



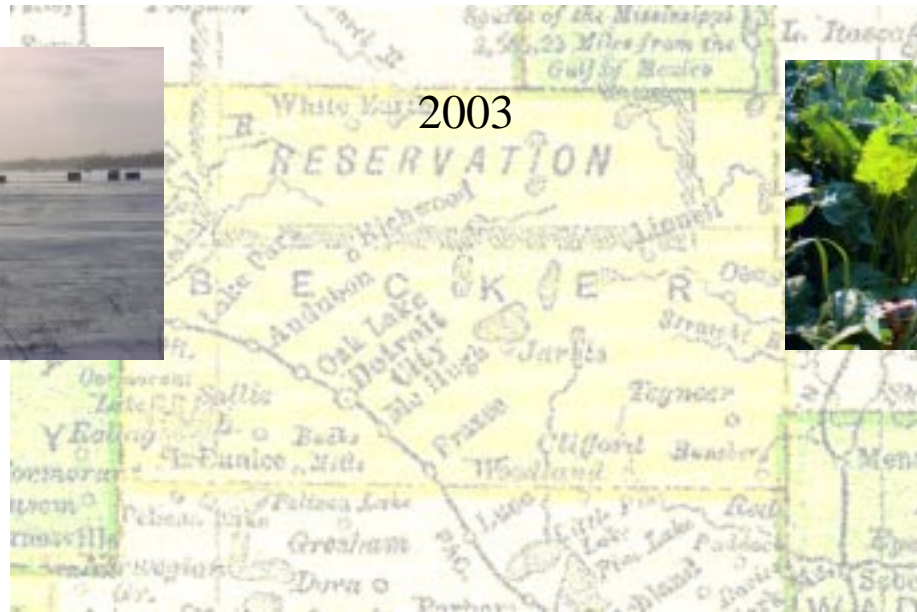
Comprehensive Plan

for

Becker County, Minnesota



2003



2634 Vincent Avenue North
Minneapolis, MN 55411
612-588-4904
www.crplanning.com

URS
700 Third Street South
Minneapolis, MN 55414
612-370-0700

Table of Contents

Draft Plan.....	1
Acknowledgements.....	2
Introduction.....	3
History of Becker County.....	8
Background Studies.....	11
Development.....	13
Economic Development.....	25
Transportation.....	39
Natural Resources.....	63
Goals and Policies.....	81
Introduction.....	85
Development Issue Area.....	91
Economic Issue Area.....	94
Natural Resources Issue Area.....	97
Transportation Issue Area.....	100
Infrastructure Issue Area.....	103
Priority Strategies.....	107
Natural Resources Issue Area.....	110
Economic Development Issue Area.....	113
Transportation Issue Area.....	116
Infrastructure Issue Area.....	118
Development Issue Area.....	121

Figures

Figure 1 - 1970 Becker County.....	5	Figure 18 - Age of Road Surface.....	54
Figure 2 - Planning Process.....	7	Figure 19 - Snowmobile Trails.....	57
Figure 3 - Projected Population.....	14	Figure 20 - Frazee Ski Trail.....	58
Figure 4 - Population Growth.....	15	Figure 21 - Dunton Locks Ski trails.....	58
Figure 5 - Land Ownership.....	17	Figure 22 - U.S. Freight Volumes.....	59
Figure 6 - Recent Development Indicator.....	18	Figure 23 - Major Watersheds and Elevations.....	65
Figure 7 - Land Suitable for Development.....	20	Figure 24 - Ecological Classifications.....	67
Figure 8 - Community Economy.....	26	Figure 25 - Land Cover.....	68
Figure 9 - Projected Population By Age Group.....	30	Figure 26 - Pre-Settlement Land Cover.....	69
Figure 10 - Local Planning Jurisdictions.....	35	Figure 27 - DNR Lake Water Quality Indicators.....	72
Figure 11 - Interregional Corridor System.....	41	Figure 28 - Conceptual Land Use Plan for Becker County.....	83
Figure 12 - Becker County Roads.....	42	Figure 29 - Becker County Policy Districts.....	86
Figure 13 - 2000 Traffic Volume.....	45	Figure 30 - Policy District One.....	87
Figure 14 - Change in Traffic Volume 1992-2000.....	47	Figure 31 - Policy District Two.....	88
Figure 15 - Five-Year Construction Plan.....	51	Figure 32 - Policy District Three.....	89
Figure 16 - Visual Sensitivity.....	52	Figure 33 - Policy District Four.....	90
Figure 17 - Type of Road Surface.....	53		

Becker County Comprehensive Plan

Adopted _____, 2003

Effective Date: _____, 2003



2634 Vincent Avenue North
Minneapolis, MN 55411
612-588-4904

URS
700 Third Street South
Minneapolis, MN 55414
612-370-0700

Acknowledgements

We would like to acknowledge the time and effort of all the citizens of Becker County who participated in public meetings, completed surveys, and provided valuable information in written and verbal comments. We especially thank the following individuals who contributed their ideas and listened to citizens in order to create the Becker County Comprehensive Plan.

Becker County Board of Commissioners

Carolyn Engebretson
Richard Johanssen
Roger Winter

Jack Murray
Vern Seal

Planning Commission

Mary Jo Brunner
Charles Rew
Ken Christianson
Don Wahl

Jeff Moritz
Duane Grossman
James Kovala
Carolyn Engebretson

John McGovern
Tom Disse
Thomas Oakes

Comprehensive Plan Steering Committee and Alternates

Matt Casey	Ted Heisserer	Les Peterson
Dave Hochhalter	Bill Henke	Warren Rethwisch
Kathy Coyle	John Hoeglund	Al Roder
Fred Daggett	Bruce Imholte	Jeff Schaumann
Greg Damlo	Bill Leff	Clayton Schott
LaRae Danielson	Mark Lohmeirer	Steve Skoog
Roger Engstrom	Bob Merritt	Tom Thompson
Jerome Flottesmesch	Brad Monson	Brad Wentz
Mike Ginnaty	John Okeson	Scott Wilson
Brad Grant	Phyllis Onsgard	Raymond Ylitalo
Tera Guetter	Kenneth R. Pearson	George Zimmerman

Planning and Zoning Staff

- Dan Holm, Administrator, County Planning and Environmental Services
- Sue Lewis, Administrative Assistant

Consultants

CR Planning, Inc.

- Brian Ross, Project Manager
- Jean Coleman
- Maia Mahowald

Biko Associates, Inc.

- William Smith

URS

- Carol Sersland, GIS Project Manager

Meeting Facilitators

- Diane Desotelle
- Brenda Brand
- Katherine Coyle

Introduction

What is a Comprehensive Plan?

A comprehensive plan is the policy framework Becker County will use to guide its land use activities over the next twenty years. Unplanned development often results in conflicting land uses or undesirable impacts on natural resources. The Becker County Comprehensive Plan reflects the priorities and decisions made by citizens, residents, business owners, and other Becker County stakeholders over the 18 month planning process. The Comprehensive Plan identifies a vision for how development and programs will shape Becker County 20 years hence, the desired future condition in five specific issue areas: Rural and Shoreland Development; Economic Development; Natural Resources; Transportation; and Infrastructure.

The vision for each issue area is reflected in a series of goals that help identify how the vision becomes manifest. The goals are further defined by policies, intermediate steps that guide the day-to-day decisions of elected and appointed officials charged with overseeing programs, regulation, and management of public and private resources. Finally, the Plan provides a series of recommended strategies with which County officials and staff can bring the vision closer to reality. The strategies identify the priority actions, programs, regulations, ordinances, and cooperative efforts that should achieve the policies, goals, and the vision.

What is the Authority of the Comprehensive Plan?

The Comprehensive Plan is the legal basis for land use controls. The State of Minnesota gives counties the authority to adopt comprehensive plans under Minnesota Statutes Chapter 394. Counties exercise authority under this statute to promote the “health, safety, morals and general welfare of the community.” Counties may develop a comprehensive plan and implement the plan through a variety of means. These means include adopting official controls, such as zoning ordinances, and official zoning map, and other ordinances, as well as establishing incentive programs, educational programs, and changing spending priorities.

Land use ordinances and programs must be consistent with the adopted comprehensive plan. The vision, goals, and policies included in the Becker County Comprehensive Plan will be implemented through a variety of means. Many implementation tools, methods and techniques are included in the Plan. These tools direct changes in existing ordinances and the adoption of new ordinances and programs.

How Should the Comprehensive Plan be Used?

The Comprehensive Plan was developed over 18 months. Work on Becker County's vision, goals, and policies does not, however, end with the Plan. The Plan is the foundation for the day-to-day activities of County officials and staff, and should be a regular reference and justification for specific actions. Elected officials, appointed officials, and County staff should have easy access to the Plan, and should explicitly reference in land use decisions.

Yet, the Plan must also live, and adapt, and evolve. County officials should periodically review the Plan's priorities, and check in with residents, businesses, and stakeholders on keeping it current. Reviews and updates should be conducted at regular intervals, assessing the County's progress toward the vision and the validity of the vision under unforeseen events and circumstances. Becker County's Comprehensive Plan should continue to reflect the community's priorities, to engage the vision of a wide range of stakeholders, and to provide a meaningful foundation for County actions.

Why a new Comprehensive Plan?

Becker County's original and only Comprehensive Plan was completed in 1970, over 30 years ago. The original Plan identified eight distinct land use patterns for Becker County, including four types of agricultural areas and four types of recreation/natural resource areas. The Plan provided a detailed analysis of shoreland development around selected lakes, and recommended that additional shoreland development be restricted around those lakes that had less than 20% of undeveloped shoreland. Urban residential expansion would occur all around Detroit Lakes and along the Highway 10 corridor between Frazee and Detroit Lakes. Identifying those areas with prime and secondary agricultural soils and topography, the Plan recommended designating cropland as the prime use in prime soil areas, and grazing, animal agriculture, and specialty crop be designated for areas with secondary soils, more restrictive topography, and irrigation needs. Natural resource areas were designated for intensive recreation (additional resort and recreational development), for wilderness and resort recreation, or for preservation of natural resources and forest management for economic development.

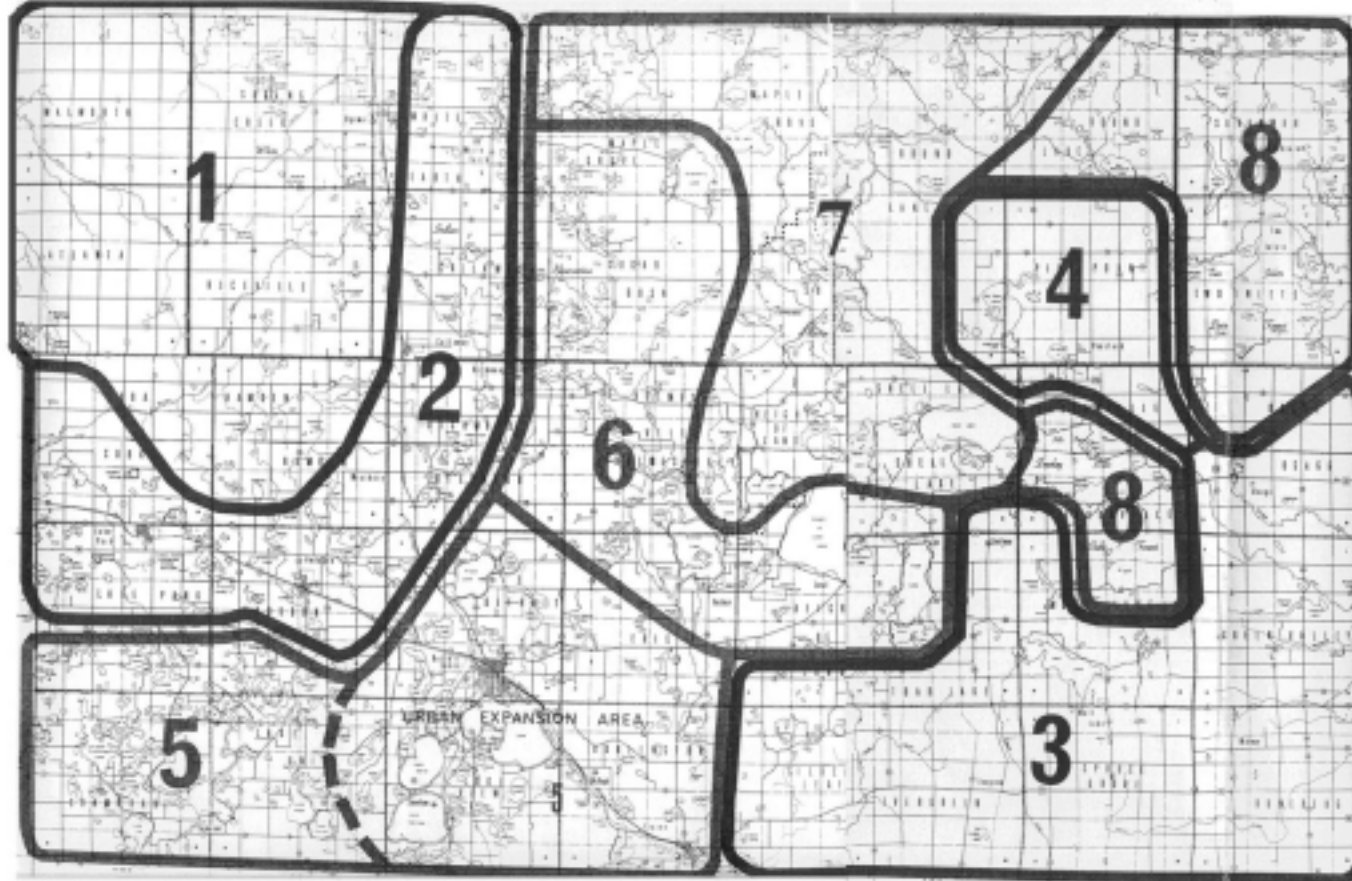
In the 30 years since the original plan was adopted, however, Becker County has changed in a variety of ways. The economy has evolved from a heavy reliance on agriculture and agricultural processing, and resort tourism, to a more diversified economic base that includes light manufacturing in addition to the historic agriculture and resort industries. The population declined steadily through the 1970s and well into the 1990s, until recently rebounding. The concept of development "sprawl," once limited to the fringe of distant urban areas, now readily appears through historically remote or agricultural areas. Traffic volumes have increased faster than the population, showing both the regional nature of the road system but also the changing

priorities of residents and visitors. Natural resources continue to be challenged by development, while conservation and restoration efforts meet with some success in mitigating poorly designed or planned development in sensitive areas.

Most importantly, however, most of the residents, businesses, and other stakeholders of thirty years ago no longer live in Becker County. Those that do remain may very well have changed their priorities and preferences for how they believe development should shape the

County. New residents, new attitudes, and new circumstances require that County officials go back to their constituencies and reassess the County's Comprehensive Plan goals, policies, and vision.

*Figure 1
1970 Becker County Comprehensive Plan*



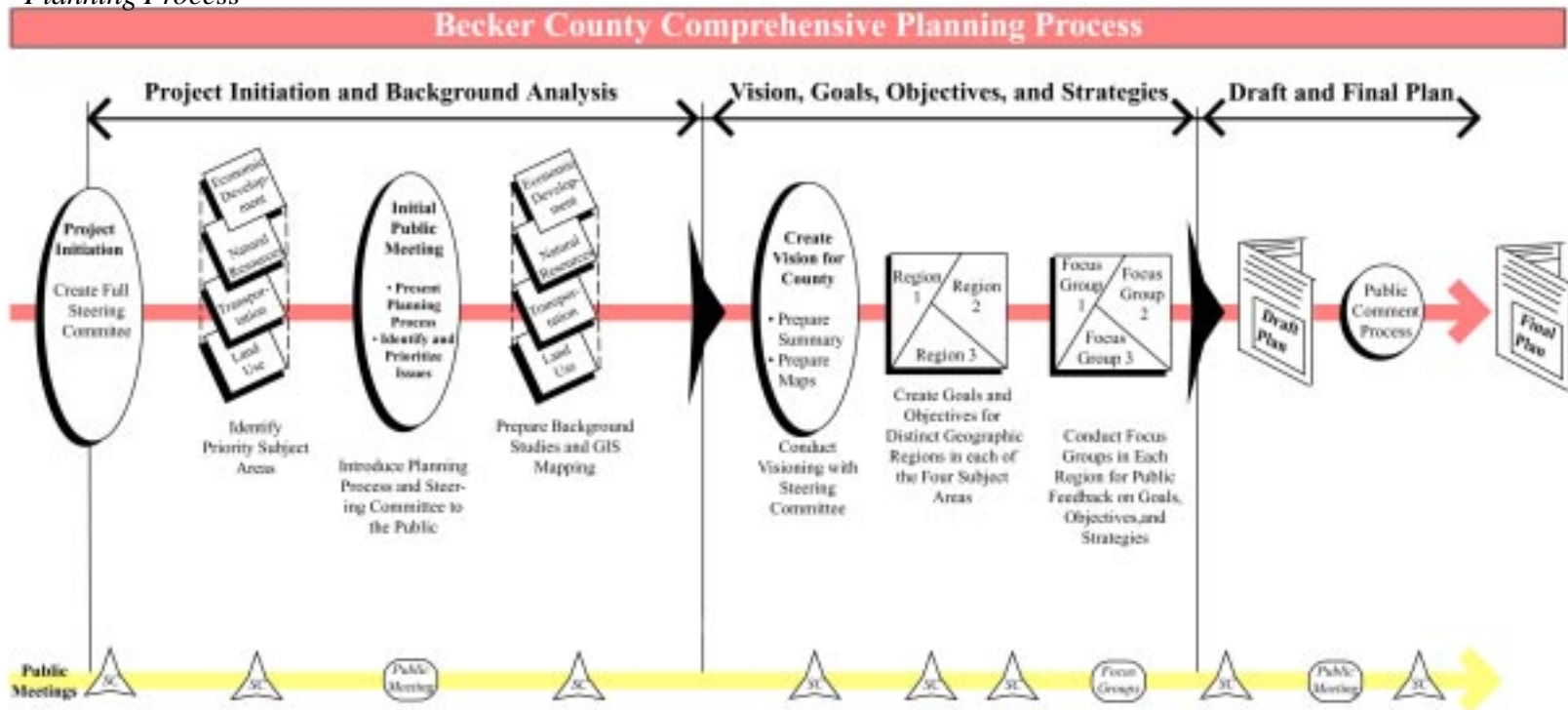
Comprehensive Planning Process

The Becker County Comprehensive Plan was created through an inclusive participatory process designed to offer a widerange of participatory opportunities, and to capture the full range of opinion among County stakeholders, organizations, and residents. The participatory process started with a public survey conducted at the County Fair, included five public meetings at various locations in the County at the beginning, middle, and end of the process, and was guided by a diverse Steering Committee of residents, local government officials, businesses, agencies, non-profit organizations, and institutions.

The Steering Committee included 44 members, representing a wide spectrum of interests and stakeholders. The Steering Committee was the decision making body for the Plan. It met nine times over 18 months, using both technical background information and public input to craft the vision, goal, and policy language that comprise the Comprehensive Plan. By relying on the Steering Committee, the process thus ensures that the Plan is entirely community-driven and speaks to an array of interests and stakeholders.

The process included three phases. The initial phase saw the creation of the Steering Committee, identification of important development issue areas, and summarizing technical information, background data and inventories, and new analysis, finishing with a public presentation and issue identification session. The second phase saw the creation of vision and goal alternatives, culminating in a series of public focus groups/small meetings to check in with the public on the Steering Committee's progress. The final phase saw the creation of final policies, strategy priorities, and the draft and final plan. A final public meeting was held after the creation of draft plan to once again allow the Steering Committee to check in with public stakeholders.

Figure 2
 Planning Process



History of Becker County

(Adapted from the Becker County Website, www.co.becker.mn.us)

Becker County is located in west central Minnesota, 30 miles east of the Fargo/Moorhead metropolitan area. The County was established by an act of the legislature on March 18, 1858. Situated in the heart of what is known as Park Region and is considered one of the state's most beautiful and versatile recreation areas, the County contains more than 400 lakes and encompasses 11 communities, including the county seat, Detroit Lakes. It encompasses 1,440 square miles, divided into 37 townships, and stretches 30 miles north to south and 48 miles east to west. Becker County is the only Minnesota county in which all the Minnesota state symbols (loons, pink and white lady slippers, wild rice, Norway Pines, blueberries and eagles) may be found.

Becker County was named for Brigadier General George Loomis Becker of St. Paul. In 1857, when Minnesota was a new state, Becker was one of three men elected as members of Congress. Minnesota could only send two, so Becker stayed in Minnesota, and authorities promised him they would name the next county after him. Thus, the County was named Becker after the General.

For 10 years after the establishment of Becker County there were no white settlers. The Chippewa (Ojibwe) Indians occupied nearly all of the County. The Sioux Indians had about one half of Cormorant Township and a small part of the corner of Lake Park Township. In 1867, a treaty was signed establishing the White Earth Reservation, a large tract of land in the northern part of Becker County, to be home for the Chippewa Indians.

Colonel George Johnston, the founder of Detroit Lakes, selected the area in 1871 for settlement. He built a flour mill on the Pelican River, and as the Northern Pacific Railroad was constructed through Becker County, the city quickly grew.

As the population of Becker County grew, it became necessary to choose a county seat. There was considerable controversy over the matter. Detroit, Frazee, Audubon, and Lake Park each felt they were the most desirable location. During 1874 and 1875, the County Commissioners used Lake Park as their meeting place due to the fact that the County Auditor owned a store and had his office in Lake Park, and all of the Commissioners lived west of Detroit. In August 1875, the Becker County Commissioners resolved to obtain offices in Detroit. The matter was finally decided at an election in the fall of 1877 and resulted in a victory for Detroit by about a ninety percent majority, which settled the county seat contest.

In 1881, the village was incorporated and named Detroit - which is French for strait. By 1884 businesses in Detroit included the elegant Hotel Minnesota, and Lakes Hotel, a bank, a newspaper, and an opera house. Also in 1884, the foundation for the first Courthouse was laid. The first major industry was the Fargo-Detroit Ice Company which bottled and sold pure spring water. In 1885, the village hall was built which housed the County Fire Department. In 1926, Detroit was renamed Detroit Lakes to eliminate postal mix-ups with another city named Detroit, located in the State of Michigan.

In 1941 a State Fire Marshall described the Courthouse as a very serious fire hazard and a menace to public safety. In a short time, the Courthouse was sold to Gopher Lumber and Wrecking Company of St. Cloud for \$531.00. On September 18, 1941, there was a ground

breaking ceremony for the present Courthouse, built by the WPA. Additions and changes have since been made to many parts of the Courthouse.

The Soo Line Railroad was built through the County in 1903. The Burlington Northern and Soo Line Railroads serve the area with connections to the City/County owned Industrial Park. Federal and State Highways 10, 59 and 34 directly link the Twin Cities, Duluth and the Fargo/Moorhead area. School District #22 in Detroit Lakes serves over 3,200 students in 3,278 square mile area. The District includes five elementary schools, one junior high school, one senior high school, three parochial schools, and a technical college. Three major universities are located within 45 miles.

In 1990 the population of Becker County was 27,881, increasing to 30,000 in time for the 2000 Decennial Census. Detroit Lakes, with a population of 7,348 is the service center of the County. The Courthouse and law enforcement center are located there as well as the district headquarters for Mn/DOT and the Minnesota State Patrol.



Audubon Rail Station, 1880
Source: Minnesota Historical Society



Boats on Detroit Lakes, 1880
Source: Minnesota Historical Society



Hotel Minnesota, Detroit Lakes, 1885
Source: Minnesota Historical Society

Background Inventories and Analysis

Development

DEVELOPMENT

Background

Becker County's natural resources have long provided both economic sustenance and a high quality of life for Becker County residents. The rich soils of the Red River Valley and the beauty of the County's lake network have been substantial assets for Native Americans and for the earliest European settlers. The County's agricultural production and its varied lakeshore environment continue to offer economic and quality-of-life benefits to County residents and visitors.

Becker County's previous Comprehensive Plan, completed in 1970, identifies land use priorities based on the County's agricultural, forest, and lake resources, and the urban center of Detroit Lakes. The Comprehensive Plan identifies three distinct land use priorities in nine distinct districts:

- ❑ Four agricultural areas in the Red River Valley, Ponsford Prairie area, and southeast corner of the County;
- ❑ Four lakes and forest areas cutting across the County from southwest to northeast; through the central and southwestern portion of the County; and,
- ❑ The urban development and urban expansion areas in and around Detroit Lakes.

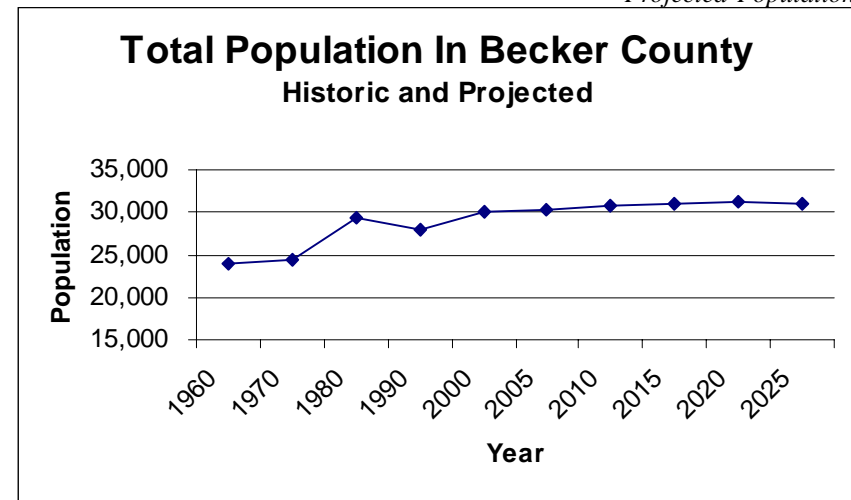
Recent years have seen increasing pressure on the County's agricultural and lake resources. Traditionally agricultural areas have seen an increase in the development of non-farm housing, including those areas designated agricultural in the 1970 Comprehensive Plan. Development is similarly cropping up on increasingly remote lakes, and in more intensive development patterns than seen historically. Becker County residents have thus identified lakeshore and rural development as a critical issue area within which to frame background data, goal and policy creation, and implementation priorities for the new County Comprehensive Plan.

Population Growth

The Becker County population has been growing slowly over the past decade. As documented in the U.S. Census, Becker County lost approximately 5% of its population between 1980 and 1990, shrinking from 29,336 to 27,881.

The County, according to the U.S. Census Population Estimates Program, regained that loss by 1999, with an estimated 1999 population of 29,757. The 2000 Census figures for the County will be released within the next year, which should confirm that the County's population is at or exceeding 30,000. The Census Bureau forecasts that the County population will remain stable over the next 25 years.

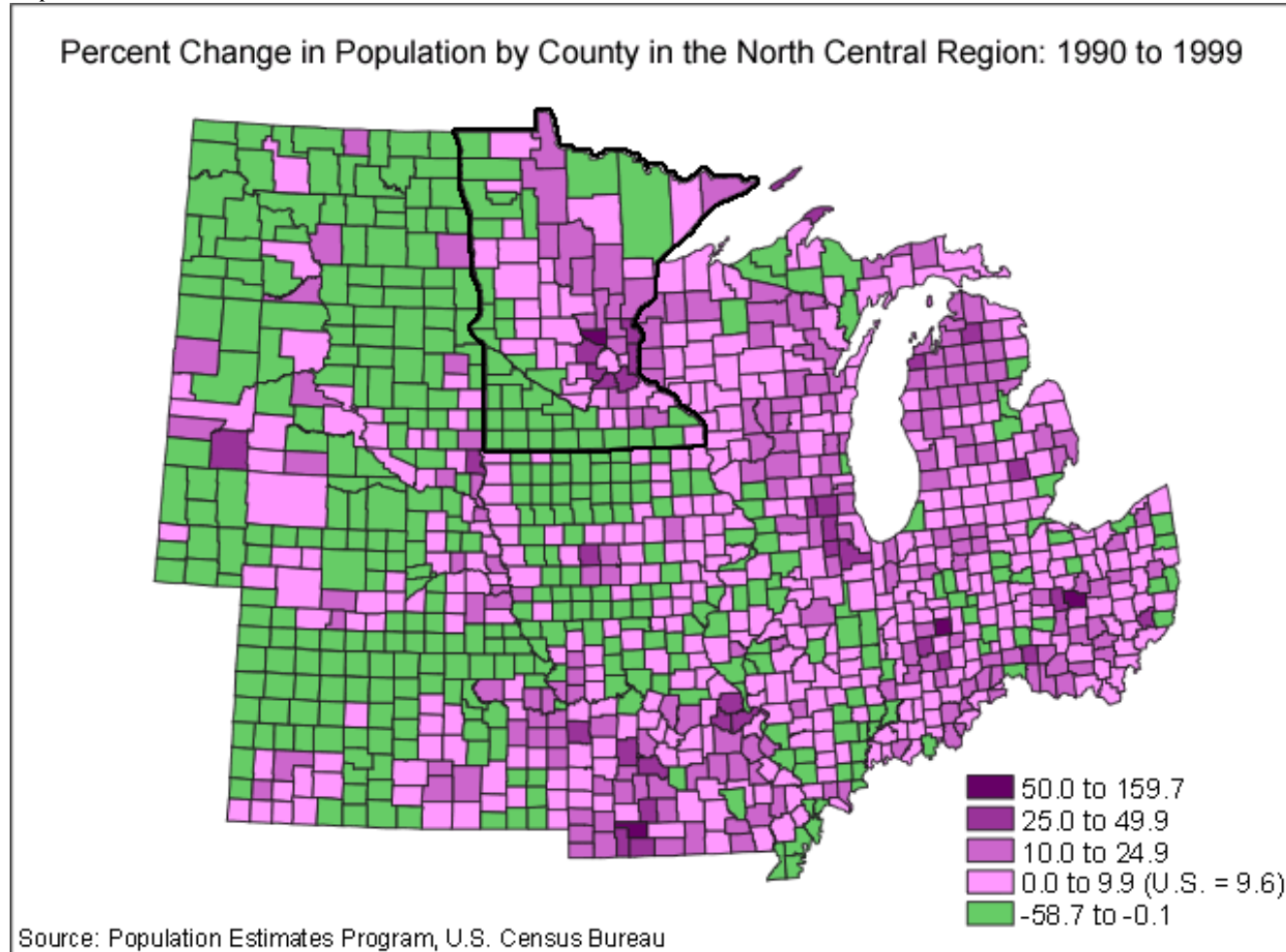
*Figure 3
Projected Population*



Detroit Lakes, which in 1990 comprised 24% of the County's population, has absorbed almost half of the County's estimated population growth since 1990. Detroit Lakes now comprises approximately 26% of the County's total population. The other six incorporated areas in the County (the cities of Audubon, Callaway, Frazee, Lake Park, Ogema, and Wolf Lake) make up an additional 2,812, or 9%. The remaining 19,253 residents live in unincorporated areas over which the County exercises land use authority.

Becker County population growth is affected by growth in from the Twin Cities and St. Cloud metropolitan areas southeast of the County, and by growth in the Fargo/Moorhead metropolitan area. The map on the following page shows population growth by county for the upper Midwest, portraying the relationship of Becker County to these metropolitan areas.

Figure 4
Population Growth



Becker County population grew (6.7% over the 1990s) faster than Clay (2.6%), Clearwater (-2.0), and Mahanomen counties, and slower than Ottertail (9.6%) and Hubbard (14%) counties.

Development Patterns

The Becker County Assessor identified the market value for homesteaded (owner-occupied) housing for each city and township in the County. The fifteen places, out of the County's 37 townships and seven cities, with the highest total market value are shown below.

