	No
Stony Point Park	Tyler	Yes	No	Yes	Yes	No	No	No
Lincoln County Fairgrounds	Tyler	N/A	N/A	N/A	N/A	N/A	N/A	No

Table 21. Recreational Facilities in Lincoln County

Facility	Location	Facility	
Name		**Golf Course**	**Swimming Pool**
Hendricks Golf Club	Hendricks	Yes	No
Tyler Golf Club	Tyler	Yes	No
Ivanhoe Pool	Ivanhoe	No	Outdoor
Tyler Pool & Park	Tyler	No	Outdoor
Lake Benton Public School	Lake Benton	No	Indoor

Although there is no state or national park in the county, there are four state funded city parks including Anderson Park (Arco), Hendricks Lakeshore Park (Hendricks), Lake Benton Park (Lake Benton), and Swimming Pool Park (Tyler), as well as one state funded City Tennis Courts (Ivanhoe) in Lincoln County. The National Park Service (NPS) did fund three county parks including Hole in the Mountain County Park, Norwegian Creek County Park and Picnic Point

Park, and one city park in Tyler - Stoney Point Park. The state and federal funds came from Land and Water Conservation Fund Act (LAWCON). Every LAWCON grant recipient agrees to several requirements set by the NPS, the federal agency responsible for administering the grant program. The chief requirements are to post a funding acknowledgment sign at the park entrance, maintain and operate the facility to be safe and to invite public use, and to retain the lands solely for outdoor recreation in perpetuity. Any property so acquired and/or developed shall not be wholly or partly converted to other than public outdoor recreation uses without the approval of the State and/or the NPS pursuant to Section 6(f)(3) of the Land and Water Conservation Fund (LWCF) Act and these regulations. The only difference in the requirements between federal and state grants is that the federal grants also require approval from the National Park Service for any changes within the park boundary to non-recreational uses. The Park Service will only consider approval if all alternatives to the conversion have been evaluated and rejected on a sound basis. If approved, the grant recipient must acquire replacement lands of at least equal fair market value and recreational usefulness (MN Department of Natural Resources). The Department of Natural Resources has currently identified a conversion (ARMER Tower) within Hole in the Mountain County Park. Table 22 provides those state and federal funded park grants in the county.

Table 22. Park Grants in Lincoln County

Year	Recipient	Name	Scope	Federal	State	Local
1976	City of Arco	Anderson Park	Acquisition of 66 acres and development of picnic facilities and landscaping.	$0	$13,000	$13,000
1976	City of Hendricks	Hendricks Lakeshore Park	Develop campground, picnic facilities, landscaping, footbridges, roads and restrooms.	$0	$15,000	$15,000
1977	City of Ivanhoe	Ivanhoe Tennis Courts	Develop tennis courts and lighting.	$0	$7,690	$7,690
1978	City of Lake Benton	Lake Benton Park	Acquisition of 7 acres and development of parking and roads.	$0	$13,900	$13,900
1968	Lincoln County	Hole In The Mountain County Park	Acquisition of 217.5 acres.	$10,812	$3,737	$7,075
1968			Develop campground, picnic facilities, fencing, landscaping and roads.	$7,216	$3,503	$3,713
1971			Acquisition of 115 acres and development of picnic facilities, trails, roads, restrooms and warming houses.	$29,477	$14,738	$14,739
1971	Lincoln County	Norwegian Creek County Park	Acquisition of 128 acres.	$5,500	$5,500	$0
1975			Develop picnic facilities, fire pits, roads and restrooms.	$16,000	$8,000	$8,000

Year	Recipient	Name	Scope	Federal	State	Local
1978			Develop boat launch, campgrounds, soccer fields, fishing piers, picnic facilities, changing house, landscaping, fish cleaning station, parking, roads, restrooms, shower building and signs.	$0	$46,300	$46,300
			Develop trails.	$0	$1,151	$1,726
1979	Lincoln County	Picnic Point Park	Develop boat launch, campground, fishing pier, picnic facilities and swimming beach.	$30,794	$15,397	$15,397
1981	City of Tyler	Stoney Point Park	Acquisition of .34 acres and development of boat launch, fishing piers, picnic facilities, fencing, lighting and restrooms.	$13,097	$4,689	$8,006
1977	City of Tyler	Swimming Pool Park	Develop tennis courts.	$0	$7,150	$7,150
2002			Redevelop the playground to improve safety and accessibility.	$0	$19,850	$19,850

Source: MnDNR Division of Parks and Trails

Trails

The Trail System is one major element of the county's greater open space system that provides opportunities for recreation, as well as corridors of natural resources and historic and cultural resources. The system contributes to the health and well-being of both County residents and the environment. Moreover, trails provide a wide array of benefits for families and communities, ranging from health and recreation benefits for residents to economic, conservation and quality of life benefits for communities.

Nine trail segments are targeted to be developed within the next seven years, by 2022. Thirteen trail segments are proposed to be built after seven or more years, in 2022 or beyond. When completed, it will be an extensive trail network connecting all of the cities, major parks and lakes in the county. That is an ambitious vision, one that can be realized segment by segment Please refer to the Lincoln County Trails Plan for more information.

GEOGRAPHY AND ENVIRONMENT

Lincoln County is in a unique position. Now largely by-passed by super highways, this area was once a crossroads for Native Americans and for early pioneers and explorers. People such as Fremont, Nicollet, Catlin, and Ingles-Wilder passed, leaving behind history, literature, and art depicting and commemorating the area.

Globally speaking, the region has a climate and ecology more similar to southeastern South Dakota than to the rest of Minnesota. Far from large lakes and forests, the climate is more radical than northern and eastern Minnesota, being hotter in the summer, colder in the winter, and windy. The wind blows across Canada and the Dakotas without serious hindrance and sweeps into Lincoln County at full force, helping to create weather extremes. On the other hand, being one of the windiest spots in the United States has certain advantages. Wind provides a source of cheap, pollution-free, renewable energy. Buffalo Ridge, the terminal moraine that separates the Missouri from the Mississippi watershed, also separates the western Bluestem Prairie from the eastern and the Lakes Region from the Prairie Highlands. East of Buffalo Ridge, temperatures average one-degree cooler and snowfall averages one inch more than to the west.

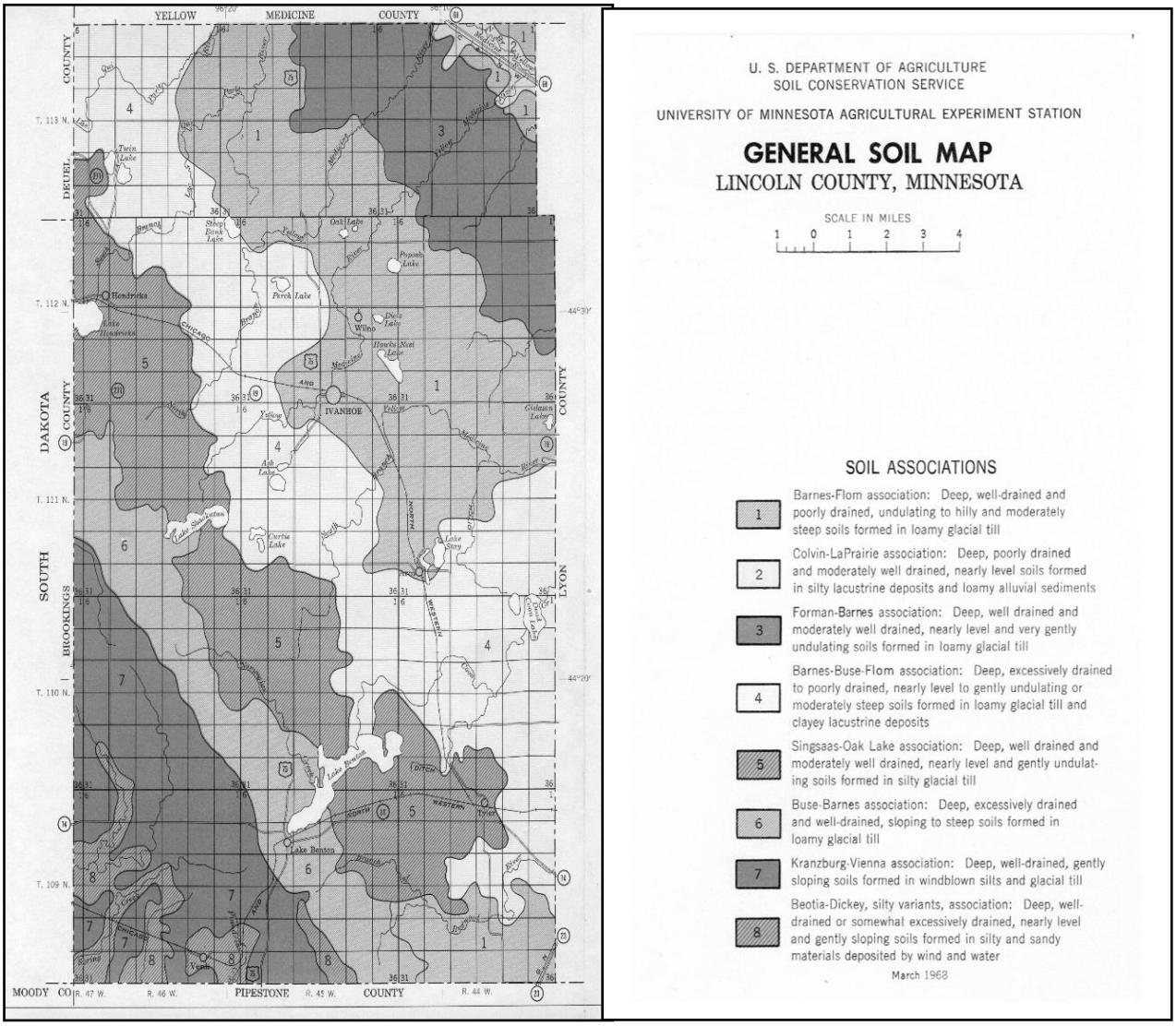
TOPOGRAPHY AND SOILS

Some of the highest elevations in the state occur along Buffalo Ridge in Lincoln County. This ridge was formed by action of the continental glacier. A glacial deposit map is found at the end of the Chapter. Buffalo Ridge is part of what is known as the Coteau des Prairies, or Bemis Moraine. This ridge crosses the southwestern part of the county from northwest to southeast. Elevations range from 1,900 to 2,000 feet. This ridge is the divide between the Missouri River basin to the west and the Mississippi River Basin to the east.

SOILS

The Soil Conservation Service has identified eight principal soil associations in Lincoln County. Soil associations run in irregular bands from northwest to southeast. Although these general soil maps are useful for comparing the suitability of large areas for general land use, more detailed soil descriptions are needed for making individual management decisions. Information of this type can be obtained by consulting the Soil Survey for Lincoln County.

Figure H. Soils Map



The following is a brief description of the eight soil associations occurring within the county.

Barnes-Flom

Soils making up this association are mainly undulating hills and are moderately steep in some locations. The association occurs mostly in the northeastern portion of the county, covering about one-fourth of the land surface. The Barnes soils are deep, well drained and productive. The Flom soils are deep and poorly drained. Erosion of the Barnes soils and wetness of the Flom soils are the major hazards and attractions of this association.

Colvin–LaPrairie

This association covers about one percent of the county in the extreme northeastern corner. The Colvin soils are deep and poorly drained and require artificial drainage to produce crops. The LaPrairie soils are near streams and are moderately drained. Wetness and flooding are the major soil hazards of the association.

Forman-Barnes

The soils are nearly level and very gently undulating. They are well drained, covering about nine percent of the county. Water erosion is not a problem with soils of this association; wind erosion, however, is a hazard, particularly in the spring.

Barnes-Buse-Flom

This association extends from the northwestern corner diagonally southeastward across the county, covering the area occupied by the Altamont moraine. The association extends over about 27 percent of the county, and the soils tend to be nearly level to gently undulating or moderately steep. Steep soils are found in isolated areas. Most of the association's soils are either drained excessively or poorly drained.

The Singaas-Oak Lake

Soils in this association are well drained to moderately well drained. Slopes are low and nearly level. The association covers about seventeen percent of the county, including the major lake basins (Shaokatan, Hendricks and Benton). Susceptibility to erosion is slight on these soils.

Buse-Barnes

Soils in this association are hilly, particularly in the areas southwest of Lake Shaokatan and Lake Benton. Water erosion is a severe hazard on these soils.

Kranzburg-Vienna

The association is located in the southwestern corner of the county over about 11 percent of the land's surface. The soils are deep, well drained and gently sloping. In many places more than one-half the surface layer of these soils has been lost through erosion.

Beotia-Dickey

These soils are deep and well drained or somewhat excessively drained. They are nearly level and gently sloping soils, which were formed in silty and sandy materials originally, deposited by wind and water.

Table 23. Soil Area and Permeability

Soil Association	Description	Definition	AREA	
			Square Miles	% of
Barnes-Buse-Flom NW	Deep, excessively drained to poorly drained, nearly level (0-2%) to gently undulating (2-6%) or moderately steep (12-18%) soils formed in loamy glacial till and clayey lake deposits	Soils have few or some limitations that reduce the choice of plants, require special conservation practices.	149	27
Barnes-Flom NE	Deep, well-drained and poorly, undulating to hilly and moderately steep (12-18%) soils formed in loamy glacial till	Soils have some limitations that reduce the choice of plants, require special conservation practices.	125	23
Singaas-Oak Lake SD NW-SE	Deep, well drained and moderately well drained, nearly level (0-2%) and gently undulating (2-6%) soils formed in silty glacial till	Soils have few limitations that restrict their use.	96	17
Kranzburg-Vienna SW	Deep, well-drained, gently sloping (2-6%) soils formed in windblown silts and glacial till	Soils have some limitations that reduce the choice of plants *or* require moderate conservation practices.	62	11
Forman-Barnes NC	Deep, well drained and moderately well drained, nearly level (0-2%) and very gently undulating (206%) soils formed in loamy glacial till	Soils have few limitations that restrict their use.	49	9
Buse-Barnes SW	Deep, excessively drained and well drained, nearly level (6-12%) to steep (18-25%) soils formed in loamy glacial till.	Soils have some limitations that reduce the choice of plants, require conservation practices.	49	9
Beotia-Dickey	Deep, well drained or somewhat excessively drained, nearly level (0-2%) and gently sloping (2-6%) soils formed in silty and sandy materials deposited by wind and water	Soils subject to little or no erosion but have other limitations, *including impracticality of moving, which* limit use largely to pasture, range, woodland, or wildlife food and cover.	16	3
Colvin-LaPrairie NE	Deep, poorly drained and moderately well drained, nearly level (02%) soils formed in silty lake deposits and loamy alluvial sediments	Soils have some limitations that reduce the choice of plants, require conservation practices.	4	1

Table 23 shows the acreage and percentage of soil associations in the county and also defines general uses for the soil associations. In a general way, this information can direct optimal land use for these soil types.

WATER RESOURCES – PRECIPITATION

Average annual precipitation in Lincoln County is between 27 and 28 inches, most of which normally falls during the period of May through September.

The Lincoln Soil and Water Conservation District monitors six precipitation gauging stations that record both rain and snowfall. There is at least one station in each of the major watersheds within the county.

The six sites are located in the following areas. The sites with the * after the township are the active rain gauge participants.