Homestead Residential Market Value (1999)

Rank	Township or City	# of Valuations	Land Value	Bldg Value	Total
1	Detroit Lakes City	2312	\$33,007,900	\$122,261,100	\$155,269,000
2	Detroit	899	\$14,930,600	\$48,058,100	\$62,988,700
3	Lake View	758	\$13,840,800	\$37,598,300	\$51,439,100
4	Cormorant	462	\$11,423,500	\$25,349,500	\$36,773,000
5	Erie	602	\$7,503,400	\$27,468,700	\$34,972,100
6	Lake Eunice	425	\$7,689,300	\$21,234,200	\$28,923,500
7	Burlington	434	\$3,601,400	\$21,175,200	\$24,776,600
8	Osage	260	\$2,373,600	\$9,879,300	\$12,252,900
9	Frazee City	333	\$1,616,900	\$9,255,600	\$10,872,500
10	Height of Land	215	\$2,352,800	\$8,162,000	\$10,514,800
11	Richwood	181	\$1,250,600	\$7,716,100	\$8,966,700
12	Lake Park City	219	\$643,000	\$8,273,400	\$8,916,400
13	Holmesville	146	\$1,675,500	\$6,926,100	\$8,601,600
14	Two Inlets	87	\$2,025,800	\$4,523,800	\$6,549,600
15	Audubon	111	\$1,101,800	\$5,279,900	\$6,381,700

The Assessor's data for non-homesteaded residential housing (seasonally-occupied and rental housing) are shown below. Most non-homesteaded homes are located in the same places as homesteaded homes, with a few notable exceptions. Forest, Round Lake, and Maple Grove townships along the northern-most tier of the County all have over \$10 million in non-homesteaded residential property, but are not among the top fifteen places for homesteaded property.

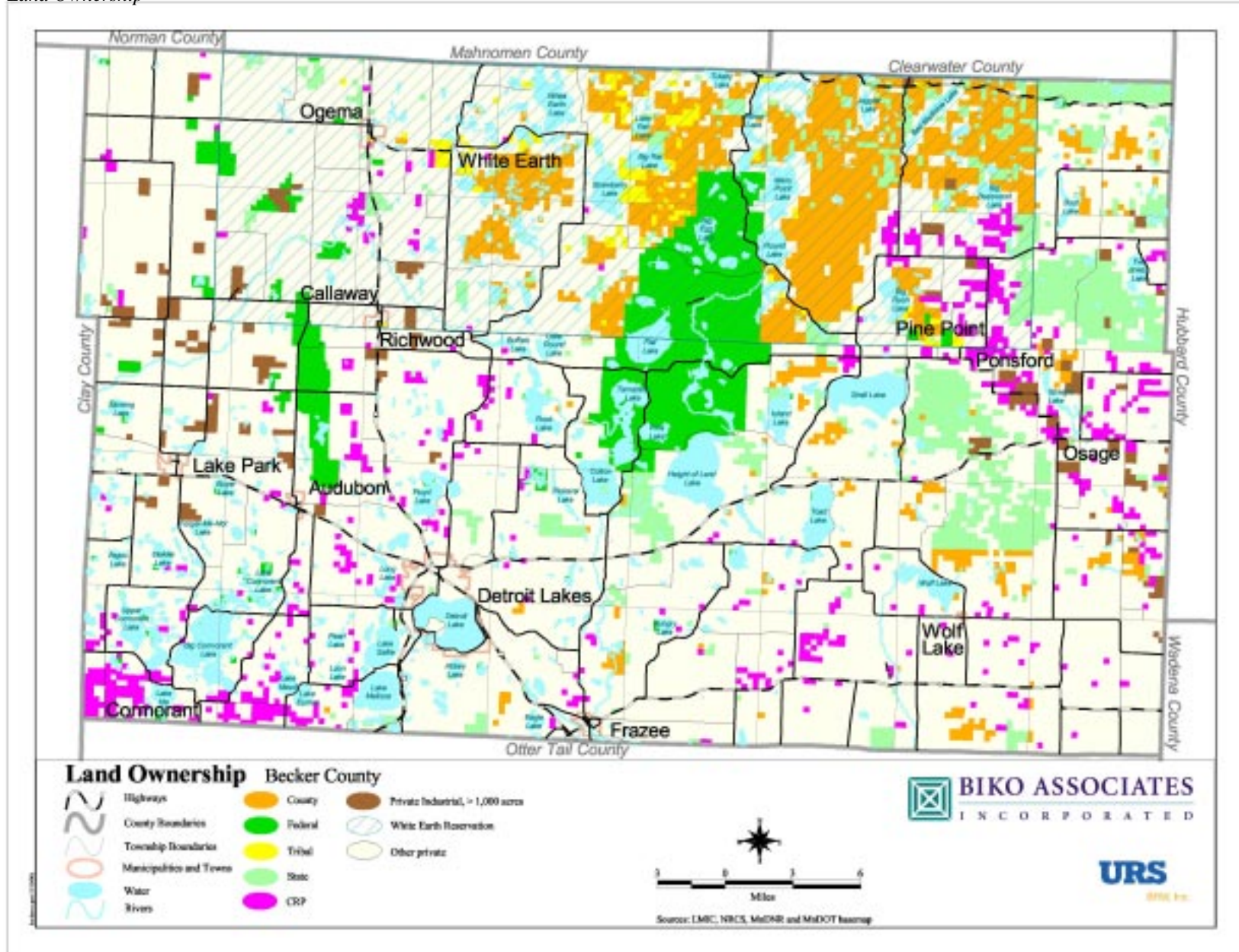
Seasonal, Rental Residential Market Value (1999)

Rank	Township or City	# of Valuations	Land Value	Bldg Value	Total
1	Lake View	917	\$24,546,900	\$21,731,300	\$46,278,200
2	Detroit Lakes City	932	\$17,257,000	\$25,923,000	\$43,180,000
3	Lake Eunice	1038	\$18,822,900	\$23,935,500	\$42,758,400
4	Cormorant	786	\$18,391,100	\$18,012,900	\$36,404,000
5	Detroit	544	\$10,652,300	\$12,870,300	\$23,522,600
6	Erie	398	\$6,640,800	\$6,118,300	\$12,759,100
7	Forest	200	\$5,532,900	\$5,280,800	\$10,813,700
8	Round Lake	322	\$4,640,100	\$5,644,200	\$10,284,300
9	Maple Grove	320	\$5,408,700	\$4,763,200	\$10,171,900
10	Shell Lake	246	\$4,073,200	\$2,970,700	\$7,043,900
11	Height of Land	271	\$3,295,200	\$3,615,700	\$6,910,900
12	Sugar Bush	312	\$3,424,300	\$3,376,500	\$6,800,800
13	Eagle View	240	\$2,949,000	\$3,780,800	\$6,729,800
14	Holmesville	201	\$3,185,000	\$2,976,500	\$6,161,500
15	Osage	201	\$2,837,300	\$2,872,500	\$5,709,800

The places with the greatest investment in residential housing are Detroit Lakes and the townships immediately adjacent and to the southwest of Detroit Lakes. With the exception of Cormorant Township, the seven places with the greatest amount of residential housing development are at least partially within the urban or urban expansion areas identified in the 1970 Comprehensive Plan. Most of the recent population growth has been absorbed in the existing developed communities, and is pressing out into the surrounding townships.

Many of the remaining places with significant residential development (including Cormorant Township), however, are outside the 1970 Comprehensive Plan's urban expansion zone. These places are also outside other urban areas (incorporated cities or places with urban sewer and water systems), and are currently zoned for agriculture or low-density residential development. The investment in lakeshore and forest seasonal housing in some of the townships, furthermore, is a result of economic and population growth occurring outside the County. These townships outside the existing developed areas are clearly in the process of transforming from primarily undeveloped or agricultural areas to areas with significant residential development.

Figure 5
Land Ownership

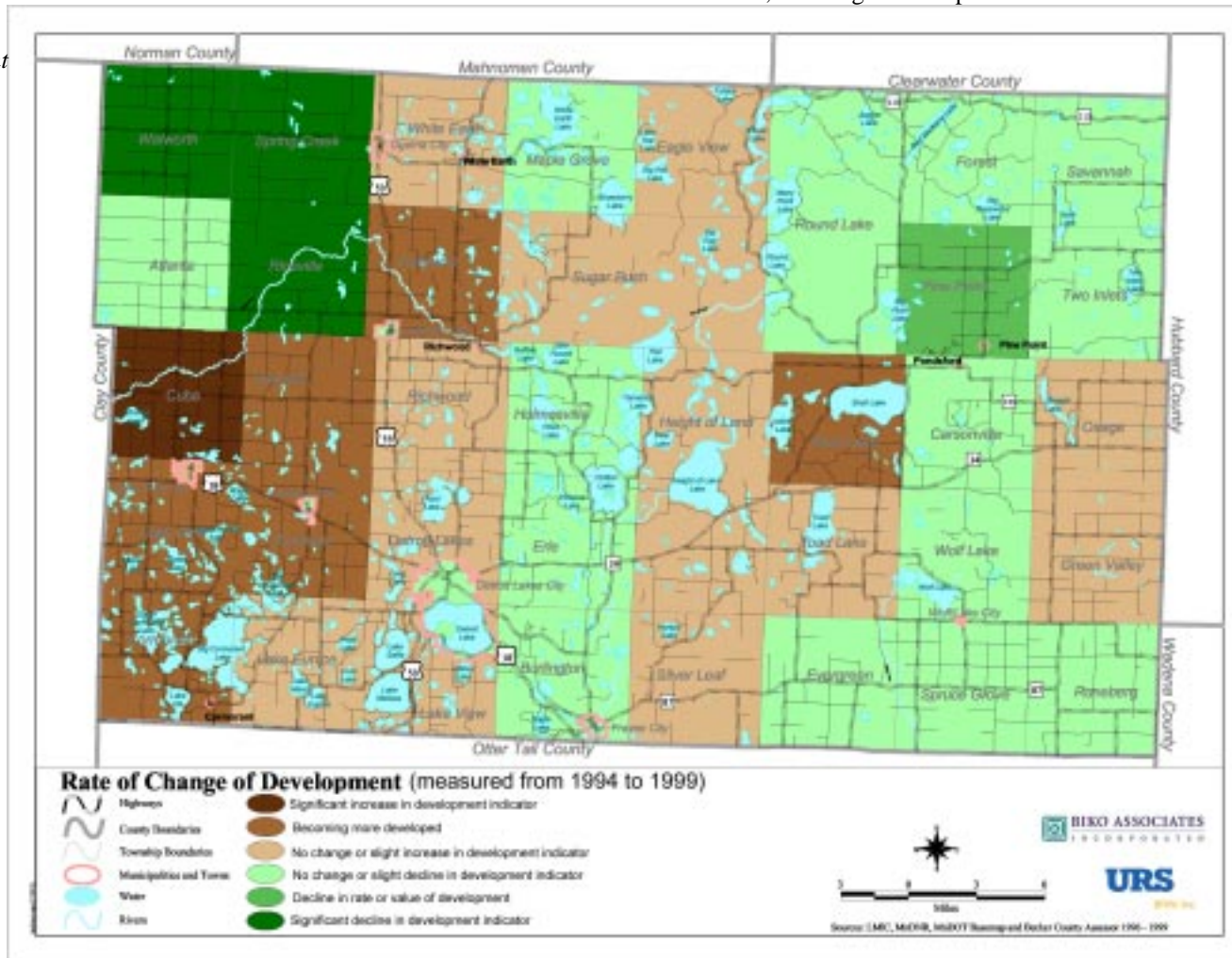


Recent Development Trends

Defining when an area moves from undeveloped to developed is a subjective, value-laden process. This study uses a development “indicator” to sense where development is transforming a place. An indicator is not a cut-and-dried yardstick, but a signpost that can be used with subjective standards and in the context of the community’s priorities to measure how change is affecting the community. One indicator is the change in the ratio of land value in a given place to building value.

The County Assessor records land and building values separately for each valuation or parcel. By examining how the land-to-building-value ratio changes for a township or city over time, the community can see an indication of how development might be transforming the township or city. Areas that are already developed, such as Detroit Lakes and Frazee, are continuing to develop but are only changed on the margins (undeveloped fringes). A much smaller amount of development in an agricultural township can, however, have a greater impact on the land uses in the township.

Figure 6
Recent Development
Indicator



Another indicator showing development pressure is the ratio of change in residential property value to change in total property value (the percent of total property value change attributable to increasing residential property). The table below shows those ten places with the greatest and least relative growth in residential property value.

Greatest Residential Property Value Growth		Lowest Residential Prop. Value Growth	
Place	Residential % of Total Value Growth	Place	Residential % of Total Value Growth
Lake Park City	94%	Walworth	-6%
Lake View	93%	Spring Creek	3%
Lake Eunice	91%	Riceville	4%
Cormorant	89%	Atlanta	15%
Eagle View	88%	White Earth	19%
Detroit	87%	Spruce Grove	21%
Forest	86%	Cuba	21%
Maple Grove	83%	Callaway	28%
Erie	83%	Pine Point	32%
Detroit Lakes City	80%	Runeberg	32%

Development Potential

Counties and townships frequently directed rural development to selected areas that minimize land use conflicts (nuisances) and preserves agriculture, and limits the need for new roads and other public infrastructure. The County’s current (1970) Comprehensive Plan discusses the need for agricultural preservation, as noted below:

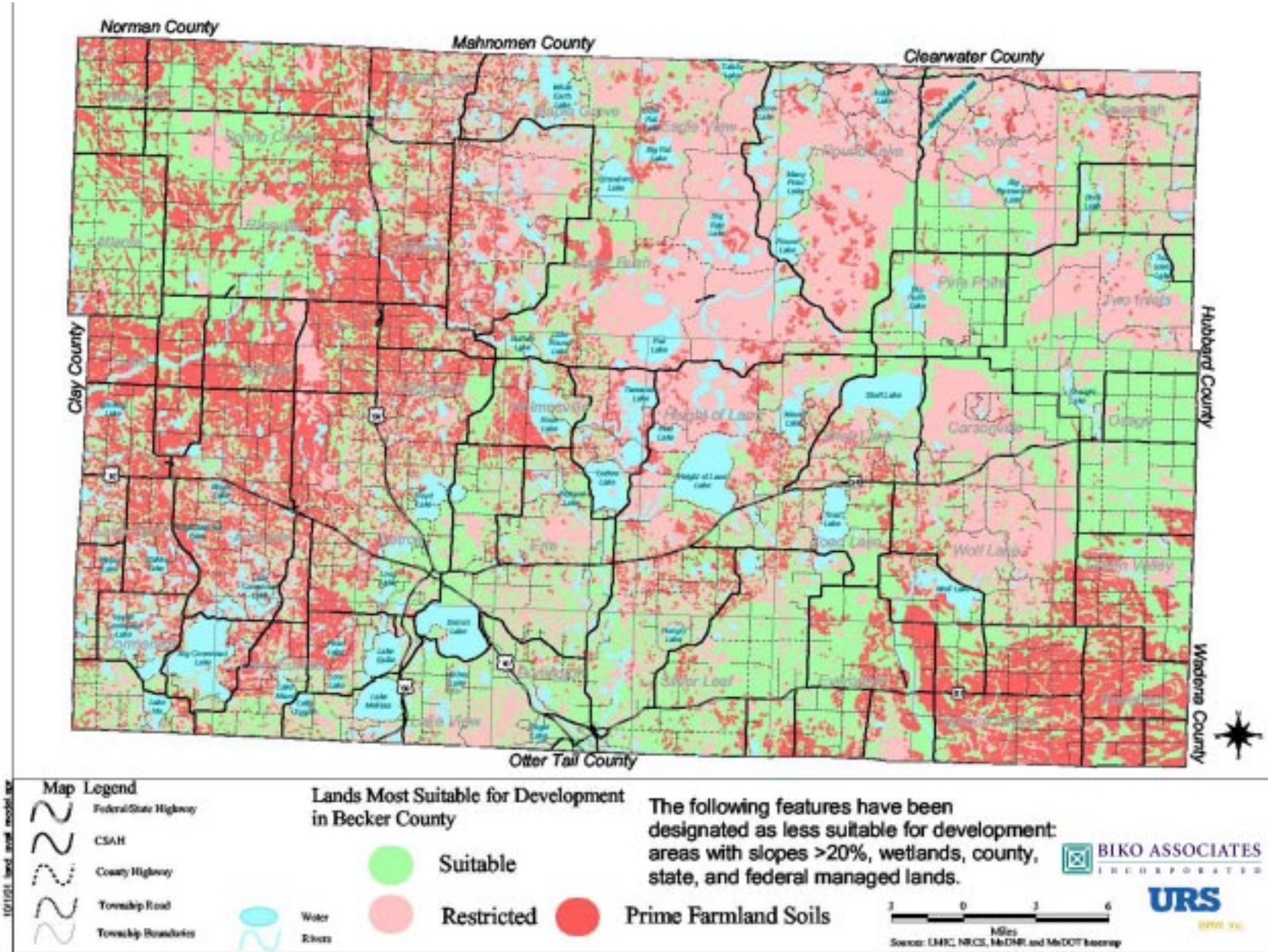
Another problem of agriculture is the continual encroachment by residential units. This is especially the case in the Detroit Lakes urban area, but other areas are being threatened also. This threat is the result of the continued population growth in the urban area (along the lakeshore areas rather than in Detroit Lakes itself) and suburbanization. In certain areas throughout the County, good farm land is being used to build non-farm residences, especially along highways. . . Protection of good farm land by effective zoning will retain the farming nature of the countryside and prevent ungainly urban or rural-urban sprawl. Effective control of urban expansion will result in the most effective use of the land. (p. 13)

The 1970 Comprehensive Plan also notes the importance of planning for efficient use of public infrastructure:

Urban expansion should be contained as much as possible within a certain area to prevent the sprawl which conflicts with agricultural and other uses. This sprawl is expensive for the County as expensive services such as protection, improved roads and highways, snow removal, sewage, and school transportation, to name a few, must be provided to a very limited and thinly spread population. (p. 23)

The map on the following page uses GIS layers to identify approximate areas with development potential. The layers screened for low development priority include prime agricultural soils, wetland areas, public lands, and steep slopes.

Figure 7
Land Suitable for Development



Development Impacts on Lakes

Lakeshore development taxes the ability of the lake and its watershed to remain healthy. Increasing the amount of impervious surface around lakes and in lake watersheds introduces pollution to the watershed, changes the volume and velocity of water in streams entering the lake, and changes the cyclical temperature swings necessary for sustaining the watershed ecosystem. As noted above, the amount of new development in Becker County's lakes region is small relative to the development in urban areas. The impacts of lakeshore development are, however, of particular concern to residents and visitors. As lakeshores accommodate more houses, lakeshore are ringed by more roads, and seasonal homes are converted to more intensive year-round use, the rate of lakeshore development becomes a critical variable in sustaining the County's lake resources.

The County's existing Comprehensive Plan notes similar issues and concerns. The Plan recognized lakeshore development as both a prime opportunity for economic growth, and as a threat to a limited and fragile resource. The Plan noted the following goal:

To meet the future demand for lakeshore development, yet preserve the quality and character of lakes and adjacent lands, a logical program of development must be formulated. Over-development and haphazard development are two of the greatest threats to the lakeshores (p. 21).

The Becker County Environmental Services Department has, for the last eight years, conducted a parcel-by-parcel survey of septic systems around selected lakes. The County identified, using visual inspection and discussions with property owners, the number of failing lakefront septic systems. The County returned for several years to monitor the progress of property owners in repairing or replacing failing systems. As noted in the Natural Resources study (the findings of the inspections and the success of reducing failure rates are discussed in greater detail), most lakes faced a high failure rate of lakeshore septic systems.

The septic system survey also provided another measure of lakeshore development. The number of septic systems surveyed around each lake indicates the amount of development. The table below compares the number of surveyed septic systems to the amount of development in 22 lakes identified in the 1969 Becker County Lakeshore Study.

This indicator does not measure the change in intensity of use (seasonal conversions to year-round homes), nor does the septic system survey comprise a complete count of all development. Some obvious trends can, however, be noted.

Lake	Geographic Area*	Approximate # of Units (Septic Survey)	Approximate Total 1969 Units	Change in # of Units	% Change
Little Cormorant	Cormorant	177	37	140	378%
Middle Cormorant	Cormorant	141	88	53	61%
Upper Cormorant	Cormorant	194	70	124	178%
Big Toad	Cotton-Toad	130	112	18	17%
Cotton	Cotton-Toad	232	185	47	25%
Little Toad	Cotton-Toad	48	39	9	23%
Big Floyd	Detroit	258	273	(15)	-5%
Lake Eunice	Detroit	41	94	(53)	-56%
Leif	Detroit	143	61	82	134%
Long	Detroit	146	122	24	20%
Maud	Detroit	131	87	44	50%
Bad Medicine	Northeast	102	141	(39)	-28%
Big Elbow	Northeast	98	76	22	28%
Little Bemidji	Northeast	6	9	(3)	-32%
Round	Northeast	94	83	11	13%
Tulaby	Northeast	80	42	38	90%
Straight	Straight	148	156	(8)	-5%
Big Sugar Bush	Tamarac	91	12	79	658%
Height of Land	Tamarac	85	70	15	21%
Island	Tamarac	64	39	25	63%
White Earth	Tamarac	116	57	59	103%
* As defined in the 1970 Lakeshore Study					

The Cormorant and Tamarac area lakes have seen substantial development in the last thirty years. The number of buildings more than doubled on four of the seven lakes in the comparison. The number of buildings in the Detroit, Cotton-Toad, and Northeast lake areas, in contrast, appear to have increased more slowly. In Detroit, this trend is likely to stem from the consolidation of small seasonal lots or resort buildings into larger year-round residential homes. The slow rate of change in the Northeast lake area is likely to be similarly linked to changes in resort and seasonal properties. More study is needed to fully ascertain the development trends in the northeast lake area. In the Cotton-Toad lake area, the slower rate of development may be attributable to the higher level of development (and particularly year-round homes) in 1970. Cotton Lake shoreline was 64% developed in 1969 (Lakeshore Study, Table 2).

The Becker County Zoning Office reports that the number of plats filed and approved has increased substantially over the last seven years. The number of preliminary and final plats, and whether the plats were lakeshore, are noted below.

Plats Filed and Approved in Becker County, 1996-2000					
	1996	1997	1998	1999	2000
Preliminary Plats					
Lake Shore	5	6	3	4	11
Non-Lake Shore	0	1	3	2	3
Final Plats					
Lake Shore	5	4	3	4	7
Non-Lake Shore	0	1	1	2	2

Existing Regulations and Policies

Zoning

The Becker County Zoning Ordinance includes seven land use districts with distinct development standards;

- Special Protection District
- Residential District
- High-Density Residential District
- Water-Oriented Commercial District
- Commercial District
- General Agriculture District
- Industry District

Most of the land area in Becker County is placed in the General Agriculture classification. This district is intended to allow suitable areas to be retained in agricultural use and prevent scattered non-farm development. The general purpose of this district also explicitly covers non-farm land uses near lakes, rivers, and streams. Residential development with a minimum lot size of 2.5 acres is permitted. Several townships have more restrictive zoning, particularly in Spring Creek and Riceville with 19 acre lot sizes in designated agricultural areas.

The Special Protection District allows the County to limit development in areas with fragile, unusual, or valuable characteristics. The County does not currently use the Special Protection District, although the County Board was considering some use to limit development around Natural Environmental lakes.

The Becker County Shoreland Ordinance (consistent with Minnesota DNR rules) identifies three types of lakes with differing minimum lot sizes and setback regulations.

- Natural Environment Lakes - small or shallow lakes with limited capacity for assimilating development. Lots must be 200 feet wide and buildings and septic systems set back 150 feet;
- Recreational Development Lakes - medium-sized lakes of varying depths and surrounding landform characteristics, with a carrying capacity for moderate levels of recreational use and existing development. Lots must be 150 feet wide, set backs for buildings at 100 feet

and 75 feet for septic systems;

- ❑ General Development Lakes - large and typically deep lakes with a higher carrying capacity for development, including second and third tiers from the shore. Lots must be 100 feet wide, set backs for buildings at 75 feet and 50 feet for septic systems.

Setbacks for sewered lots are lower for all three classes of lakes. Additional provisions are included in some circumstances, or when a development is permitted as a Planned Unit Development (PUD).

Most lakes in Becker County are designated Natural Environment. Six lakes are designated as General Development Lakes: Detroit, Eunice, Floyd, Little Floyd, Melissa, and Sallie.

Watershed Districts

Becker County is covered by all or portions of four Watershed Districts. Watershed Districts have some land use authority over development that affects watersheds. The existing regulations for Watershed Districts are discussed in the Natural Resources section.

Economic Development

LAND USE AND ECONOMIC DEVELOPMENT

The Comprehensive Plan will guide economic development over the next twenty years. The economic profile of the County, and the land use components of existing economic development policy are described below.

Becker County businesses and government employed approximately 10,700 people in 1998, an increase of over 1,500 jobs since 1994. The Minnesota Department of Economic Security (MnDES) reported that between 1994 and 1998 the following Becker County industries created the largest number of jobs:¹

- Eating and drinking establishments - 156 new jobs
- Special trade contractors - 149 new jobs
- Fabricated metal products - 115 new jobs
- Agricultural production (livestock) - 81 new jobs

Businesses that saw job losses included business services (67), insurance carriers (14), and real estate (12).

Land uses with economic designations comprise 12% of the County estimated market value (excluding rental properties and agriculture). Commercial property comprises approximately 7% (\$91 million) of the County's total property value, and industrial property contributes another 1% (\$15 million). Other economic land uses include timberland at almost 2% (\$24 million), and resort properties at 2% (\$25 million).²

Figure 8
Community Economy



Basic Industries

Becker County's businesses can be classified into two categories; basic industry (sometimes called "export") businesses and non-basic industry (sometimes called resident-focused) businesses. Basic industries include businesses that export products or services, and bring dollars into the County. Businesses that provide services to basic industry and to County residents are generally called "non-basic" industries. Non-basic industries circulate dollars within the County.

Economic development professionals typically characterize retail and service industries as non-basic, as are portions of the utility, construction, insurance and finance, and government industries. Becker County does not, however, fit the typical economic profile. Tourism and recreation is categorized as service and retail, yet generate revenue from people who live and work outside the County. State or Federal government jobs can similarly be considered basic rather than non-basic. The natural resource base leads to a substantial portion of the retail, service, and governmental industries being better categorized as basic industries.

¹ Data from the Minnesota Department of Economic Security. Job numbers include only employment covered by unemployment insurance, and therefore exclude self-employment or most farm employment.

² Data from the Becker County Assessor.

Becker County basic industries include agriculture, manufacturing, transportation, and the service and retail businesses supporting the tourism industry. Smaller basic industries include mining (aggregate) and forest products. Non-basic industries include construction, non-tourism retail and service businesses, telecommunications and financial services. Federal and some State government employment can be characterized as basic, as it serves a regional need and is largely funded by tax dollars and user fees from outside the County.

Basic industry jobs typically have among the highest annual wage levels. Some of Becker County’s basic industries, however, include substantial seasonal and part-time work, most notably agriculture and tourism. Shown below are the average annual wages in Becker County for selected industry groups.³

	Average Annual Wage*
Selected Basic Industry Groups	
State Government	\$40,693
Fabricated Metal Products	\$34,223
Food and Kindred Products	\$29,545
Trucking and Warehousing	\$26,593
Wholesale Trade, Durable Goods	\$26,223
Agricultural Production (livestock)	\$12,711
Hotels and other Lodging	\$8,438

**MnDES 1998 Wage Survey, Covered Employment Only*

³ Data from MnDES 1998 Wage Survey

Manufacturing

Manufacturing businesses employed (in 1998) approximately 1,500 people in the County.⁴ The largest manufacturing employer in the County is located in Audubon (Audubon Engineering), employing 250 people.⁵ Most other industrial and manufacturing businesses are located in and around Detroit Lakes. Large manufacturing employers in Detroit Lakes include manufacturers include Snappy Air Distribution Products, SJ Electro Systems, and BTD Manufacturing, all employing more than 100 people.

Only Detroit Lakes and the City of Frazee have designated industrial parks. Detroit Lakes has two industrial parks. The industrial park north of U.S. Highway 10 is approximately 30% occupied, while the industrial park in the southeast is close to 100% filled. Two additional industrial areas are located on the west side and along the southwest edge of the City. Frazee’s industrial park is approximately 20% occupied, the primary tenant being Quantum Manufacturing.

The County property tax rolls show very little industrial property in the County. Only 1% of total estimated market value in 1999 was designated industrial. Many of the manufacturing industries noted above, however, are “light” manufacturing and are designated as commercial property for tax purposes. Commercial property comprises 6.9% of the County total property market value.⁶

Agriculture

Agriculture and agricultural-product manufacturing are historically Becker County’s most significant basic industries. While many of the large turkey processing facilities that provided jobs and tax base for several decades have closed or been consolidated into plants outside the County, agricultural production remains the County’s primary export. The 1997 Census of Agriculture identified almost 1,100 farms in the County, averaging 360 acres in size. The 1997 estimated market value of agricultural products sold totaled \$99,870,000. Agricultural property made up 23.6% (\$313 million) of Becker County’s total property market value.

⁴ Data from the Minnesota Department of Economic Security.

⁵ Company specific information is from Department of Trade and Economic Development Community Profiles.

⁶ Property market values are from County Assessor records of market valuation.

The 1970 Becker County Comprehensive Plan noted that in the northwest area of the County (the Red River Valley farming area) the average size of farm was “large” at 304 acres. (p. 9). The 1970 Plan noted ongoing consolidation of the agricultural industry, as more farms took advantage of economies of scale and labor-saving production equipment.

The agricultural areas of Becker County should remain essentially the same size, with a small decrease in total size as marginally profitable land is taken out of farm use. The continued trends should be for consolidation of the farms into larger units, abandoning of marginal farms and an overall population decline (p. 22).

The consolidation of farms has continued to this day. The 1987 Census of Agriculture identified 1,220 farms averaging 326 acres, compared to 1,084 with an average size of 359 acres in 1997. The number of farms of every size except the largest category (more than 1,000 acres) declined from 1987 to 1997. The number of acres in farms declined by 8,650 acres over the same time frame, a decrease of approximately 2.2%.

Farms by size	1987	1992	1997
1 to 9 acres	41	31	17
10 to 49 acres	112	95	107
50 to 179 acres	396	335	368
180 to 499 acres	450	369	414
500 to 999 acres	147	133	102
1,000 acres or more	74	74	76
Total Number of Farms	1,220	1,037	1,084
<i>Source: 1997 Census of Agriculture</i>			

Feedlots are both a growing opportunity and a controversy for agricultural areas. The MPCA and Becker County have completed a feedlot survey for the lower two tiers of townships, and will ultimately complete a survey for the entire County. The County estimates that the County includes 97 feedlots, although some feedlot operations include several feedlots, and some smaller feedlots have not yet been surveyed. Current information shows permitted feedlots clustering in the County’s southeast quadrant (in and around Spruce Grove, Evergreen, Wolf Lake, and Toad Lake townships) and in the central west townships (in and around Cuba, Hamden, Richwood, and Detroit Townships).

The 1970 Comprehensive Plan describes these two areas, “the transitional area, Area 2, and the southeastern corner, Area 3” as most suitable for animal husbandry (p. 22).

Tourism and Recreation

Becker County, according to the Department of Trade and Economic Development, generates more tourism economic activity than all but nine other counties in the State. The County has approximately 600 units in resorts and cabins, and an additional 400 rooms in the City of Detroit Lakes, serving a substantial tourism and recreation economy. Many of the County’s 800 jobs in eating and drinking establishments are supported by the tourism industry. The County’s many lakes, game and hunting areas, and outdoor recreational opportunities draw people from the nearby Fargo/Moorhead metropolitan area, and from St. Cloud and the Minneapolis/St. Paul metropolitan area. Approximately 2% (\$25 million) of the County’s property value lies in resort properties (excluding hotel and motel commercial property).

The County hosts a number of large events that draw tourists and visitors from an interstate or national market. We Fest, a three-day country-music festival, is attended by 50-60,000 people per day. Spirit Fest, a Christian music festival is attended by 15,000 each of its three days. Other attractions and events that draw visitors to the County, and support a number of retail and service industries, include the County’s snowmobile system with over 250 miles of trails connecting to many regional routes; the Detroit Lakes 4th of July celebration; the Pine to Palm Golf tournament; the Detroit Lakes Water Carnival; the Frazee Turley Days; and the Dick Beardsley Half Marathon.

According to the Detroit Lakes Regional Chamber of Commerce Becker County has 44 small independently-owned resorts, although the number of resorts has declined substantially over the last 20 years. Planning and zoning officials note that many resorts have been redeveloped as private residences over the last 30 years.

Non-Basic Industries

Non-basic businesses circulate dollars within the Becker County economy, serving primarily the needs of residents and other local businesses. Typical non-basic businesses include the following:

- ❑ retail and service businesses whose market is primarily County residents or residents of adjacent communities;

- construction and utilities;
- financial services, insurance, and real estate;
- health and educational services;
- local government services.

Non-basic industries include businesses that have a high average wage and those businesses with the lowest average wage. Many of the “low-wage” non-basic industry businesses use seasonal or part-time labor. The average wages of a selected group of Becker County non-basic industries are shown below:⁷

	Average Annual Wage*
Selected Non-Basic Industry Groups	
Transportation Services	\$33,576
Business Services	\$24,863
Construction Special Trades	\$23,282
Real Estate	\$16,627
Personal Services	\$12,126
Food Stores	\$11,600
Eating and Drinking Places	\$7,706

**MnDES 1998 Wage Survey, Covered Employment Only*

Most jobs typically fall into the non-basic category; most communities, including Becker County, have fewer “export” based jobs than “resident-focused” jobs. The Becker County economy is typical in the dominance of non-basic jobs in its economy. The largest single employers are education (Detroit Lakes Public Schools, 475; Northwest Technical College, 300), health services (St. Mary’s Health Center, 350 and Emmanuel Nursing, 177), and local governments (1,400).

Health services and post-secondary education services can serve as a regional draw, and thus function as a basic industry. The relationship between the aging of the regional population and the growth of the health services industry is not without cause. Providing local health care and educational opportunities also enhance quality of life considerations, which similarly have economic ramifications.










⁷ Data from the Minnesota Department of Economic Security Wage Survey. Data are shown for selected two-digit SIC code industries.

Housing

The relationship between affordable housing and economic growth has drawn considerable attention in recent years. All households face escalating housing costs, and affordability issues, although the dire shortages are for households at the low end of the wage scale. Housing shortages, once thought to be primarily an urban problem, are now recognized as a significant issue in Greater Minnesota and a hindrance to economic development efforts.

Becker County recently completed a community housing assessment (CHAT) study. The study identified demographic and income trends, housing preferences that have been expressed in the housing market, and obstacles to meeting housing needs over the next 10 years.

The CHAT study estimates the need for new housing development in five Becker County communities; Detroit Lakes, Audubon, Lake Park, Frazee, and Callaway. The results of the study are summarized in the table on the following page.

Becker County Short-term Housing Strategies	
<i>2000 - 2001</i>	
	Continue to implement current housing programs, with a high priority on projects already in the pipeline.
	Identify a site and establish the partnership necessary to develop the first market-rate rental housing development.
	Establish and implement the “Housing Roundtable” concept.
	Prepare and distribute community-standards manuals, focusing on those criteria that have the greatest perceived needs for property upgrades.
<i>2001 - 2002</i>	
	Continue implementation of existing programs.
	Establish the “infrastructure Banking” concept in several communities.
	Plan for the development of at least 10 to 15 middle-cost houses in county communities.
	Proceed with the development of the student housing program, following successful completion of a market-rate rental development.
	Design a countywide community marketing program.
Source: <i>Becker County CHAT Report</i> , October 2000, p. 72.	

Becker County 10-Year Housing Development Program						
	Audubon	Callaway	Detroit Lakes	Frazee	Lake Park	Total
Total Units Needed	30	12	362	62	60	526
Total Owner Occupied Units	21	8	217	45	42	333
Affordable Units, (\$60K-\$80K)	5	3	78	13	13	112
Affordable Units, (\$80K-110K)	8	2	57	15	19	101
Market-rate (\$110K-\$170K)	5	2	48	13	8	76
Market Rate (over \$170K)	3	1	34	4	2	44
Total Rental Units	9	4	145	17	18	193
Tax Credit/Assisted (<\$400)	5	2	67	9	9	92
Affordable or Market Rate (\$400 - \$500)	2	1	39	7	5	54
Market Rate Units (>\$500)	2	1	39	1	4	47

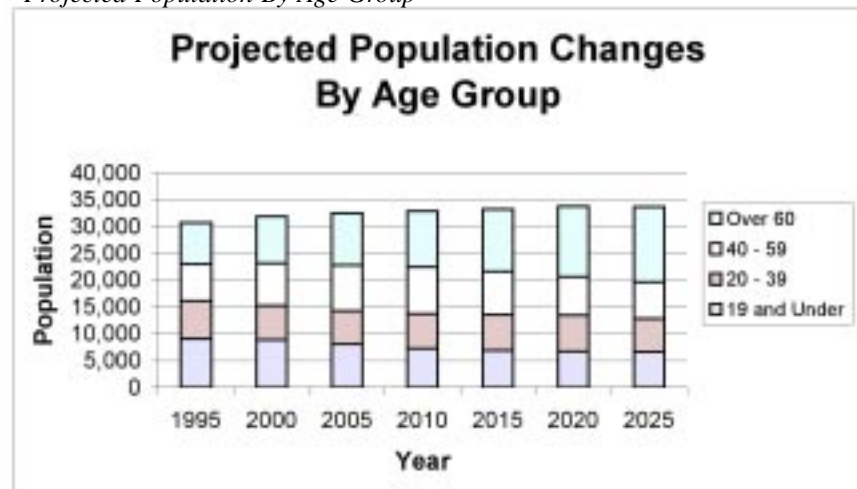
Source: *Becker County CHAT Report*, October 2000, p. 60.

The CHAT study findings on countywide policy issues, and the specific summary of each community’s characteristics are provided in the appendix at the end of this section.

Demographics and Markets

The County economy is also affected by demographic changes of its resident population, its seasonal population, and the tourist population. One such significant trend is the aging of the population. The “baby-boom” age cohort (people born between 1945 and the late 1950s) comprises a substantial percentage of the total population. As the baby-boom cohort ages, the average age of the population moves higher as well. Coupled with improved health care and a generally rising life expectancy, the number of people over 60 will continue to comprise a larger percentage of the total population. The graph below shows the forecast effects of such a trend in Becker County.

Figure 9
Projected Population By Age Group



Source: *Minnesota State Demographer*

Over the next 20 years the median age of Becker County residents will rise substantially; the percentage of the population over 60 years old will increase from 27% in 2000, to almost 42% in 2025. Businesses serving Becker County residents thus face a number of changing market characteristics, including the kinds of products and services needed, the mobility of residents, and the amount of disposable income.

The aging of the population is not limited to Becker County, but is a national trend. The County’s economic entities are therefore all affected by this trend, regardless of whether they serve permanent residents, seasonal residents, or tourists.

Another important demographic characteristic is household income. The Becker County CHAT Study noted that median household income is rising for most Becker County communities, but is substantially lower when compared to the State as a whole, or to nearby metropolitan areas. The retail and service market for the seasonal population and the tourist population may, therefore, be evolving somewhat different than for the resident population. Increasing levels of disposable income for seasonal and tourist households can affect the kinds of goods and services demanded by these market segments.

Per Capita Income for Becker and Surrounding Counties				
1997 Data				
	Total Income	Earnings	Asset Income	Transfer Income
	Per Capita	Per Capita	Per Capita	Per Capita
USA	\$25,924	\$17,411	\$4,920	\$3,594
Minnesota	\$27,536	\$18,555	\$5,782	\$3,199
Becker	\$18,789	\$10,954	\$3,956	\$3,879
Clay	\$19,379	\$12,287	\$3,942	\$3,151
Clearwater	\$16,317	\$8,834	\$3,095	\$4,388
Hubbard	\$18,826	\$10,132	\$4,395	\$4,300
Mahnomen	\$15,766	\$7,763	\$3,541	\$4,463
Otter Tail	\$20,179	\$11,162	\$5,069	\$3,948
Wadena	\$17,863	\$9,666	\$3,580	\$4,616
<i>Source: Minnesota State Demographer</i>				

The chart above notes the differences in per capita income between Becker County and neighboring counties, the State, and the country. Distinctions between earnings, asset income, and transfer income shed light on economic opportunity, typical size of the economic household, role of social security and other transfer payments in supporting economic activity, and the relationship between wealth (assets) and income. While total income per capita in Becker County and all surrounding counties is significantly lower than the State and the country, transfer income (primarily social security) is at or above State and national levels. Assets and earnings lag even farther behind the State than total earnings.

Existing Land Use Plans and Regulation

Becker County includes a number of entities with land use regulatory authority, including the County itself, incorporated cities, townships, various state agencies, and the White Earth Reservation. A number of other entities, such as Watershed Districts, Soil and Water Conservation Districts, Ditch Authorities, and Sanitary Districts also have limited authority over development patterns or certain types of land uses.

Land Use Plans and Policies

The cities of Detroit Lakes and Frazee have completed Comprehensive Plans within the last few years. The cities of Audubon, Cormorant, and Lake Park completed a joint community visioning process in the early 1990s. Development priorities in and around these cities are described below:

Frazee: The Comprehensive Plan prioritizes residential development within the City to occur on infill lots and vacant areas within the City, and in two recently annexed parcels on the City’s northwest corner abutting old Hwy 10. New industrial development is planned for the recently annexed parcels along old Hwy 10 (also the location of the industrial park). The Plan does not identify any additional planned annexations or extensions of infrastructure outside the City boundaries. The City is planning to extend infrastructure to areas with City boundaries to facilitate development.

Detroit Lakes: The Comprehensive Plan describes the need for new development sites to accommodate growth, and the likelihood of extending urban infrastructure beyond City boundaries, and possible future annexations of land. Infrastructure expansion and development are planned for areas

immediately west and northwest of the City, and in the industrial park on the City's north boundary. The Plan targets commercial development both in the downtown area, along Hwy 10 (within City boundaries), and some continuation of commercial development along Hwy 34 in the northwest quadrant. The City also recently completed a sustainable transportation plan (Transportation Action Model, or TAM) for Hwy 10.

Audubon, Cormorant, Lake Park: These communities conducted a joint visioning effort in 1992 to identify and guide development priorities. While not a comprehensive plan, the effort demonstrates the communities' development priorities and directs land use regulation, economic development, and natural resource priorities. Residents and stakeholders identified the need for both traditional small town style development and rural/lake style development. The vision identified the creation of rural infrastructure systems (wastewater, water, and transit).

White Earth Reservation

The White Earth Reservation, which covers approximately one third of Becker County in the County's north and center, recently completed a Strategic Plan (2001). The Plan includes a large section devoted to land use issues, as well as goals for intergovernmental cooperation. The Tribe identified land use priorities for new housing and economic development, potential strategies for sharing of regulatory responsibilities with overlapping county, city, and township governments, and natural resource priorities for conservation, management and development. New residential development was targeted for the north central townships, east of Highway 59. The strategic plan goals emphasize scattered housing in low-density developments, small commercial nodes, sustainable management of natural resource, and increasing the Tribe's management and regulatory responsibility and capability within reservation boundaries.

Two counties adjoining Becker County have current comprehensive plans or land use plans. Clearwater County has completed a comprehensive land use planning effort in 1999, and Clay County finished a comprehensive plan in 2001. Wadena and Hubbard counties have plans dating from the 1960s (similar to Becker County's existing plan), and Ottertail County and Mahnomen have no comprehensive plan.

Regulation

The hierarchy of land use regulation for different types of local governments can sometimes be difficult to ascertain. The approximate hierarchy is as follows. The State has granted cities primary land use authority except where the State has expressly limited the authority, such as in the siting of major energy facilities, or shore land zoning that is less restrictive than the State's minimum standards. Counties have primary land use authority within their boundaries, except within the boundaries of incorporated cities. Townships have the authority to regulate land uses outside of cities, but must meet the minimum standard of the County, if any. Tribal control of land use lies primarily with Tribal-owned parcels, land owned by enrolled members, and other land for which the Tribe has a definable significant interest.

Summary of Land Use Planning						
In and Around Becker County						
					<i>Land Use Ordinances</i>	
	Comprehensive Plan		Zoning	Subdivision	ISTS, Shoreland	Other
Becker County	√	1970 (2001 in Progress)	√	√	√	
Becker County Cities						
Audubon		Long Range Vision				
Callaway			√			√
Detroit Lakes	√	2000	√	√	√	
Frazee	√	1999				
Lake Park		Long Range Vision	√	√		
Ogema						
Wolf Lake						
Becker County Townships						
Comorant		Long Range Vision	√			
Forest			√			
Riceville			√			
Spring Creek			√			
White Earth Reservation		2001				
Clay County	√	2001	√	√	√	
Clearwater County	√	1999			√	
Hubbard County	√	1960		√	√	
Mahnomen County					√	
Ottertail County					√	
Wadena County	√	1970	√		√	
<i>Source: County survey of local governments, Minnesota Planning Survey (1995)</i>						

The most common forms of land use regulation include zoning, subdivision regulations, and environmental regulation. Shown above are the kinds of land use regulation used by various local governments in and around Becker County.

As shown above, three cities within Becker County and the County have adopted zoning ordinances. A summary of the kind of zoning districts included in these zoning ordinances is shown below.

Becker County Zoning Ordinance

- A. Special protection district.
- B. Residential district.
- C. High density residential district.
- D. Water oriented commercial district.
- E. Commercial district.
- F. General agriculture district.
- G. Industry district.

City of Detroit Lakes Zoning Ordinance

- R-A - Agriculture Residence District
- R-1 - Single Family Residence District
- R-2- One and Two Family Residence District
- R-3 - Multi-Family Residence District
- R-3a - Limited Multi-Family Residence District
- R-MH - Mobile Home Park District
- R-LB - Residential-Lakefront Business District
- B-1 - Central Business District
- B-2 - General Business District
- B-3 - Auto-Oriented Business District
- I-1 - Light Industrial District
- I-2 - Heavy Industrial District
- FP - Floodplain District
- W - Wetland Systems District
- S - Shoreland District
- Industrial District

City of Callaway Zoning Ordinance

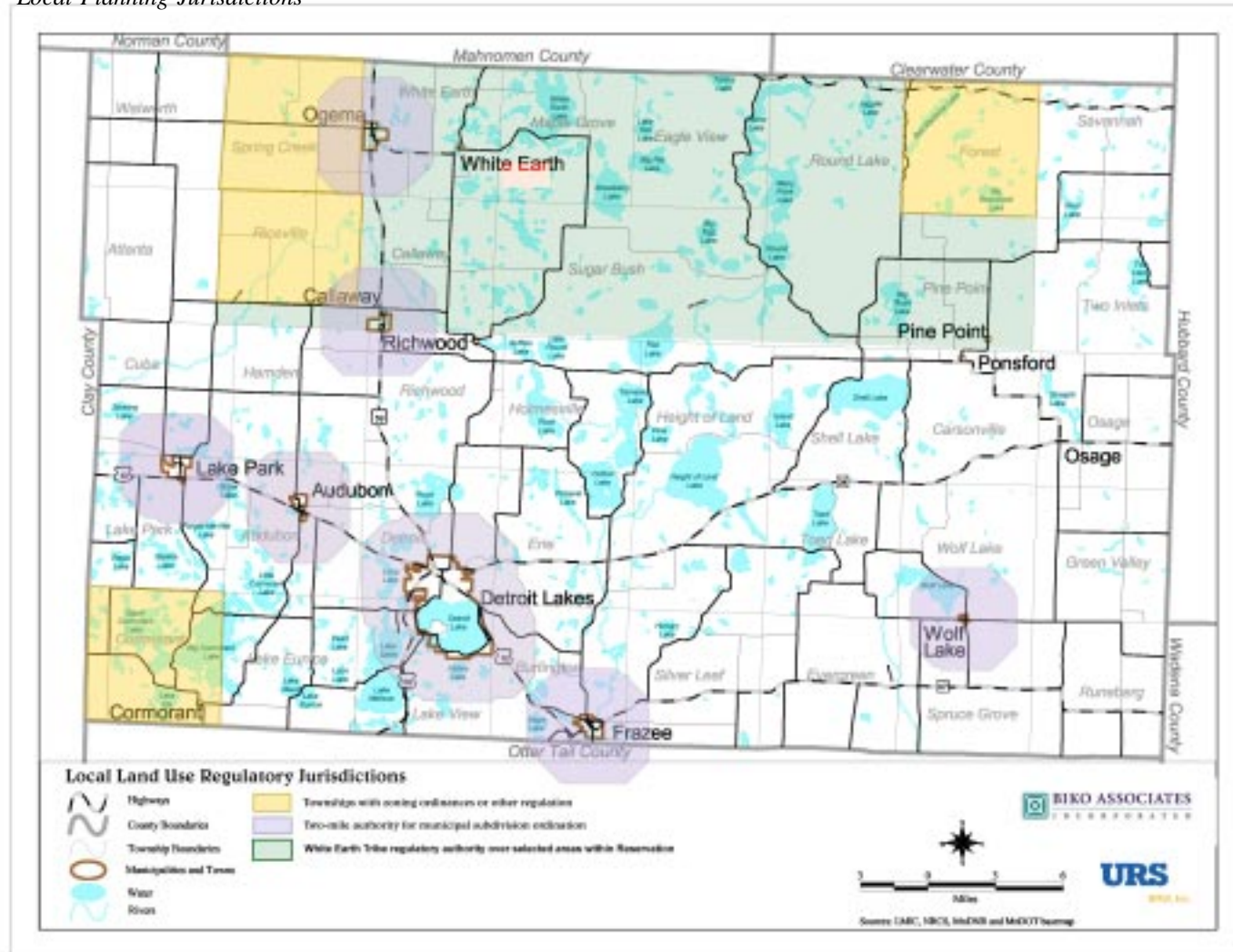
- Residential District
- Multiple Dwelling District
- Commercial District

City of Lake Park Zoning Ordinance

- A-1. Agricultural District
- R-1. Single-Family Residential District
- R-2. Multi-Family Residential District
- C-1. General Commercial District
- C-2. Highway Commercial District
- I-1. Industrial District
- PD-1. Planned Development District

The State has also granted cities the authority to extend a subdivision ordinance for up to two miles of the municipal boundary (462.358), if the surrounding townships do not have a subdivision ordinance. Cities that use this authority are required, if the surrounding county or township request, to jointly manage land use regulation within the two-mile threshold (462.3585). Detroit Lakes passed a resolution in late 2000 to apply its subdivision ordinance to all land within two miles of the City’s boundary. This includes area that the County has currently zoned Residential, Industrial, and General Agriculture. None of the affected townships have a subdivision ordinance.

Figure 10
Local Planning Jurisdictions



Four townships have zoning ordinances as well: Forest, Spring Creek, Riceville, and Cormorant. Township zoning must be at least as stringent as the County's. These townships all have minimum lot sizes in particular districts that are larger, and thus more restrictive, than the County's. Spring Creek and Riceville, for instance, have minimum lot sizes of 19 acres in the agricultural districts.

**Becker County
Population Change, Housing Demand and Income and
Affordability Issues
CHAT Report Background Information**

Audubon

- Audubon has experienced a history of generally steady population growth, that continued during the 1990s.
- Audubon's estimated Year 2000 population is 440, an increase of seven percent since 1990.
- Audubon's population will grow to an estimated 485 by the Year 2010.
- Median household income in Audubon has increased since 1980, but remains low compared with the state and nation.
- Audubon's 1990 housing supply was heavily weighted toward middle-cost units.
- Based on probable population change, Audubon will experience a demand for about 30 housing units between 2000 and 2010.

Callaway

- Callaway's population has declined slowly since 1960.
- The city's estimated Year 2000 population is 216, due mostly to a greater number of births than deaths.
- Callaway's population may potentially grow to an estimated 226 by the Year 2010.
- Median household income in Callaway has increased substantially since 1980, but remains low compared to the state and nation.
- Callaway's 1990 housing supply was heavily weighted toward middle-cost units.
- Based on probable population change, Callaway will experience a demand for about 12 housing units between 2000 and 2010.

Detroit Lakes

- Detroit Lakes experienced an increasing population before a significant decline during the 1980s. Its population recovered during the 1990s.
- The estimated Year 2000 population of Detroit Lakes is 7,107, an increase of seven percent since 1990.
- Based on an assumption that Detroit Lakes can attract development

activity, the city's population will grow to an estimated 7,795 by the Year 2010.

- Median household income in Detroit Lakes has increased substantially since 1980, but remains low compared to the state and nation.
- Detroit Lakes' 1990 housing supply was heavily weighted toward middle-cost units.
- Based on probable population change, Detroit Lakes will experience a demand for about 363 housing units between 2000 and 2010.

Frazee

- Frazee has experienced an uneven population pattern since 1960.
- The city's estimated Year 2000 population is 1,231, an increase of 3 percent since 1990.
- Frazee's population will grow to an estimated 1,317 by the Year 2010.
- Based on probable population change, Frazee will experience a demand for about 63 housing units between 2000 and 2010.
- Median household income in Frazee has increased relatively slowly since 1980, but remains low compared to the state and nation.
- Frazee's 1990 housing supply was heavily weighted toward middle-cost units.
- Based on probable population change, Frazee will experience a demand for about 63 housing units between 2000 and 2010.

Lake Park

- Lake Park has displayed a fluctuating population pattern since 1960.
- The city's estimated Year 2000 population is 708, an increase of almost 11 percent since 1990.
- Lake Park's population will grow to an estimated 807 by the Year 2010.
- Median household income in Lake Park has increased since 1980, but remains low compared to the state and nation.
- Lake Park's 1990 housing supply was heavily weighted toward middle-cost units.
- Based on probable population change, Lake Park will experience a demand for about 60 housing units between 2000 and 2010.

Source: *Becker County CHAT Report*, October 2000, pp. 2-46.

**Becker County
Strategic Countywide Housing Issues**

STRATEGIC ISSUE	Audubon	Callaway	Detroit Lakes	Frazee	Lake Park
Housing & Economic Development: A lack of housing options inhibits private- and public-sector staff recruitment efforts	√	√	√	√	√
Middle-Income Market Gap: The market does not successfully serve people with incomes above the ceilings of federal and state programs who are not accommodated by high development costs.	√	√	√	√	√
Prevailing Rents: Prevailing rents are so low that they are obstructing the development of market-rate rental housing.	√	√	√	√	√
Housing values and Production: Housing prices in the markets are so low that they discourage production of new ownership housing.			√	√	√
Town Versus Rural Development: Rural development appears to be preferred over in-town housing, requiring communities to improve their quality of life and marketing.	√	√		√	√
Infrastructure and Land Development Cost: Communities lack lots that are fully served by urban infrastructure. Costs are a serious inhibitor to lot development.			√	√	√
Preservation of Existing Housing Stock: Significant amount of housing requires some form of moderate rehabilitation.	√	√	√	√	√
Communication Among Participants: Lender/community and development coordination could be improved and program awareness increased.	√	√	√	√	√
Source: Becker County CHAT Report, October 2000, p. 53.					

Transportation

TRANSPORTATION SYSTEM

Becker County Travel Characteristics

United States Census Data collected in 1990 includes data fields that describe an area's "travel to work" and other transportation-related characteristics. Because travel to work is the single most common trip purpose, these data accurately portray characteristics of an area's travel demand and trip geographies. These data describe means of travel to work, travel time to work, and vehicle occupancy and provide the foundation for this report on the County's transportation system. These data are particularly useful in transportation planning, because they describe travel necessities and preferences.

The following conclusions can be drawn from the data.

- The automobile is the dominant commuting travel mode, accounting for 83 percent of work trips.
- A significant number of people travel to work by walking or riding their bikes (5 percent).
- Travel time to work for most people (20 percent) is between 5 to 9 minutes.
- The AM peak travel period begins at 6 AM and ends at 8:30 AM. The AM peak hour is likely between 7:00 and 8:00 AM.
- Carpooling is a well-used method of driving to work, with 30 percent of all commuters sharing rides (in cars, vans, or trucks) in 2-, 3-, 4-, 5-, 6-, or 7-person or larger carpools.

Scope of the Transportation Discussion

This section discusses the following transportation systems in Becker County: road, transit, recreational trails, railroad, and airports. Roads are under federal, state, county, township, and municipal jurisdictions. There is one public transit operator in the County. Remaining transit providers are private and operate as part of senior care provider services. Trails are under state, county, and municipal jurisdictions and are primarily developed for snowmobile use. Two railroads operate in the County, and both alignments are focused on Detroit Lakes. The only publicly owned airport is located in Detroit Lakes, operating under joint County and City jurisdiction.

Of concern in this section of the plan are the following issues:

Road System

- spatial organization and jurisdiction
- functional classification
- travel demand and capacity
- safety
- roadway conditions

Transit System

- inventory of public transit service
- transit service coverage
- transit resources and funding

Trail System

- inventory and jurisdiction
- ongoing planning activities

Railroad System

- inventory
- freight
- interface with the at-grade road system and safety

Airport System

- inventory
- expansion and development

THE ROAD SYSTEM

Spatial Organization and Jurisdiction

Located in the southwest, central part of Becker County, the City of Detroit Lakes serves as the County's seat of government and major urban center. Detroit Lakes is also the point where three of the state's regional roads converge. The convergence of these roads reinforces Detroit Lakes as a hub or regional center. The regional roads that converge in Detroit Lakes are:

- US Highway (US) 59;
- US 10;
- Trunk Highway (TH) 34; and

Mn/DOT has identified two of these roads, Hwy 10 and Hwy 34, as interregional corridors, which provide transportation service across counties and link the state's regional centers. Inter Regional Corridor studies are currently underway in Becker County. The studies identify the investment in infrastructure needed to preserve the interregional flow of traffic, while acknowledging the local context of land use planning and development.

The County's road system serves a different purpose, generally providing sub-regional linkages. The County roads typically link regional routes where larger communities are located and development occurs. Examples of the sub-regional linkages are listed below:

- ❑ TH 225 and County State Aid Highway (CSAH) 47 intersect TH 34 at Osage,
- ❑ TH 87 intersects Old Highway 10, US 10, and CSAH 29 at Frazee,
- ❑ CSAH 11 and CSAH 13 intersect US 10 at Audubon,
- ❑ CSAH 14 intersects US 59 at Callaway,
- ❑ CSAH 18 intersects US 59 at Ogema,
- ❑ CSAH 37 intersects TH 113 in the White Earth State Forest, and
- ❑ CSAH 39 intersects TH 34 at Snellman.

The figure on the following page illustrates the Becker County road system. As shown, the regional routes (US 59, US 10, TH 34, and TH 87) are configured as spokes that converge at Detroit Lakes. According to Mn/DOT's Traffic Engineering Section, roadway miles of travel have remained constant at 1,953.2 miles within the County, at least since 1995. Table 1, which follows, describes the various types of roads and streets in Becker County and actual miles of road or street. As shown in Table 1, roads that fall under federal and state jurisdiction account for 8 percent of total roadway miles. Roads under Becker County jurisdiction account for 672.8 miles out of the total 1,953.2 miles of roads and streets in the County; approximately 34 percent.

Figure 11
Interregional Corridor System

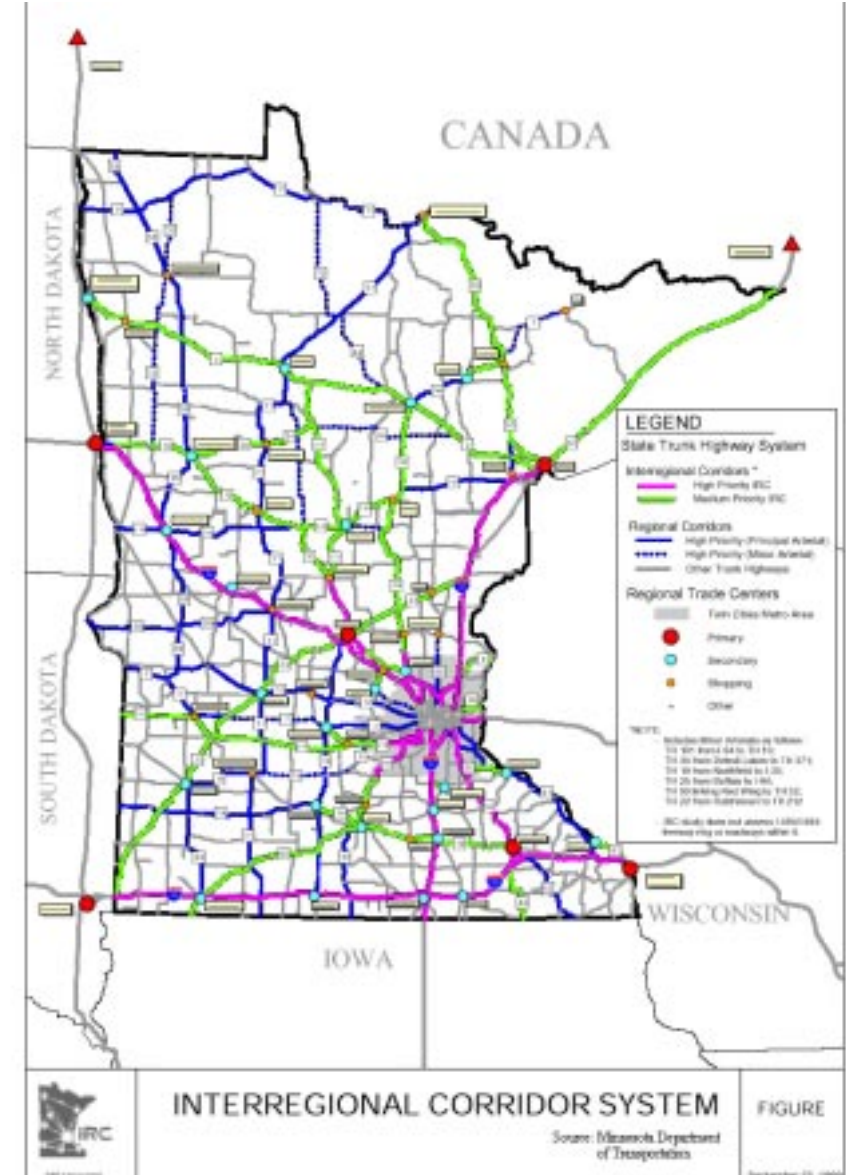
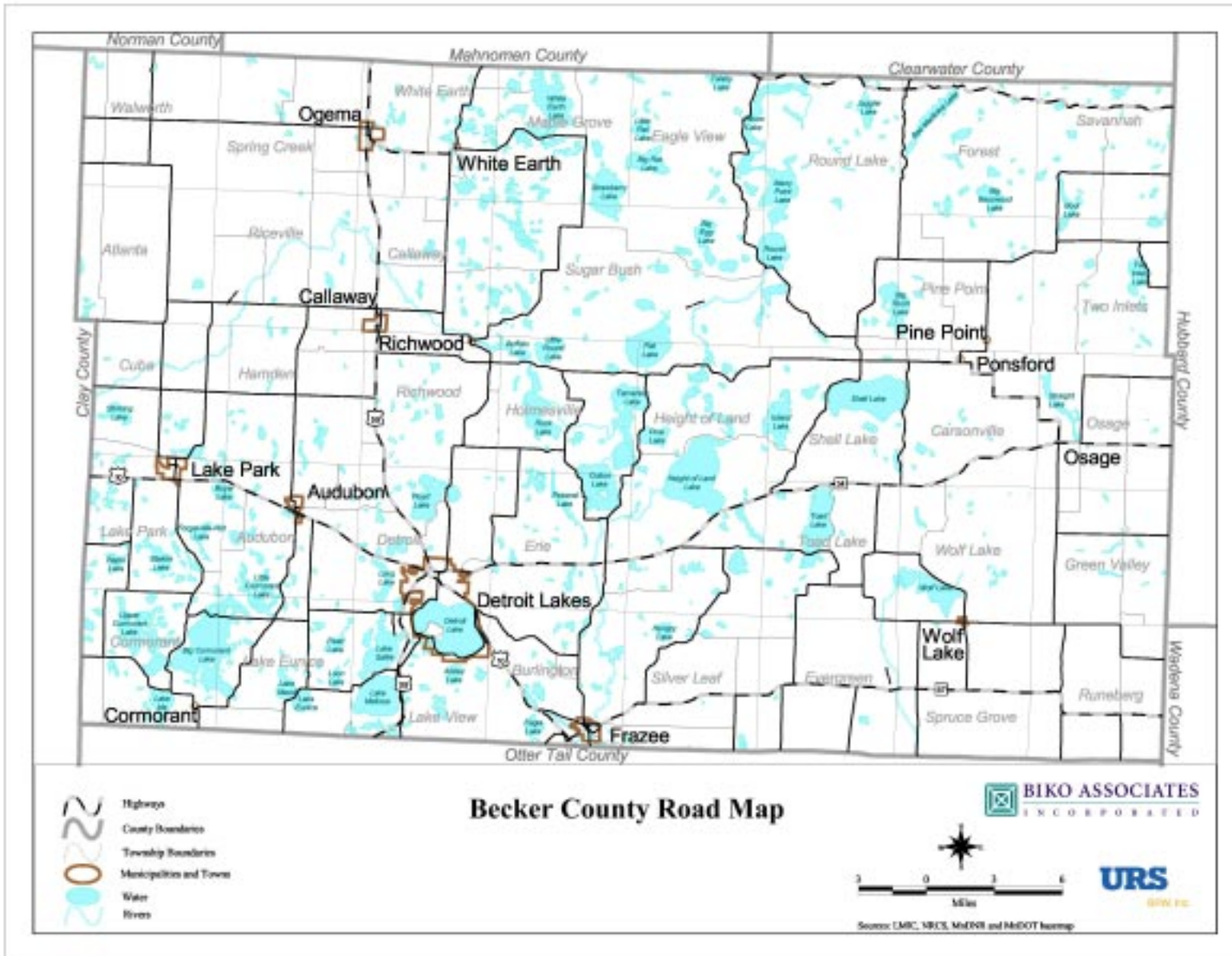


Figure 12
Becker County Roads



**TABLE 1
JURISDICTION AND MILES OF ROADS IN BECKER COUNTY**

ROAD OR STREET TYPE/JURISDICTION	Approximate Miles of Road or Street	Percent of Road Type
US Trunk Highway	58.8	3.0 %
Minnesota Trunk Highway	96.1	4.9 %
County State Aid Highway (CSAH)	465.8	23.8%
Municipal State Aid Street (MSA)	12.5	0.6 %
County Road	207.0	10.6 %
Township Road	1,113.0	57.0 %
Total	1,953.2	100.0 %

Source: Traffic Engineering Section, Mn/DOT Central Office.