Township	Range	Section	Township Name
109	46	21	(Verdi Township)*
111	44	19	(Lake Stay Township)
111	46	33	(Shaokatan Township)
112	44	27	(Limestone Township)*
112	46	31	(Hendricks Township)
113	44	18	(Alta Vista Township)*

Within the Lincoln County zone, it is obvious that rainfall follows topographic contours. On the Coteau Des Prairies and to the southwest, it is slightly drier than the eastern part of the county. The difference is not large, but it is sufficient to have maintained the mixed-grass blue stem prairie, while the slightly more moist area northeast of the Coteau des Prairies supports a tall-grass blue stem prairie.

Figure I. Lincoln County Normal Annual Precipitation

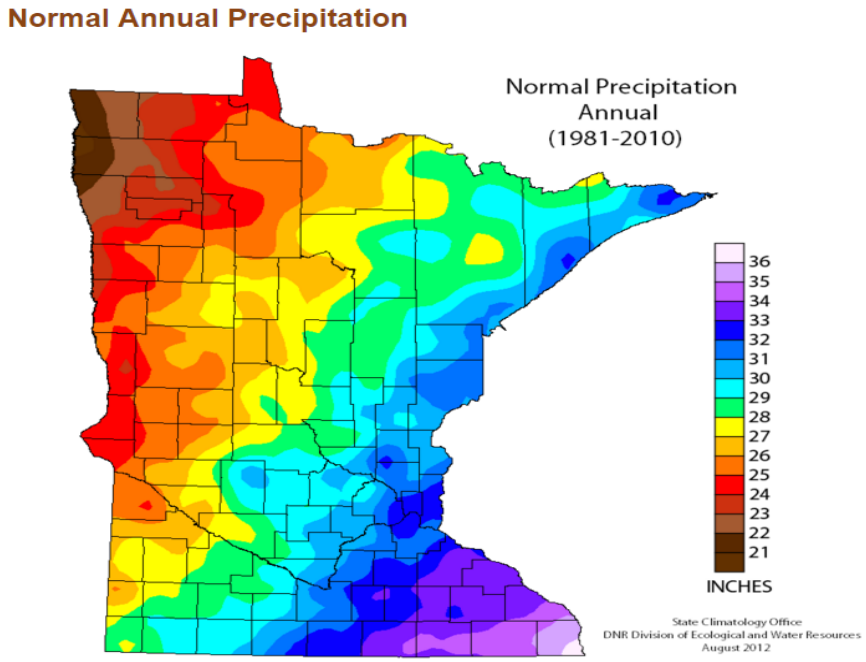
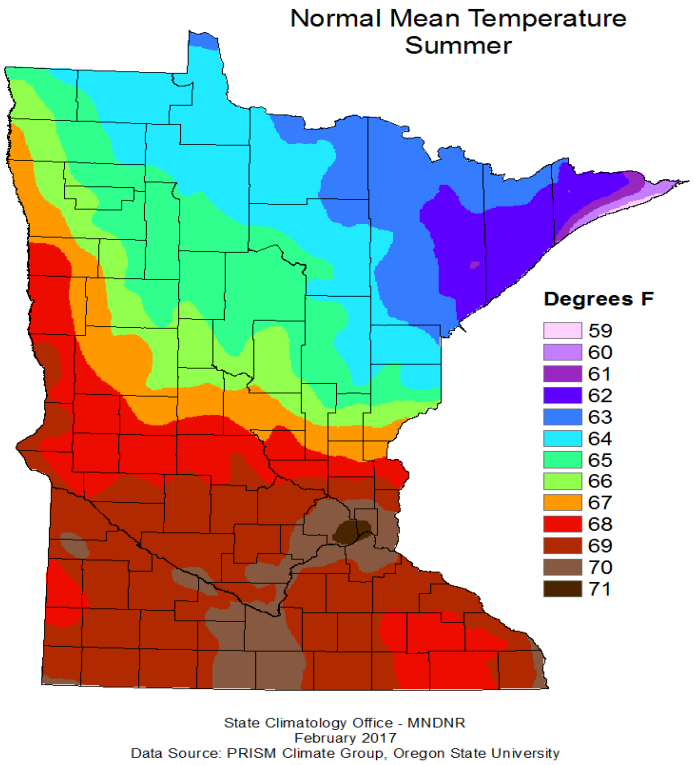


Figure J. Lincoln County Normal Mean Temperature



GROUNDWATER RESOURCES

Groundwater supplies in Lincoln County are contained within a thick layer of saturated earth materials. The top of this zone of saturation generally lies within 50 feet of the land surface. Because it is so shallow and because the glacial till and soil above it are so shallow and permeable, it is easily penetrated. Spills of material such as effluents, fertilizers, chemicals, and fuels can readily enter into and pass through soils.

Nearly all private and public wells within the county draw water from the glacial drift or shallow alluvium. Occurring within the drift are several superficial aquifers of major importance to the county. These aquifers contain large deposits of saturated sand and gravel, have large quantities of water in storage, and are readily recharged. Because of their shallow depth, they are also highly susceptible to contamination. A County well index is available on the Minnesota Department of Health website.

The zone of saturation extends down to the relatively impermeable Precambrian crystalline rocks that consist mainly of granite. Overlying the Precambrian bedrock is a strata formed during the Cretaceous period. These Cretaceous rocks consist primarily of shale. Sandstone beds in the Cretaceous rocks, particularly at their base, yield water supplies to wells in the eastern portion of the county. Because water is readily available from overlying aquifers, however, few wells have been drilled into the Cretaceous formation.

WATERSHEDS

There are five watersheds in the county. They are: Lac qui Parle, Yellow Medicine, Redwood, Big Sioux River-Medary Creek and Big Sioux River-Pipestone. These watersheds are divided between the Missouri and Mississippi River basins, resulting in relatively small streams and rivers within the county. The northern two-thirds of the county is drained by the North Branch of the Yellow Medicine River and the South Branch of the Lac qui Parle River. The northern watersheds drain into the Mississippi River basin. The remaining one-third of the county is divided between the following watersheds: the southeastern portion drains into the Redwood River Watershed and the southwestern portion drains through tributaries to the Rock River Watershed to the Missouri Basin. The illustration below shows the watersheds.

Figure K. Watershed Map

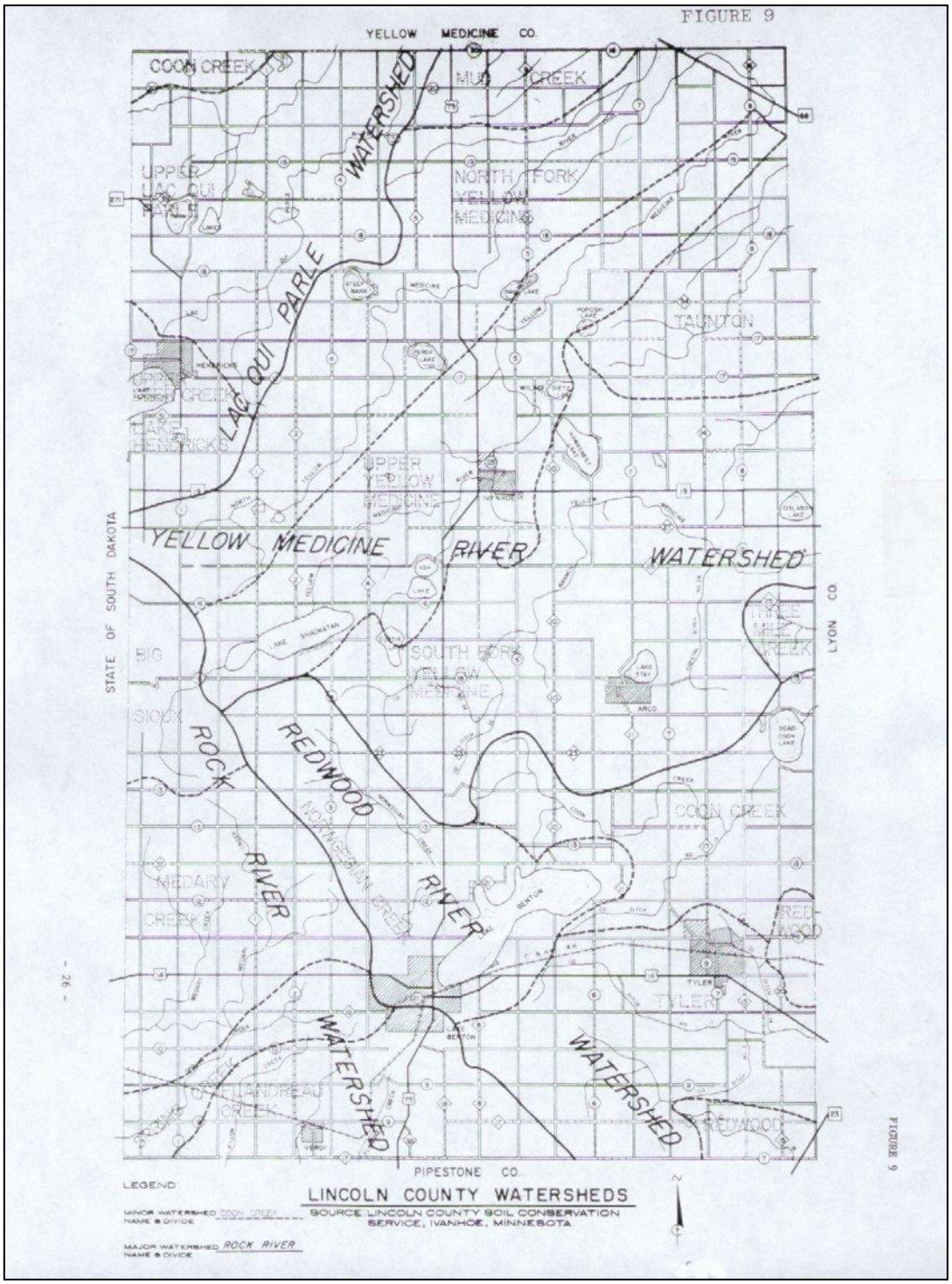
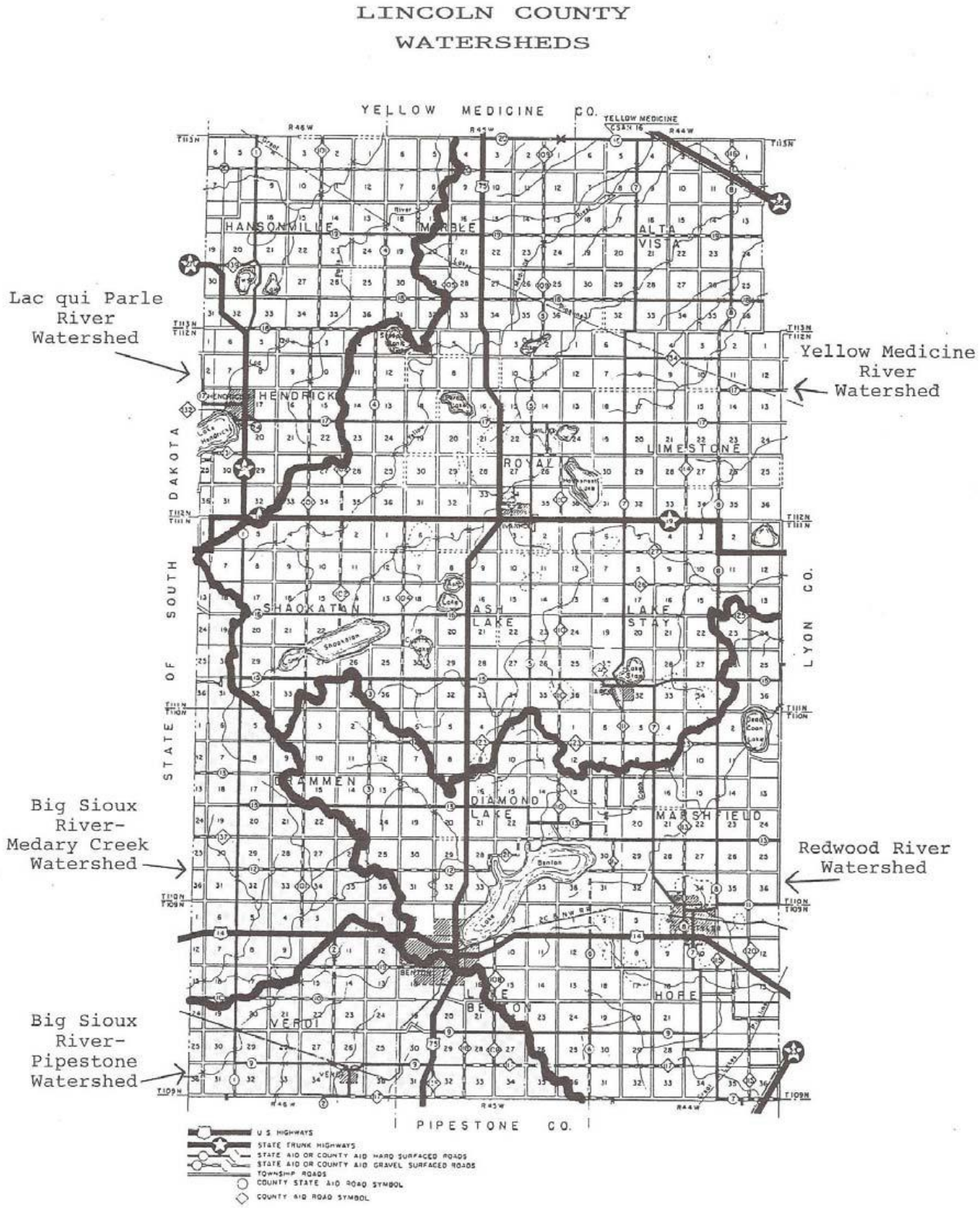


Figure L. Watersheds in Lincoln County



Source: Preface 2009 Lincoln County Water Management Plan – Amendment

Lincoln County has six major lakes having a total water surface area of about 6,480 acres with an average depth ranging from three to twelve feet and many small lakes. Six lakes include Lake Benton, Lake Hendricks, Lake Shaokatan, East and West Lake Stay and Dead Coon Lake.

The following table lists rivers and creeks in the watersheds of Lincoln County.

Table 24. Rivers and Creeks in Lincoln County Watersheds

Rivers	Total Acreage
Flandreau Creek	18,000
Medary Creek	20,000
Big Sioux	7,000
Spring Creek	8,000
Canby	2,000
Upper Lac Qui Parle	31,000
Upper Deer Creek	10,000
Mud Creek	6,000
North Yellow Medicine	44,000
Upper Yellow Medicine	44,000
South Yellow Medicine	56,500
Three-Mile Creek	2,200
Coon Creek	23,700
Redwood River	4,600
Tyler	26,000
Norwegian Creek	25,500
Taunton	17,400

Source: NRCS

Public waters and wetlands are subject to Minnesota Statutes, Section 105.42 permit requirements. According to state regulations, public waters are defined as "being capable of substantial beneficial public use." Lakes and ponds less than 25 acres in size and rivers and streams having a total drainage less than two square miles are not regulated.

AQUIFERS

Elkton Aquifer

The Elkton outwash plain, which is associated with narrow bands of outwash in Spring Creek and Medary Creek, has an area of six square miles in the extreme southwest corner of the county. The Lincoln-Pipestone Rural Water System draws its supplies from this aquifer serving about 60 percent of the county's residents. Potential yields to wells are large in the southern part of the aquifer but small in the northern part.

Flandreau Creek-Lake Benton Channel Aquifer

The Flandreau Creek-Lake Benton channel extends from Lake Benton southward to the Pipestone County line. The channel is 0.5 miles wide or less in Lincoln County but increases to more than 0.5 miles wide south of the Pipestone County line. Moderate yields can be obtained throughout this area.