Roadway Functional Classification

Roadway functional classification is a system of classifying roads by distinct criteria: a) the planned level of mobility and accessibility, and b) the roads’ spatial/geographic locations. A jurisdiction’s efforts to functionally classify its roadway system is the first step in the process of: 1) identifying funding sources for roadway construction, maintenance, and improvements and 2) defining design criteria, specifications, and alignment location.

The different types of road (U.S. and State Highways, County State-Aid Highways, and County Highways) are typically assigned one of the following functional classifications:

- principal arterials,
- minor arterials,
- major collectors, and
- minor collectors.

Each class of roads has a different level of importance given to the functions of mobility and accessibility. Larger road facilities, like principal and minor arterials, are intended to provide high levels of mobility. Collectors, on the other hand are located and designed to provide decidedly less mobility than an arterial, while increasing accessibility to adjacent land uses. Local roads, while not identified on the County’s functional classification map, exist to provide the lowest level of mobility and the highest level of land use accessibility.

A number of criteria are used for functionally classifying roads, including the following:

- trip-making service,
- location,
- mobility/accessibility,
- typical right-of-way,
- typical daily traffic volumes,
- typical speed,
- typical number of lanes,
- level of continuity,
- links to regional road system,
- parking, and
- methods to manage traffic operations and ensure the road functions as intended.

Travel Demand and Capacity

Travel Demand

Vehicle-Miles of Travel:

Data from Mn/DOT on annual vehicle-miles of travel in the County are presented below in Table 3. As shown in Table 3, the overall trend indicates a 2 percent annual growth rate in vehicle-miles traveled in the County. An exception to this trend is the 11 percent overall, annual growth rate that occurred between 1995 and 1996; a period that also witnessed sharp increases in vehicle-miles traveled on state trunk highways, County State Aid Highways, and County roads. Data in Table 3 indicate that travel demand on township roads has not increased significantly since 1995.

**TABLE 3
ANNUAL VEHICLE-MILES OF TRAVEL IN BECKER COUNTY**

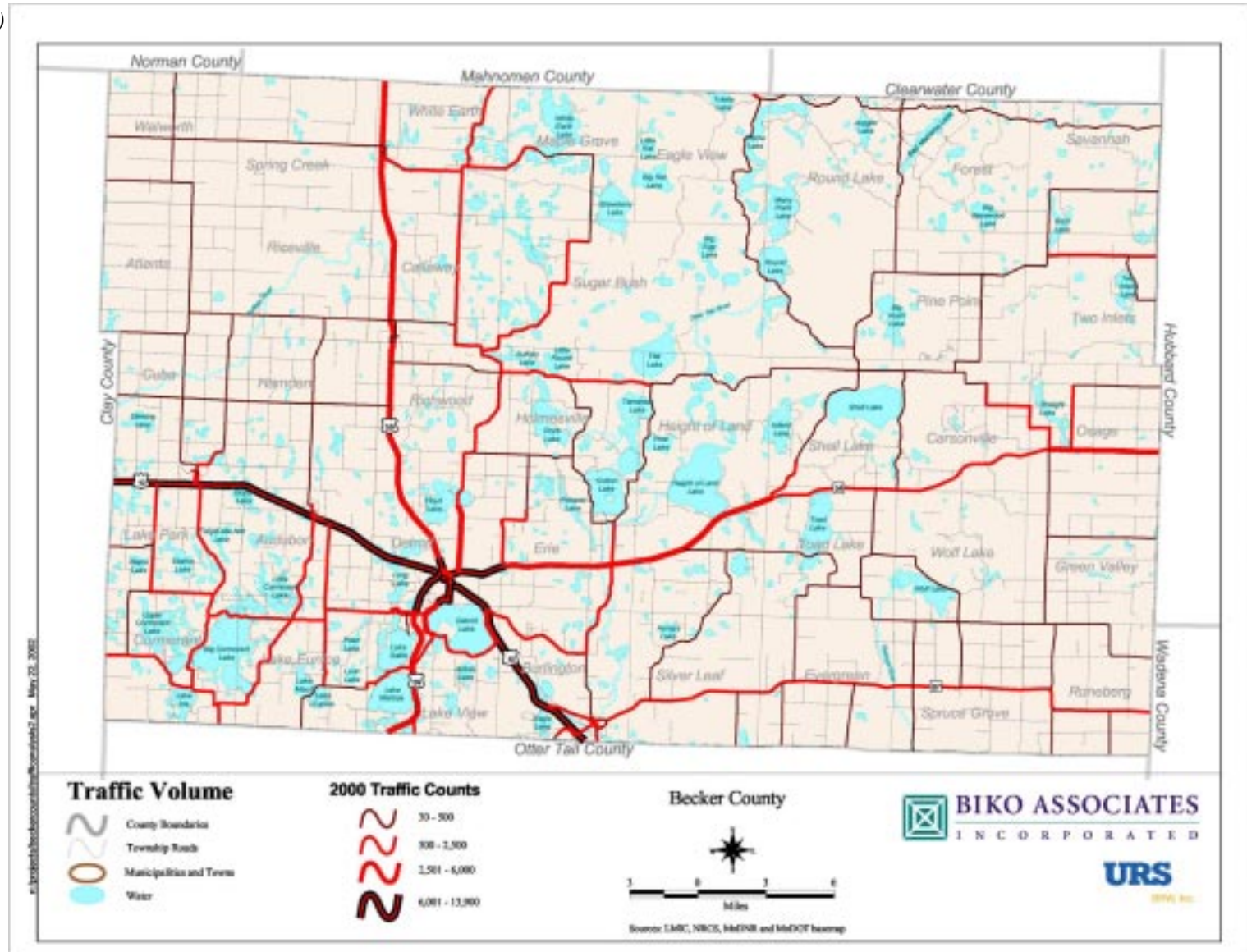
ROAD OR STREET TYPE/ JURISDICTION	1995 Vehicle-Miles of Travel	1996 Vehicle-Miles of Travel	1995-6 Annual Growth Rate	1997 Vehicle-Miles of Travel	1996-7 Annual Growth Rate	1998 Vehicle-Miles of Travel	1997-8 Annual Growth Rate	1999 Vehicle-Miles of Travel	1998-9 Annual Growth Rate
US Trunk Highway	125,338,080	131,811,972	5 %	135,133,220	3 %	139,258,815	3 %	143,154,460	3 %
Minnesota Trunk Highway	47,329,550	52,128,648	10 %	53,440,380	3 %	54,878,115	3 %	56,411,115	3 %
County State Aid Highway (CSAH)	73,796,795	92,767,824	26 %	94,163,430	2 %	96,032,960	2 %	97,477,630	2 %
Municipal State Aid Street (MSA)	9,837,845	8,464,482	-14 %	8,609,985	2 %	8,730,070	1 %	8,765,475	0 %
County Road	8,734,085	10,250,928	17 %	10,406,515	2 %	10,612,010	2 %	10,778,815	2 %
Township Road	17,796,305	17,884,956	1 %	18,125,535	1 %	18,127,360	0 %	18,128,820	0 %
Total	282,832,660	313,308,810	11 %	319,879,065	2 %	327,639,330	2 %	334,716,315	2 %

Source: Traffic Engineering Section, Mn/DOT Central Office.

Annual Average Daily Traffic Volume:

Review of historical (1988) and the most current (1996) daily traffic volumes allow annual traffic growth factors to be calculated. Growth factors can be used to: 1) quantify increases in traffic flows that occur over a period of time and 2) forecast future traffic flows.¹ Figure 2 shows the most current traffic volumes for CSAH and County roads in Becker County. The traffic volumes are annualized averages that take the summer months (including tourists) into consideration.

Figure 13
Traffic Volume (2000)



Tables 4 and 5, on the following pages, present historic and the most current daily traffic counts and annual growth rates.

¹This comprehensive plan does not include traffic forecasting. The level of analysis required for traffic forecasting would be conducted in a county-level, transportation plan. At a minimum, existing and future land use data, transportation origin/destination data, and observed annual growth factors would be needed to forecast future traffic flows.

**TABLE 4
COMPARISON OF SELECTED DAILY TRAFFIC VOLUMES FROM 1988 AND 1996 ON REGIONAL ROADS IN
BECKER COUNTY**

Road Segment	1988 Traffic Volume	1996 Traffic Volume	1988 to 1996 Annual Growth Rate
US 59, north of CSAH 18	1,650	3,200	8.6 %
US 59, north of CSAH 12	2,000	2,950	5.0 %
US 59/TH 34, north of Detroit Lakes	4,600	7,000	5.4 %
US 59, south of TH 34	4,900	6,800	4.2 %
US 59, north of County border	2,050	2,800	4.0 %
US 10, west of CSAH 1	6,100	8,900	4.8 %
US 10, east of CSAH 15	6,700	8,900	3.6 %
US 10, west of US 59	8,800	13,400	5.4 %
US 10, west of CSAH 29	6,100	8,800	4.7 %
TH 34, east of CSAH 21	4,950	9,800	8.9 %
TH 34, west of CSAH 29	3,500	4,050	1.8 %
TH 34, east of CSAH 39	1,850	1,950	0.7 %
TH 34, east of CSAH 47	2,350	2,800	2.2 %
TH 87, east of Frazee	1,100	1,250	1.6 %
TH 87, west of County border	600	690	1.8 %

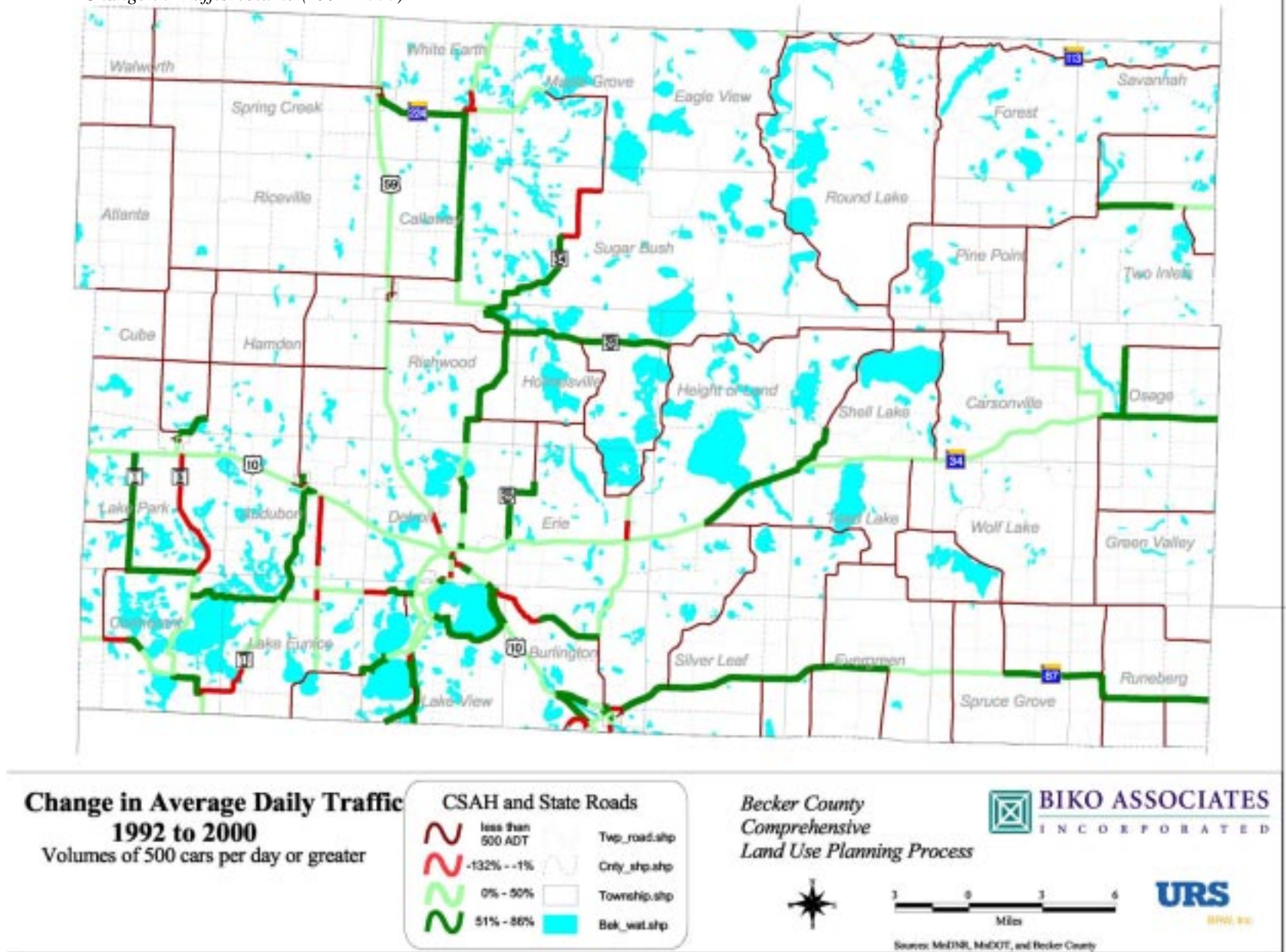
Source: Mn/DOT Street Series from 1988 and 1996.

**TABLE 5-A
COMPARISON OF SELECTED DAILY TRAFFIC VOLUMES FROM 1988 AND 1996
ON NORTH/SOUTH, SUB-REGIONAL ROADS IN BECKER COUNTY**

Road Segment	1988 Traffic Volume	1996 Traffic Volume	1988 to 1996 Annual Growth Rate
CSAH 1, south of US 10	495	900	7.8 %
CSAH 1, north of CSAH 14	345	400	1.9 %
CSAH 7, north of CSAH 12	425	350	-2.4 %
CSAH 5, north of CR 103	580	1,000	7.0 %
CSAH 11, north of CSAH 6	620	900	4.8 %
CSAH 11, south of CSAH 6	820	1,000	2.5 %
CSAH 21, south of County border	570	1,360	11.5 %
CSAH 21, north of CSAH 26	850	1,450	6.9 %
CSAH 21, north of TH 34	3,400	3,350	-0.2 %
CSAH 21, north of CSAH 32	1,140	1,800	5.9 %
CSAH 29, north of TH 34	880	950	1.0 %
CSAH 29, south of CR 120	780	830	0.8 %
CSAH 37, north of TH 34	500	450	-1.3 %
CSAH 31, north of TH 87	340	340	0.0 %
CSAH 47, south of TH 87	530	690	3.4 %

Source: Mn/DOT Street Series from 1988 and 1996.

Figure 14
Change in Traffic Volume (1992-2000)



**TABLE 5-B
COMPARISON OF SELECTED DAILY TRAFFIC VOLUMES FROM 1988 AND 1996
ON EAST/WEST, SUB-REGIONAL ROADS IN BECKER COUNTY**

Road Segment	1988 Traffic Volume	1996 Traffic Volume	1988 to 1996 Annual Growth Rate
CSAH 34, east of CSAH 21	435	670	5.5 %
CSAH 14, west of CSAH 7	370	350	-0.7 %
CSAH 14, west of CSAH 21	340	400	2.1 %
CSAH 26, west of CSAH 27	395	750	8.3 %
CSAH 58, east of CSAH 37	185	470	12.4 %
CSAH 44, west of CR 127	260	850	16.0 %
CSAH 6, west of CSAH 5	270	500	8.0 %
CSAH 6, east of CSAH 5	275	950	16.8 %
CSAH 6, west of CSAH 15	820	1,200	4.9 %
CSAH 6, east of CSAH 15	1,550	945	-6.0 %
CSAH 36, west of CSAH 45	200	500	12.1 %
CSAH 40, east of CSAH 45	330	450	4.0 %
CSAH 4, east of CSAH 1	1,040	800	-3.2 %
CR 138, west of CSAH 22	275	360	3.4 %
CSAH 22, east of CR 147	780	1,700	10.2 %

Source: Mn/DOT Street Series from 1988 and 1996.

Capacity

Capacity:

The traffic-carrying capacity of a road is a function of: 1) alignment and design, 2) the number and width of lanes that are provided, and 3) physical features that are located and activities that occur along the edge of the road. Therefore, divided or non-divided lanes, wide shoulders or narrow shoulders, paved or gravel shoulders, steep or gradual ditches, vegetation, guard rails, parking, buses, and bike lanes and sidewalks are very important when determining the vehicle-throughput of a road. As a general rule of thumb for planning purposes a single highway lane can carry between 650 and 800 vehicles per hour at Level of Service D.2 The lower level highways (non-divided with narrower lanes and shoulders) have the lower vehicle throughput volumes.

With this planning-level measure in mind, the traffic-carrying capacities of roads in the County, at LOS D, were calculated to be:

- ❑ US Highway 10, an expressway-type facility with two lanes in each direction, left- and right-turn lanes, and a grass median separating directional flows — 42,000 vehicles per day (vpd) and
- ❑ All other roads (County state aid highways and County roads), which operate with one lane in each direction and with no turn lanes — 13,000 vpd.

Volume to Capacity Ratio:

A volume-to-capacity (V/C) ratio less than 1.00 indicates that capacity exceeds the volume of vehicles and a below capacity condition. A V/C ratio that equals 1.00 indicates that vehicle demand and capacity are an exact match, an at-capacity condition. A V/C ratio that is greater than 1.00 indicates an over-capacity condition where the volume of vehicles exceeds the capacity of the road.

An analysis of V/C ratios for roadway segments within Becker County was conducted using the 1996, daily traffic volumes from Figures 3 through 10 and the theoretical capacities described for US Highway 10 and remaining County state aid highways and County roads. The analysis showed that capacity is not an issue on the County's roadways, as all V/C ratios for the most current traffic volumes are less than 1.00.

Safety

Accident data, provided by Mn/DOT, was used to prepare Table 6, which compares the number of accidents occurring in Becker County in 1996, 1997, 1998, and 1999. As shown in the table, the number of accidents has not substantially changed, despite increases in the number of vehicles using the state and County road systems.

**TABLE 6
AUTOMOBILE ACCIDENTS IN BECKER COUNTY**

Road Type	1996 to 1997			1997 to 1998			1998 to 1999		
	1996	1997	% Change	1997	1998	% Change	1998	1999	% Change
US Trunk Hwy	104	136	31%	136	142	4%	142	131	-8%
State Trunk Hwy	61	80	31%	80	69	-14%	69	59	-14%
County State Aid Hwy	113	88	-22%	88	103	17%	103	101	-2%
Municipal State Aid	18	28	56%	28	23	-18%	23	22	-4%
County Road	12	14	17%	14	14	NA	14	13	-7%
Township Road	2	2	NA	2	3	50%	3	1	-67%
Total	310	348	12%	348	354	2%	354	327	-8%

Source: Mn/DOT

In addition to recording the number of accidents that have occurred, Mn/DOT is also interested in the rate of accident occurrences. The accident rate describes the number of accidents that have occurred per million vehicle-miles of travel. Accident rates from Becker County can be compared to those from other counties across the state and state-wide averages to determine if accidents that occur at a given location are above or below the average. Becker County accident rates for 1999, for the six different types of roads are outlined below:

- US Trunk Highways — 0.9
- State Trunk Highways — 1.0
- County State Aid Highways — 1.0
- Municipal State Aid Streets — 2.5
- County Roads — 1.2
- Township Roads — 0.1

Average accident rates for rural highways in Minnesota are shown below and indicate that the rate of accidents on US Trunk Highways in Becker County is higher than the state average, but the accident rate on two-lane collectors and minor arterials is lower than the state average.²

- 0.6 on rural, four-lane divided highways (principal arterials/freeways)
- 2.1 on rural, two-lane roads (collectors and minor arterials)

² Source: Mn/DOT Accident Data. Rural and Urban Trunk Highways.

Roadway Conditions

Design Standards:

Geometric design standards for roads have been developed to:

- 1) ensure uniformity in the physical design of roads to minimize unexpected road configurations and maximize familiarity with the driving environment;
- 2) ensure safety by implementing designs proven to accommodate safe speeds and other factors affecting driver behavior;
- 3) ensure that the pavement envelope is protected from vegetation, debris, and water;
- 4) minimize environmental impacts on right-of-way outside the pavement envelope; and
- 5) ensure cost efficiency in the design and construction of roads.

Design standards are provided by the American Association of State Highway Transportation Officials (AASHTO) and Mn/DOT. Specifically, Mn/DOT has established design standards that must be met by each county that receives County State Aid Highway (CSAH) funds. The standards address design issues such as: lane width, shoulder width, slope, recovery area, design speed, surface, and design strength. Different applications of the standards are appropriate, depending on the type and volume of traffic that will use the road, and local land use, natural resource, and design contexts.

Existing Conditions:

Decisions about capital improvements must be made in light of existing road conditions. Selected as-built characteristics of roads in Becker County are presented on Figures 3 through 6, which illustrate:

- surface type
- age of surface treatment
- load-bearing capacity
- visual sensitivity and viewsheds

Additional as-built conditions that could be mapped, or incorporated into a Geographic Information System (GIS) analysis include the following:

- right-of-way width
- surface width
- shoulder width
- overall condition (considering shoulders, geometrics, and structures supporting roadways)

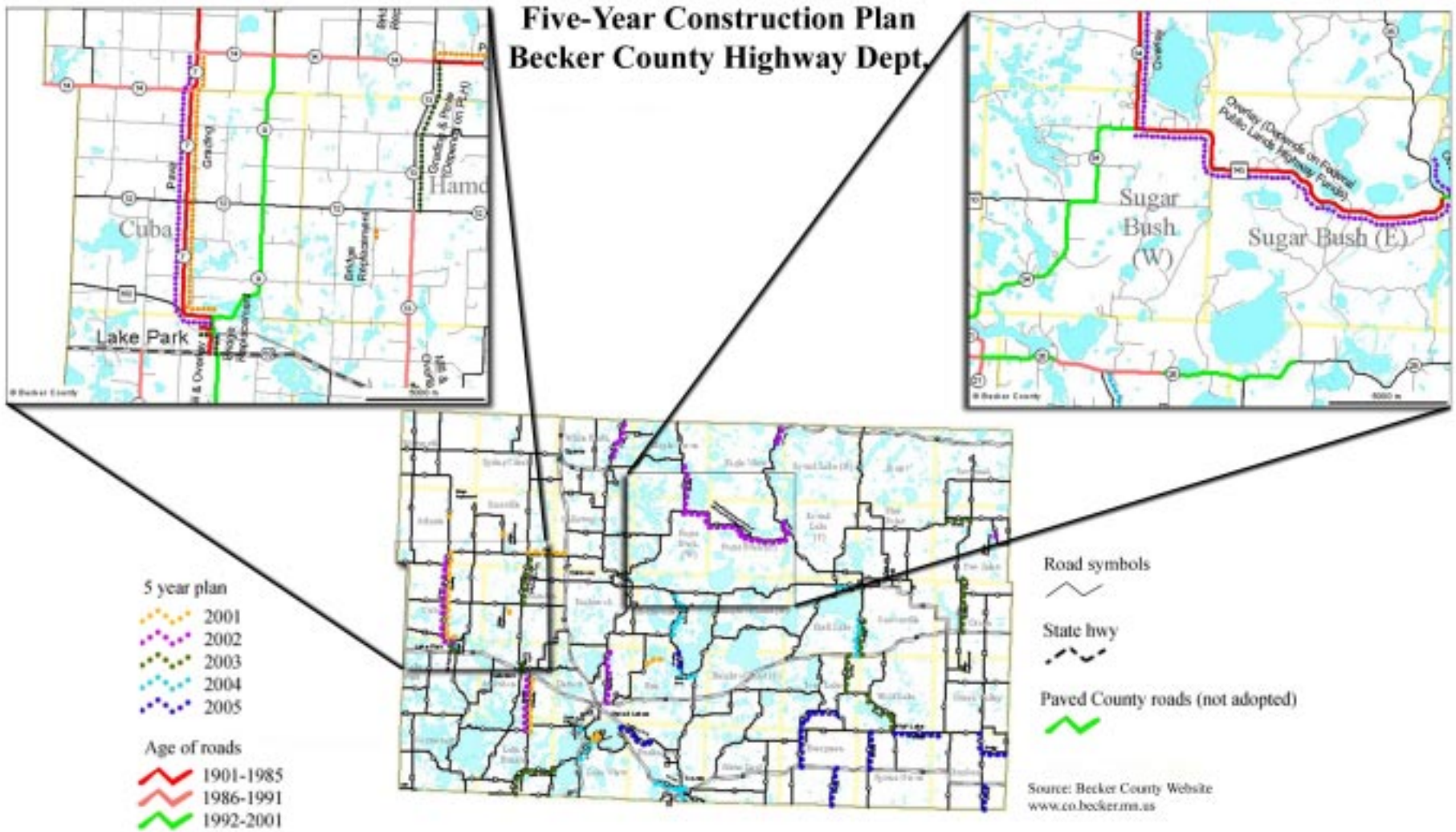
The County has not yet developed a classification system and accompanying policies to guide decisions on capital improvements, particularly in the areas of: a) upgrading road surfaces from aggregate to concrete or asphalt and 2) enhancing geometrics by adding shoulders. Such policies are increasingly important in the face of recent development activities, which have resulted in new rural residential development. As more and more residences are developed, the County receives more and more requests to improve roads, and, without policies, there is potential for the County to respond reactively rather than proactively. Figure 15 shows the County's most recent five-year construction plan.

Chief considerations in decisions to upgrade road surfaces are design speed, daily traffic volume, and land use sensitivity. AASHTO recommends concrete or asphalt surfaces for design speeds above 40 mph. While no specific daily traffic volume is defined to trigger upgrades from aggregate to concrete or asphalt, the County might consider setting a threshold of 400 vehicles per day (40 vehicles per hour). At 40 vehicles per hour traffic would stir up dust, which would be noxious to some sensitive land uses.

AASHTO additionally comments on the need to provide shoulders, identifying three conditions, which are:

- LOW** — where a minimum 2 foot-wide shoulder is provided on earth and aggregate roads for vehicle recovery (reaction). Design speeds less than 40 mph.
- MEDIUM** — where a 5 foot- to 8 foot-wide shoulder is provided for recovery and a clear zone. Design speeds between 40 and 55 mph.
- HIGH** — where a 10 foot- to 12 foot-wide shoulder is provided for recovery, a clear zone, and errant vehicles. Design speeds of 55 mph and higher.

Figure 15
Five-Year Road Construction Plan



Additional factors the County may want to consider in its policies are:

- importance of the road to transportation within Becker County and agencies providing services within the County, such as police, ambulance, fire, school district, etc.;
- location within the County relative to existing or planned arterials and collectors and regional centers or communities;
- number of property owners to be served;
- type of traffic and use of road (commercial, residential, agricultural); and
- costs of construction and maintenance.

Finally, road design and capital decisions are also affected by non-transportation factors, including sensitivity of the natural environment along the road, historic structures or landscapes, and long-range development priorities along the road. Becker County is an important tourist area in the region, and the tourism economy supports many businesses and households. Scenic viewsheds, and minimizing the effect of the road on the landscape, are recognized reasons to modify design standards or limit reconstruction activities.

The Department of Natural Resources has completed a project in cooperation with local governments, residents, and the forestry industry to identify the scenic value of roads. The visual sensitivity guide is designed to inform timber harvesting practices, but could be used to identify visually sensitive or scenic drives in Becker County. Figure 17 shows the visual sensitivity priorities in Becker County.