Porter Aquifer

The Porter aquifer is located in the northeastern corner of the county *and* includes the outwash in the valleys of Yellow Medicine River and its tributary, the North Fork. Moderate yields can be expected from this aquifer.

More detailed information about water planning can be found in the Lincoln County Comprehensive Local Water Plan Update (#1) May 20, 1997, updated as the Lincoln County Water Management Plan adopted October 5, 2004 and updated again in 2009

Biodiversity

Biodiversity includes the complexity and variability of plant and animal species, and the ecosystems in which the species exist. Species extinctions are irreversible, preserving biodiversity keeps open future options that support values that humans ascribe to nature.

It gives significance to biodiversity through the identity and abundance of species in a natural community, and types of habitats and communities distributed across the landscape. There are prairie, oak openings, and river bottom forest historic plant communities in the county. The concerned species include 29 rare plant and animal species – 1 fish, 5 birds, 5 insects, 2 spiders, 1 reptile, 1 mammal and 13 plants. Several large sites are classified as outstanding or high in biodiversity significance.

Moreover, the significance of biodiversity offers environmental services to communities. There are sixty wildlife management areas (six percent of the state total) in the county, providing scenic views and opportunities for waterfowl and wildlife viewing.

ECO-ZONATION

Eco-zonation of Lincoln County is confined to the Coteau Des Prairies, which were never glaciated, and the northeast corner of the county, which is in the Minnesota River valley.

Between these two zones is a third zone that marks the edge of the "Wisconsin" glaciation. The characteristics of these three eco-zones are critical to planning alternative sustainable development. The history of the region has impacted the soil type and depth, ground water, soil and water chemistry, and native flora and fauna. Even modern microclimates are different.

Eco-Zone 1

The Coteau des Prairies occupies the southwest corner of Lincoln County and expands into the rest of south and western Minnesota and southeastern South Dakota. Buffalo Ridge (Coteau des Prairies), a unique land form, rises from the prairies of South Dakota to a 2,000-feet elevation near Lake Benton, the second highest area in Minnesota. This ridge marks a boundary between the mixed wet-mesic tall grass prairies and the purely mesic prairies of the old "terminal moraine." At this boundary, there is a sharp declination, in places as much as 300 feet in a mile. Here, the low land is dissected by many streams. Those to the west decline running into the Missouri River. Those to the east flow into the Minnesota.

Eco-Zone 2

Over the old terminal moraine, glacial till and soils are loose and well drained down to shallow aquifers, where most drinking water is obtained. This "Lakes Region" is full of lakes, potholes, and marshes. The central zone, running diagonally across the county is in fact an eco-tone (emergence zone between two biomes) and is more diverse in habitats and wildlife than the bordering areas.

Unique natural features in Eco-zone 2 include the lakes Benton, Shaokatan, and Hendricks (an interstate lake) which have some potential for sports, recreation, and leisure if carefully developed. Near the town of Arco is Lake Stay. A "semi-island" with a community park is in the center of the lake. When the water level rises two feet, the "island" is complete except for a dirt road over a culvert to the park. An island in a lake can easily be developed as a tourism destination.

Lake Stay and Arco are only accessible via county roads 7 (running north and south) and 15 (running east and west). Other lakes of high potential for fishing and recreation are Twin Lakes, Steep Bank, Perch, Hawks Nest, and Dead Coon Lake. With proper management and infrastructure, these lakes can become significant assets and attractions, both locally and regionally.

Eco-Zone-3

The final area to the far northeast, "ground moraine" plains of deep glacial till, once supported enormous areas of mesic tall grass prairie; only one percent of native prairie remains.

Other aquatic natural features may be found northeast of the lakes region. This corresponds to Eco-Zone 3, over the old Minnesota River Valley ground moraine.

Twenty-nine creeks or rivers are found flowing northeast to the Minnesota River. A transect across the middle of the region would cross an average of 2.2 streams per section. All of these *streams* pass through nearly flat areas of idyllic farmsteads and periodic groves of riverine hardwood forests. In the lower reaches of larger rivers, deeper pools between shallow riffles are homes for diverse fish and wildlife. Four larger tributaries are found here, and form branches of the Lac qui Parle and Yellow Medicine Rivers. These have potential as scenic rivers and for canoe or float trips. Bird watching or fishing could be excellent sales services, and rental of equipment for boat/canoe trips could be combined with bird watching and/or fishing or landing and camp sites.

Habitats

A great variety of physical and meteorological factors have divided Lincoln County into many diverse habitats, and a complex web of species has developed to fill the niches within these habitats. Many of these species are relicts from the Pleistocene Age, persisting because the habitats that support them are also relicts.

Habitat destruction is probably the greatest single cause for the decline or extirpation of species. The passenger pigeon was not hunted to extinction but was extirpated by destruction of its habitat and disturbance of the nesting sites. Many prairie species were eliminated by agriculture or survived on marginal land such as railroad lands. In recent years, even marginal land has been converted to agriculture with even the railroads selling off their excess land. Of the more than 20 million acres of tall grass prairie existing in 1800, less than one percent (200,000) still remains. A majority of these sites are in Minnesota.

One of the best examples of tall grass prairie remaining is at and around "Hole-in-the Mountain" park and nature preserve southwest of Lake Benton. This represents an important natural resource, on the local, state and national level.

Eco-zone 1 habitats include some relict habitats left from the Pleistocene, such as the dissected stream riverine forests southwest of Lake Benton and north-south facing slopes and cliffs in the Hole-in-the-Mountain area, etc. However, these are small, very special areas.

In general, the habitats are:

A. Aquatic
   1. Lakes
   2. Streams
   3. Marshes

B. Terrestrial
   1. Bluestem Prairies
      1a. Western (Dry) Bluestem
      1b. Eastern (Moist) Blue Stem
   2. Relict Deciduous Forests
   3. Riverine (Corridor) Forests
   4. Disturbed Lands
      4a. Agricultural land
      4b. Town/High Density Human
      4c. Infrastructure areas

Aquatic habitats by type:

Type 1 – Open, fresh water. In Eco-zone 2, these are numerous but small. Lake Benton is the largest lake located totally in Minnesota.

Type 2 - Open running fresh water. Streams are a significant feature, from the scattered, deeply dissected streams at the southwest corner to the numerous creeks and rivers in the northeast.

Type 3 – Fresh Marshes. "Shallow" marshes have six inches or less standing water. "Deep" marshes are from six inches up to three feet.

Type 4 – Wooded swamps and bogs. Very few are located in Lincoln County.

Type 5 – Wet meadows usually have no standing water, but the soil is saturated.

Type 6 – Seasonal or occasional wetlands are those which are tillable for a few months but with rains or flooding turn into type five or four the rest of the year.

All these aquatic habitats have flood-tolerant or obligate emergent vegetation. In addition, open waters (lakes, potholes, and streams) may have submergent vegetation. Many plant species adapted to aquatic environments are facultative, which means they grow as either. However, they do change growth forms and biochemical pathways when they change habitat.

AQUATIC SYSTEMS

Lakes and Potholes

Glaciers during the last ice age formed most natural lakes of Minnesota and eastern South Dakota approximately 10,000 years ago. Lakes support aquatic life, are integral links in the ecology of a region, and are utilized by the recreational public. Some lakes or impoundments are used as water supply reservoirs for towns and cities.

Regardless of how or when lakes were formed, they all undergo a natural aging process termed eutrophication. Due to the activities of man, the aging process can be greatly accelerated. Lakes age by accumulating nutrients (primarily nitrogen and phosphorus) and sediment from the surrounding watershed. The increasing levels of nutrients have the effect of "enriching" the water of a lake and increasing the production or "standing crop" of aquatic vegetation such as algae or weeds. The effect is much the same as applying fertilizer to the soil in a garden. The vegetation may become so productive in a lake that nuisance levels of algae or weeds may become a problem.

Some blue-green algae may produce foul odors or produce a scum on the surface of the water and shoreline. They may also produce "phytotoxins", very poisonous substances that poison fish and wildlife or even humans. When a lake becomes choked with weeds or algae and the water quality declines, game fish populations may decrease and rough fish populations may increase. Winter kill may be a recurring problem in an old or eutrophic lake because of the large amount of organic material (vegetation) in the lake. There are many sources of these excess nutrients to lakes. Some potential sources may be municipal sewage discharge, leaching from septic tanks, feedlot runoff and excessive application of fertilizer to cropland, or improper manure disposal. Often pollutants may interchange between land, lake, and ground water, affecting drinking water or industrial water quality, as well as fishing, recreation and health.

Another cause of decline in a lake or pothole is the gradual filling of the lake basin by sediment or soil from the watershed. As the lake becomes shallower, it becomes much more susceptible to the effects of pollution and winter kill. Farming the land causes the soil to be exposed to wind and water during part of the year. A lack of adequate soil conversation practices also allows valuable topsoil to be washed into streams and ultimately into lakes. Windblown sediment can also be a significant problem to a lake.

Often dredging is the only feasible way to remove excess sediment from a lake basin. To be effective, dredging is often done in conjunction with a number of lake restoration and stabilization techniques. These techniques may include shoreline or streambank stabilization, centralized sewage disposal, application of conservation practices in the watershed, or elimination of point sources of pollution.

SURFACE WATER QUALITY

The lakes of the County are characterized as shallow, fertile prairie lakes. Data collected by Minnesota Pollution Control Agency (MPCA) on Benton, East Stay, Dead Coon, and Shaokatan lakes indicate all are highly eutrophic. The same could be inferred for the remaining county lakes. Eutrophication refers to the aging process by which lakes are fertilized with nutrients, leading to senescence and eventually filling in to produce a marsh. This process occurs naturally, but can be greatly accelerated by human activities.

On average most of the county's lakes are less than five feet in depth and have limited potential as fisheries due to annual winter kill. Five lakes (Benton, Shaokatan, Dead Coon, Stay, and Hendricks) have aerators that help reduce the problem of winter kill. However, many of the county's shallow lakes and marshes are good habitat for migrating or nesting waterfowl, rare species, muskrats, and other wildlife.

The county's six major lakes (Benton, Hendricks, Shaokatan, Dead Coon, and East and West Stay) have a total water surface of about 6,480 acres and a total shoreline of about 37.5 miles. These lakes, having an average depth ranging from three to twelve feet, present the greater potential for short-term recreational development than is currently being utilized.

Problems relating to excessive algae growth and lake-level maintenance are common among the recreational lakes of the county.

ASSESSMENTS OF SURFACE WATER QUALITY

The Lincoln County Board of Commissioners approved a new Lincoln County Water Management Plan on 5 October 2004. This Plan did not identify conflicts or concerns with the existing Comprehensive Plan. The previous Lincoln County Comprehensive Local Water Plan Update (#1) May 20, 1997, made the following assessment, and recommendations are based on previous water body studies in the county. All county lakes contained on the Minnesota Pollution Control Agency (MPCA) List of Impacted Water bodies are affected by sedimentation. Sediment typically originated from two major sources. First, erosion of unprotected cropland results in suspended soil particles being carried by streams into lakes. As the water enters the lakes, it slows down and loses its capacity to keep the soil particles suspended. The second source is erosion of banks caused by wind and wave action of the lakes. Shoreline protection and restoration by physical and biotechnological mean can largely eliminate this.

A notable problem in Lincoln County is wastewater/septic tank pollution at several of the county's lakes. Lake Hendricks and West Lake Stay (classified for general development and East Lake Stay and Lake Benton (classified for recreational development) are important lakes within the county. If development continues near the surface waters without proper treatment of waste effluent, then pollution from wastewater/septic tanks is likely to continue and increase contribution to eutrophication of the lakes. Urban development can be controlled to create little or no detrimental effect on the environment.

The majority of water bodies in Lincoln County are affected by oxygen depletion, eutrophication, bottom sedimentation, and turbid water. Principal non-point sources likely to be causing the degradation to the county's surface waters are non-irrigated crop production, pasture land, feedlots, agri-chemical application, and septic systems.

MANAGEMENT SYSTEMS AND TECHINQUES FOR SURFACE WATER QUALITY IMPROVEMENTS

Reducing sedimentation and non-point pollutants can be accomplished by using conservation measures that retard runoff entering lakes and streams. Management of the resource to reduce non-point pollution is usually a combination of management techniques to control activities on the land and construction of structures. Using construction techniques and controlling the

activities on the land create a management plan that will help to alleviate the sedimentation problems.

Listed below are some individual techniques that are visible and tangible. These techniques are either built or planted:

- Streambank stabilization - rip-rap, or willow plantings or a combination of both.
- Tree planting – Planting of flood or moist condition tolerant trees along the bank.
- Critical area seeding – Planting of grasses in areas with erosion problems
- Waterways, water and sediment control basins – Construction of a structure that catches water and slows it down so sedimentation can occur.
- Terraces – Shaping the land to change the slope to slow runoff across the landscape.
- Tillage System – Use of no-till or minimum till to plant crops *versus* conventional plowing and disking methods.
- Cross fencing – Placing fencing to control the movement of livestock. A producer could fence off a steam bank or create small paddocks in a large pasture to control grazing.

Management techniques consist of using one or more construction or planting techniques, along with controls measures *(such as timing)* and regulating activities. The list below is management techniques.

- Pasture and grazing management – This system limits the time period of grazing based on the height of grasses in the pasture, cross fencing a large pasture in to smaller rotational pastures for more intense but shorter grazing time.
- Hayland management – This system harvests or cuts hay at a selected time based on the type of hay or for wildlife habitat.
- Crop residue management – This system uses no-till or minimum till farm equipment to leave more crop stems or stalks on the ground. A producer using these techniques will not use a plow or will only lightly disk a field, leaving vegetative material on the ground.
- Buffer zones – These are usually strips of land which are used to protect one land use or resource from another. These strips can be highly maintained, much like a park, or have very little maintenance. Depending on the condition of the land or resource and the desired results, intense construction and planting can occur. The overall goal of buffer

zones is to absorb and reduce the intensity of the flow of materials, nutrients, noise, water, etc., from one area to another.

- Stream Corridor Management System – This system would be similar to a buffer zone. A buffer zone may be a sub-element of a system that uses many different construction and planting methods and management techniques in a larger area connecting many different land uses. Objectives of a stream corridor management system may include the ability to carry flood flows and to transport normal sediment loads.
- Setback – The County has in place a Shoreline Protection Ordinance. This ordinance is a management tool that allows the county to protect water bodies, streams, and river to prevent pollution. Requiring setback of inappropriate uses or discharges from septic fields and tanks will help in preventing the eutrophication of surface water in the county.

This list is only a sample of the different types of management techniques and systems that exist. Biotechnology or ecosystem engineered techniques are attractive, since they are self-adapting and self-maintaining and are much cheaper over the long run. They are more aesthetically pleasing, but they take more time to be fully effective.

GROUND WATER QUALITY

About 80% of the county residents rely on the Lincoln-Pipestone Rural Water System for their drinking water supply. All the municipalities are served by rural water systems. A limited number of residents are served by the Brookings-Deuel Rural Water System.

The county's dependence on rural water is partially related to the elevated mineral content of the region's superficial ground water (less than 50'). Historically these private wells were also high in nitrate levels. High nitrate levels can cause a serious (potentially fatal) disease of infants called "methemoglobinema" or "blue baby disease." In addition, many users had experienced frequent and severe water shortages in the past.