Figure 16
Visual Sensitivity

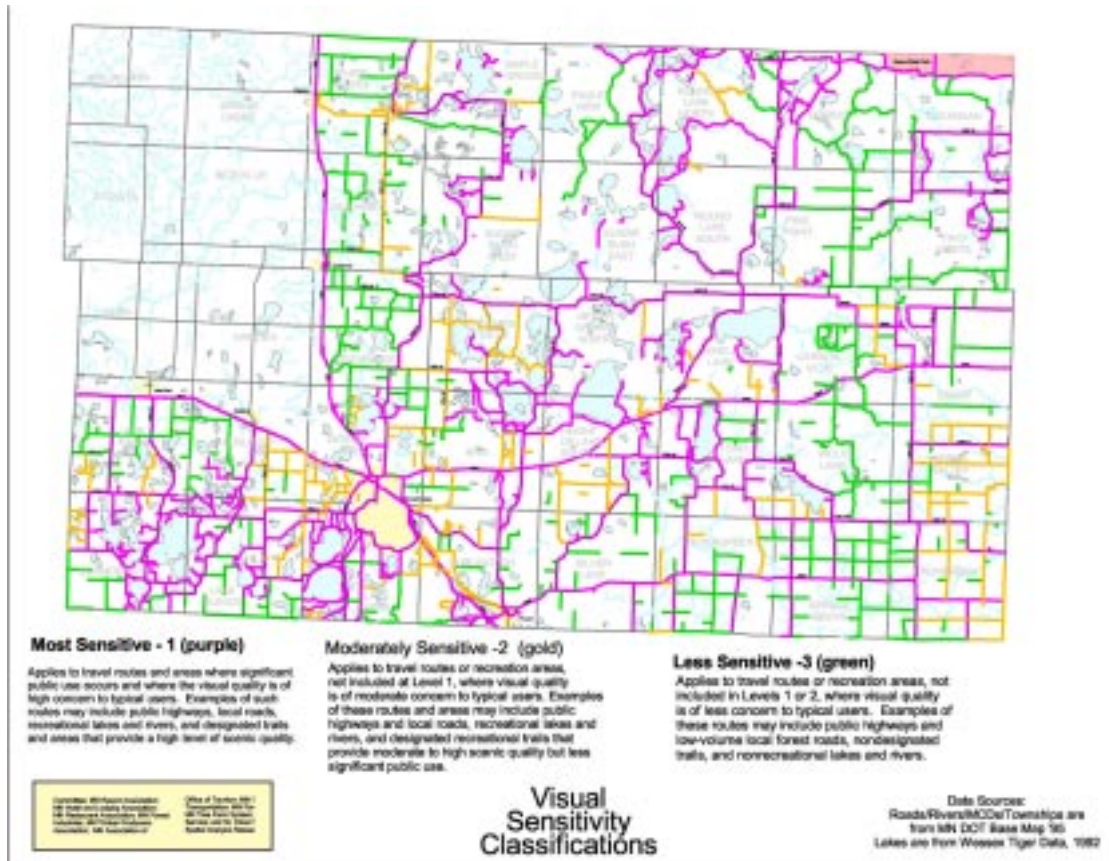


Figure 17
Type of Road Surface

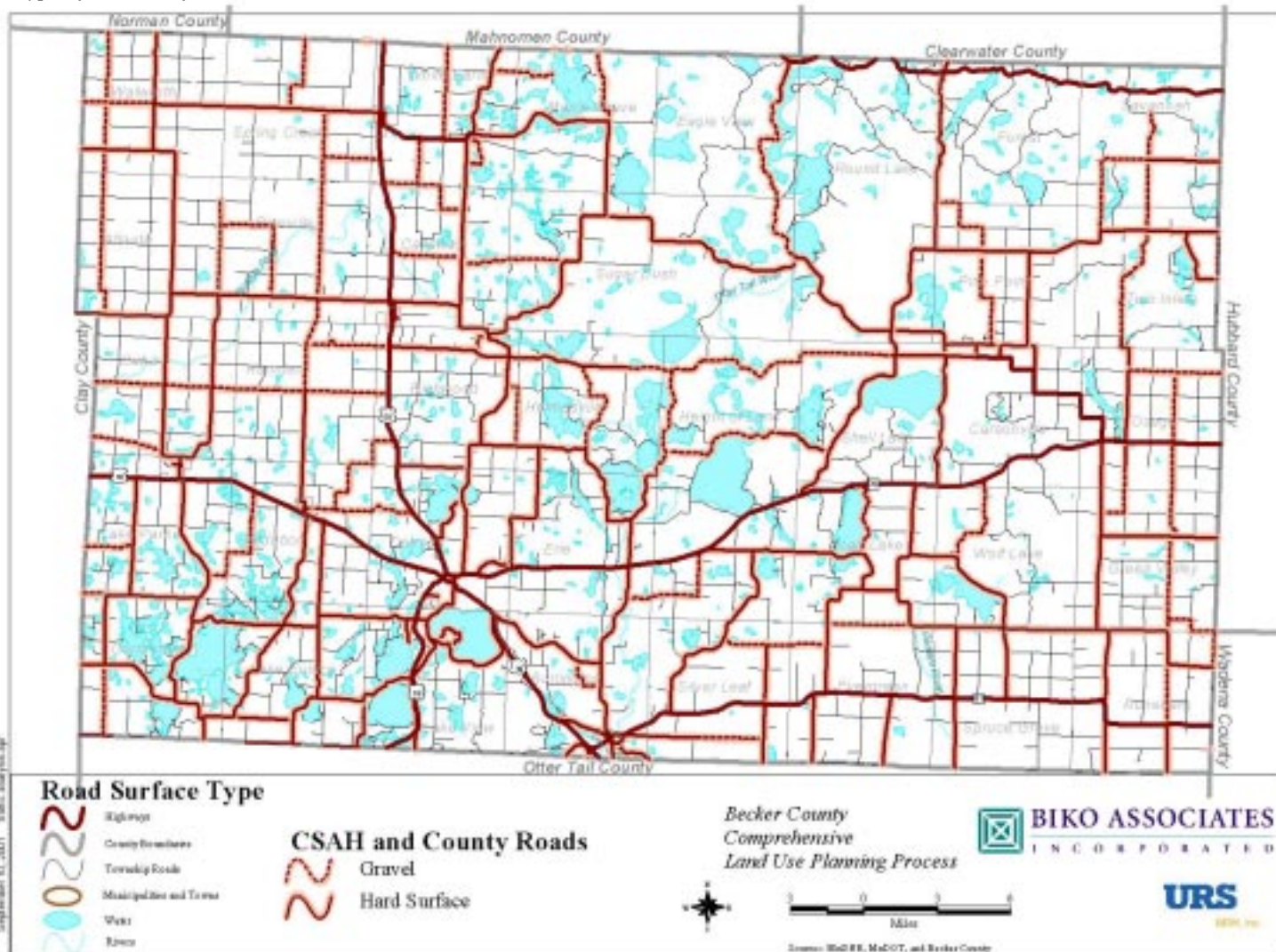
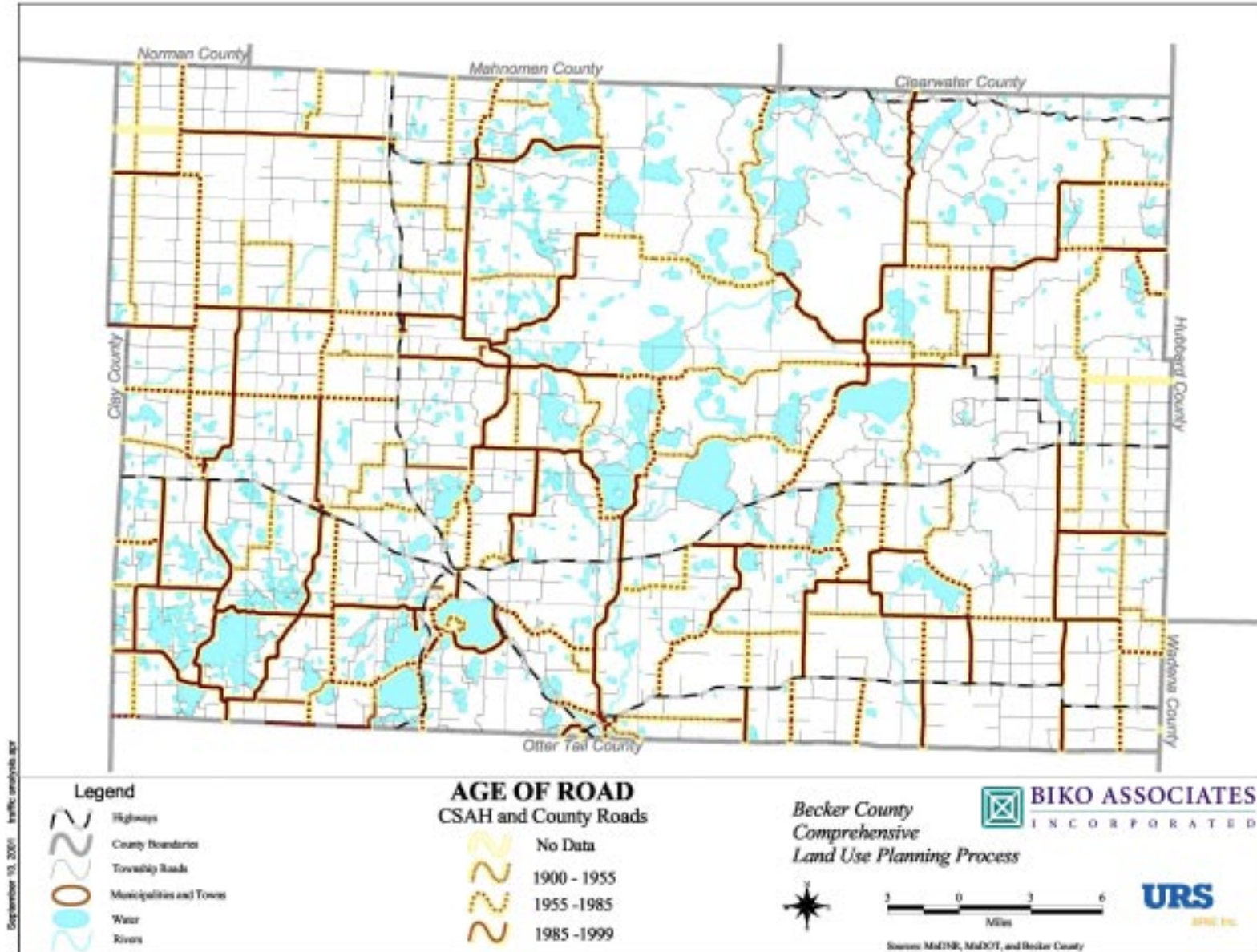


Figure 18
Age of Road Surface



TRANSIT SYSTEM

Inventory

Becker County Transit owns and operates the only public transit system in the County. The system provides the following types of service: a) dial-a-ride, b) flexible fixed or deviated route, and c) scheduled rural route. The dial-a-ride service is provided five days each week, throughout Becker County. For practical purposes, however, the service is focused within the communities of Audubon, Callaway, Detroit Lakes, Frazee, Lake Park, and Ogema. Passengers are required to call Becker County Transit to reserve rides, and fares for the service are based on the distance traveled for a one-way trip:

- 0.0 to 5 miles \$1.25
- 5.1 to 10 miles \$2.50
- 10.1 to 15 miles \$3.75
- 15.1 to 20 miles \$5.00
- 20.1 to 25 miles \$6.25
- 25.1 to 30 miles \$7.50
- 30.1 to 35 miles \$8.75
- 35.1 to 40 miles \$10.00

The flexible or deviated fixed route service, which operates five days each week, was designed to allow variations from a fixed route. This service is provided in Detroit Lakes and Fargo-Moorhead. Passengers in need of deviated route service must make their requests to Becker County Transit no later than the morning of the day they need a ride. The one-way fare for this service is the same as the fare for dial-a-ride service.

The scheduled rural route service is provided throughout the County for a one-way fare of \$2.00. Twice each month scheduled routes are provided to the:

- north and northwestern parts of the County in Callaway, Ogema, Richwood, and White Earth;
- eastern communities of Frazee, Osage, Snellman, and Wolf Lake;
- western communities of Audubon, Cormorant, and Lake Park.

The Becker County Transit system's potential passenger base is comprised of the County's population, and records are kept to track passengers by disability status and age. Comparisons between actual and future descriptive statistics on the ridership are presented below for 1999 (actual), 2000 (estimated), and 2001 (projected) in Table 7, on the following page.³

³ Becker County Transit's annual budget allocation from Mn/DOT includes an allocation to Clay County's Transit system. Therefore, some of the ridership reported by Becker County is actually residents of Clay County. Approximately 86 percent of the passengers are residents of Becker County.

**TABLE 7
COMPARISON OF SYSTEM STATISTICS (One-Way Passenger Trips from Becker and Cobb Counties)**

Passenger Classification	1999 Year-End Actual	2000 Estimated	Estimated Growth (1999 to 2000)	2001 Projected	Projected Growth (1999 to 2001)
Disabled passengers	6,679	7,552	113 %	7,600	114 %
Elderly (60+ years of age)	7,566	9,290	123 %	9,500	126 %
Adults (18 to 59 years of age)	4,852	9,970	205 %	10,000	206 %
Youth (6 to 17 years of age)	2,012	3,020	150 %	3,000	149 %
Children (0 to 5 years of age)	180	246	137 %	250	139 %
Total One-Way Passenger Trips	21,289	30,078		30,350	

Source: Becker County Transit System

Table 7 shows that the number of passengers is expected to increase for all passenger classifications. The most dramatic increases are expected to occur among adults (18 to 59), youth (6 to 17), and children (0 to 5). The 2001 projection reflects a projected shift in the County's population demographics where the number of elderly people will increase, but at a slower rate than in previous years, and the number of families (adults, youths, and children) will increase at a faster rate.

Issues

The two major issues facing the Becker County Transit System concern a) meeting demand and b) adequacy of available resources. With only three buses, one back-up bus, and three full-time drivers, the system is currently at capacity. Nevertheless, demand for transit services continues to grow, as shown in Table 7. Becker County Transit recently received (and denied) a request to provide commuter service to the turkey processing plant in Pelican Rapids, even though the plant and prospective passengers offered to contribute to the cost of providing the service.

The 2001 budget for Becker County Transit is \$200,000; 65 percent of which (\$130,000) will come from the Federal Transit Administration through Mn/DOT's Office of Transit. The remaining \$70,000 will come from the farebox, the County's transit tax assessment (\$20,000), and the City of Detroit Lakes. This level of funding only allows the system to maintain its current level of services and does not provide for the facility or staff expansions necessary to meet the growing demand.

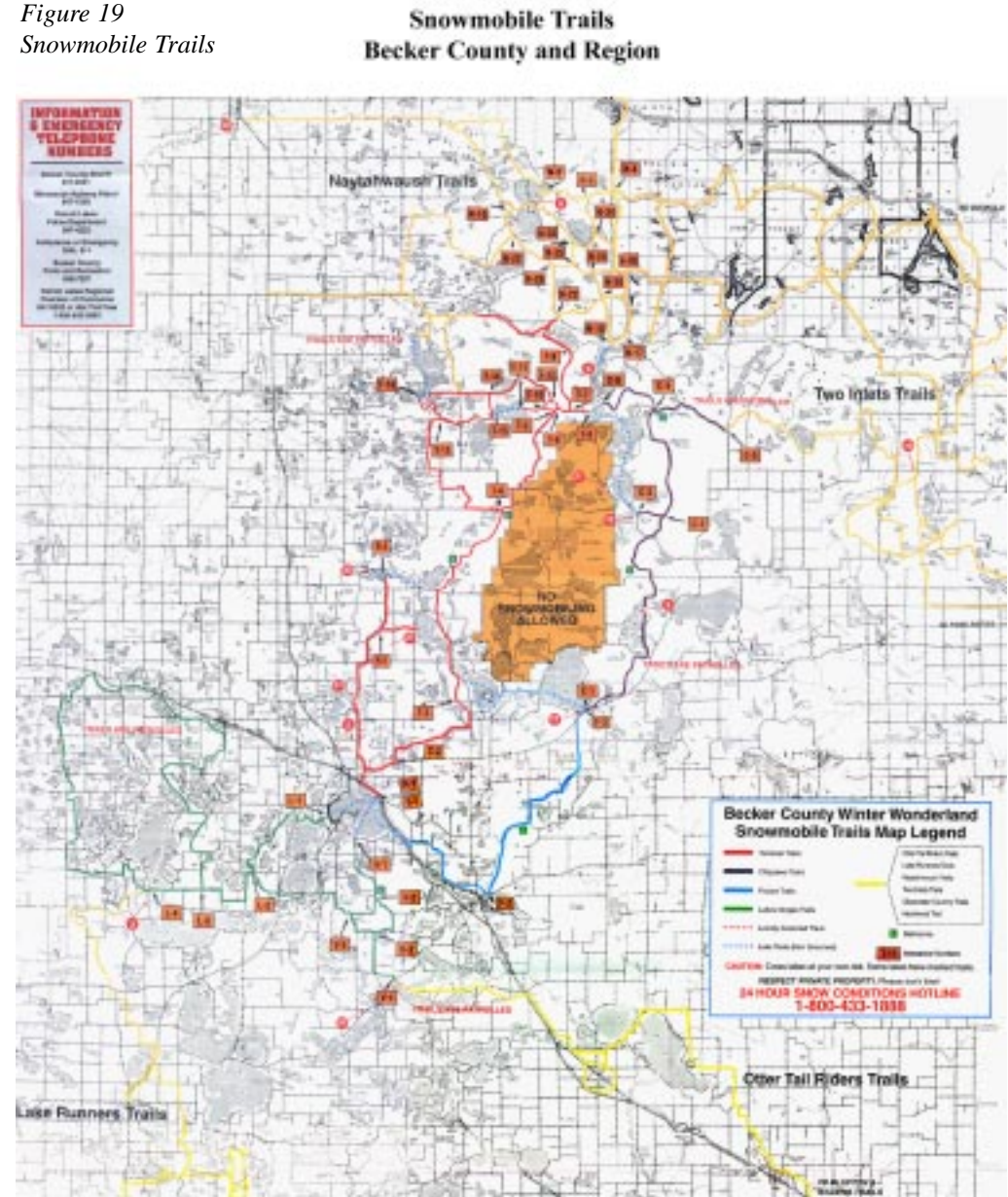
The system will replace its existing buses in 2002, 2004, and 2006, with Section 53-11 funding from Mn/DOT. These funds cover 80 percent of the cost of vehicles, with 20 percent from local sources.

TRAIL SYSTEM

Existing System

The existing trail system in Becker County primarily consists of over a thousand miles of snowmobile trails (see Figure 7). The snowmobile trails include: Tamarac, Chippewa, Frazee, Lakes-Vergas, Otter Tail, Lake Runners, Naytahwaush, Two Inlets, Clearwater County, Hardwood, Hawley, Hitterdahl, and Midnite Riders. These trails are located across some private land, public lands, lakes, and adjacent to state and County highways in ditches within the public right-of-way. The County negotiates permission for trails that cross private lands. The routes can change from year to year as private landowners choose to limit public access or move access across another portion of their property. Restroom facilities and privately-operated resorts/accommodations are located along the trails.

Figure 19
Snowmobile Trails



Source: Becker County web site
www.co.becker.mn.us

The County system also includes one trail that has been set aside for non-motorized activities (e.g., hiking, jogging, biking, and cross country skiing). The exclusive, non-motorized trail is located at Dunton Locks Park and extends two-thirds of a mile along the Pelican River to Lake Sally.

Future Planning

Two issues face the Becker County Parks and Recreation Board. The first is to proactively address ATVs and the second is to plan for the development of additional trails for non-motorized activities.

There are currently no trails specifically set aside for ATVs. ATVs are allowed to use roads in State forests and on County-managed lands unless the access is posted forbidding ATV use. Several ATV organizations have argued that without designated trails, ATVs are more likely to use snowmobile trails and areas where motorized vehicles should not be allowed. Unrestricted ATV activities result in damaged snowmobile trails and damage to wetlands and the shores of lakes and rivers.

Figure 20
Frazee Ski Trail

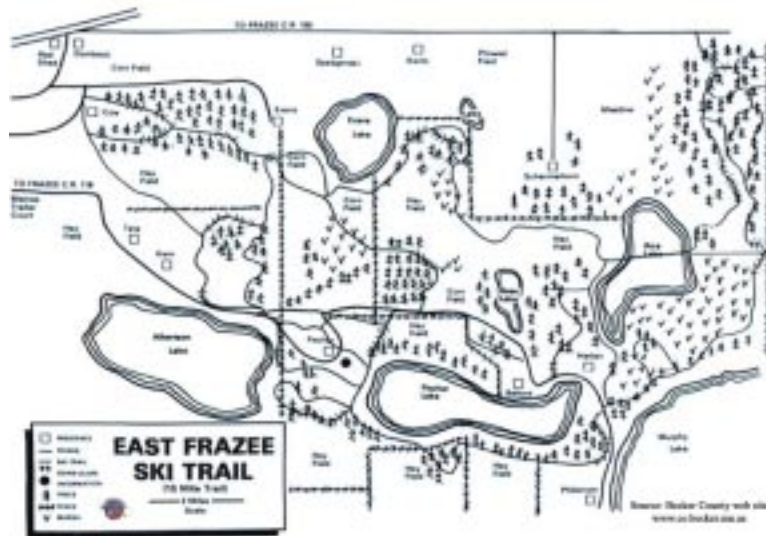
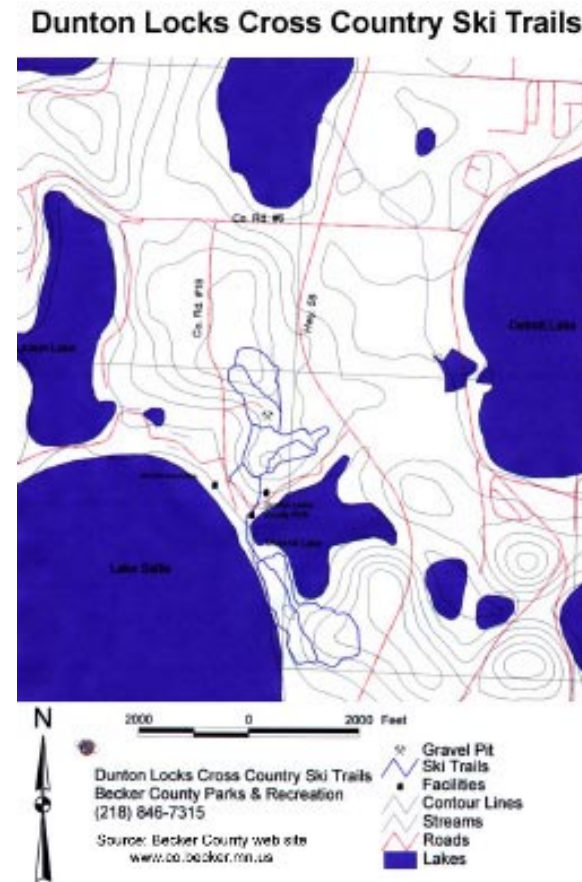


Figure 21
Dunton Locks Ski Trails



The County administers only two-thirds of a mile for non-motorized activities. Several communities have discussed the need to develop bike linkages between towns. The Parks and Recreation Department has discussed the need to support activities to help local communities identify points of interest around which trails can be built.

RAILROAD SYSTEM

The railroad system in Becker County consists of two major railroad corridors. East/west rail service is provided by Burlington Northern and Sante Fe (BNSF), and north/south service is provided by Canadian Pacific (CP). Both corridors converge at Detroit Lakes, further emphasizing the regional significance of this transportation hub community.

Within Minnesota, the BNSF corridor is 250 miles long, stretching from Moorhead to Minneapolis. The BNSF corridor stretches 26 miles across Becker County. Up to 55 trains per day, reaching speeds as high as 79 miles per hour, operate within the BNSF corridor.⁴ The BNSF line accommodates both passenger and freight trains. Freight trains haul coal, containers, chemicals, grain, lumber, automobiles, and intermodal traffic.

Amtrak operates two passenger trains per day within the corridor. The Amtrak route between Chicago and Seattle/Portland (the Empire Builder) stops in Detroit Lakes in the early hours of the morning, once west-bound, once east-bound.

The CP line operates between western Canada and upper midwestern states in America. The line is over 30 miles long within Becker County. The line only accommodates freight trains, which haul lumber, grain, and fertilizer. An average of nine trains per day pass through Becker County on the CP line.

Of the 39 BNSF grade crossings (25 public and 13 private) in Becker County, 38 are at-grade and only one is grade separated. Likewise, there is only one grade separated crossing along the CP line, and the remaining 32 public crossings are at-grade. Since 1995, 12 automobile/train crashes have occurred at at-grade crossings (10 along the BNSF line and 2 along the CP line). These 12 crashes resulted in property damages, personal injuries, and five deaths.⁵

A significant percentage of automobile/train crashes occur at crossings where traffic volumes are low. Of the eight fatal crashes statewide in 1998, five occurred at at-grade crossings with low vehicular traffic. In response to this condition, Mn/DOT's Office of Freight, Railroads, & Waterways prepared a comprehensive plan to address safety at at-grade railroad crossings in Becker County in 1999. The plan identified specific issues and problems in Becker County that should be addressed to improve safety conditions.

Figure 22
U.S. Freight Volumes



⁴ The BNSF mainline track between Moorehead and Minneapolis is one of the highest speed, highest volume rail corridors in the state.

⁵ Twenty-eight automobile/train crashes occurred at 15 of the 25 public grade crossings (along the BNSF line), between 1977 and 1998, resulting in four fatalities. Thirteen of these collisions were on low volume roads with no active warning devices. Two other collisions occurred at crossings where railroad signals have been installed since the accidents.

Among the issues and problems were:

- poor visibility at isolated, rural railroad crossings
- poor approach grades and alignments
- poor railroad alignments
- inappropriate warning devices
- inadequate signing or signage that is in poor condition
- inadequate stacking distance
- inadequate vegetation control
- presence of permanent structures within the driver's sight quadrant
- driver distractions
- changing traffic patterns

Recommendations from the plan were prepared for the short-, medium-, and long-terms to respond to specific issues at each railroad crossing. Short-term recommendations included a range of activities from removing brush and vegetation, to installing signage, to realigning approach roadways, to closing some of the railroad crossings. Medium-term recommendations included reconstruction of approach roads and installation of railroad signals and gates. Finally, the long-term recommendations included making upgrades to railroad crossing signals and construction additional grade separations.

AIRPORT SYSTEM

Detroit Lakes Airport

The Detroit Lake Airport is the only publicly owned airport in Becker County and is under municipal and County jurisdiction. All other airports in the County are privately owned. The Detroit Lakes Airport provides general aviation service, which includes non-scheduled flights, charter service, maintenance and repair service, and storage. Currently 46 to 50 aircraft are stored in the airport's hangars.

Future Development

According to the most current State of Minnesota Aviation Plan (Mn/DOT, 1999), the Detroit Lakes Airport had 14,500 aviation operations (take-offs or landings) in 1996, and 14,650 operations were forecast for 2000. A needs report in the 1999 Aviation Plan documented future development plans for the Detroit Lake Airport that included: a) constructing a parallel taxiway and b) extending the 4,500 foot-long runway to 5,000 feet. The Federal Aviation Administration (FAA) has committed \$1.6 million to the Detroit Lakes Airport to assist with these developments and is awaiting "justifications" from the airport before releasing the funds.

Constructing the parallel taxiway would enhance safe flight operations by providing a remote location where planes can queue while awaiting take-off. Because the airport's VOR tower is located too close to the proposed alignment for the future parallel taxiway, the justification will require the airport to identify a new location for the tower.

The justification for the runway extension is the number of flight operations that would require a 5,000 foot-long runway. According to FAA requirements, 500 flight operations per year, by aircraft that require the longer runway, must be documented before the extension can be justified. To date, the airport has not been able to document this level of demand.

Natural Resources

NATURAL RESOURCES

Location and Size

Becker County is located in the northwest quadrant of Minnesota, approximately 175 miles northwest of the Twin Cities area and 35 miles east of the Fargo-Moorhead area. The County is bounded by Clay, Clearwater, Hubbard, Mahnomen, Norman, Otter Tail, and Wadena counties. Becker County is approximately 1,440 square miles in area.

Becker County is a transitional area for a variety of natural resources, including soils, vegetation, drainage basins, and topography. Human influence, in the form of settlement patterns, construction of an extensive road and rail system, draining of wetlands, use of irrigation, and extensive clearing has softened some of the natural distinctions. The resource differences remain, however, and the transitional character of the landscape is still reflected in land use differences and natural resource amenities east to west across the County.

Topography

Becker County is characterized by three basic topographic forms; the moraine area across the central portion of the County; the glacial outwash in the southern and eastern portions of the County; and the glacial till plain in the northwest and far southeastern corner. The 1970 Comprehensive Plan describes the County's topography in the following manner:

Nearly one-half of the county area is occupied by terminal moraines deposited by the Keewatin Glacier during halts in its recession towards the northwest. These moraines are composed primarily of stony clays and gravelly hills and ridges, interspersed with basins of sandy glacial till. Since the moraine is not well drained, the depressions in the topography are generally occupied by lakes and swamps. Many of the lakes are quite deep and have good water quality.

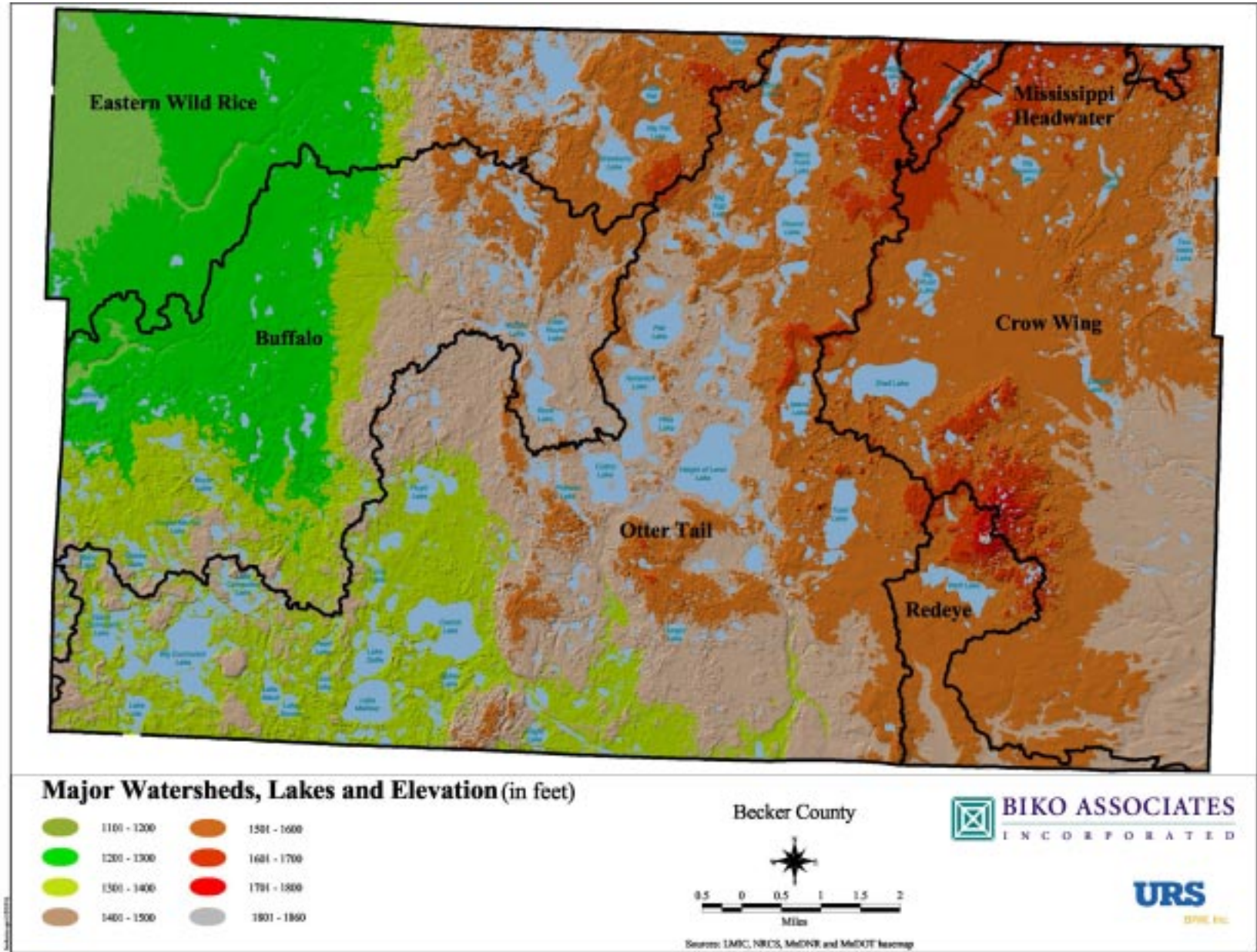
Substantial areas of glacial outwash sediments are found in the eastern and southern portions of the county. An additional small amount of outwash sediment is found in the north central part. These areas were deposited during the time of the glacial recession by melt waters of the glacier. They are characteristically flat with gentle slope in the direction of the runoff.

The remaining basic land form in the county is the glacial till plains. Areas of till plain are found in the extreme southeastern corner and from Highway 59 westward north of the Buffalo River. This land form is generally rolling, having local relief generally not in excess of 50 feet and contains soils which have a high clay content.

The Comprehensive Local Water Plan notes the highest elevation in Becker County to be at 1,850 feet and is located in Wolf Lake Township in the southeastern part of the County. The lowest elevation is about 1,150 feet and is located in Walworth Township in the northwest part of the county.

The following map shows the transitions in topography and the distinct drainage patterns in Becker County. A continental divide follows the boundary of the Otter Tail and Crow Wing watersheds, with westerly watersheds draining north, and the easterly watershed draining south through the Mississippi River.

Figure 23
Major Watersheds, Elevations



Soils

The Becker County Comprehensive Local Water Plan (CLWP) describes the soils survey for Becker County, breaking the soil types into 14 groups. The categories describe soils, relief, and drainage that allows an assessment of large areas for different general land uses. A brief description of each group is provided in an appendix to this section.

The Natural Resources Conservation Service (NRCS) has recently completed digitizing soils data for the entire County. The digitized data can now be used in conjunction with other variables for more precise analysis of development potential, natural resource risk, and natural resource protection priorities.

Mineral Resources

Becker County is net exporter of aggregate, primarily to other nearby counties for road maintenance and construction projects. The aggregate resource is becoming more important, as aggregate reserves are depleted or covered in areas experiencing heavy development pressure. With fairly large aggregate reserves, Becker County can be reasonably protected from a shortage of aggregate for its own needs, and can look to the aggregate as an economic resource with increasing value.