The quality of drinking water provided by the rural water system is very good. Treatment consists only of fluoridation and disinfection. Sulfate is well below the recommended limit, hardness is reasonably low and nitrate contamination is not a problem. Moreover, pesticides or VOC's have not been detected in samples taken from any of the system's wells. Nitrate levels, however, have increased in recent years with elevated readings normally occurring in the spring.

WELLHEAD PROTECTION

Currently the County has been actively pursuing wellhead protection. The Lincoln County Comprehensive Local Water Plan Update (#1) May 20, 1997, described Wellhead Protection as "A means of safeguarding public water supply wells by preventing contaminants from entering the area that contributes water to the well of a well field." On April 4, 2003, the Verdi Well Field Wellhead Protection Plan was approved. The Minnesota Department of Health approved Part 1 of the wellhead protection plans for the Holland, North Holland, and Verdi Wellfields in 2013.

The fundamental goal of Wellhead Protection is to prevent contaminants that may have adverse effects on human health from entering public wells. Wellhead Protection is a management process that acknowledges the link between the quality of groundwater supplies for drinking water and land-use activities in the areas, which contribute water to public wells.

Beginning in 1995, all public water suppliers were required to:

- Maintain the isolation distances defined in the State Well Code;
- Monitor non-complying sources located on their property; and
- Report to the Minnesota Department of Health other violations to the isolation distances or ask a local government unit to regulate these sources.

Based on the soils and the increasing large-scale agricultural production facilities and an increase in rural residential homes, well protection will be more of an issue in the future.

GOAL 1 Protection and enhancement of ground and surface water quality.

Objective: To ensure that the residents of Lincoln County have access to good quality water.

Policies

1. Develop best management practices to improve surface water degradation.
2. To properly regulate and assume responsibility for the permitting of feedlots and manure storage.
3. Develop an environmental education program promoting sound and responsible environmental practices.
4. Agricultural Best Management Practices for Crops.

Strategies

1. Update shoreland zoning ordinance as needed.

2. Enforcement of zoning, feedlot, and ISTS regulations through the Lincoln County Environmental Office.

GOAL 2 Responsible use and management of essential natural resources such as water, soil and air.

Objective: Continue to promote uses that protect the natural resources of the County

Policies

1. Continue to support erosion control practices in the county.

Strategies

1. Continued funding of local SWCD thereby improving water quality and reducing soil erosion.
2. Sustain and improve water quality to the public to enjoy.

GOAL 3 Protect and enhance species and biodiversity within the county.

Objective: To promote hunting and fishing activities to enhance tourism in the County.

Policies

1. Enhance and promote wildlife habitat areas such as prairie and woodland areas.

Strategies

1. Improve communication with State DNR and US Fish and Wildlife as to the availability of programs to set-aside sensitive areas and develop a good working relationship with these agencies.
2. Minimize adverse impacts including the removal of tax base.

GOAL 4 Promote and enhance the county's recreational resources.

Objective: Expand local and tourist use of area's recreational opportunities.

Policies

1. Ensure the county's parks, wildlife management, and recreational facilities are marketed to area residents and tourists.

Strategies

1. Develop a County website focused on the marketing of the area.
2. Increase exposure of winter recreational activities and special events.

Objective: Ensure that adequate facilities and opportunities are available for recreational use.

Policies

1. Develop multi-modal trails linked to county communities and recreational areas
2. Maintain and enhance the existing parks and trail systems.

Strategies

1. Examine the potential to expand the park system.
2. Tie a trail system to the area's windpower resources.

CHAPTER 6

HISTORICAL AND CULTURAL FACILITIES

INTRODUCTION

The first human inhabitants of what we know as Lincoln County were mound-building people. Very little is known about these people, who were here before the Indians. Evidence seems to point to these mound-building people as having had a relatively sophisticated civilization, as can be shown by the implements and art which have since been discovered. Some historians feel that the mound-builders were either killed or driven farther south by the more warlike Indian tribes. Some mounds, in varying stages of decay, can still be found on the hills overlooking Lake Benton.

During the 18th and 19th centuries, the land was occupied by the Sisseton and Wahpeton tribes of the Dakota Sioux. Between 1838 and 1857, the only permanent residents of the county were members of the Sioux tribes who had a major camp at "Acorn Planting", located between Tyler and Lake Benton.

The area that is now known as Lincoln County first came under United States jurisdiction in 1803 when it was obtained from France as one small part of the Louisiana Purchase. The first documented account of white men in Lincoln County was in 1836 when Catlin, a prominent 19th century artist, passed through the region on his way to the quarries at Pipestone. It is likely that Catlin came close to Lake Benton, which at that time was neither named nor mapped.

Two years later, in 1838, the Nicollet-Fremont expedition traveled through the area after heading north from St. Louis up the Mississippi River, then along the Minnesota River to St. Peter. Once again, the quarries of Pipestone were the target of these explorers. After a three day visit at the quarries, they turned north where John C. Fremont named the large lake (Lake Benton) in honor of his sweetheart, the daughter of U.S. Senator Thomas Hart Benton of Missouri. Fremont later became the first presidential candidate of the Republican Party in 1856. Leaving the Lake Benton area, the expedition pressed farther north and east, naming Lakes Hendricks, Preston, Poinsett, Albert, Thompson, and Tetonkaha enroute.

In 1852, a series of treaties with the Sioux Nation were ratified by Congress. One effect of these treaties was to transfer 30 million acres of land from the Sioux to United States ownership, including Lincoln County, at a bargain-basement price of 20.5 cents per acre. Estimates state

that about 8,000 Sioux lived in the area at that time. Thereafter, the territory was open for settlement and changes came rapidly. Minnesota became a territory in 1849 and a state in 1858. That year, the Surveyor General set mile posts at the west end of Lincoln County. By 1866, the Surveyor General had established the township corners in the county.

Settlement of Lincoln County began in earnest in the 1870's. During these years, a number of settlers arrived in the northern part of the county, as eleven families of Norwegian immigrants homesteaded along the Yellow Medicine and Lac Qui Parle Rivers. In 1871 section corners were surveyed and it was then possible to own land with some certainty of its legal description. A census of sorts was conducted at the time and showed 15 families in the southern part of the county, mostly around Lake Benton, and 15 families in Alta Vista and Marble Townships in the north. Nearly all lived in crude dugouts.

At this time, "Lincoln County" did not exist. Prior to 1873, Lyon County extended all the way west to South Dakota. In that year, a vote was held to consider splitting Lyon County in two. Some early and shrewd politicking made the vote a success. The western half of the county struck a bargain with the growing city of Marshall; the "westerners" would support Marshall as the county seat of Lyon County if Lyon County would support the split. On December 8, 1873, Minnesota's Governor, Horace Austin, signed the proclamation creating "Lincoln County."

One of the first acts of the Lincoln County Board of Commissioners was to establish a county seat in the community of Marshfield; a cluster of dwellings in Section 30 of Marshfield Township. Years later, a fierce political battle was fought between the cities of Lake Benton and Ivanhoe for the possession of the county seat. The fate of the community of "Marshfield" shows the fragility of life in those early years. At one time or another, there were at least eleven communities in Lincoln County. Only five survived to become incorporated cities. The eleven communities include: Arcola (later renamed Arco), Hendricks, Ivanhoe, Lake Benton, Tyler, Verdi, Wilno, Idlewild, Marshfield, Morse and Thompsenberg. In 1873 a county road was built between Morse and Lake Benton. The first post office came to Marshfield in 1874. Morse had a store, blacksmith shop, post office and six homes. In 1877, a mail route was established between Morse and Marshfield, which had two hotels, two stores, two blacksmith shops, a newspaper and six homes. Thompsenberg qualifies as a ghost town, Idlewild is a corn field, and Marshfield and Morse have totally disappeared.

Despite these failures, Lincoln County continued to grow, and in 1875 there were 413 residents. Five years later, in 1880, the population grew to 2,945. In 1885, population had risen to 4,362, and by 1970, the population stood at 8,143. The 1990 census accounted for 6,890residents. The population dropped more to 5,896 in 2000 due to the loss of population in the rural areas. Today, the population stands at 6,037 (2015 estimate).

The primary ethnic groups that settled the area in the late 1800's and still predominate today are German, Polish, Danish, Norwegian, and Swedish.

INVENTORY OF HISTORICAL AND CULTURAL RESOURCES

Defining Historical Cultural Resources

Perhaps the United States Department of the Interior's National Register Bulletin gives the simplest and best definition of cultural resources. A cultural resource is a "building, site, structure, object, or district evaluated as having significance in prehistory or history" (NRHP Bulletin 16A). As mentioned in the definition of cultural resources, at least one factor essential in determining a cultural resource involves establishing its significance. While a number of agencies and criteria have been established to aid in this process, for the purpose of this study, we have taken the most inclusive definition of historical significance. In doing so, we have also included those institutions that house historical information, such as museums.

Cultural Resources and Sustainability

In recent years, cultural resources have come to be seen as nonrenewable resources similar to oil or to the South American rain forest. It is with a sense of conservation and stewardship that the residents of Lincoln County should approach their cultural resources, because the stories these resources tell are their own. Unlike cultural resources located in a suburban or metropolitan area, the resources in Lincoln County are unlikely to be threatened by the expansion or construction of new infrastructure. Instead, the threat to Lincoln County's resources comes from the decreasing county population and the scarcity of resources.

The Cultural Resources of Lincoln County

The Danish Evangelical Lutheran population in Tyler actively recruited Danish settlers and established the religious and educational complex of **Danebod** (Tyler, 1889-1917) to preserve and continue the cultural traditions brought over by the hundreds of Danish farm families. Lake Benton first attracted English settlers, followed by Swedish farmers and merchants. The **Lake**

Benton Opera House (Lake Benton, 1896) reflects, as does Danebod, the need to establish a community social and cultural center. The **Ernest Osbeck House**, is indicative of the local prominence achieved by a Swedish immigrant who used his position in the community to boost commercial and social ventures such as the Opera House. A few buildings constructed in the first part of the 20th century reflect this maturation of the county. The **Lincoln County Courthouse** (Ivanhoe, 1919) is the most prominent public building in the county. The **Tyler Public School** (Tyler, 1903) survives as an unusually well preserved example of the significance the community attached to educational facilities. The **Lincoln County Fairgrounds** (Tyler, 1873-1938) has linked all aspects of the county's agriculture by way of product and educational exhibits. Historically, the Drammen Farmers' Club (Drammen Township, 1921) played a crucial role in providing a social and educational context for farm families living in sparsely settled areas of the county. It was unique among area farm organizations for its exclusively social role in the sparsely populated rural community. The following table is a select list of some of the identified cultural resources of Lincoln County:

Properties on the National Register of Historic Places

Table 25. Properties on the National Register of Historic Places

CITY/TWP	PROPERTY	DATE CONSTRUCTED	STYLE	ARCHITECT/ BUILDER	NRHP DATE
Drammen Twp.	Drammen Farmers' Club	1921	Craftsmanship, Danish heritage	Alfred Anderson	12/02/80
Ivanhoe	Lincoln County Courthouse and Jail	Courthouse - 1919, Jail -1904	Classic Revival, Queen Anne	C. Howard Parsons (Courthouse), A.J. Van Duesen (Jail)	12/01/80
Lake Benton	Lake Benton Opera House	1896			3/25/77
Lake Benton	Lake Benton Opera House and Kimball Building (boundary increase)	1896		Taylor Bros. & Henry Enke	4/22/82
Lake Benton	Osbeck, Ernest, House	1896-97	Queen Anne	John & Peter Anderson	12/02/80
Tyler	Danebod	Stone Hall -1889, Danebod Folk School -1917, Cross Church - 1893, Gym Hall - 1904	Mixed		6/30/75
Tyler	Lincoln County Fairgrounds	1895+			12/12/80
Tyler	Tyler Public School	1903	Renaissance Revival, Romanesque	A.J. Van Deusen	12/01/80

Source: National Park Services, National Register of Historic Places 2015

Table 26. Properties Considered Eligible for the National Register

PROPERTY NAME	CITY TWP	ADDRESS
Ivanhoe Creamery	Ivanhoe	402 N. Norman
Lake Benton Hotel (21LN0026)	Lake Benton	
Tyler Commercial Historic District	Tyler	vicinity Applebee St. & Hughes St.
U.S. Hwy. 14 State Line Marker	Verdi Twp.	off U.S. Hwy. 14

In addition, Lincoln County Pioneer Museum, which is located across from Lake Hendricks Park (Open Wed., Fri., Sat. afternoons May-October); St. John Cantius Church, known as "the Cathedral on the Prairie" at Wilno, being on the National Registry of Historic Buildings; and Lake Benton Heritage & Windpower Learning Center, which provides a unique display of local historic artifacts and an interactive display of wind power; are also historic sites in the county.

Cultural and Historic Points of Interest

- Lincoln County Pioneer Museum features a one room school house, Icelandic church, train depot, and a Sears house furnished with turn of the century décor.
- Hovde House, hand poured cement structure.
- Adobe House, built in 1880, made of clay and straw brick, 3 ½ miles West of Ivanhoe.
- Snyder Log cabin, Hole-in-the-Mountain Park
- Memorial Cemetery, burial mounds built by the Mound Builders about 10,000 years ago.
- Site of Major Brown's 1862 trading post located within the northern border of the Hole-in-the-Mountain Park.
- St. John Cantius Catholic Church, Royal Township
- Taylor Family Home, Lake Benton New Life Chapel. A special spot for rest and meditation on the west side of Arco.
- Gardens. Perennial gardens at Bethany Elim Church; Willert's and the English Garden in Ivanhoe & Silverson's Garden in Hendricks.
- Anderson Honey Farm. Replica of the honey processing house seen in "Little House on the Prairie" Located on Hwy 75 between Ivanhoe & Lake Benton.
- Nature Conservancy. Natural prairie grass and wild flowers, located 3 miles south of Lake Benton on Hwy 75.
- Wind-power Projects. The Buffalo Ridge in Lincoln County is the site of many large wind-power projects. A viewing site is located south of Hendricks by the former Midwest Center for Wind Energy.
- Verdi Museum.
- Homes. Rock Houses in Arco and Hendricks; and contemporary Lundberg Log Home.
- Cross on the Hill. Overlooks the city of Lake Benton.

Historic Inns

- Triple L. Bed & Breakfast, 1890 farm home, Hendricks
- Turret House B & B, 1904, Hendricks
- Weavers Haus Bed & Breakfast, Ivanhoe.
- Babette's Inn, 1914, Tyler
- Danebod Folk School, 1917, Tyler

Cultural Festivals

- Polska Kielbasa Annual Festival, Ivanhoe, Polish ethnic foods and cultural programs, held the second week in August.
- Sytennde Mai, Norwegian festival, Hendricks, held in May.
- Aebleskiver Days, Danish Festival, Tyler, weekend after Father's Day in July.
- Lincoln County Fair
- Farm and Home Day, Lake Benton, February
- Old Glory Day/Arts in the Park, Lake Benton, September
- Lake Benton Autumn Fest, Lake Benton, September
- 2 Cylinder Tractor Show, Hendricks, 2nd weekend in June
- Hendricks Summer Fest, July
- Tyler Danish Christmas Tea, first Saturday in December
- Larry Olsen Music Fest, Lake Benton, May
- Saddle Horse Holiday, Lake Benton, June
- King of Trails Market Day and Flex Market, Lake Benton, September
- Annual Spooky Sprint 5K Run/Walk, Lake Benton, October
- Opera House Season Opener, Lake Benton, March
- Fremont Days, Te Tonka Ha Rendezvous, Lake Benton, August
- Hendricks Harvestfest, Hendricks, October
- Holiday Happenings/Fish House Parade, November
- Santa Claus Day, Lake Benton, December

Tourism

- Travel Southwest Minnesota 1-800-279-2919 or Chamber 507-368-9577 Sandi Dahl

- "Little Europe" Tour: Tyler, Lake Benton, Ivanhoe, and Hendricks
- Minnesota Festival & Events Association Leo Berg (507) 354-8850
- Southern Minnesota Tourism Association. Al Thurley (507) 451-2272
- Danebod Historic Complex Tours: 507-247-3000.

ANALYSIS OF RESOURCES

Ivanhoe

Ivanhoe Courthouse is number 15 on the National Register of Historic Places. The Courthouse is in good shape. The Ivanhoe creamery, which is was the Lincoln County Feed and Seed Company, is now closed. The owner, the county, the city or the Lincoln County Historical Society may nominate the site. The windows and wood could use restoration, but overall, it is a beautiful rainbow brick building.

Across from the creamery on Norman St. are historic commercial buildings. The brick work is attractive. One building is for sale, the cafe has been sided, and the funeral home is still being used and is in good shape. The George Graff House has new modern windows, but could use paint. The Ivanhoe Church is very nice and is in good shape as is the active school on Wallace Avenue. Several of the houses are in good shape and attractive. Two have been sided, but have maintained their historic features. Homeowners should be encouraged to continue to maintain historic features and avail themselves of technical assistance from the State Historic Preservation Office, (SHPO).

Arco

Arco has only seven historic buildings on the inventory. The German Lutheran Church must have been demolished. The Bethany Lutheran Church is active and needs to be painted.

Hendricks

The Lincoln County Historical Society's total effort has been to expand and improve the Pioneer Museum. They have successfully expanded the number of buildings and activities at the museum. This cultural resource is an asset to school children, adults and to tourism. The museum is within a recreational setting, abutting a park, a lake, campgrounds and a ball park. Across from the museum is the cottage which is used as a canteen for campers and a bandstand and covered picnic shed is nearby (although it is not on the inventory).

The creamery is in a good location on Main Street. The outside appears to be in decent shape, although it is abandoned and boarded. Across the street is commercial/industrial property and the old railroad. It appears to be a good location for reuse of commercial activity.

The private homes range from terrible condition to beautiful. As in most communities, many of the homes could just use a painting. The Jenson House has been a funeral home since 1945 and is a beautiful converted home.

The Grace and Trinity churches are active and in excellent condition. The Calvary church does not exist. The public school has been active since 1921.

Tyler

Tyler's commercial historic district is eligible for listing on the National Register. The continuity of historic buildings lends itself to such a district. Tyler also has a significant number of National Register sites and individual historic homes. Besides the string of commercial buildings on Tyler St., there is a cluster of historic sites on either side of the railroad, including the bandstand and the depot, the elevator, commercial buildings and a couple of homes. Vestas Wind Power is situated by the railroad, but apart from the other historic buildings. Between the Tyler School and the Fairgrounds are a private house and a garage which used to be a Pontiac Dealership. These four sites could be joined by a district.

Danebod is an important cultural resource and a tourist attraction. It operates as a Folk School, caters to family gatherings, weddings, and tours, has an annual craft fair, and an annual convention. The church has been renovated. All of the buildings are maintained in excellent condition and includes the church, stone hall museum, folk school, gymnasium, and parsonage.

Lake Benton

While Lake Benton has a significant number of historic buildings, the buildings are not in clusters. There are, however, several sites located on Freemont and on Benton Streets. Of course, the Opera House is on the National Register and is maintained and each year from March through December, performances are held there The Lake Benton Hotel is eligible for the National Register. The process should be completed for tourism purposes. The tourism center itself is housed in a converted church and also houses an emporium. This conversion was nicely done and is a nice gateway onto the main street. The Heritage and Wind Power Learning Center

of SW Minnesota provides a glimpse of the past through the museum displays and also features a "wind garden" complete with interactive wind energy, which is a special historic site for visiting.

Some of the historic homes are stately, resembling mansions, and as in the Osbeck House, could be turned into shops, offices or an inn. Several of the homes are beautiful but need work.

GOAL 1 Preserve, promote and enhance Lincoln County historic and cultural resources.

Objective: Maintain existing resources through rehabilitation and examine efforts to expand resources.

Policies

1. Attempt to secure funds to rehabilitate historic and cultural facilities.
2. Ensure that authentic materials are used for rehabilitation and restoration.
3. Support the efforts of the Lincoln County Historical Society and other organizations whose mission it is to preserve historic values and promote ethnic heritage.
4. Educate the public on historic sites and the importance of preservation.

Strategies

1. Investigate sources of funding for rehabilitation including state bond proceeds for large projects.
2. Ensure the zoning ordinance protects appropriate resources and land use.
3. Encourage the expansion and improvement to Pioneer Museum.
4. Conduct community presentations, guided tours, and roundtable discussion.

GOAL 2 Preserve and enhance the rural values and ethics in Lincoln County.

Objective: Encourage activities which showcase the rural values and ethnicity of the area.

Policies

1. Support programs that include all age groups and focus on the rich history of the area.

Strategies

1. Promote ethnic celebrations and events in the County.

CHAPTER 7
ECONOMIC AND COMMUNITY DEVELOPMENT

INTRODUCTION

Economic development can be defined as those actions and activities that increase the number of dollars that flow into a specific region. It should be noted, however, that the primary focus of this report is the issue of *sustainability* and how it relates to specific issues in Lincoln County. Because sustainability is the focus of this master plan, it would be better to define economic development in a sustainable manner: Sustainable development (economic) would be those practices that meet the needs of the present without compromising the ability of future generations. This concept of sustainable economic development is applied to several specific areas (i.e. agriculture and tourism) in other chapters of this report. This chapter, however, is intended to provide a brief overview of sustainable economic development, provide examples, and contribute a number of recommendations.

Below is a simplified list of what would constitute economic development in Lincoln County.

* Increasing the number of jobs
* Increasing business diversity
* Increasing earnings for jobs
* Increasing the opportunity to create new businesses
* Maintaining current businesses

EMPLOYMENT

Table 26 illustrates resident employment trends for Lincoln County since the 2000s. The employment data was collected by the Minnesota Department of Employment and Economic Development (DEED) and the U.S. Bureau of Labor Statistics.

Table 26. Employment Trends for Lincoln County

	2000	2005	2010	2014*	2016
Total Population 16+	5,114	NA	4,722	4,654	4,692
In Labor Force	3,461	3,412	3,445	3,271	3,371
No. Employed	3,340	3,288	3,255	3,155	3,248
No. Unemployed	121	124	190	127	123
Percent in Labor Force	67.7%	NA	73.0%	70.3%	71.8
County Unemployment Rate	3.5%	3.6%	5.5%	3.90%	3.6
State Unemployment Rate	3.1%	4.0%	7.0%	3.90%	3.8
** preliminary (by Aug)*					

Source: Local Area Unemployment Statistics (LAUS), U.S. Census

The size of the labor force provides an indication of the dynamics of the economy and of the availability of workers seeking to relocate into the area. After Labor's Golden Era which was 1960-1990, worker participation began declining in the United States. Lincoln County has seen an increasing percentage of its residents 16 years of age or older in the labor force from 67.7 percent to 71.8 percent since the 2000s, while both the state and federal labor force rate have seen decreasing percentages. However, the county labor force has had a declining trend both in number and percentage in recent years (Table 26).

The unemployment rate is an indicator of the level of the employment in the area. In the earlier 2010s, employment was unstable, remaining so until 2013. The majority of the increase in numbers after 2005 could be due to the new influx of wind power activity and the substantial development of hog confinement operations. Figure M indicates that Minnesota has had a similar trend in unemployment as the county since the early 2000s, and Lincoln County has consistently had a lower unemployment rate than the State. In 2016 the county unemployment rate had dropped to 3.6 percent, an improvement on its 5.5 percent reading in 2010. Regarding the demographic decline and labor market growth, the decline in employment in Lincoln County after the 2007 recession is not surprising, but is a concern for economic development in the area.

Figure M. Unemployment Rate 2000-2016

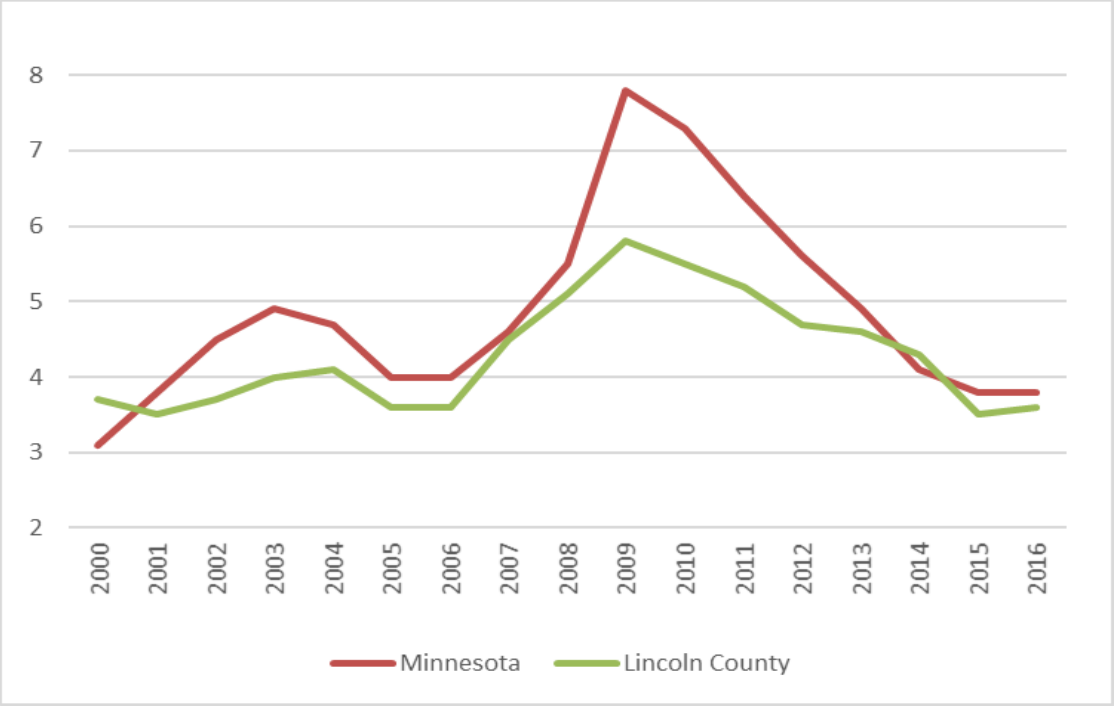
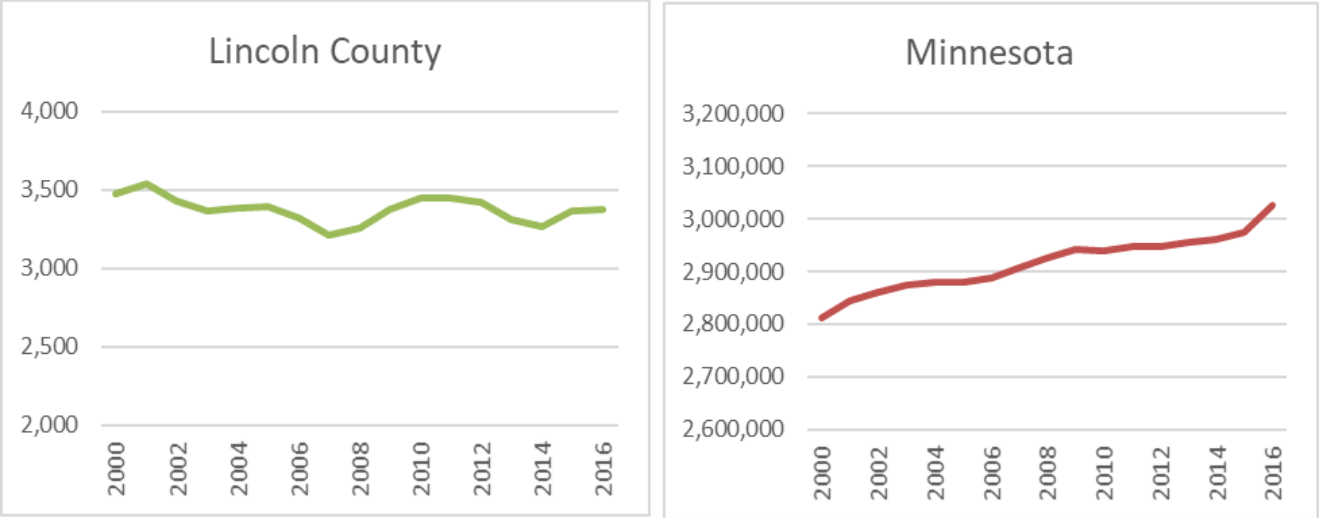


Figure N. Labor Force Trend 2000-2016



Covered employment and wages is a product of the Quarterly Census of Employment and Wages (QCEW) program, in cooperation with the U.S. Bureau of Labor Statistics. Industry data is based on the North American Industry Coding System (NAICS) and is fundamentally different from the Standard Industrial Coding (SIC) system used previously. Covered employment excludes some categories of workers such as self-employed persons, railroad workers and

persons employed in very small farm operations, among others. Table 27-1 and Table 27-2 illustrate covered employment and wages by industry for Lincoln County.

From a long-term perspective, 2000 through 2016, annual covered employment in the county had declined, from a base of 1,772 to 1,708, a net loss of about 64 jobs (-3.61%). The decline took place after 2005, when annual covered employment reached 1,808. In 2000, 91.7 percent of the employment in the county was in service providing, the majority of it in trade, transportation and utilities services (23.70%) and in education and health services (40.58%). By the end of 2010, the education and health services had declined to 34.02 percent and it was down to 32.59 percent in 2014. Meanwhile, there had been a small number of an increase of jobs in trade, transportation and utility services (+4.29%, or 18). In 2016, the employment in service providing rose to 92.2 percent due to the growth of construction and other goods producing industrial sectors.

Table 27-1. Employment by Industry in Lincoln County 2000 – 2016

NAICS/YEAR	Average Annual Employment				Average establishments			
	2000	2005	2010	2016	2000	2005	2010	2016
Total, All Industries	1772	1808	1699	1708	210	233	223	223
Natural Resources and Mining	48	64	74	114	6	10	9	18
Construction	80	119	100	185	26	34	34	39
Manufacturing	19	23	18	19	5	6	4	4
Trade, Transportation and Utilities	420	462	433	411	57	65	71	63
Information	15	17	*NA	12	7	7	*NA	3
Financial Activities	58	57	60	55	18	19	17	17
Professional and Business Services	83	53	*NA	62	14	17	*NA	14
Education and Health Services	719	703	578	554	25	22	18	20
Leisure and Hospitality	158	109	96	131	19	16	15	17
Other Services	37	62	125	41	17	22	18	16

Public Administration	133	137	143	124	17	16	13	12
**NA - not available, unknown, or undisclosed*						*Source: MnDEED*		

The public and private employers in the county paid a total of $58 million dollars in annual wages in 2016. Table 27-2 shows the annual wages distributed by industries providing a perspective on the relative importance of the particular industries to economic development. The trade, transportation and utilities industry, construction, and education and health services industry had significantly higher than average wages in Lincoln County, and paid 74.79 percent of total wages. Some industries accounted for a larger share of total wages than total employment, for instance, Construction supplied 10.8 percent of the jobs but paid 17.9 percent of the wages. Overall, by 2016, the total annual wages had increased by 77.53 percent. Average weekly wages rose by 72.5 percent in 2016 compared to 2000, and 18.8 percent compared to 2010.