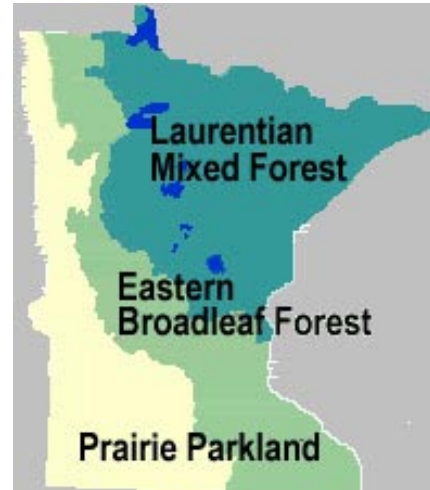
The 1970 Comprehensive Plan similarly noted the importance of the County's mineral resources:

Large, marketable deposits of sand and gravel occur primarily in the outwash plains in the eastern, southern and north central parts of the county. The demand for this sand and gravel is enhanced due to the lack of merchantable quantities in areas further to the west.

A number of environmental issues are associated with aggregate mining, largely due to historic mining procedures and inappropriate buffering from residential and some commercial land uses. Aggregate mining has created pits and overburden piles in those areas of the County with significant aggregate resources. Becker County now requires all mining operations to file a Mining Plan, an Operations Plan, and a Reclamation Plan. The Minnesota Pollution Control Agency (PCA) requires new or reopened pits of 40 acres to complete an Environmental Assessment Worksheet, and pits of more than 160 acres to complete a detailed Environmental Impact Statement.

Land Cover

As with other natural resources, Becker County lies in a significant land cover transitional zone. The Department of Natural Resources identifies three primary landscapes in Minnesota as part of its Ecological Classification System (ECS); Prairie Parkland; Eastern Broadleaf Forest; and Laurentian Mixed forest. Becker County includes portions of all three major classifications.



Source: MnDNR

The northwestern part of the County, the Red River Valley sub-class of the Prairie Parkland biome, had a tallgrass prairie environment prior to the European settlement of the area and the start of extensive farming. The open landscape is now nearly double its original size due to clearing and draining for agricultural purposes.

Through the center of the County on a north-south axis is a belt of predominately deciduous forest, the hardwood hills sub-class and landscape of the Eastern Broadleaf Forest. The vegetation is composed primarily of maple-birch forest, although some oak-hickory and aspen-birch stands may also be found. This landscape includes the majority of the County's lakes, and the most rugged terrain.

The eastern portion of the County lies in the Laurentian Mixed Forest biome. The sub-class in Becker County is the pine moraines and outwash plains landscape. Aspen/birch and spruce/fir are the dominant forest types. Lakes and wetlands are less frequent than in the hardwood hills landscape, but still provide substantial recreational opportunities and support significant habitat.

According to the data from the Minnesota Land Management Information Center (LMIC) forests presently occupy 39 percent of the County's land area. Large stands of timber are located in the north central and northeastern parts of Becker County. Cultivated land comprises a third of the County's land cover, with pasture and grassland covering an additional 10%.

Land Cover Type	Count	Acres	% of Total
Forested	1,624,792	361,191	39%
Cultivated Land	1,358,787	302,058	33%
Hay/Pasture/Grassland	435,407	96,791	10%
Water	383,354	85,220	9%
Bog/Marsh/Fen	216,274	48,078	5%
Brushland	73,456	16,329	2%
Urban & Rural Developed	64,117	14,253	2%
Mining	3,775	839	0%
Totals	4,159,962	924,759	100%

Figure 24
Ecological Biomes

Source: Minnesota Land Management Information Center (LMIC)

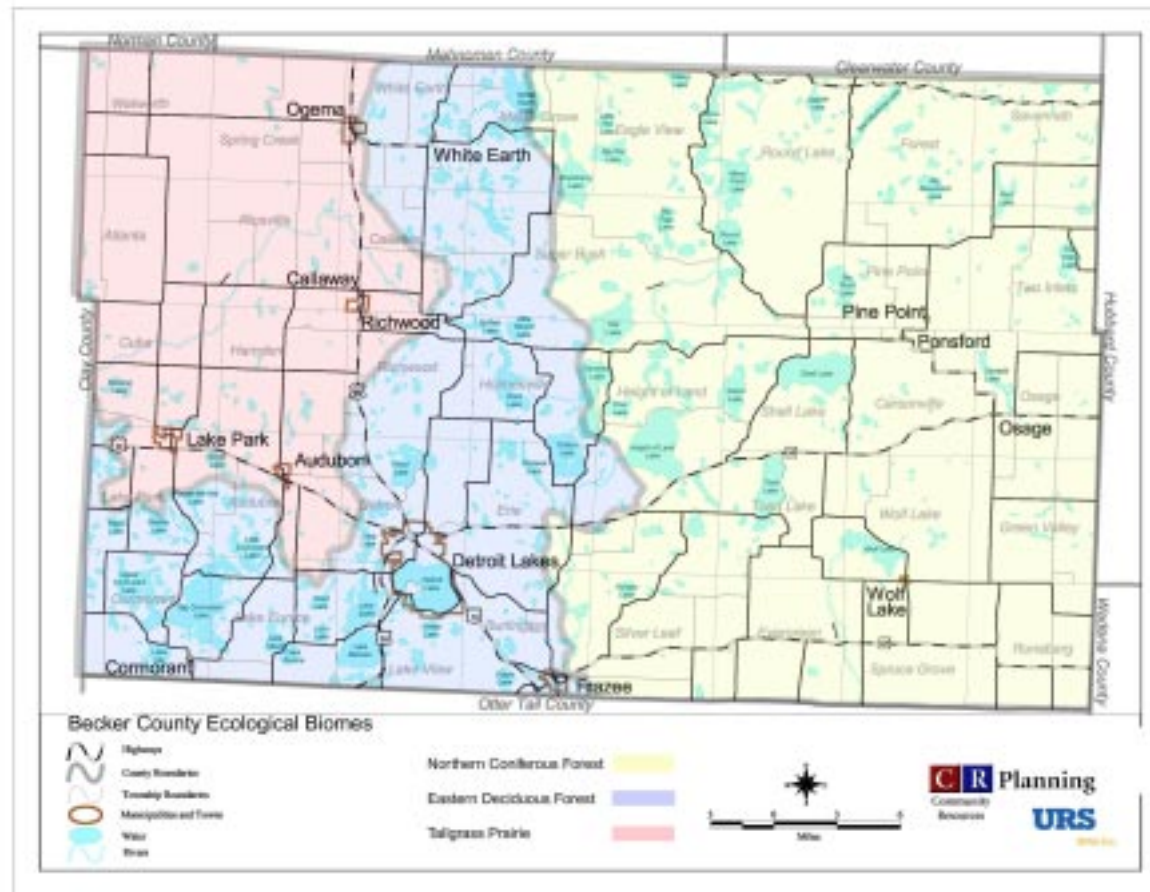
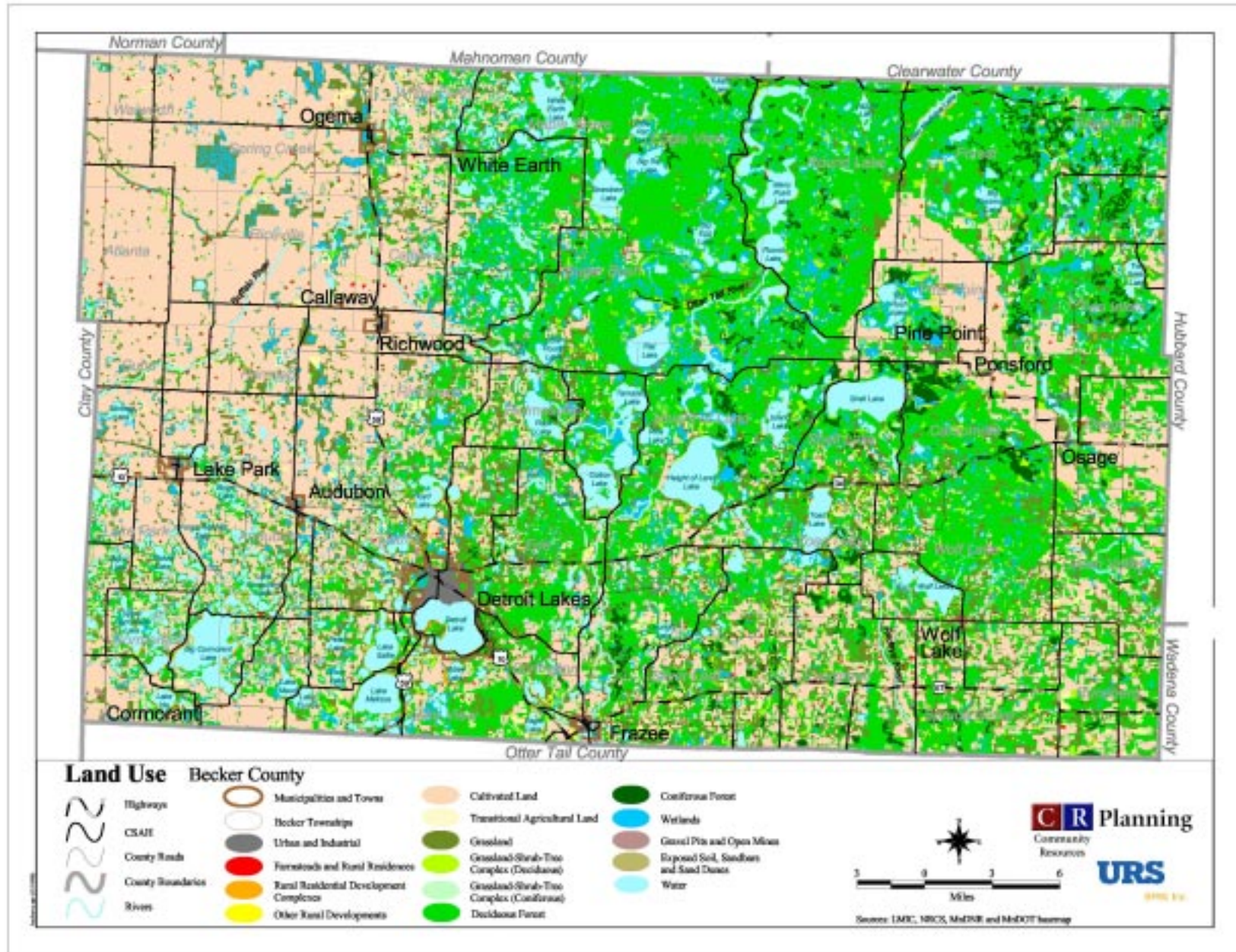


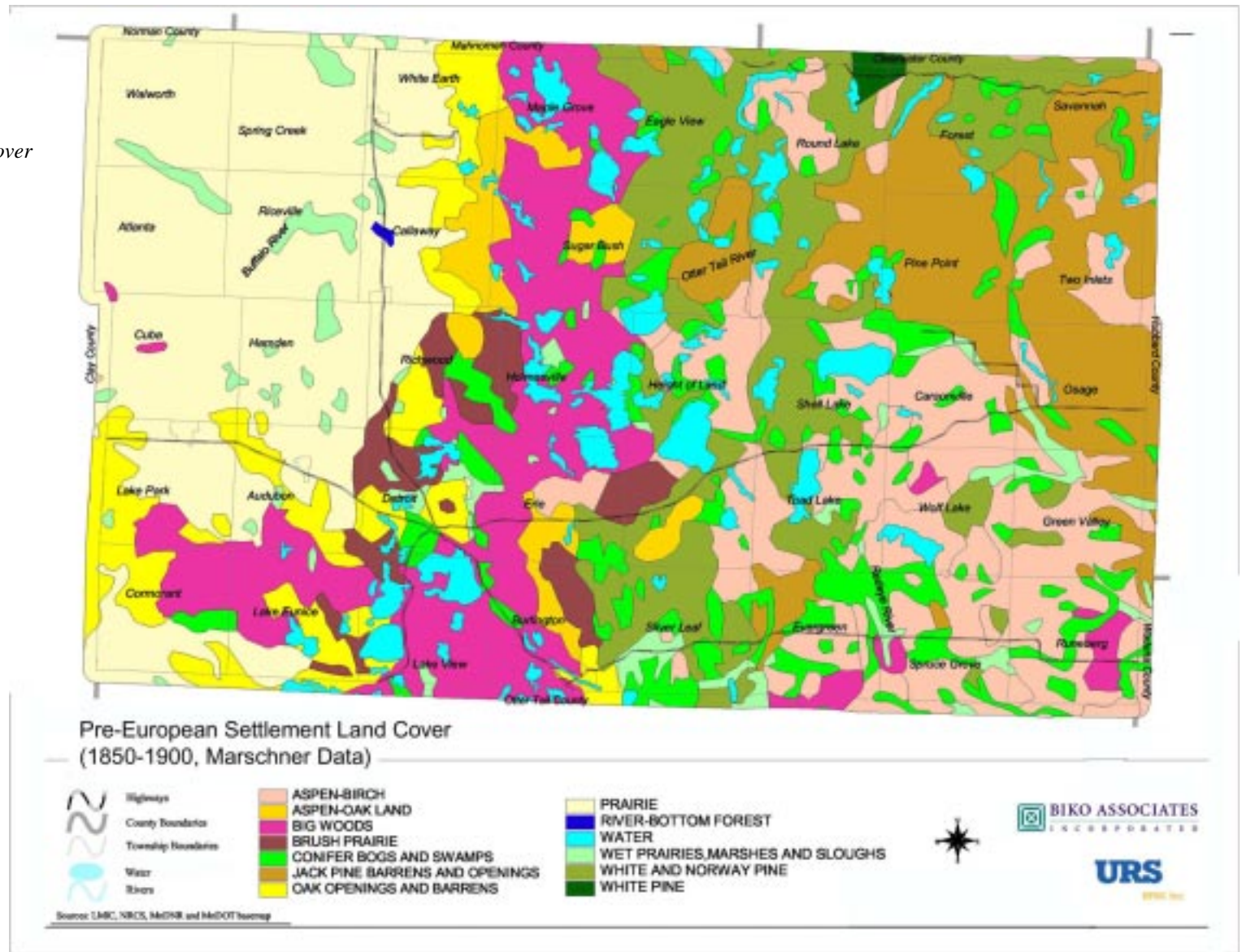
Figure 25
Land Cover



The historic (pre-settlement) land cover in Becker County is shown below. The three distinct ecological classifications are readily apparent in the pre-settlement land cover, with prairie along the Red River Valley, hardwood

forests through the center of the County, and mixed pine and hardwoods in the moraine and outflow areas in the west.

Figure 26
Pre-Settlement Landcover



Forest Management¹

Becker County has over 360,000 acres of forestland, much of it in public control, but including substantial private woodlands as well. Proper forest management helps contribute to the long-term sustainability of forested lands by taking into account the resource needs, public priorities, site capabilities, current regulations, and economics. The forests of Becker County provide a source of income to area loggers and mill operators, as well as providing the raw materials needed for growing communities. These lands also provide a range of public recreation opportunities, wildlife habitat, and tourism resources.

The Becker County Natural Resources Management Office manages nearly 74,000 acres of tax-forfeited lands. Approximately 80 percent is considered commercial forestland or land capable of producing a crop of forest products. Of the 74,000 acres, 36,000 acres (nearly 49 percent) is primarily aspen cover type. Northern hardwoods comprise almost 12 percent, and wet soils areas comprise nearly 17 percent of the total; the remaining 22 percent consists of various individual cover types.

Forest managers strive to create what is known as a fully regulated forest, meaning that all age classes for a particular forest cover type contain roughly the same number of acres. Aspen harvests, the primary revenue producing species in Becker County, are being adjusted to meet a goal of long-term sustainability and diversity for the County's forests.

Aspen is considered a pioneer tree species, meaning that it will quickly invade open areas following a major disturbance, such as a fire or major harvesting. The Becker County has improved the management of its aspen stands, with a goal of long-term sustainability and diversity of Becker County forests. Historic aspen harvesting exceeded sustainable levels in the early '80s. Aspen harvests will continue to decline for twenty years until better balancing of age classes can sustain more aggressive harvests.

Timber Sales by Year												
Becker County Natural Resources Management												
Sawlogs		Sawbolts		Pulpwood/Posts		Mixed Products		Fuelwood		Value of all Products		
Total MBF	Total Value	Total Cords	Total Value	Total Cords	Total Value	Total Cords	Total Value	Total Cords	Total Value	Total Cords	Total Value	Total Value
1999	111	\$13,007	109	\$5,542	581	\$3,942	5,892	\$151,767				\$174,258
1998	88	\$13,534	187	\$6,662	906	\$5,391	6,909	\$176,888		8,174		\$202,475
1997	126	\$15,732	457	\$18,782	2,964	\$11,203	19,873	\$177,487	30	\$120		\$223,324
1996	306	\$6,063	120	\$1,646	33,215	\$190,626	100	\$ 100	25	\$100		\$198,536
1995	74	\$7,490	394	\$16,056	29,509	\$279,790	150	\$ 150	375	\$1,400		\$304,886
1994	74	\$10,213	1	\$32	12,308	\$197,330	150	\$ 150	49,035	\$2,065		\$209,790
1993	50	\$4,727	58	\$2,025	4,403	\$34,575	13,330	\$ 94,701	309	\$362		\$136,390
1992	740	\$60,195	1,270	\$26,096	8,220	\$38,694	27,875	\$139,630	1,946	\$9,784		\$274,398
1991	977	\$63,632	1,471	\$23,274	10,326	\$46,911	22,131	\$106,118	1,239	\$5,736		\$245,671
1990	1,170	\$68,225	2,268	\$34,148	18,981	\$84,355	14,793	\$ 60,378		\$0		\$247,106
Total	3,715	\$262,819	6,335	\$134,262	121,414	\$892,817	111,203	\$907,369	61,133	\$19,567		\$2,216,834
Average	371	\$26,282	633	\$13,426	12,141	\$89,282	11,120	\$90,737	7,642	\$2,446		\$222,173

¹ The Becker County Natural Resources Management Office
1999 Annual Report

Source: Becker County Natural Resource Management Office

Water Resources

Becker County is transversed by a continental divide, with the eastern third of the County contributing to the south-flowing Mississippi River basin, and the central, west, and southern County flowing into the Red River basin. The western portion of Becker County is drained by the Wild Rice, Buffalo and Otter Tail Rivers; these three rivers flow into the Red River Of the North. Eastern Becker County drains into the Crow Wing and Redeye, and Mississippi Headwaters watersheds that flow into the Mississippi River drainage basin.

The 1970 Becker County Comprehensive Plan noted that despite the existence of these major streams, the topography prevents good drainage over a substantial portion of the county. Approximately 14 percent of the County's surface area is lakes, swamps and bogs. The majority of the lakes lie in basins and low places in the moraine areas. While the land is poorly drained, and unsuitable for general development or agriculture, the lakes, swamps and bogs provide recreation, substantial waterfowl nesting places and wildlife habitat, and the basis for much of the County tourism resources.

Maximum runoff generally occurs in the spring and early summer. Flooding is generally not a major problem, although periodic high-peak flows do occur and can cause damage to public infrastructure and to agricultural production.

Surface Water

Open waters, rivers, streams and swamps account for 14% of Becker County's total surface area. Lakes and wetland areas provide the resource for the County's tourism and recreation industry, and contribute to the high quality of life for residents.

According to LMIC land cover information, lakes cover approximately nine percent of the County, higher than the average in Minnesota (6.5 percent) but lower than the other counties in the lakes region. The 1970 Comprehensive Plan identified a total of 510 lakes of 20 acres or larger in the county. These lakes are located in the depressions in the moraine topography; the lakes are often quite deep with good water qualities.

The County has a good quality and quantity of surface. Some lakes with historically troubled water quality are improving. However, some water quality concerns do exist, as demonstrated by algae problems and other

symptoms of poor water quality in the lakes near Detroit Lakes. Many of these water quality problems result from, as noted in the County Water Plan, the historic use of Lake St. Clair for sewage discharge, and the downstream problems in Lake Sallie (via Ditch #14). Non-point sources of pollution from development around these lakes and in its watershed also contribute to problems. Non-point pollution from stormwater runoff is recognized to have substantial impacts on lakes that are much less developed than those within and near to Detroit Lakes.

Some lakes have also been improving in response to management efforts. The Pelican River Watershed District notes that both Long Lake and Little Detroit Lake are showing signs of greater clarity, less frequent algae problems, and improvement in other water quality indicators.

The Pollution Control Agency has compiled a summary of water quality information for lakes across Minnesota, in cooperation with local agencies, volunteers, and government staff. Basic information by lake, and trends in some water quality measures such as clarity (secchi disk) are available on the PCA website. A list of lakes included on the PCA website is provided in the appendix to this section. An example of the data is shown below.

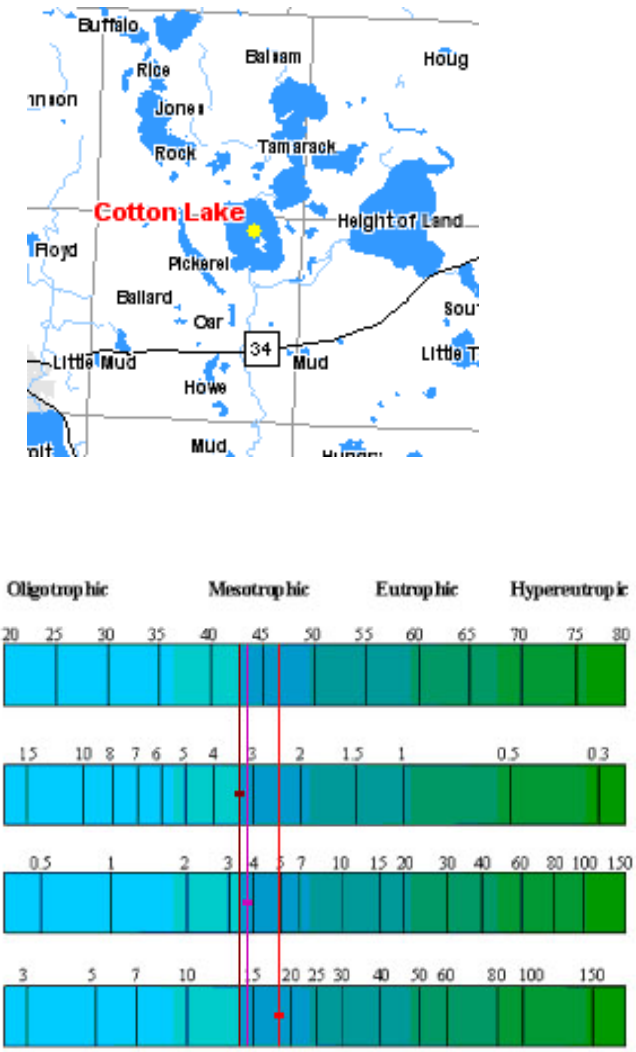
Lake Location Information

Cotton Lake
[DNR Lake ID number](#): 03-0286
 County: **BECKER**
 Location from nearest town: **7 MINE OF DETROIT LKS**
 This lake has a total surface area of **1668** acres and has a maximum depth of **25** feet. Cotton Lake is located in the **CHF**, North Central Hardwood Forest ecoregion and the **RRB**, Red River, river basin.
 Swimming is [Fully Supported](#).

	degrees minutes seconds	decimal degrees
Latitude	465303	46.88417
Longitude	954150	-95.69722
	X	Y
UTM	294480	5195821

Development in recent years is putting increasing pressure on many lakes in the County, although carrying capacities have generally not been exceeded. Some lakes are accumulating nitrates and phosphates, which in turn increases the amount of a variety of aquatic plant life. This, in conjunction with the persistent accumulation of silt and sedimentation from non-point source pollution, is beginning to degrade some lakes. Sources of pollution include underground storage tanks, abandoned wells, animal waste and chemicals and fertilizers, and a variety of pollutants associated with stormwater runoff.

Figure 27
DNR Lake Quality Indicators



Poor management of stormwater also has degrading effects on water quality other than carrying pollutants. When impervious surface areas in a single watershed exceed 10% of total land area, water quality has probably been compromised to the point of seeing measurable change in the watershed's eco-system. Even if pollutants are not considered, adding impervious surface area to a watershed increases the volume of water, the temperature of the water, and the velocity of water in water courses. These effects increase sedimentation, decrease the effectiveness of natural pollution mitigation systems, and can significantly alter the ecology of a given watershed.

The County, the City of Detroit Lakes, the Watershed Districts, and the Soil and Water Conservation District all have programs and monitoring in place to minimize or mitigate the impact of development on surface water. Federal regulations are also in the process of changing in order to address smaller marginal changes in stormwater patterns. By 2003, the National Pollution Discharge Elimination System (NPDES) phase II standards will go into effect, requiring both erosion/sediment control plans and stormwater pollution prevention plans for any land disturbance greater than 1 acre. Phase I standards had required such plans only for disturbances of greater than 5 acres.

Water Usage

Reported water use² in Becker County in 1996³ was 10.3 million gallons of surface water and 2,159.9 million gallons of groundwater. For 1997⁴, the figures were 11.4 and 1,996.9 million gallons, respectively (DNR, p. 74.)

The effect of irrigation on water flow and the capacity of the County's water resources has not been a major concern in the past. The expansion of irrigated acres in the eastern and southwestern parts of the County has, however, raised some concerns, particularly for the Straight River, a significant trout stream in the east central portion of the County. Becker County imposed a three-year moratorium on new irrigation permits in a portion of the Straight River Watershed until a study could determine the impacts of irrigation withdrawals on the Straight River.

² Years is the period for which data are available. Source: Water Year Data Summary, 1997 and 1998 Minnesota Department of Natural Resources, Waters, December 1999, p 36.

³ Water Year 1996: October 1, 1996 to September 30, 1997.

⁴ Water Year 1997: October 1, 1997 to September 30, 1998.

Lake Levels

The water levels of all lakes fluctuate, some more than others. The primary factor that affects water levels changes is the quantity and distribution of rain and snow. Minnesota lakes typically fluctuate one to two vertical feet in a given year, but historical fluctuations have been recorded in excess of 10 feet. 1997 saw a statewide average lake fluctuation of 1.55 feet, which corresponds to the above-normal precipitation received during the year. In contrast, 1998 had an average lake fluctuation of 1.04 feet. Some lakes, furthermore, have control structures to regulate lake levels and outlet water flow. In 1998 Becker County lakes fluctuated between 4 inches (Straight Lake) and 3.5 feet (Talak Lake). A table showing annual lake level fluctuation for selected Becker County lakes is provided in the appendix.

Groundwater

Becker County has an abundant and high quality groundwater resource in its surficial and buried drift aquifers. Since the first Comprehensive Local Water Plan, well-water testing clinics have been conducted throughout the County. No significant numbers of high-nitrate-level wells have been found; however, elevated nitrate levels have been noted in the Pineland Sands Area in eastern Becker County. The Water Plan identifies abandoned wells, nonconforming septic systems and future areas of irrigation as areas of concern for groundwater quality.

Parks, Recreation, and Wildlife

Becker County has an abundance of parks, recreation areas, and wildlife refuge areas that serve a variety of functions, sustaining both the natural environment and the needs and interests of the County's residents, visitors, and businesses. The County is host to two national wildlife refuges; the Tamarac National Wildlife Refuge in the center of the County covers almost 43,000 acres, and the Hamden Slough Refuge in the west-central portion of the County currently encompasses another 3,000 acres. The U.S. Fish and Wildlife Service also has a number of small wildlife management areas throughout the County. The County also hosts three state forests, Smokey Hills, White Earth, and Two Inlets State Forests, and a small portion of Itasca State Park in the northeastern edge of the County.

The County Natural Resources Department managed 74,000 acres of tax forfeit lands for a variety of purposes, including recreation, wildlife habitat,

and timber and pulpwood. In addition to the public lands, the County also helps maintain approximately 200 miles of snowmobile trails, boat or public access to 17 lakes, and ten parks and picnic areas.

The County Parks and Recreation Board conducted a long range planning exercise in 1999. The Board adopted the following goals, in order of priority:

- The Parks Department will increase outside contracting for services;
- The Parks Department will work to establish permanent easements for winter trails by meeting with legislators;
- The Parks Department will continue to manage the County's winter trails and will work with the Natural Resources Office to establish hunter, walking, and historical/interpretive trails;
- The Parks Department will upgrade its public accesses;
- The Parks Department will fully evaluate its equipment needs;
- The Parks Department will work to establish area bicycle trails;
- The Parks Department will maintain current staffing levels;
- The Parks Department will work with local clubs to assist in the establishment of local ATV Trails

Wildlife

The Comprehensive Local Water Plan included an assessment of fish and wildlife habitat in Becker County. The CLWP noted that the County has four natural walleye lakes (Big Cormorant, Big Elbow, Island, and White Earth). The DNR stocks walleye in approximately 25 other lakes in the County. Other fish species include largemouth bass, panfish, and northern pike. The Straight River is the County's primary trout stream, although several other waterways are designated trout streams. Rainbow and brown trout are stocked in three lakes (Bad Medicine, Hanson, and Meadow Lake).

A wide variety of wildlife is found in the County's three distinct ecological systems. The Prairie landscape still provides habitat for prairie chickens and a wide variety of waterfowl, in spite of the ditching and cultivation of the Red River valley. The hardwood hills landscape through the center of the County provides substantial habitat for whitetail deer, a variety of birds, and many smaller mammals. The pine moraines landscape in eastern Becker County similarly provides habitat for a variety of small mammals, and for large animals including deer, moose, wolves, and bear.

The diverse wildlife and ecological systems in the County sustain the tourist and recreational economy, and enhance the quality of life for County residents. Sustainable management of Becker County's diverse landscapes is a primary goal of several governmental agencies (DNR, Soil and Water Conservation Districts, Watershed Districts, County Natural Resources), non-profit organizations, and business associations.

NATURAL RESOURCES REGULATION AND PROGRAMS

Watershed Districts

There are at least portions of six watersheds within the County, three of which (Crow Wing, Red Eye, and Mississippi) drain into the Mississippi River basin in the eastern part of the County. The remaining three cover most of the County, and include the Buffalo, Otter Tail and Wild Rice watersheds, which drain into the Red River basin. Four watershed districts cover approximately 70% of the County. The four watershed districts include the following:

- Pelican River District
- Wild Rice District
- Buffalo-Red District
- Cormorant District

The rules for each watershed district may be found on the website for the Minnesota Board of Water & Soil Resources (www.bwsr.state.mn.us).

Watershed districts are special purpose local units of government whose boundaries follow those of a natural watershed (an area in which all water drains to one point). Minnesota has 42 watershed districts, most of which are named after the primary lake or river within the watershed. Unlike some local units of government, such as counties or soil and water conservation districts, Minnesota's watershed districts do not cover the entire state. Minnesota Statutes 103D is the enabling statute for watershed districts.

The Minnesota Legislature authorized the creation of watershed districts in 1955 with the idea that managing water on a watershed basis—rather than on the basis of political boundaries—made sense, since water does not stop flowing at city or county boundaries. Watershed management allows for consideration of all the factors that contribute to the condition of a given stream or lake, and provides the opportunity for all people within the watershed to work together.

Each watershed district is run by a board of managers appointed by the county boards with jurisdiction in the watershed district. Each watershed district is also required to have a citizens advisory committee to provide input to the managers on projects and activities. Many watershed districts have paid, full-time staff; others rely on contract employees, primarily for engineering and legal services.

Watershed districts adopt watershed management plans and work toward achieving the goals set out in those plans. Watershed district projects and activities include:

- construction of flood control structures;
- assuming responsibility as the local drainage authority, and as such, improving or repairing public drainage systems;
- controlling lake levels; and
- water quality projects, such as weed harvesting, providing assistance for septic system improvements, and construction of storm water treatment ponds and sediment basins.

These projects are funded through the watershed district's taxing authority and, for projects initiated by citizen petitions, by special assessments.

Source: Board of Water and Soil Resources Web Page

Becker County Comprehensive Local Water Plan

The first Comprehensive Local Water Plan (CLWP) was developed in 1990 by the Becker County Soil and Water Conservation District. The District's 1997 update focused on nearly 20 resource areas that could experience changes during the 1997-2000 period.

The purposes of the CLWP:

1. Identify existing and potential problems or opportunities for protection, management and development of water resources and related land resources in the county.
2. Develop and implement a plan of action to promote hydrologic management of water and related land resources in the county.
3. Work toward effective environmental management in the county.