Table 27-2. Employment by Industry in Lincoln County 2000 – 2016

	Total Annual Wages				**Average wage per week**			
NAICS/YEAR	**2000**	**2005**	**2010**	**2016**	**2000**	**2005**	**2010**	**2016**
Total, All Industries	$32,660,299	$39,975,770	$47,034,417	$57,980,436	$354	$425	$514	$611
Natural Resources and Mining	$950,782	$1,382,309	$2,082,199	$4,075,041	$384	$415	$490	$686
Construction	$1,813,466	$3,676,456	$2,819,122	$10,390,979	$432	$593	$579	$1,076
Manufacturing	$551,450	$549,763	$427,623	$769,793	$560	$448	$389	$779
Trade, Transportation and Utilities	$7,949,177	$9,336,963	$12,443,994	$14,772,553	$364	$392	$538	$690
Information	$270,723	$217,894	*NA	316325	$351	$249	$397	507
Financial Activities	$1,177,601	$1,336,336	$1,586,253	1733498	$391	$450	$502	612
Professional and Business Services	$2,504,008	$1,219,657	*NA	$1,782,317	$582	$444	$506	$556
Education and Health Services	$13,658,644	$16,913,916	$16,153,414	$18,197,203	$365	$463	$506	$632
Leisure and Hospitality	$904,046	$747,981	$682,016	$1,258,791	$109	$131	$138	$182
Other Services	$335,212	$1,666,365	$5,650,471	$863,376	$174	$518	$759	$401
Public Administration	$2,545,190	$2,928,130	$3,307,371	$3,820,560	$370	$411	$514	$595

**NA - not available, unknown, or undisclosed*

Source: MnDEED

Government jobs decreased during this time, from 385 in 2000 to 318 in 2016, a net loss of 67 jobs (-17.4%). These decreases were mainly in the area of local education, which had a net employment loss of 53 (-28.5%). In contrast to the government sector, private jobs had a 0.5 percent increase. The fastest growth in the private sector did occur in Construction (+187.93%. or 109 jobs) and Natural Resources (+137.5%, or 66 jobs).

Table 27-3. Employment by Industry -Private and Government Sector in Lincoln County 2000 – 2016

SECTOR	Private Sector		Government Sector	
NAICS/YEAR	2000	2016	2000	2016
Total, All Industries	1,387	1393	385	318
Natural Resources and Mining	48	114	0	0
Construction	58	167	22	18
Manufacturing	19	19	0	0
Trade, Transportation and Utilities	380	371	39	40
Information	15	12	0	0
Financial Activities	56	55	2	0
Professional and Business Services	83	62	0	0
Education and Health Services	532	421	186	133
Leisure and Hospitality	156	129	2	2
Other Services	37	41	0	0
Public Administration	0	0	133	124
**NA - not available, unknown, or undisclosed*				

Source: MnDEED

The economy of Lincoln County is historically associated with agriculture and more recently construction and natural resources. Certainly, there is an obvious relationship between these two economic areas. Early residents made their living off what the land had to offer and working in the farming industry which continues to be vital to the economy today. By 2016, construction and the natural resources services had brought almost three times of the employment opportunities as they did in 2000, to the county.

Location Quotient (LQ) is the ratio that allows an area's distribution of employment by industry to be compared to a reference or base area's distribution. A location quotient is a significant tool to recognize industry specialization, using the U.S. or another reference area such as a state or a metropolitan area as a benchmark. It helps to identify how local industries stack up against the

national average, and provides perspective on the opportunities for potential economic strengths and development.

If an LQ is equal to 1, then the industry has the same share of its area employment as it does in across the U.S. An LQ value greater than 1 indicates that the local area is more specialized in that industry relative to the U.S. It implies an industry that exports products or services, bringing income into the region. For example, Lincoln County had an LQ of 6.81 in the Natural Resources and Mining industry because this industry makes up a larger share of the county employment total than it does for the country as a whole. An LQ value less than 1 indicates that the local area is less specialized in that industry. The industry may not be able to fulfill the local needs, and the products and services need to be imported. An LQ value between 0.80 and 1.20 could be regarded as the value of 1.00 due to the not significant difference from 1.00. However, the LQ value cannot be the evidence to indicate the exporting or importing for the industries. Inefficient labor force, poor technology, and high local demands can also lead to a high LQ value. *(Source: Location Quotient Calculator. (n.d.). Retrieved February 09, 2016, from http://www.bls.gov/help/def/lq.htm#location_quotient)*

As Table 28-1 lists, there are three industries in Lincoln County with LQs greater than 1.20 in 2016: Natural Resources and Mining (5.05), Construction (2.07), and Education and Health Services (1.61). Regarding the significant development of Natural Resources and Construction in employment and wages, and the great weight the Education and Health Services and Construction have, these high LQs mean that those industries have existing and growing comparatively high local demands, which should bring the opportunity for diversifying the local economic structure.

Table 28-1. Location Quotients for NAICS Industry 2016

NAICS	Lincoln County, Minnesota
Total, All Industries	1
Natural Resources and Mining	5.05
Construction	2.07
Manufacturing	0.13
Trade, Transportation, and Utilities	1.14
Information	0.36
Financial Activities	0.57
Professional and Business services	0.26
Education and Health Services	1.61
Leisure and Hospitality	0.69
Other Services	0.79

Source: U.S. Bureau of Labor Statistics, QCEW

The analysis on the 3-digit NAICS industries which have LQs that exceed 1.20 helps to identify local economic strengths. Table 28-2 lists industries with LQs greater than 1.20. As an agriculture based county, Lincoln County has much higher levels of employment concentration relative to the nation in truck transportation which is often used in crop and fertilizer transport, animal production, and aquaculture. As a rural area with a strong infrastructure system, the Gasoline Stations have LQs as high as 6.03.

Table 28-2 Location Quotients above 1.20 for 3-Digit NAICS Industry 2016

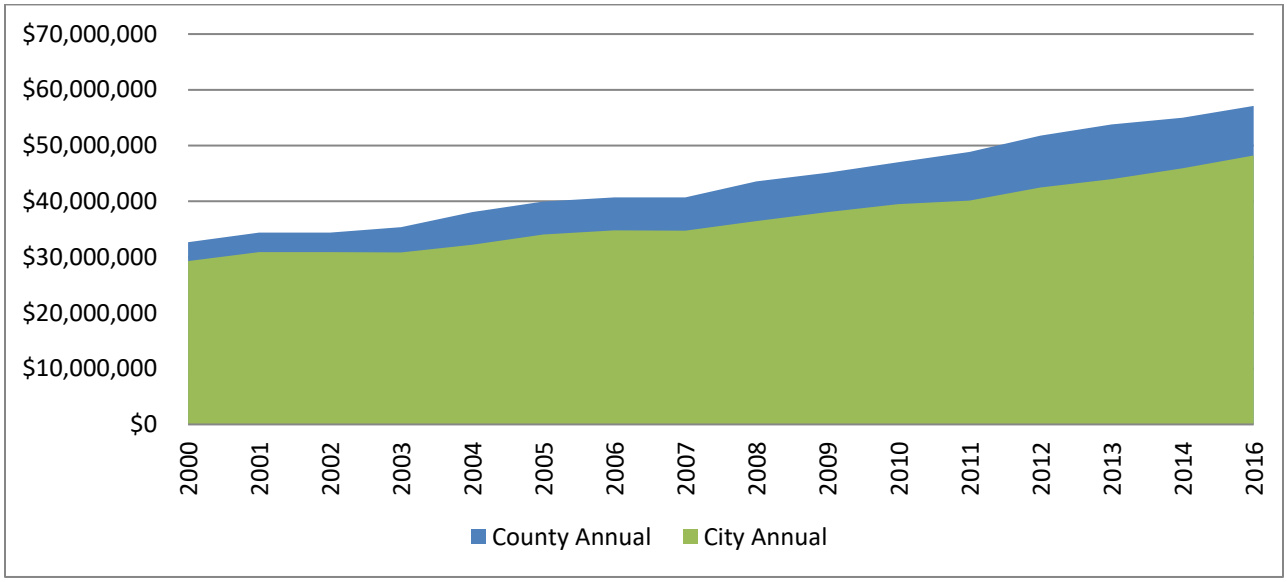
NAICS Code	Lincoln County, Minnesota
445 Food and beverage stores	1.32
444 Building material and garden supply stores	1.7
446 Health and personal care stores	1.42
423 Merchant wholesalers, durable goods	1.93
484 Truck transportation	3.67
447 Gasoline stations	6.03
112 Animal production and aquaculture	24.66

Source: U.S. Bureau of Labor Statistics, QCEW

The process of making these economic changes has been difficult for rural areas. One reason is that the population in Minnesota's rural areas declined significantly in the 1980s, particularly in those counties most strongly tied to agriculture, as is the case in Lincoln County. Although the number of labor force is decreased in these years due to the population decline, the rural work

force as a whole is growing but many counties lag state averages in job growth with Lincoln County being one of those. Additionally, wages and incomes tend to be lower outside urban areas even after accounting for cost of living differences. Finally, the mix of employers in outlying areas is not solely natural resource based as is often perceived, but it is also not always broad enough to protect workers against sudden economic changes.

Figure O. Annual Wages for the County and Cities 2000-2016 - Lincoln County



Despite these problems, there is much opportunity for economic growth in Minnesota's rural areas, including Lincoln County. Figure O shows the total annual wages for the urban areas in Lincoln County compared to the county. In 2000, the cities paid almost 90 percent of wages for the county. It dropped to 81.77 percent in 2013 and 83.51 percent in 2014 then rose to 84.44% in 2016. Both the county and urban areas have a steady growth and the rural areas tend to have a sustainable development on wages. There are areas of rural Minnesota that have recently shown increases in their populations and work force, especially in the more heavily populated rural counties and the counties with strong concentrations of employment in government and service industries. Outlying areas can also offer greater employee availability due to their pool of unemployed or underemployed workers, which is attractive to employers who have run out of workers in tighter metropolitan employment markets. As rural areas continue to adapt to economic change, they have the opportunity to establish and maintain themselves as vital independent centers.

For the greater part of the twentieth century, the population in Lincoln County has been declining, though in the 1990s, it saw some stabilization in population The Minnesota State Demographic Center (*Half-time Highlights: Minnesota at Mid-Decade*) points out "Disparities among regions of the state remain large and in many cases appear to be widening." In Lincoln County, that population decline was due to the rural population loss made up of both natural decrease (fewer births than deaths) and out-migration. The declination of the population directly led to the total employment opportunities decreasing which could undermine economic growth. The supply-demand balance would be changed because smaller numbers of people demand less goods and services while the market wants supplement retention.

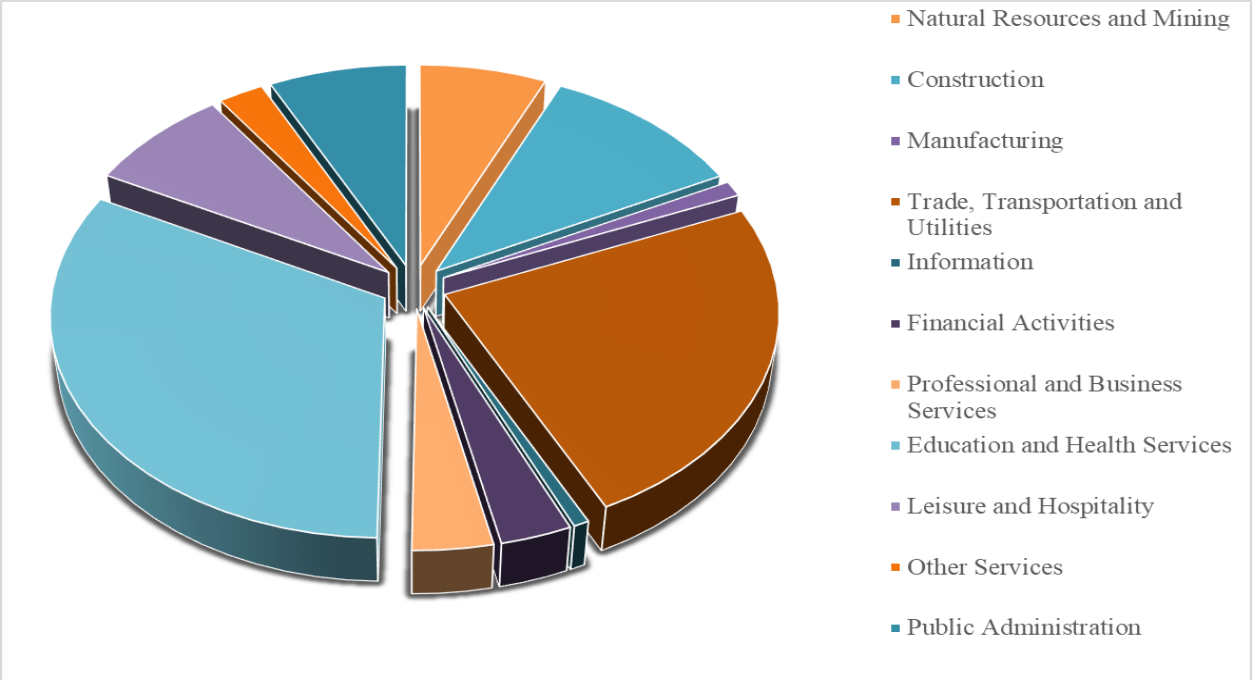
Counties that saw the greatest changes during that period were able to make those dramatic changes in job availability largely because of their transition away from natural resource industries as the main stay of their economy. Farm employment is decreasing even faster than the number of farms due to farm consolidation and to technological changes, both of which allow fewer workers to produce and handle more agricultural goods. Furthermore, in Minnesota nearly half of all farmers also held another job off the farm for at least part of the year, and only two-thirds considered farming their main occupation. However, the natural resource industries reveal a dramatic increasing trend in work force, wages and the market with high demands these years. To maintain and enhance natural resource-based industries including agricultural and fisheries, the county should determine where these industries can productively operate and use land-use controls to conserve the defined lands. It is these changes that speak to the importance of a county's ability to diversify its local economic activities.

As employment opportunities have increased in the natural resources sector, other employers also have also seen some employment growth opportunities. By 2016, two thirds of the employment opportunities came from the construction, trade, transportation and utilities, as well as education and health services sectors, regarding both private and government ownership. Over half of all the rural jobs were in service and manufacturing industries. Local government, including public schools, and hospital and health services, were the major employers around the state.

Besides these key industries, the most common employers in rural areas tend to be based on products and services which must be provided or manufactured locally, such as food stores,

eating and drinking places, auto dealers and services, and food processing. The least populated areas still maintain relatively high employment levels and industries based on natural resources, one of which is tourism. In most counties in rural Minnesota we can find a division of employment by major industry sectors. That however, is not true in Lincoln County which is overly dependent on one type of industry, specifically agriculture. Out of the sixty-nine rural counties within the state, seventeen are considered economically non-specialized, meaning that they are not reliant on any one particular industrial sector, so Lincoln County is not alone.

Figure P. Employment by Industries in 2016



Lincoln County has the tenth lowest average weekly wage in the state, according to information released in 2017 by the Minnesota Department of Employment and Economic Development (DEED). The average weekly wage in Lincoln County was $651 in 2016 compared to the Minnesota average of $1,044. The Twin Cities average weekly wage was $1,171. Thus, Lincoln County's weekly wage was only 55.6% of that earned in the Metropolitan area. Additionally, wages tend to be higher in rural counties near Metropolitan areas and in the northern and eastern parts of the state where economic diversification has occurred.

In the 1980s, rural Minnesota was declining in economic vitality. Rural population and work force were decreasing, and job growth in rural areas lagged behind state averages. Today there is room for optimism in that the rural rebound of the 1990s will continue into the 21st century and

expand to areas like Lincoln County. Job growth has been strong in the outlying areas of the Metropolitan complex and the work force as a whole has been growing.

Thus, rural areas can offer a pool of available workers, and many can sustain employment in a variety of industries and occupations. Further, improvements in information and telecommunications technology will make it easier for rural areas to tap into the knowledge economy as an area for continued economic growth. If industry diversity and wage strength can be maintained, rural Minnesota and Lincoln County will be able to grow into a bright economic future.

TOURISM

Some of Minnesota's small towns, especially those near lakes and woods, are being transformed. No longer are they simply or uniquely vacation spots; they are attracting new year-round arrivals from the Twin Cities, suburbs, and elsewhere. Although the region is not the biggest recipient of these transplants, it has benefited. Both Lyon and Nobles counties have had slight population increases since 1990, while most of the seven other counties that constitute the region have experienced slower population declines in recent years. In an area of the state that has lost nearly 16% of its total population since 1970, slower population loss or stability is encouraging news.

Southwest Minnesota, more specifically Lincoln County, has a chance to halt the staggering population decline (experienced between 1960 and 2000), by giving people reasons to stop leaving and by attracting people to its communities from outside the region.

Within Southwestern Minnesota and Lincoln County there are a number of areas that have tremendous economic potential, many of which are associated with the tourism and recreation industry. Research has shown that there is a lack of traveler knowledge of Southwestern Minnesota. At the same time, research indicated that these travelers have a desire to learn more about the cultural, historical and natural amenities within the region. The Minnesota Resort Association, with assistance from the Minnesota Office of Tourism, in 1998 published an inventory entitled "*Explore Minnesota 1998 Resorts*." There is only one resort listed in this inventory located within the nine counties of Southwestern Minnesota and none found within Lincoln County. This region has an abundance of camp sites, bed and breakfasts, and five State Parks, but there is only one resort listed within this index. With the growth that is occurring in the north central and north western part of Iowa and southeastern South Dakota, more pressure is

currently found on real estate around lakes than at any time in this area's history. If one heightened the public awareness of the amenities found at area lakes to include water sports, camping, hiking, fishing, etc., one could stimulate investments that could become the future county population and tax base.

TELECOMMUNICATIONS

Broadband

High speed internet access has become increasingly important to the economy. Businesses use the web to sell their products, communicate with suppliers, and conduct research. The internet can also play a role in the economy of individuals, allowing people to purchase products, make investments, and get more education. To this end, it is in the best interest of Lincoln County and its residents to have high speed access to the internet. Having high speed internet access and a population experienced in its use can also be a help in attracting and keeping businesses that will become more and more reliant on this technology in the future. Internet infrastructure is a factor to be considered during future planning. The addition of fiber-optic cables or other infrastructure investments that provide high speed Internet access will be a great advantage to those Lincoln County businesses that rely on dependable broadband access to conduct their business. Lincoln County has conducted a Broadband feasibility study to determine how best to accomplish the goal of extending broadband service to the entire county. In the future, the county will be exploring the options presented in the feasibility study.

Cellular

Other important telecommunications infrastructure needs such as providing better access to next generation cellular will continue to be an issue for the County, especially as residents migrate from their land line phones to cellular only. Current estimates are that for the first time in history, a majority of the population nationwide rely exclusively on cellular for their communication needs. While not as widespread in rural areas due primarily to access issues, this trend is forecasted to continue. While there has been an increase in the availability and dependability of cellular service throughout the County, there remains significant portions of the county where this is not the case. The County should continue to promote the development and siting of cellular towers within the count to assure adequate coverage for those wishing to use cellular technology.

AGRICULTURE

Lincoln County is heavily dependent on farming. The problem this creates is the decline in the number of jobs farming can support. Farming activity has increased and will continue to do so. Employment, however, has decreased and will in all likelihood also continue to do so. This is a unique and troubling aspect to agriculture as a county's leading economic activity, that being the inverse relationship between productivity and employment. The Minnesota Department of Employment and Economic Development is projecting increased employment in Southwestern Minnesota. That office is also projecting increased employment throughout the state over the next decade in every economic sector except utilities, mining and agriculture. What this means to Lincoln County and what can be done to address this problem is where we will turn next.

One way that the County can attempt to address this problem is through diversification. Diversification in farming can be accomplished in several ways. First, farmers should attempt to produce more and different types of crops. This will spread out the risk by putting their investments into several markets, helping them recover if a specific crop experiences a market down trend. Second, diversification of the products they produce will help with more efficient use of the land and capital equipment. Use of tractors and combines for more than a few weeks out of the year will make it easier to justify the huge capital investments required and co-opting the same is another option that should be explored. Different crops give different nutrients to the soil, reducing the need for fertilizers and other inputs that potentially can damage other areas of the local economy. A final form of diversification is value-added production. This is a way for the County to potentially increase agricultural employment through diversification.

Globalization is also a way for niche farmers to increase the markets outside the state and country. Niche farmers can benefit from increased globalization since they produce higher value, more labor intensive products. Global business is necessary for many companies, small and large, to survive and nearly all to flourish. These farmers will not have the capacity and capability to market their products to millions of people without the use of advanced technology. This leads us back to some of our earlier comments on the importance of education to develop a computer literate workforce that will include those involved in farm production. Eighty percent of the world's buying power is beyond the U.S. borders.

Since the 1970s, industrial livestock farms have been replacing the traditional family sized farms

that once raised most of the nation's poultry, swine and cattle. The number of livestock animals produced in the United States has remained relatively stable in the past two decades, with an increase in overseas exports of U.S. produced meat off setting a decrease in domestic sales. The numbers of farms raising livestock has shrunk dramatically because large producers increasingly dominate the market. In the pork industry, the number of hog farms has fallen from 470,000 to 56,000 since 1974, while the number of hogs produced has grown.

RENEWABLE ENERGY

Southwestern Minnesota and Lincoln County is currently a world leader in renewable energy development. This industry is creating jobs, increasing the tax base, and providing income for local landowners. There is a growing scientific consensus that human generated emissions are leading to potentially dramatic changes in the global climate. The most dominant of which is carbon dioxide, which is principally produced from the combustion of fossil fuels. Debate is currently growing out of a respond to the risks associated with climate change. National and international policies will likely lead towards efforts that will limit the use of fossil fuels in energy production facilities. In light of these trends, society has three options. 1) Reduce standards of living; 2) increase energy efficiency; or 3) develop carbon neutral energy sources.

Southwest Minnesota is the home to over two-thirds of the state's identified wind power farms. Since 2000, there has been great development of green energy with the primary source being wind power. Wind turbine and turbine foundations require a substantial amount of resources for concrete, underground power cable, steel towers, and new or rebuilt roadways.. Wind power also requires that a duplicate electrical generation facility be built, often using natural gas as the energy source. Growth in the green energy area has also increased the local demand for goods and services to support the industry, providing a boost for the local economy.

Lincoln County and the larger area of Southwestern Minnesota is a leader in the development of carbon neutral sources, commonly called renewable energy. The development of Lincoln County's wind power resources are derived from a legislative mandate to Northern State Power that required 425 megawatts of wind power capacity developed by the year 2020. The majority of this industry's initial development has occurred in Lincoln County.

Investments within this industry by Northern State Power (now known as Xcel Energy), through the legislative directive, is the most significant on-going project of this type in the world today.

In addition, the rural cooperatives are making small investments into wind development.

In recent years, rural southwest Minnesota has seen growth in another area of renewable energy, namely commercial size photovoltaic solar. Lyon and Murray counties have both seen construction of commercial solar arrays, with the Lyon County project using about 500 acres of former agricultural land. Much like wind energy, solar energy is largely most effective when it can be sited nearby to existing electrical infrastructure, such as a substation, that has excess capacity. Lincoln County should be aware of the policy implications of any proposed large solar projects within the county, as well as the economic development impact and any impacts on land in agricultural production.

GROWING EXISTING AND NEW BUSINESSES

Lincoln County experienced a declining population while it enjoyed good numbers of newly formed businesses over the first decade of the 2000s. Compared to the overall southwest Minnesota area, Lincoln County's new business formation per capital was average (with +/- 0.5 standard deviation) over the period of 2000-2010. One historic pattern in new business formation is the importance of roadways. Statewide, business formation tends to cluster around major roadways. In Lincoln County, newly formed businesses are clustered around U.S. Highway 14, which is located in the southern part of the county.

Other statistics that do not bode well for Lincoln County include declines in sales growth and taxable sales in the area of retail trade; which is indicative of an increasingly mobile society and a declining and aging population. The marketplace is changing. Individuals have the ability to purchase their goods and services in adjacent and larger trade centers as well as on-line A local business needs to identify its niche in the marketplace and concentrate on trade that provides for the basic necessities of everyday life. Two areas where gross sales and taxable sales have risen significantly include construction and transportation. These indices identify the importance of the renewable energy industry and the movement towards transportation services by agricultural producers as a means of providing for additional income. Providing for investments within these industries is important to Lincoln County's future.

The burgeoning aging population, our dependence on agriculture, degradation of area recreational opportunities, isolation, income levels, and continued out migration individually are cause for concern. However, economic opportunities do exist within Lincoln County if the

proper policies can be advocated to advance the appropriate investments within those industry sectors that will result in the reversal of these trends. Protecting the area's natural resource base and providing for investments to enhance economic opportunities within this area can provide for tremendous advances in the county's economy.

There are two basic approaches that can be used to generate economic growth. The first is to create more exportable products by either the establishment of new industries or by increasing the production levels of existing industries. In regard to Lincoln County, investments in new industries that are agriculturally related appear to be appropriate. Value-added processing is a buzz word in the development profession that speaks to the importance of integrated production. This concept should not be minimized in its importance to rural economies. Investing cooperatively in value-added processing centers can enhance the economic opportunities in Lincoln County and to those involved in agricultural production. The establishment of niche products produced locally and at the appropriate scale can result in these types of economic opportunities. Recreation, tourism, value-added processing, appropriate business development, are all areas where Lincoln County can focus on its existing assets. A link between those two areas is found in the continuation of the Lincoln County Enterprise Development Corporation and its direct support of local entrepreneurs, business planning services, and financial packaging for the establishment of new enterprises within area communities.

Having new businesses move into a community is often seen as the solution to the economic problems of a community. Communities often advertise for businesses to relocate in their towns or counties, offering free land and/or tax breaks. While it may be debatable as to whether this method is an effective way to attract business, the argument in Lincoln County is largely moot. Sharing a border with South Dakota, a state that offers what many businesses perceive as a more favorable tax structure for business, makes the relocation of a business to Lincoln County a hard sell. This is not to say that businesses have not, or will not, relocate to the county but instead that this kind of development will be limited. The attraction of new businesses to Lincoln County will likely be the result of improvements made to the county in areas such as amenities, recreational opportunities, schools, and infrastructure. The active marketing of these attributes will help to ensure that those looking to locate in a rural county such as Lincoln know of its positive qualities.

While it may be harder to attract new businesses to Lincoln County, the county is the home to a number of existing businesses. It is these businesses that should be nurtured in order to assure their retention and growth. Businesses, working with planning agencies as well as state, county, and city officials, should try to remove some of the "bottlenecks" that may be hindering the growth of local businesses. As an example, this Lincoln County Comprehensive Plan allowed for local input on a number of factors that may affect local businesses, such as infrastructure needs and agricultural concerns. Continuing dialogue between businesses and local government allows for businesses to grow within an environment of mutual cooperation.

Small start-up companies have become one of the fastest growing sectors of the economy. With increased technologies, small companies that sell goods nationally or internationally can exist in cyberspace. New technologies have given small businesses located in rural areas a chance to compete on a national scale. This avenue of economic development is certainly one that should be explored by Lincoln County. While creating small one- or two-person companies lacks the economic "grand slam" of bringing in a large outside company, these companies do provide very real opportunities to the residents of Lincoln County and over the course of time will be of equal or more benefit by diversifying the economy.

It is clear that the jobs of the future will require employees who are highly trained. The majority of this training focuses on the use of computers in the workplace. Whether one is administrating a network, creating a database of inventory, or operating a computerized lathe, computer literacy is becoming absolutely necessary for employment. How job training can be implemented in Lincoln County, however, presents a number of challenges. The main questions that arise about training are the following: 1) For which jobs should people train? and 2) Who pays for the training? Because Lincoln County contains only a minimal number of high-tech jobs, training would have to focus directly on existing jobs or predicted growth areas in order to aid in the county's economic development. Training that is not focused on regional jobs will benefit only those who leave the county for employment elsewhere. It would be possible, however, to institute training through high schools and evening courses in conjunction with existing companies or for industries that the county is actively pursuing.

GOAL 1 Promote diversified economic development in the agricultural and natural resource sectors.

Objective: To enhance the economic opportunities for the County and its residents.

Policies

1. Protect prime agricultural land from inappropriate use.
2. Increase public awareness of natural resources in county.

Strategies

1. Encourage economic development related to agricultural industries.
2. Support tourism activities which highlight the natural resources of the County.

GOAL 2 Attraction of jobs and commercial/industrial tax base and retention and growth of existing businesses.

Objective: To increase employment within the County.

Policies

1. Support economic development on a county wide basis.

Strategies

1. Contribute to support the efforts of county wide groups such as the LCEDC, the HRA, and others focusing on tourism and promotion.

GOAL 3 Encourage increased investments of telecommunications into the area.

Objective: To ensure that businesses within Lincoln County have the necessary telecommunications to compete on a local and global basis.

Policies

1. Support increased investments in technology for the residents and businesses within the County.

Strategies

1. Encourage businesses and residents to utilize technology to enhance their operations.

2. Implement the recommendations of the Broadband Feasibility study by applying for funding from the Minnesota Broadband Fund and partnering with a local co-op or other telecommunications provider to build out broadband infrastructure throughout the county.

3. Encourage cellular providers to install towers within the county to ensure that the entire county has reliable cellular coverage.

GOAL 4 Coordination of economic development activities among all units of government.

Objective: To work cooperatively in economic development ventures.

Policies

1. To understand that economic development ventures have a benefit to the entire County regardless of their location.

Strategies

1. Have semi-annual joint meetings of the County Commissioners and City Councils.

GOAL 5 Develop the local workforce to meet the employment needs of the future.

Objective: To ensure that the County takes advantage of potential economic opportunities.

Policies

1. Support training activities to further the workforce of the County.

Strategies

1. Create a series of workshops to assist start-up companies.

GOAL 6 Improve the skill level of existing farmers, business owners and employees.

Objective: That the existing workforce has opportunities to increase their skill levels.

Policies

1. Encourage training opportunities that persuade the existing businesses and farmers to utilize their maximum skills.

Strategies

1. Develop a series of computer classes focusing on the needs of farmers and/or small business.

GOAL 7: Encourage diversification through adding value to locally grown commodities.

Objective: To increase employment and new markets to improve the farm economy.

Policies

1. Forgo 5 years of property tax on value-added industries.
2. Work with local units of government to develop adequate infrastructure.
3. Continue funding of County Facilitator position and other economic development resources.
4. Encourage the development of value added industries.