Water Plan Implementation Summary, 1991-1995

Becker County has an abundance of surface water resources. Following is a summary of the initiatives carried out through the first years of the CLWP to protect water resources:

Septic System Inventory

In an effort to determine the status of septic systems within shoreland areas, the County developed a program to inventory shoreland properties for compliance with septic system regulations. The following Table shows the percentage of septic systems within lake shoreland areas failing to meet standards. The County's effort identified significant septic maintenance problems in almost every lake surveyed. The number of septic system problems, however, declined significantly after owners were notified of problems. As can be seen in the table, percentage of failing systems has dropped considerably between 1994-95 and the Year 2000.

BECKER COUNTY ENVIRONMENTAL SERVICES Percentage of Septic Systems Nonconforming/Failing Annually

	1994/95	1996	1997	1998	1999	2000	% Change
	%	%	%	%	%	%	
White Earth Lake	56	45	20	14	5	3	-95%
Tulaby Lake	25	11	9	2	1	0	-100%
Big Toad Lake	37	22	11	6	1	1	-97%
Straight Lake	61	20	4	2	1	1	-98%
Round Lake	52	19	9	8	3	3	-94%
Middle Cormorant Lake Eunice	27	10	4	3	1	1	-96%
Lake Eunice	0	0	0	0	0	0	N/A
Island Lake	22	8	5	3	1	0	-100%
Big Floyd Lake	26	20	17	17	15	5	-81%
Big Elbow Lake	45	21	14	14	6	6	-87%
Cotton Lake	22	9	5	1	1	1	-95%
Buffalo Lake	21	4	4	4	1	1	-95%
Bad Medicine Lake	0	0	0	0	0	0	N/A
Little Bemidji Lake	33	33	12	0	0	0	-100%
Big Sugar Bush Lake		35	17	11	7	4	-89%
Leif Lake		37	26	8	3	3	-92%
Upper Cormorant Lake		35	27	11	6	4	-89%
Little Cormorant Lake			14		7	3	-79%
Height of Land Lake				26	26	20	-23%
Little Toad Lake				44	44	37	-16%
Long Lake					18	8	-56%
Maud Lake					27	26	-4%
Lake 6						0	N/A

*nonconforming or undetermined

Lake Water Quality Monitoring

According to the Water Plan, trophic level testing has been in place since 1993 for 30 lakes. The results show trophic indexes in the County's lakes ranging from the low 30s to the low 50s (scale of 0 to 100, with lower scores indicating improved water quality).

Agricultural Waste Holding Pond Inventory

An inventory conducted in 1994-95 showed that there were 174 such facilities.

Groundwater Resource Initiatives

In an effort to protect this resource, several initiatives were undertaken during the development of the first CLWP. These include the Pineland Clean Water Project (1992-1994), the Abandoned Well Sealing Program (1993), and Well Water Testing Clinic (1995).

Land Resources Initiatives

In 1994 Becker County held its first empty pesticide container collection to give pesticide users an opportunity to recycle empty pesticide containers. Pesticide-container recycling between 1994 and 1996 resulted in nearly 5,000 containers collected. Becker County was one of several Northwestern Minnesota Counties to take part in a waste pesticide collection and disposal program in early 1994. This effort resulted in some 2,042 pounds of pesticides brought to a central collection area. A similar effort in 1996 resulted in the collection of 2,069 pounds of pesticide.

Two educational and informational initiatives in the mid-1990s, the “Water Watch” program (1993-96) and the Envirothon Program (1995) help inform and involve county residents in the protection of the county’s natural resources.

Future Changes

The Water Plan noted four areas of concerns about the County’s water resources: 1) wellhead protection; 2) sensitive groundwater areas; 3) high priority wetlands; and 4) stormwater management.

An action plan with specific implementation activities, timetables and designated responsible parties (state and local) is included in the plan. The plan does not consider significant changes in the County’s primary land uses (agriculture, forestry and recreation).

Becker County Water Plan Goals and Objectives	
Goal:	Protect and improve the surface water quality in the county.
Objective:	Protect and enhance the surface water of Becker County through enforcement of existing regulations, use of existing programs and development of new programs.
Goal:	Protect and preserve groundwater quality in the county.
Objective:	Enhance the county groundwater resources and protect them from contamination.
Goal:	Remedy surface water drainage in the county.
Objective:	Enforce existing regulations concerning the ditch system.
Goal:	Control the disposal of chemical and hazardous waste in the county.
Objective:	Control disposal of all solid waste in the county through educational programs and regulation.
Goal:	Reduce soil erosion in the county.
Objectives:	Reduce erosion impacts in the county.
Goal:	Encourage development of land for wildlife habitat.
Objective:	Increase wildlife habitat in the county.

Source: Becker County 1997 Comprehensive Local Water Plan

Soil Classes in Becker County

1. Hamerly-Winger-Vallers Association: Nearly level to moderately steep, well drained to somewhat poorly and poorly drained soils that formed in glacial till and glacial lacustrine sediments on ground moraines.
2. Formdale-Langhie-Lom Association: Nearly level to moderately steep, well drained and poorly drained soils formed in glacial till on ground moraines and lateral moraines.
3. Barnes-Langhie-Vallers Association: Nearly level to moderately steep, well drained and poorly drained soils formed in glacial till on ground moraines and lateral moraines.
4. Waukon-Forman-Cathro Association: Nearly level to moderately steep, well drained and poorly drained soils formed in glacial till and organic deposits on lateral moraines.
5. Nebish-Seelyeville Association: Nearly level to moderately steep, well drained and very poorly drained soils formed in glacial till and organic deposits on lateral moraines.
6. Birchlake-Audubon-Foxlake Association: Nearly level to moderately steep, moderately well drained and poorly drained soils formed in glacial till on lateral moraines.
7. Naytahwaush-Seelyeville Association: Nearly level to moderately steep, well drained and very poorly drained soils formed in glacial till and organic deposits on lateral moraines.
8. Blowers-Paddock-Rockwood Association: Nearly level to moderately steep, well drained, moderately well drained and poorly drained soils formed in dense glacial till on drumlins.
9. Snellman-Rifle-Sugarbush Association: Nearly level to steep, well drained, well drained and poorly drained soils formed in dense glacial till, glacial outwash and organic deposits on end moraines.
10. Sol-Lumpton-Sugarbush Association: Nearly level to moderately steep, well drained, well drained and very poorly drained soils formed in glacial till, glacial outwash and organic deposits on end moraines.
11. Eagleview-Seelyeville-Snellman Association: Nearly level to moderately steep, somewhat excessively drained, well drained and very poorly drained soils formed in dense glacial outwash, glacial till and organic deposits on ground moraines.
12. Arvilla-Sandberg Association: Gently sloping to moderately steep, somewhat excessively drained and excessively, well drained soils formed in glacial outwash on outwash plains and valley trains.
13. Verndale-Dorset-Corliss Association: Nearly level to steep, well drained soils formed in glacial outwash on outwash plains and valley trains.
14. Sugarbush-Graycalm-Two Inlets Association: Gently sloping to moderately steep, well drained and somewhat excessively drained soils formed in glacial outwash on outwash plains and valley trains.

Becker County

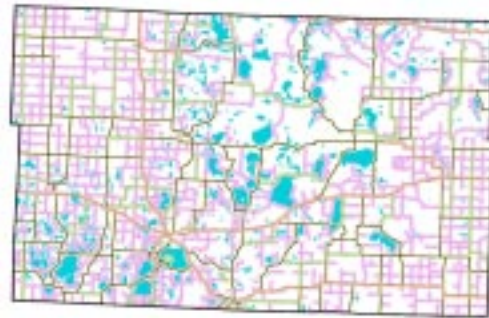
Annual Lake Level Fluctuation (feet)

Lake Name	WY 97	WY 98	WY Avg.	Years of Data
Bad Medicine	1.4	1.32	0.88	12
Big Cormorant	2.15	1.42	1.11	33
Big Sugar Bush	1.09	1.45	1.0	5
Buffalo	0.91	0.84	1.18	18
Detroit	1.5	1.3	0.96	21
Elbow	1.33	1.48	1.33	7
Eunice	0.84	0.88	0.65	8
Fox	0.22	0.46	0.25	6
Height of Land	1.36	1.6	1.54	41
Ida	0.54	0.96	0.99	11
Juggler	0.77	1.215	0.86	6
Little Floyd	1.43	1.3	1.06	16
Little Toad	0.48	0.99	0.65	5
Long	0.49	0.6	0.55	12
Maud	0.75	0.66	0.81	7
Melissa	1.36	1.57	1.07	23
Muskrat	1.2	1.02	0.9	26
Pickerel	1.61	1.2	0.98	7
Rock	1.6	1.5	1.18	4
Round	1	1.4	1.12	16
Sallie	2.1	1.5	1.26	31
Straight Lake	0.8	0.3	0.54	13
Talac	2.04	3.5	1.46	6
Toad	1.12	1.62	1.23	18
Turtle	0.93	1.08	1.01	2
Two Inlets	1.8	1.18	1.26	17
Upper Cormorant	2	1.69	1.09	23
White Earth	0.76	1.62	0.98	18

Pollution Control Agency Lake Water Quality Database

DNR Lake ID#	Lake Name	DNR Lake ID#	Lake Name
03-0010	Straight Lake	03-0357	Monson Lake
03-0017	Two inlets Lake	03-0358	Fox Lake
03-0029	Hungry man lakes	03-0359	Sallie Lake
03-0030	Boot Lake	03-0360	Muskrat Lake
03-0085	Bad medicine Lake	03-0363	Curfman Lake
03-0102	Shell Lake	03-0381	Detroit Lake
03-0107	Toad Lake	03-0382	St. clair Lake
03-0127	Bass Lake	03-0383	Long Lake
03-0134	Green water Lake	03-0386	Little floyd Lake
03-0136	Juggler Lake	03-0387	Floyd Lake
03-0153	Island Lake	03-0475	Melissa Lake
03-0155	Round Lake	03-0500	Maud Lake
03-0159	Elbow Lake	03-0503	Eunice Lake
03-0163	Lizzy Lake	03-0506	Little cormorant Lake
03-0180	North twin Lake	03-0575	Leif Lake
03-0189	Little toad Lake	03-0576	Big cormorant Lake
03-0195	Height of land Lake	03-0582	Ida Lake
03-0269	Five Lake	03-0588	Upper cormorant Lake
03-0273	Perch Lake	03-0595	Nelson Lake
03-0286	Cotton Lake	03-0602	Middle cormorant Lake
03-0287	Pickeral Lake	03-0619	Lee (talac) Lake
03-0291	Rice Lake	03-0638	Beseau Lake
03-0293	Rock Lake	03-0647	Stinking Lake
03-0304	Big sugar bush Lake	03-0657	Turtle Lake
03-0328	White earth Lake	03-0659	Sand(stump) Lake
03-0350	Buffalo Lake		

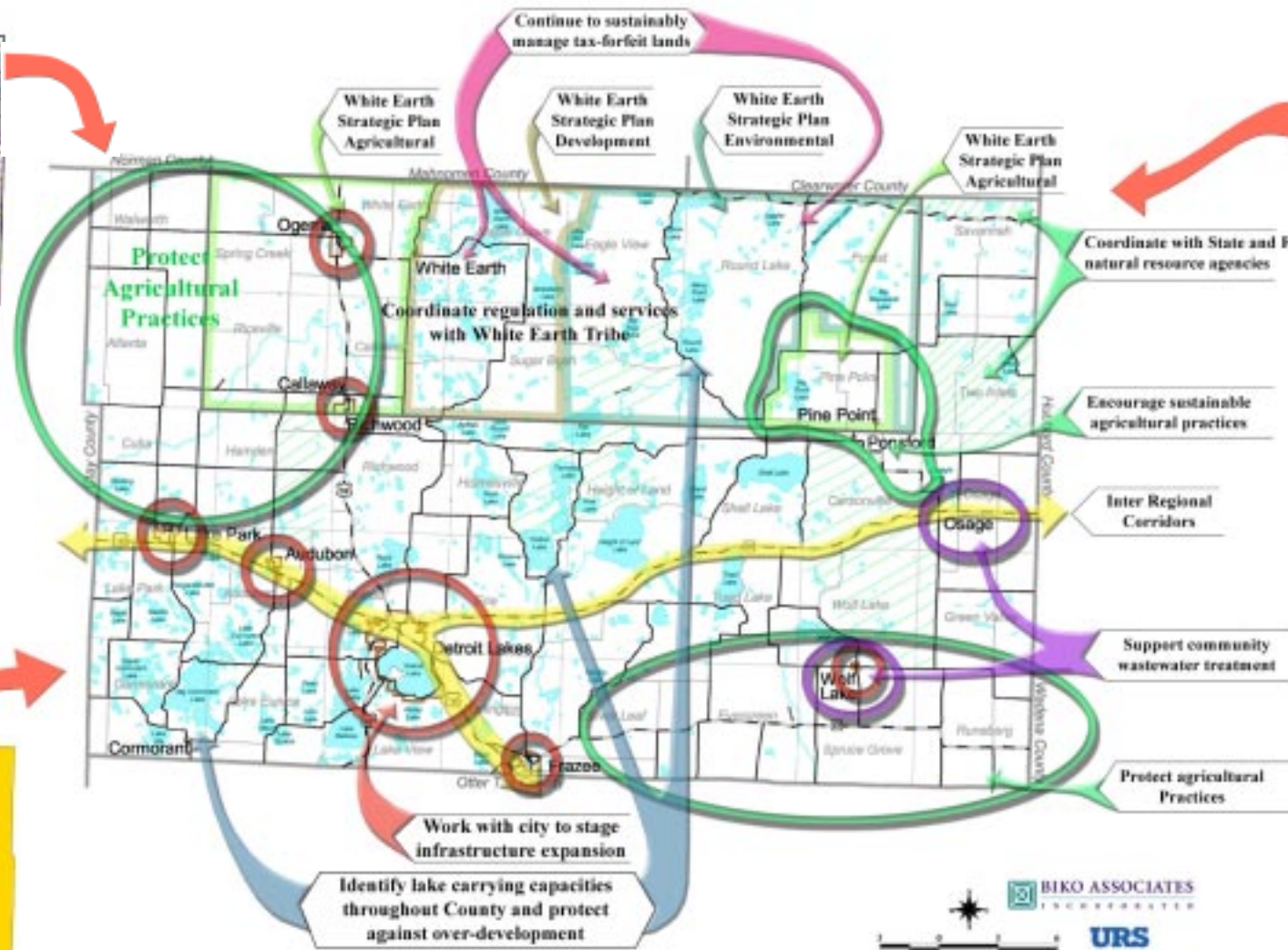
Goals and Policies



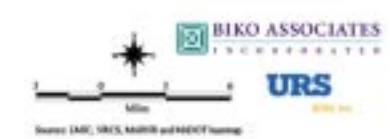
Create a County Road Classification System to guide investment and maintenance decisions



Recognize the County's three distinct ecological zones in resource management



Protect fish and wildlife habitat



Becker County Comprehensive Plan Structure

The structure of the Becker County Comprehensive Plan includes vision, goals, and policies. The Plan also includes priorities for implementation, recommending strategies that the Steering Committee believed to lead the County to its goals and vision. As noted earlier in the Plan, **Vision** statements present the grand result of the Plan, after successful implementation. **Goals** provide a more detailed description of the desired future condition toward which programs, activities, and decisions are directed. **Policies** are the strategic steps, or intermediate processes, required to reach the community's vision, often discussing particular strategies for implementing the goals. **Strategy priorities** are the Steering Committee's recommendation for short, middle, and long-term actions.

The Comprehensive Plan presents a vision, goals, and policies for five distinct issue areas:

- ❑ Rural and Shoreland Development;
- ❑ Economic Development,
- ❑ Natural Resources,
- ❑ Infrastructure, and
- ❑ Transportation.

The vision statements, goals and most of the policies should guide the County's land use, capital improvement, economic development, and inter-governmental cooperation decisions. These are general policies that reflect the concerns and hopes for stakeholders throughout Becker County.

Becker County is not, however, a uniform community. Residents, government officials, businesses, and other stakeholders noted that some goals may differ in their implementation depending on the region of the County and local characteristics. Many important geographic distinctions need to be realized in implementing the County's Plan. The Steering Committee has thus created four distinct policy districts in the County that allow recognize the County's natural resource, cultural, demographic, economic, and governmental distinctions.

Figure 29 on the following page shows the location of the policy districts. The district borders are approximate – they are not intended to demarcate sharp distinctions, but to recognize gradual changes over geographic regions.

On the following pages, the Plan presents vision, goals, and policies for each issue area. At the end of each set of policies, the Plan provides an example of how policies might be applied differently or with distinct priorities within each of the policy districts.

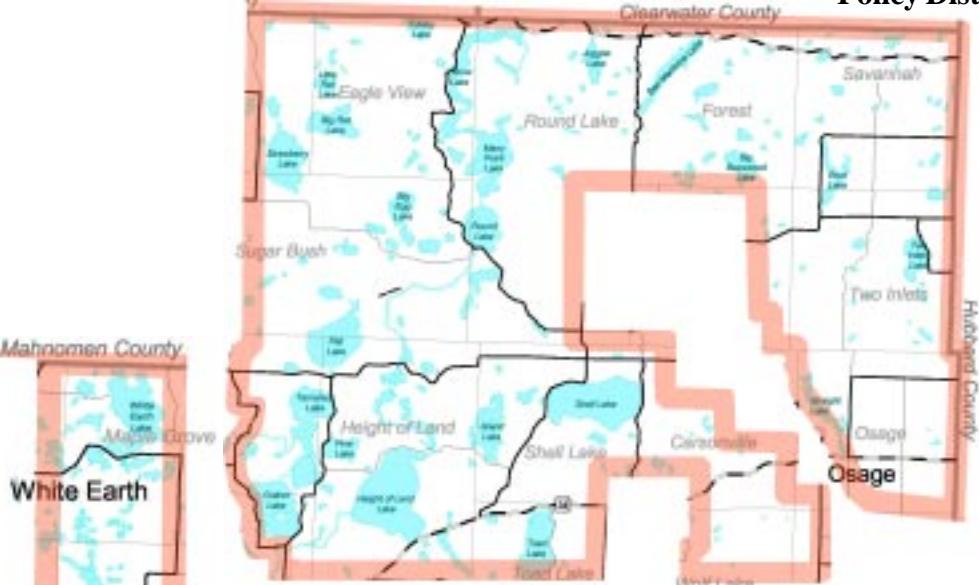
After presenting vision, goals, and policies, the Plan offers a separate section with strategic priorities for the County Board and staff to consider as they move into the implementation phase.

Figure 29 - Becker County Policy Districts

Becker County Land Use Policy Districts

Policy District 2

Policy District 4



Policy District 3



Policy District 1

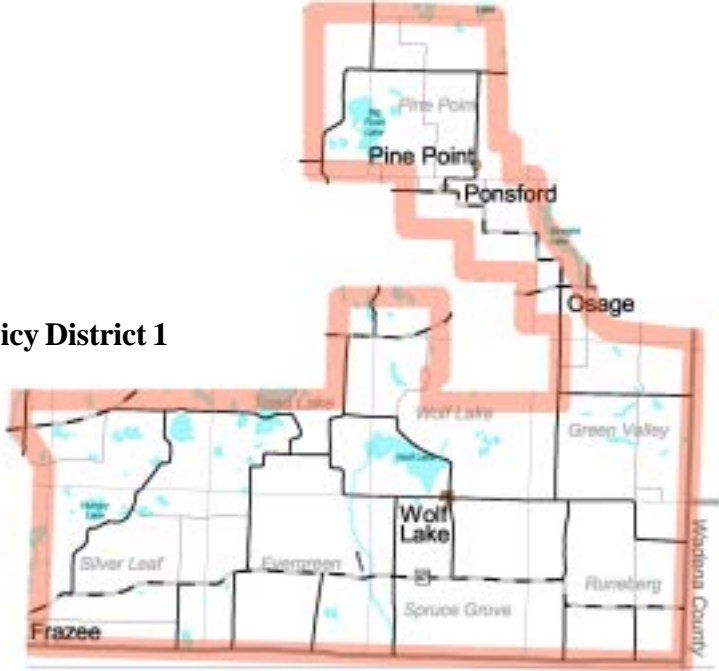
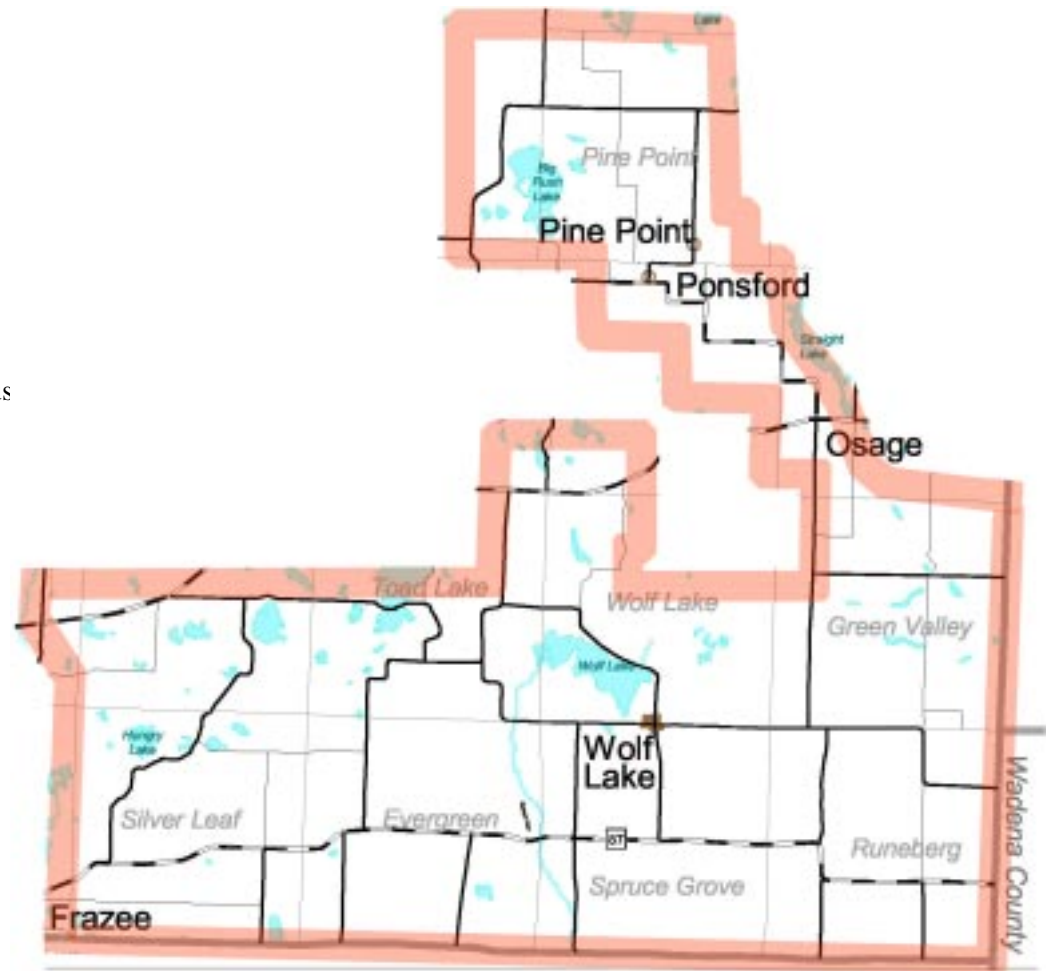


Figure 30 - Policy District One

Policy District 1

- One incorporated community (Wolf Lake)
- Significant agricultural infrastructure
- Low population density
- Prime agricultural soils
- Distinct ecological area (Northern Coniferous



Selected Policies

- ⇒ Develop an agriculture conservation program to guide County and township land use decisions.
- ⇒ Support existing agricultural industries and agricultural land uses.
- ⇒ Work with the City of Wolf Lake and townships to prioritize commercial and industrial development sites.
- ⇒ Promote development patterns that exceed minimum standards in the protection of agricultural practices, forests, and wetland functions.
- ⇒ Adopt rural development notification to provide nuisance complaint protection in agricultural areas.
- ⇒ Support large-lot or cluster requirements in township zoning in designated agricultural areas.
- ⇒ Recognize District 1's distinct ecological area in natural resource management efforts.
- ⇒ Promote environmentally sustainable use of the Ponsford Prairie agricultural area, to limit risk to ground water supplies, the Straight River and nearby lakes, and wetland areas.

Policy District 2

- Distinct ecological area (Northern Coniferous Forest)
- Low population density, but development pressure along eastern border, Highway 34 corridor, and undeveloped lakeshore
- No incorporated cities but several unincorporated communities
- Most of the White Earth Reservation
- Designated Inter-Regional Corridor (Hwy 34)
- Resorts and tourist-oriented development
- Most of the County-managed forest resources
- Tamarac National Wildlife Preserve, three State Forests

Selected Policies

- ⇒ Protect selected lakes by requiring larger lot sizes or designating special protection zones.
- ⇒ Encourage coordination among county, State, Federal, and Tribal efforts to sustain the County’s fish and wildlife habitat.
- ⇒ Support landscape approaches in forest and water management.
- ⇒ Educate private woodland owners on the value of sustainable management, and promote definable standards for management.
- ⇒ Require compliance with forest management standards in targeted riparian areas.
- ⇒ Manage County-managed forests for residents and visitors, for wood and fiber production, and for habitat.
- ⇒ Balance between the needs of regional traffic and scenic characteristics of roads.
- ⇒ Investigate new community water and wastewater systems in and around unincorporated communities.
- ⇒ Create incentive programs and improve enforcement to prevent dumping in undeveloped areas.

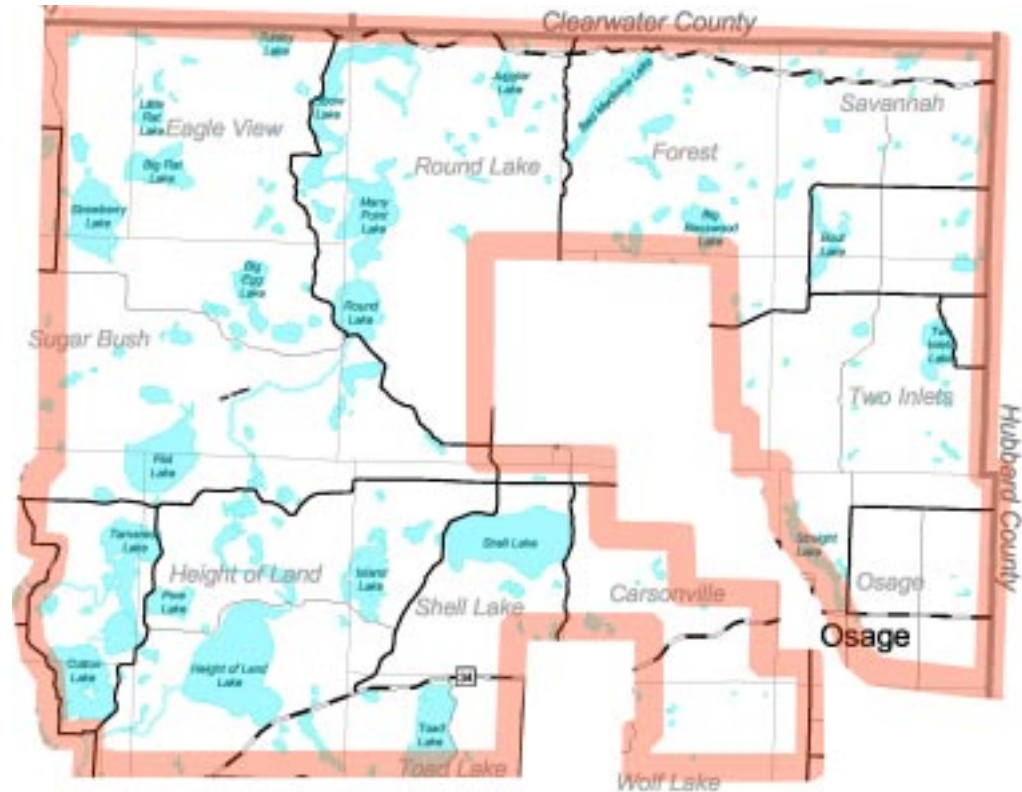


Figure 32 - Policy District Three

Policy District 3

- Economic and population center of the County (Detroit Lakes and Frazee)
- Significant resort and tourist-oriented development
- Most of the County's developed lakeshore
- Most of the County's population
- Distinct ecological area (Eastern Deciduous Forest)
- Includes parts of two Inter-Regional Corridors (Hwys 10 and 34)
- Designated development area in White Earth Strategic Plan

Selected Policies

- ⇒ Support locally-owned commercial businesses, and encourage businesses that provide services for a diversity of household types.
- ⇒ Continue targeted monitoring of shoreland septic systems. Encourage upgrading and repair.
- ⇒ Work with the Watershed Districts, cities, MnPCA, and MnDNR to prioritize strategies for watershed management. Develop a watershed-based stormwater/hydrology ordinance.
- ⇒ Work with the City of Detroit Lakes to encourage planned extension of infrastructure and create natural resource priorities in the City's 2-mile sphere of influence that meets local and regional growth objectives.
- ⇒ Support the efforts of Northwest Technical College, St. Mary's Regional Health Center, and other regional institutions, and encourage growth that is consistent with the County Comprehensive Plan.
- ⇒ Support the goals of the Community Housing Assessment Team (CHAT).
- ⇒ Improve Highway 10 access to Detroit Lakes through access management and controlling land uses along the Highway ROW.
- ⇒ Examine options to limit traffic nuisances from increased air traffic. Set standards for small airstrips and landings on lakes.
- ⇒ Support implementation of the Rail Crossings study.
- ⇒ Encourage new developments to create links to existing local and regional trail systems and to include use of 'green infrastructure.'
- ⇒ Emphasize use of centralized wastewater systems to address overdevelopment around lakes and other sensitive natural areas.
- ⇒ Investigate the purchase of development rights or use of conservation easements to protect prime agricultural or natural shore land.
- ⇒ Continue existing lake water quality monitoring and expand efforts to other District 3 lakes.
- ⇒ Work with the White Earth Tribe to improve housing opportunities, allow scattered commercial clusters, eliminate 'brownfields', and determine mutual management responsibilities for tax-forfeit lands.
- ⇒ Promote the District's tourist and recreational assets and locally-owned resort properties.