Strategies

1. To increase new jobs, income levels and tax base in Lincoln County.
2. Support groups such as commodity associations and farming chapters who encourage value added development.
3. Offer more local seminars on how to form cooperatives and how to investigate value-added potentials.

CHAPTER 8
HOUSING

HOUSING

Housing is an extremely important component in the overall function of an area. Adequate housing, as a basic element, is critical to current and future citizens of Lincoln County. The availability of dwellings and a variety of types of housing is equally important. Factors such as the age of the housing stock and the age of the population are only a couple of the factors that determine need. Possible constraints on land and cost of development will determine, to some extent, where development occurs.

RURAL LINCOLN COUNTY

Population and Household Trends

As discussed in Chapter Two, the population in unincorporated areas of Lincoln County has declined by 16% since 2000. The only townships to experience growth between 2000 and 2010 were Lake Stay Township and Marshfield Townships. However, no townships experienced growth from 2000 to 2016. The median age of residents in the rural areas is consistently lower than in incorporated areas. The highest median age in rural areas is 57.2 in Royal Township, while the highest median age in the incorporated areas is 50.9 in the City of Arco. The lowest median age is 31.3 in Drammen Township and the corresponding lowest city is 41.3 in Tyler. *(Source: US Census, 2010).*

Housing Review

In 2016 the Lincoln County HRA conducted a county-wide Housing Study.

Key Findings *(source: Lincoln County Housing Needs Analysis, 2016)*

1. After declining the last three decades, Lincoln County's population is projected to begin stabilizing and to show modest growth next decade. Lincoln County's population is projected to grow to 5,850 in 2030, while the number of households is projected to increase by six households this decade and 25 households next decade, reaching 2,605 in 2030. New housing will be needed to accommodate projected household growth.

2. Lincoln County's population growth through 2030 will be concentrated among older adults and seniors as the baby boom generation ages. Thus, housing types that meet the needs of an aging population will be those of greatest need.

3. There is demand for approximately 195 new housing units in Lincoln County from 2016 to 2030. Of this demand, about 65 to 70 units will be for owner-occupied housing in the rural portions of the County. The other 125 to 130 units of demand will be for housing in Hendricks, Ivanhoe, Lake Benton, and Tyler.

4. Through 2030, nearly all of the demand for new homes in the rural portions of the county will be for owner-occupied single family homes. Within the four communities, the demand for new housing by type of housing is as follows:

- Owner-occupied
  - Single-family homes = 10 - 12 units
  - Townhomes = 18 - 20 units
- Rental housing
  - Market rate = 12 - 16 units
  - Affordable = 8 - 12 units
  - Senior with Services = 70 - 74 units

5. The demand for 70 to 74 additional units of market rate senior housing with services units is the level needed to meet the need from the County's residents. There is also potential for new senior housing developments to draw residents from communities located just outside the County. There would also be some demand from lower-income seniors who could not afford market rate units but instead would utilize the Elderly Waiver program to pay for services. It is estimated that these two groups would account for 20% of total demand, thereby increasing total support to 85 to 90 units of senior housing with services by 2030.

6. The projected overall demand for new housing units by community from 2016 to 2030 is as follows:

Ownership		Rental		Total
Hendricks	10	26	36	
Ivanhoe	6	24	30	
Lake Benton	6	20	26	
Tyler	8	26	34	
Remainder (rural)	68	0	68	
Total	98	96	194	

7. In order to be affordable to the majority of potential buyers, new single-family homes in the four larger communities should be priced at approximately $200,000 or less. Most of the demand for homes priced above $200,000 will be accommodated by new construction in the rural townships – on either lake lots or acreages. New townhomes should be priced less than the single-family homes, at approximately $175,000.

8. It is recommended that a three-to-five-year lot supply be maintained, which ensures adequate consumer choice without excessively prolonging developer carrying costs. To maintain an adequate lot supply, it is recommended that within the next five years, a subdivision with 8 to 10 lots be platted in Tyler and a six- to eight-lot subdivision be platted in Ivanhoe. Hendricks and

Lake Benton have adequate lot supplies to accommodate demand for new homes over the next five years.

9. The demand for about 10 new affordable/subsidized rental units is distributed among the four communities and over a 14-year period. Thus, there is insufficient demand to support a single, multifamily building in any one location. Instead, it is recommended that duplex or triplex units be constructed in the various communities. The recommended townhome units should contain a mix of two-bedroom and three-bedroom units and be targeted to households earning 50% of area median income or less. Monthly rent should either be based on income or below-market-rent, at approximately $440 for two-bedroom units and $510 for three-bedroom units. It is recommended that at least one duplex building (two units) be added in each of the four larger communities in the county over the next five years. Hendricks, which has the largest employment base, could support two duplex buildings.

10. The greatest proportion of demand for market rate rental housing in the county is being generated by empty-nesters and retirees who prefer one-level living and by families/individuals in professional positions moving to the community. It is recommended that rental townhomes be developed in each community consisting of single-level units with attached garages. The exception is Ivanhoe, in which Rotherwood Square is satisfactorily meeting demand. It is recommended that a duplex building (two units) be developed in Hendricks and Lake Benton within the next five years along with two duplex buildings in Tyler. These units should consist of one-level units with a mix of two- and three-bedroom units. To capture the intended market, monthly rents should be approximately $725 for two-bedroom and $800 for three-bedroom units, excluding all utilities.

It is recommended that a periodic review and update of the County-wide Housing Study be conducted to aid in land use decisions.

Housing Value

Table 29 shows values of owner-occupied housing in Lincoln County for the years 1980 to 2000 as self-reported in a sample for the U.S. Census. The housing stock did not change very much between 1980 and 1990. Overall, the housing in Lincoln County has a very low value.

Table 29. Lincoln County Housing Values 200-2014

Owner Occupied Homes		(Selected) 2000 Units		2010 Units		2016 Units
Less than $50,000	815	59.45%	632	29.11%	429	21.8%
$50,000 to $99,999	457	33.33%	721	33.21%	622	31.7%
$100,000 to $149,999	67	4.89%	362	16.67%	278	14.2%
$150,000 to $199,999	19	1.39%	161	7.42%	223	11.4%
$200,000 +	13	0.95%	295	13.59%	412	20.9%
Total*	1,371	100%	2,171	100%	1,964	100%
Median Value	43,700		76,300		89,600	

*Source: U.S. Census Bureau, 2016 ACS**

**The Census Bureau no longer collects information using the long form census. Instead, it relies exclusively on data collected by the American Community Survey or ACS. The data used are somewhat different and collected differently, so it is not possible to show an accurate comparison for the years in question. Total owner occupied housing units in 2000 were 2,130.*

In 2016, the County median housing value of $89,600 was less than half of the State's median housing value of $185,200. Census Data indicates that the Lincoln County median housing value rose at about the same 42% rate as the state as a whole between 2000 and 2010.

Rental values in Lincoln County have shown an 8.6% increase from 2000 to 2014. The median rental value in 2010 was $477, while the median rental value in 2016 was estimated at $584. The State median rental value increased 13% over the same period, from $759 in 2010 to $873 in 2016. Currently, the Lincoln County median rental value of $584 is 66.8% of the State median rental value of $873.

Housing Age

Tables 30 and 31 illustrate the age of the Lincoln County housing stock. Table 30 shows that after a building boom in the 1970's, housing construction slowed down considerably. Over 60% of the County's housing stock was built before 1960. When considering the municipalities' population separately, the number increases to over 65%. The median year that housing was built in Lincoln County is sometime in the 1950s.

Table 30. Age of Housing Units in Lincoln County, 2016

Year Built	Units	Percent
2014 or later	0	0.0%
2010 to 2013	135	1.1%
2000 to 2009	198	6.4%
1990 to 1999	184	5.9%
1980 to 1989	156	5.0%
1970 to 1979	571	18.3%
1960 to 1969	273	8.8%
1940 to 1959	608	19.5%
1939 or earlier	1,087	34.9%

Source: U.S. Census, 2010, 2016

Table 31 shows a breakdown of information for municipalities and townships. When compared to the State of Minnesota, Lincoln County has considerably more houses built prior to 1939. The older, larger houses are not as conducive to an aging population as they usually do not have laundry facilities on the main floor, there are a lot of steps and there are many rooms to maintain and clean. It should be noted that from 2000 to 2016, 69% of the new homes built were built in the townships as opposed to in the municipalities.

Table 31. Age & Structure Character of Housing Units, 2016

	All Housing Units	Percent Built After 2000	Percent Built Before 1939
State of Minnesota	2,364,149	15.4%	17.3%
Lincoln County	3,112	7.5%	34.9%
Municipalities	1,766	4.1%	31.9%
Townships	1,346	11.9%	38.9%

Source: U.S. Census, 2010, 2016

Summary

Housing values in the county are slowly increasing, in keeping with the trend of the general housing economy. Most new construction is occurring in the townships, with anecdotal evidence suggesting that it is more often than not along a lakeshore, especially for those houses being constructed on the higher end of the housing value spectrum. Increases in population in Lake Stay and Marshfield Townships on the east side of the county are likely as a result of their proximity to the regional employment opportunities in Marshall. The first decade of the 2000s saw a slight uptick in new construction compared to the 80s and 90s, which would seem to bode well for the future of new residential development in Lincoln County. A large percentage of

housing stock in the county is older, which could lead to problems with housing deterioration. It is recommended that a county-wide housing study be conducted to accurately assess the state of the housing stock in the county.

MUNICIPALITIES

Housing Review

Types of Housing Units

Table 32 illustrates the types of housing units found within the municipalities according to the 2016 Census estimates.

Table 32. Types of Housing Units in Municipalities, 2016

	Arco		Hendricks		Ivanhoe		Lake Benton		Tyler	
Units in Structure	#	%	#	%	#	%	#	%	#	%
1-unit, detached	59	88.1%	296	78.1%	288	81.6%	333	83.7%	513	90.2%
1-unit, attached	0	0.0%	8	2.1%	8	2.3%	2	0.5%	0	0.0%
2 units	3	4.5%	16	4.2%	0	0.0%	0	0.0%	11	1.9%
3 or 4 units	0	0.0%	0	0.0%	1	0.3%	8	2.0%	11	1.9%
5 to 9 units	0	0.0%	32	8.4%	38	10.8%	19	4.8%	16	2.8%
10-19 units	0	0.0%	16	4.2%	5	1.4%	23	5.8%	15	2.6%
20 or more units	0	0.0%	9	2.4%	13	3.7%	13	3.3%	3	0.5%
Mobile home	5	7.5%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Boat, RV, etc.	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
Total Units	67		379		353		398		569	

Source: U.S. Census, 2010

In Arco, 88% of housing units are one unit detached. The only other types of housing found in Arco include three duplexes and 5 mobile homes or trailers. Hendricks had 379 housing units. Approximately 78 percent of housing units are single family units. Hendricks has some small multi-family units ranging from 2 to 19 units.

Lake Benton has substantially more multi-family units than other cities in Lincoln County. The largest percentage of multi-family units is found in buildings with 5 to 9 units. Approximately 83 percent of housing units in Lake Benton are 1-unit detached.

Ivanhoe has the second largest number with PrairieView Apartments consisting of 30 units, but they are distributed among four buildings, therefore all 30 units are included in the 5 to 9 unit section. Approximately 82 percent of housing units in Ivanhoe are 1-unit detached.

Approximately 90 percent of housing units in Tyler are single family detached. The community has a significant amount of multifamily units ranging from 2 to 19 units.

Age of Housing

Table 33 illustrates the age of the housing units located in the municipalities. According to the 2016 Census sample, no new construction has been reported for Arco since mid-2000. Approximately 57 percent of housing units were constructed prior to 1940. About 33 percent of housing units in Hendricks were constructed before 1940. The number of new housing units constructed declined in each decade until the 1970s. There has been a slight increase in new housing in both the 90s and the early 2000s.

The largest percentage of Ivanhoe's housing stock was constructed before 1940 or between 1960 and 1979. Since 1979 the amount of new housing construction has substantially declined. Even so, Ivanhoe has some of the newest housing stock among municipalities in Lincoln County. The age of the housing stock in Lake Benton is different from other communities in the County. Approximately 31 percent were constructed prior to 1940. Construction remained fairly stable until 1970 when a substantial increase occurred. There are more housing units that were built in the 1970s in Lake Benton than at any other time. Since that point construction has stabilized.

Tyler experienced a rapid decline in the number of new homes in the 1960s, followed by a burst of construction in the 1970s, with the occasional spike in new homes since then. Still, the largest percentage (37%) of homes was constructed prior to 1940.

Table 33. Age of Housing Units in Municipalities, 2016

Year Built	Arco		Hendricks		Ivanhoe		Lake Benton		Tyler	
	#	%	#	%	#	#	#	%	#	%
2014+	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
2010 to 2013	0	0.0%	0	0.0%	0	0.0%	0	0.0%	2	0.4%
2000 to 2009	2	3.0%	28	7.4%	5	1.4%	20	5.0%	16	2.8%
1990 to 1999	5	7.5%	22	5.8%	12	3.4%	26	6.5%	16	2.8%
1980 to 1989	1	1.5%	23	6.1%	11	3.1%	9	2.3%	22	3.9%
1970 to 1979	5	7.5%	66	17.4%	84	23.8%	96	24.1%	124	21.8%
1960 to 1969	5	7.5%	34	9.0%	80	22.7%	28	7.0%	43	7.6%
1940 to 1959	11	16.4%	83	21.9%	92	26.0%	94	23.6%	138	24.3%
1939 or earlier	38	56.7%	123	32.5%	69	19.5%	125	31.4%	208	36.6%
Totals	67	100%	379	100%	353	100%	398	100%	569	100%

Source: U.S. Census

Building Permits

Building permit data collected for the 1999 Sustainable Development Plan indicated that new housing construction continued to slow in the 1990s. Only two building permits were issued for new single family or multi-family projects in Arco.

In the City of Hendricks a total of 21 new units were developed between 1990 and 1999. The new housing development included a 16 unit congregate facility and five new single family units.

Ivanhoe had a total of 12 new units developed in the 1990s. This encompassed four single family homes and two four-plexes.

The City of Lake Benton experienced very little single family development between 1990 and 1999. Only one home was developed during that time. The Community developed one multifamily project containing four units.

During the 1990s, Tyler had a total of 11 new housing units constructed. A total of three new homes were built. Also, two four-plexes were developed for a total of eight units.

Housing Condition and Market Analysis

The Lincoln County HRA periodically conducts a county-wide Housing Study. Please refer to the most current Housing Study for more detailed information on Housing Condition, Market Analysis and other detailed analysis of the housing market in Lincoln County.

GOAL 1 Provide an affordable and attractive housing stock.

Objective: Attract young, moderate income families to the County.

Policies

1. Support the HRA and other rural housing entities.
2. Promote initiatives that encourage first time homebuyers.

Strategies

1. Continue to financially support the County HRA and other housing initiatives.

GOAL 2 Maintain and preserve the existing housing stock.

Objective: Prevent the continual dilapidation of housing units.

Policies

1. Support funding for projects that rehabilitates the housing stock.

Strategies

1. Seek funding for housing rehabilitation projects.

GOAL 3 Encourage new housing developments within urban areas.

Objective: Allow for new housing developments in the most cost efficient manner.

Policies

1. Ensure that housing developments occur in the areas best suited for this land use.

Strategies

1. Establish and maintain adequate zoning for new housing.