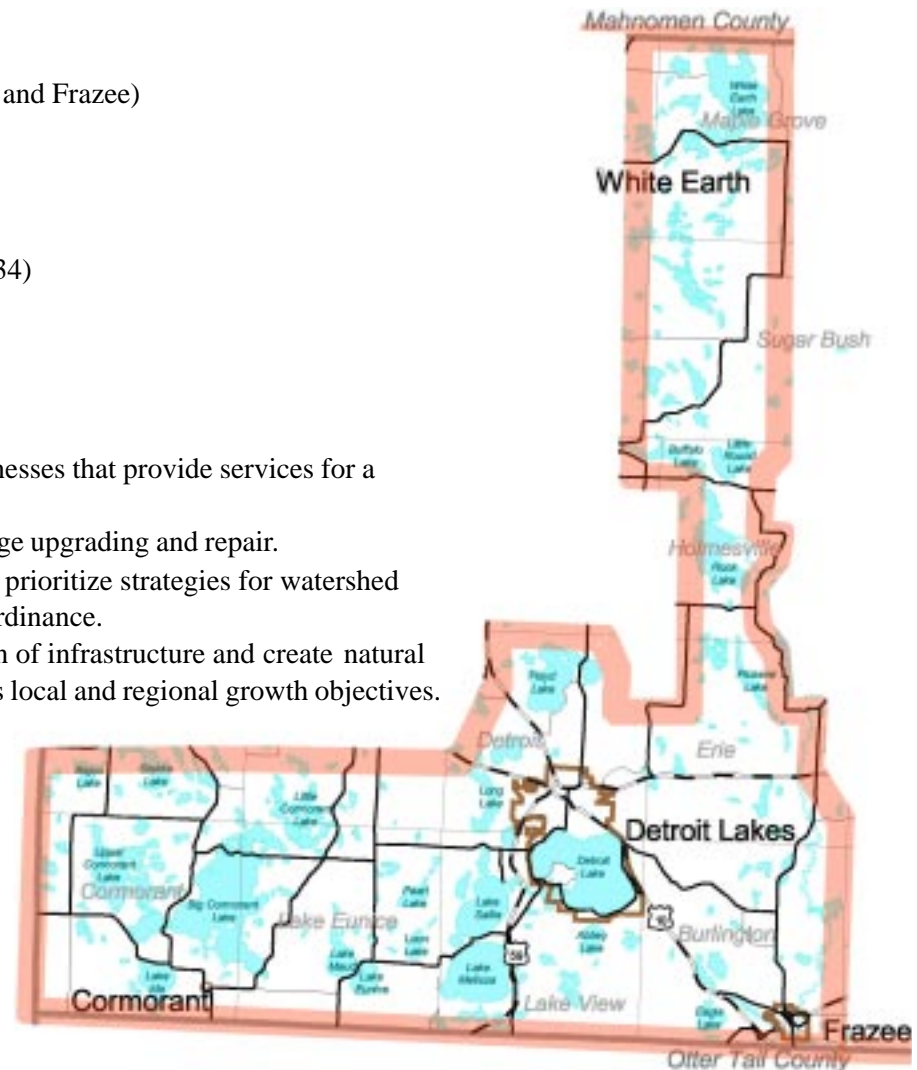


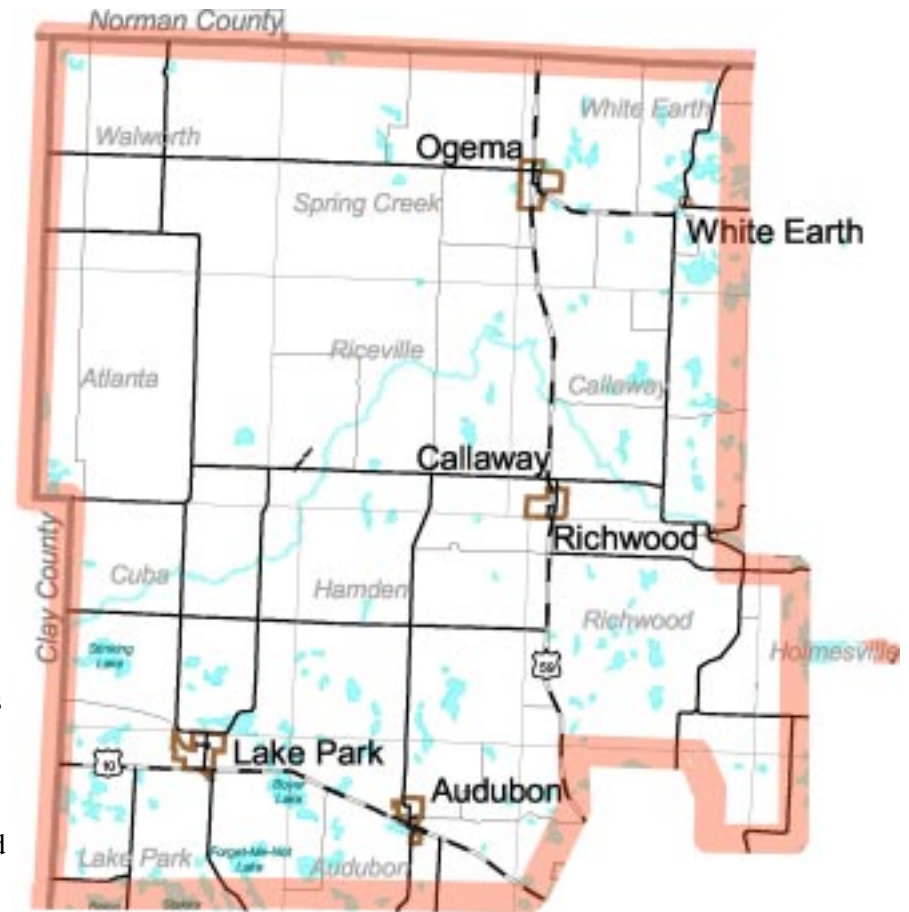
Figure 33- Policy District Four

Policy District 4

- Part of a distinct ecological area (Tall Grass Prairie)
- Significant areas of prime agricultural soils
- Low population density
- Development pressure along western border and in Hwy 10 corridor
- Includes four small cities
- Includes two important transportation corridors (Hwys 10 and 59)
- Significant economic investment along Hwys 10 and 59
- Hamden Slough Wildlife Preserve
- Designated agricultural area in White Earth Strategic Plan

Selected Policies

- ⇒ Designate agricultural land uses as the preferred and primary land use in agricultural areas, and adopt a rural development notification process to protect agricultural practices. Limit development on prime agricultural soils.
- ⇒ Encourage development in those areas with adequate public infrastructure. Develop performance standards to protect agricultural or wetland areas and identify appropriate areas for large lot development.
- ⇒ Support landscape approaches to land and water management, recognizing the District's Tallgrass Prairie ecological zone.
- ⇒ Protect existing fish and wildlife habitat through consistent enforcement of rules, ordinances, and policies.
- ⇒ Work with cities and townships to prioritize commercial/industrial development sites and infrastructure decisions.
- ⇒ Support the goals of the Community Housing Assessment Team (CHAT).
- ⇒ Improve Highway 10 access through access management and controlling land uses adjacent to the ROW.
- ⇒ Encourage use of rural airstrips for agricultural purposes, and set performance standards or rural airstrips.
- ⇒ Encourage sustainable agricultural practices that reduce the risk of non-point pollution, conserve soil, and emphasize natural inputs. Promote the use of 'green infrastructure' to protect against erosion.



Development Issue Area

The Becker County Comprehensive Plan Steering Committee has identified five issue areas that frame the goals and policies of the Comprehensive Plan. One issue area concerns how, when, and where development occurs in the County, particularly where the County has land use authority, presents opportunity and risk for County residents and businesses.

Development Vision

To guide land use decisions, the Steering Committee, after considering public comments, created a vision statement for how development should shape the County over the next 20 years.

Becker County has well-planned shoreland and rural development that is in harmony with the natural environment.



Development Goals

To achieve the County's development vision, the Steering Committee created six goals to guide County policy and implementation actions regarding development over the next 20 years. The six goals address six specific concerns expressed by residents and stakeholders in Becker County's Comprehensive Plan process:

- Water Quality
- Sustainable Development
- Shoreland Protection
- Natural and Economic Stewardship
- Agriculture and Agricultural Practices
- Sustainable Economic Development

Development and Water Quality Goal - Becker County will promote land use practices and development patterns that protect, enhance, or restore water quality.

Sustainable Development Patterns Goal - Becker County will encourage development patterns that protect agricultural land, forests, and wetlands in shoreland areas.

Shoreland Protection Goal - Becker County will promote retention or restoration of the functional characteristics of the County's shorelands.

Stewardship Goal - Becker County will allow shoreland and rural development that demonstrates responsible stewardship of natural and economic resources.

Rural Development Goal - Becker County will encourage and protect agricultural practices.

Sustainable Economic Development Goal - Becker County will encourage economic use of soils, waters, fiber and pulp resources, plant and animal habitat, natural landscapes, and other natural resources that sustain natural resource use for this and future generations.

DEVELOPMENT ISSUE AREA POLICIES

1. *Development and Water Quality Goal* – Becker County will promote land use practices and development patterns that protect, enhance, or restore water quality.

- A. Develop a hierarchy of lake carrying capacity classifications to guide development within each of the lake’s subwatershed.
- B. Limit the amount of impervious surfaces within sensitive lake subwatersheds.
- C. Create education programs to improve the understanding of County, municipal and township officials and citizens on the documented relationships between water quality and development patterns.
- D. Protect groundwater recharge areas.
- E. Support the efforts of Becker SWCD, Watershed Districts, State and Federal agencies, and other entities to protect and restore water quality.
- F. Protect the quality of surface and ground water through responsible land use management and regulation.
- G. Continue existing lake water quality monitoring and expand efforts to other District 3 lakes.
- H. District 3 - Work with the City of Detroit Lakes to identify infrastructure expansion or annexation priorities that promote stewardship of lakes, rivers, and wetlands within the City’s sphere of influence.
- I. Restrict use of harmful lawn and garden chemicals for which more sustainable substitutes exist, and educate land owners and residents on substitutes.
- J. Protect lakes from overdevelopment.

2. *Sustainable Development Patterns Goal* - Becker County will encourage development patterns that protect agricultural land, forests, and wetlands in shoreland areas.

- A. Support the use of cluster development patterns that protect agricultural land, forests, lakes, rivers and wetlands.
- B. Support the development and use of performance standards for development in selected agricultural, forest, or wetland areas.

- C. Promote development patterns that exceed minimum standards in the protection of agricultural practices, forests, and wetland functions.
- D. Continue to receive public input and suggestions with the application for subdivisions or filing of plats.

3. *Shoreland Protection Goal* - Becker County will promote retention or restoration of the functional characteristics of the County’s shorelands.

- A. Educate landowners on the importance of natural, native shoreline vegetation for maintaining water quality and lake habitat, and encourage maintenance and restoration of native vegetation along shorelines.
- B. Support Shoreland Buffers legislation to fund the purchase of conservation easements from willing shoreland owners and provide cost-sharing for restoration of vegetative shoreland buffers.
- C. Protect selected lakes (per hierarchy of carrying capacity) with lower carrying capacity by requiring larger lot sizes or designating special protection zones.
- D. Create road and street standards for shoreland developments that minimize the effects of development, traffic, and impervious surfaces on shoreland areas and water quality.
- E. Protect remaining natural shorelands.
- F. Limit nutrient loading and non-point source pollution in waterways and wetlands.

4. *Stewardship Goal* - Becker County will allow shoreland and rural development that demonstrates responsible stewardship of natural and economic resources.

- A. Investigate the carrying capacity of County lakes, rivers, and wetlands to absorb the impacts of development, and implement performance criteria to guide land use regulation on Becker County shorelands.
- B. Identify appropriate areas for large lot development.
- C. Create rural development standards that encourage stewardship of natural and economic resources. Encourage developers to use the standards.

- D. Work with Becker County COLA, watershed districts, Becker SWCD, and other organizations to recognize good stewardship and replicate good practices in other development.

5. Rural Development Goal – Becker County will encourage and protect agricultural practices.

- A. Identify agricultural areas and designate, through Zoning District or other mapped designation, that agricultural land uses are the preferred and primary land use.
- B. Create County cluster development standards that include substantial buffers for designated agricultural areas.
- C. Develop performance standards to direct investment in feedlots to appropriate locations in the County.
- D. Adopt rural development notification for residential or non-ag commercial in agricultural areas, and nuisance protection for cropland and other historic agricultural land uses.
- E. Support large-lot or cluster requirements in township zoning within County-designated agricultural areas.
- F. District 2 - Identify areas for scattered site and low-density development within Reservation boundaries, consistent with the White Earth Reservation Strategic Plan.
- G. Encourage participation in conservation programs that protect agricultural practices, the County’s rural character, and enhance natural resource conservation.
- H. District 3 – Investigate the purchase of development rights or use of conservation easements to protect prime agricultural land.

6. Sustainable Economic Development Goal - Becker County will encourage economic use of soils, waters, fiber and pulp resources, plant and animal habitat, natural landscapes, and other natural resources that sustain natural resource use for this and future generations.

- A. Promote the County’s abundant natural resources as assets for new development while maintaining the County’s character and remaining consistent with Natural Resource goals of the Comprehensive Plan.
- B. Encourage wise, prudent recreational use of the County’s natural resources.

- C. District 2 – Promote environmentally sustainable use of the Ponsford Prairie agricultural area, to limit risk to ground water supplies, the Straight River and nearby lakes, and wetland areas.
- D. Encourage sustainable agricultural practices that reduce the risk of non-point pollution, conserve soil, and emphasize natural inputs.



Economic Development Issue Area

The Becker County Comprehensive Plan Steering Committee has identified five issue areas that frame the goals and policies of the Comprehensive Plan. A primary issue area is the future shape of the County's economic development efforts, and how and where economic investment occurs in the County.

Economic Development Vision

To guide land use decisions, the Steering Committee, after considering public comments, created a vision statement for how economic development and economic opportunity should shape the County over the next 20 years.

Becker County has a diverse economy that includes many sustainable businesses in tourism, retail, service, technology, manufacturing, forestry, and agriculture. Economic opportunities for wage-earners and entrepreneurs, quality housing, and quality education are available for all people, and provide local opportunities for our children.



Economic Development Goals

To achieve the County's development vision, the Steering Committee created five goals to guide County policy and implementation actions regarding economic investment, promotion, and entrepreneurship over the next 20 years. The five goals address specific concerns expressed by residents and stakeholders in Becker County's Comprehensive Plan process:

- Supporting existing businesses and Industry
- Encouraging economic growth and diversity
- Promoting the County's many assets for economic growth;
- Minimizing nuisances and conflicts between economic and residential land uses
- The importance of housing as an economic development tool.

Economic Development Goal - Becker County will support and encourage existing tourist, agricultural, forestry, service, and manufacturing businesses.

Economic Growth and Diversity Goal - Becker County will encourage investment in infrastructure and technology to support new industries and diversify its economy, with concern for environmental quality.

Promotion Goal - Becker County will promote the County's educational, leisure, and quality-of-life assets.

Economic Development and Land Use Goal - Becker County will work with federal, state, city, and township governments, and with the White Earth Reservation to ensure sufficient land, infrastructure, housing, and transportation access for staged economic development throughout the County.

Housing Goal - Becker County will facilitate the development of adequate and affordable housing.

ECONOMIC DEVELOPMENT POLICIES

1. Economic Development Goal – Becker County will support and encourage existing tourist, agricultural, forestry, service, and manufacturing businesses.

- A. Provide necessary investment in infrastructure to support existing viable businesses
- B. Support businesses and institutions in their efforts to expand, ensuring such efforts are consistent with Becker County’s land use and infrastructure goals.
- C. Support locally-owned commercial businesses.
- D. Promote the County’s tourist and recreational assets and locally-owned resort properties.
- E. Through appropriate policies and programs, support the existing agricultural industries and agricultural land uses.

2. Economic Growth and Diversity Goal - Becker County will encourage investment in infrastructure and technology to support new industries and diversify its economy, with concern for environmental quality.

- A. Maintain a balanced set of economic development priorities that promote economic diversity, including agriculture, tourism and recreation, manufacturing, management of natural resources, information and technology, and the sale of goods and services.
- B. Manage public lands to support the growth of recreation and tourism through sustainable natural resource management.
- C. Encourage businesses that provide services for a diversity of household types and families, including senior citizens, young families, and seasonal households.
- D. Encourage job creation to maximize wages and the economic opportunities for County residents.
- E. Encourage cultural diversity in the workplace and in community institutions.
- F. Encourage investment in industries that are consistent with other Comprehensive Plan goals and will attract young families to and encourage youth to remain in Becker County.
- G. Emphasize suitable economic development that sustains natural resources, and environmental assets.
- H. District 4 – Work toward a diverse economy, but give priority to agriculture industries.

3. Economic Development and Land Use Goal – Becker County will work with federal, state, city, and township governments, and with the White Earth Reservation to ensure sufficient land, infrastructure, housing, and transportation access for staged economic development throughout the County.

- A. Promote development in areas where regional resources or infrastructure capacity (water supply, electric capacity, human resources) is available.
- B. District 1 - Work with the City of Wolf Lake and District 1 townships to prioritize commercial and industrial development sites, allowing for coherent land use and infrastructure decisions by the County, state, and other regulators.
- C. District 2 - Allow scattered commercial clusters within the White Earth Reservation, consistent with the White Earth Reservation Strategic Plan.
- D. District 2 - Coordinate with the White Earth Tribe to prevent and limit the creation of brownfield sites and other barriers to private investment within the Reservation.
- E. District 3 - Work with the City of Detroit Lakes to encourage planned extension of infrastructure and City annexation of land supporting industrial and commercial growth that meets local, County, and regional growth objectives.
- F. District 3 – Emphasize District 3’s transportation assets – railroad, highways, and airport – in land use management and economic development.
- G. District 4 - Work with District 4 municipalities and townships to prioritize commercial and industrial development sites, allowing for coherent land use and infrastructure decisions by the County, state, and other regulators.

4. Promotion Goal - Becker County will promote the County’s educational, leisure, and quality-of-life assets.

- A. Support the recruitment and marketing efforts of the Chamber of Commerce, economic development organizations, the Tribal Council, and other promotional efforts.
- B. Continue to support festivals and recreational events, and work with promoters of special events to reduce nuisances and costs.

- C. Emphasize the creation of living wage jobs that encourage stable communities and attract new residents to the County.
- D. Support the efforts of Northwest Technical College, St. Mary's Regional Health Center, and other regional institutions, and encourage growth that is consistent with the County Comprehensive Plan.

5. Housing Goal - Becker County will facilitate the development of adequate and affordable housing.

- A. Direct rural housing development pressure to appropriate locations within the County through modifications to ordinances, programs, and enforcement efforts.
- B. Support the creation of lifecycle housing within the County, such as affordable housing, rental housing, student housing, starter single-family homes, and senior housing.
- C. Coordinate with the White Earth Tribe to prevent and limit housing and building abandonment within the Reservation.
- D. Work with the White Earth tribe to improve housing opportunities within Reservation boundaries.
- E. District 3, 4 - Support the goals of the Community Housing Assessment Team (CHAT) as described in the Becker County CHAT report, including:
 - a. Encouraging quality market rate rental developments;
 - b. Encouraging development of additional moderate to middle-cost owner-occupied housing;
 - c. Support extension of urban infrastructure that is consistent with other County Comprehensive Plan goals and policies, and municipal Comprehensive Plans;
 - d. Support creation of financing strategies such as infrastructure banking;
 - e. Work with municipalities to protect and enhance: 1) existing housing stock, 2) infrastructure that improves Becker County communities' quality of life, and, 3) rural and natural amenities adjacent to communities.



Natural Resources Issue Area

Natural resources management, protection, and sustainable use comprise one of the five primary issue areas identified by the Becker County Comprehensive Plan Steering Committee. The County's substantial natural resources support a high quality of life for residents and visitors, and provide an economic asset to sustain the community.

Natural Resources Vision

The Steering Committee, after considering public comments, created a vision statement for how natural resource use and management should shape the County over the next 20 years.

Becker County has wisely managed natural resources within its three ecological zones to provide a sustainable natural environment for this and future generations.



Natural Resources Goals

To achieve the County's vision of natural resource stewardship, the Steering Committee created six goals to guide County policy and implementation actions over the next 20 years. The six goals address specific concerns expressed by residents and stakeholders in Becker County's Comprehensive Plan process:

- Recognition of the County's distinct eco-systems
- Management of fish and wildlife
- The vital role of watersheds in resource management and development
- The importance of sustainable harvests and necessary stewardship for resource use;
- The management of County-administered lands;
- Cooperating with other management authorities in the County.

Natural Resources Goal - Becker County will protect its land and water resources in each of the County's three distinct ecological zones.

Fish and Wildlife Goal - Becker County will manage resources to protect, enhance, and restore habitat to support fish and wildlife populations.

Watershed Goal - Becker County will ensure proper functioning of watersheds.

Sustainable Resource Use Goal - Becker County will encourage sustainable use of natural resources for this and future generations.

Public Lands Goal - Becker County will manage its administered lands for a diversity of uses that sustain the County's environmental, economic, and community value for future generations.

Intergovernmental Management Coordination Goal - Becker County will improve and strengthen land management coordination between government entities.

NATURAL RESOURCE ISSUE AREA POLICIES

1. *Natural Resources Goal* - Becker County will protect its land and water resources in each of the County's three distinct ecological zones.

- A. Work with state and federal agencies, private landowners, and watershed organizations to recognize the County's three distinct ecological zones in natural resource management.
- B. Support landscape approaches to land and water management, providing incentives for consistent management of public and private lands.
- C. Support legislative efforts to reduce the property tax rates and create other state incentives to maintain undeveloped and conserved undeveloped lakeshore.

2. *Fish and Wildlife Goal* - Becker County will manage resources to protect, enhance, and restore habitat to support fish and wildlife populations.

- A. Encourage coordination among county, State, Federal, and Tribal efforts to sustain the County's fish and wildlife habitat.
- B. Create a mosaic of habitat areas working with state, federal, and private individuals, to sustain and enhance wildlife and fisheries.
- C. Protect existing fish and wildlife habitat, including consistent enforcement of rules, ordinances, and County policies.
- D. Emphasize use of Best Management Practices (BMPs) in existing habitat areas.

3. *Watershed Goal* - Becker County will ensure proper functioning of watersheds.

- A. Encourage conservation on undeveloped lakes in order to sustain the high quality of lakes and wetlands in Becker County. Use lake or watershed carrying capacities to guide the choice of zoning districts, and decisions on conditional use and variance applications.
- B. Develop a watershed-based stormwater/hydrology ordinance to guide development practices.
- C. Continue the County's targeted monitoring of shoreland septic systems. Encourage upgrading and repair of failing systems.
- D. Enhance the capability of lakes with compromised water quality.

- E. Work with the distinct agencies that regulate development in watersheds – Watershed Districts, cities, Pollution Control Agency, and Department of Natural Resources – to prioritize goals and strategies for watershed management especially in District 3.
- F. Coordinate the priorities of ditch management entities and watershed management programs.

4. *Sustainable Resource Use* - Becker County will encourage sustainable use of natural resources for this and future generations.

- A. Encourage sustainable development and economic use of natural resources, including the County's bounty of agricultural soils, minerals, forests, habitats, landscapes, and lakes.
- B. Provide incentives for mining operations to exceed minimum requirements for mitigating nuisances, and for restoration work after closing a mining area.
- C. Encourage pollution prevention initiatives and the efficient use of resources to protect and preserve air quality.
- D. Educate owners of private or corporate woodlands on the value of sustainable management, and promote definable standards for management, such as the Minnesota Forest Resources Council's Voluntary Site-Level Forest Management Guidelines and Forest Stewardship Plans
- E. Require landowners to meet forest management standards exceeding the voluntary standards in riparian areas of targeted water areas.
- F. Encourage and support agricultural operations to use sustainable farming and livestock management practices.
- G. Maintain prime agricultural lands, targeted forest areas, and aggregate resource areas by limiting residential or commercial development.
- H. District 1, 4 - Develop an agriculture conservation program to guide County and township land use decisions in designated agricultural areas.

5. Public Lands Goal – Becker County will manage its administered lands for a diversity of uses that sustain the County’s environmental, economic, and community value for future generations.

- A. Document and publicize the sustainable timber harvest practices on county-managed land. Consider third-party certification of sustainability.
- B. Evaluate the potential of County-managed lands for both designated motorized trail development and non-motorized trails.
- C. Partner with State and Federal agencies to create non-segmented habitat areas.
- D. Manage County-managed forest resources for the enjoyment of County residents and visitors, for wood and fiber production, and for habitat sustainability.
- E. Support and encourage the exchange of remote privately-owned land, without access to existing maintained roads, County or township services, or infrastructure, for County-managed land in areas that are appropriate for development.
- F. Ensure that large tracts of public land have public access.
- G. Ensure that gravel pits on County-managed land are restored.



6. Intergovernmental Management Coordination Goal - Becker County will improve and strengthen land management coordination between government entities.

- A. Create joint planning efforts with State, Federal, and Tribal agencies, and watershed districts to identify open space/green space, habitat, and natural resource management plans.
- B. District 2 - Enter in a dialogue with the White Earth Tribe on the management and use of County-managed lands in within the Reservation boundaries.
- C. District 3 – With the City of Detroit Lakes, develop a common set of natural resource priorities in the 2-mile boundary around Detroit Lakes.
- D. Work with cities and townships to create a synergy between County and local land use priorities.



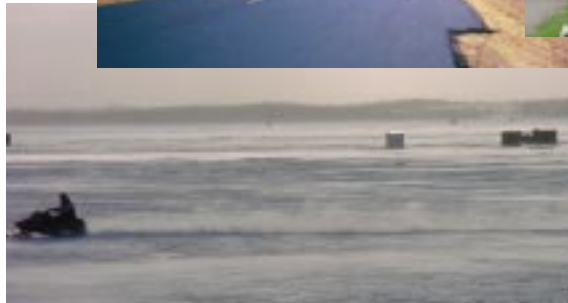
Transportation Issue Area

Transportation is one of the five issue areas identified by the Becker County Comprehensive Plan Steering Committee to frame the goals and policies of the Comprehensive Plan. Road management, road investment, and traffic priorities on the County's many thoroughfares affect quality of life, economic prosperity, and the safety of residents and visitors. Management of other transportation infrastructure also affects quality of life and economic opportunity, including rail routes, airports, bike and recreational trails, public transit and para-transit, and trails for snowmobile and other recreational vehicles.

Transportation Vision

The Steering Committee, after considering public comments, created a vision statement for the transportation system future in Becker County.

Becker County has an efficient, well-maintained, safe, transportation system that provides a variety of means of access and connections within the County and to the region.



Transportation Goals

To achieve the County's vision for its multi-modal transportation future, the Steering Committee created five goals to guide County policy and implementation actions over the next 20 years. The five goals address specific concerns expressed by residents and stakeholders:

- Maintaining and investing in the County's highway system to meet safety, economic, aesthetic, and traffic flow goals;
- Recognizing the importance of providing access to goods and services for those with limited access to cars;
- Supporting air traffic investment;
- Managing Becker County's significant rail infrastructure, and maximizing benefits to residents and businesses;
- Supporting existing trail systems and expanding trails and non-motorized travel options.

Highways Goal - Becker County will invest in and maintain its road system consistent with local and state design, safety, traffic flow, and maintenance characteristics.

Transit Goal - Becker County will support public transit systems that provide access to needed services, jobs, and community institutions, and connect to other regional transit systems.

Air Transportation Goal - Becker County will support planning to meet increasing demand for air transportation.

Rail System Goal - Becker County will promote fully utilized, safe, and quiet freight and passenger rail services.

Trails Goal - Becker County will develop and maintain recreational trail systems throughout the County.

TRANSPORTATION ISSUE AREA POLICIES

1. *Highways Goal* – Becker County will invest in and maintain its road system consistent with local and state design, safety, traffic flow, and maintenance characteristics.

- A. Define a local roadway performance classification system that will include design, safety, traffic flow and maintenance characteristics for each class of roadway.
- B. Assign the new classification system to county roads.
- C. Develop a prioritization schedule based on projected available funds, pavement life, and performance classification system; to include the transportation needs of the agricultural industry, rural economic development goals, forestry industry needs, and scenic considerations.
- D. Develop funding resources to ensure County roads (non-state aid) are developed and maintained in accordance with performance classification system.
- E. Conduct public hearings to: Educate both decision-makers and the public on the tradeoffs associated with road design, investment, and maintenance standards, and; receive comments for consideration in the County's investment priorities.
- F. Cooperate with townships and the Reservation on maintenance and investment decisions.
- G. Work with State agencies to meet regional and inter-regional access-management goals without unduly inconveniencing local traffic or affecting County land use priorities.
- H. Create local access-management goals for County roads that reflect County land use priorities.
- I. Emphasize maintenance of existing roadways over expansion needs.
- J. District 2 – Balance between the needs of regional traffic and scenic characteristics of roads in road improvement efforts.
- K. District 2 - Encourage heavy truck traffic to use roads designated as through routes.
- L. District 3 – Support District 3's regional routes to enhance economic development efforts.
- M. District 3 & 4 – Improve Highway 10 access to Detroit Lakes through access management and controlling land uses.

2. *Transit Goal* – Becker County will support public transit systems that provide access to needed services, jobs, and community institutions, and connect to other regional transit systems.

- A. Cooperate and coordinate with other governmental entities, including surrounding counties and the White Earth Reservation, to enable cross-jurisdictional transit travel.
- B. Encourage coordinated planning by non-profit and governmental para-transit agencies for vehicle acquisition and use, driver training, maintenance, and dispatching.
- C. Promote existing transit and para-transit in order to encourage use and gain recognition for existing transit options.

3. *Air Transportation Goal* – Becker County will support planning to meet increasing demand for air transportation.

- A. Investigate expansion options and alternative locations for existing airports.
- B. Encourage development and use of rural airstrips for agricultural purposes.
- C. Set performance standards for small airstrips and landings on lakes.
- D. District 3 – Examine options to limit traffic nuisances that may occur from increased air traffic.

4. *Rail System Goal* - Becker County will promote fully utilized, safe, and quiet freight and passenger rail services.

- A. Work with railroad companies to promote an efficient and safe freight rail system.
- B. Support implementation of the Rail Crossings study.
- C. Work with Amtrack to create a convenient passenger rail system to capture the tourism and economic benefits from the County's unique access to the national passenger rail system.

5. **Trails Goal** - Becker County will develop and maintain recreational trail systems throughout the County.

- A. Support the creation of permanent non-motorized trails in the County and work with other local, Tribal, State, and Federal agencies to create regional, non-motorized trail systems.
- B. Create a motorized trail plan for Becker County that is compatible with other goals of Comprehensive Plan.
- C. Encourage new developments to create links to existing local and regional trail systems.
- D. Continue to promote, invest in, and maintain existing trail networks.



Infrastructure Issue Area

Infrastructure is one of the five issue areas identified by the Becker County Comprehensive Plan Steering Committee to frame Comprehensive Plan goals and policies. Communities need functioning and well-planned sewer, septic, solid waste, drinking water systems, communication networks, and functioning natural systems in order to sustain themselves over the next 20 years.

Public Infrastructure Vision

The Steering Committee, after considering public comments, created a vision statement for the transportation system future in Becker County.

Becker County has high-quality infrastructure systems that support the economic and public health of the County.



Infrastructure Goals

To achieve the County's infrastructure vision, the Steering Committee created six goals to guide County policy and implementation actions over the next 20 years. The six goals address specific concerns expressed by residents and stakeholders in Becker County's Comprehensive Plan process:

- Efficient investment in infrastructure that protects health and the environment;
- The role of natural systems as infrastructure needing investment and management;
- The growing importance of communication and information technologies;
- Necessary intergovernmental and intercommunity cooperation on infrastructure investment;
- Appropriate infrastructure for rural and lakeshore development;
- Appropriate management of solid waste.

Infrastructure Expansion Goal - Becker County will encourage economically-efficient staged extension of roads, centralized wastewater, drinking water, stormwater, and other utility systems.

Green Infrastructure Goal - Becker County will promote appropriate use of green infrastructure within carrying capacity thresholds.

Telecommunications Goal - Becker County will promote access to the latest telecommunications technology throughout the County.

Intergovernmental Infrastructure Goal - Becker County will work with other governmental entities for staged urban expansion.

Community Water Systems Goal - Becker County will encourage community water and septic systems for cluster and lakeshore development.

Solid Waste Management Goal - Becker County will use solid waste management methods that require minimal use of landfills.

INFRASTRUCTURE ISSUE AREA POLICIES

1. *Infrastructure Expansion Goal* - Becker County will encourage economically-efficient staged extension of roads, centralized wastewater, drinking water, stormwater, and other utility systems.

- A. Encourage development in those areas with adequate public facilities and infrastructure, and discourage it where infrastructure and public facilities are not adequate.
- B. Identify performance standards that measure the impact of new development on existing infrastructure, and use the standards to guide decisions on applications for rezoning, conditional use permits, and variances.
- C. Consider performance standards that allow the use of new on-site wastewater management technologies.
- D. Use infrastructure capital improvement plans to guide land use decisions.
- E. Identify opportunities for infrastructure investment that supports economic development within the White Earth Reservation.
- F. Investigate the potential of new community water and wastewater systems in and around unincorporated communities.
- G. District 3 – Emphasize use of centralized wastewater systems to address overdevelopment around lakes and other sensitive natural areas, consistent with lake carrying capacity limitations.

2. *Green Infrastructure Goal* - Becker County will promote appropriate use of green infrastructure within carrying capacity thresholds.

- A. Encourage green infrastructure in new developments, including on-site infiltration of stormwater, appropriate retention of existing tree cover and creation of new tree cover, and landscaping that uses native species.
- B. Define “green infrastructure” and educate developers, elected and appointed officials, and the general public on its importance.
- C. Emphasize green spaces and linear greenway connections in and near developed areas and resorts.
- D. Enhance green infrastructure on heavily developed or degraded lakes.
- E. Promote the use of green infrastructure to protect against erosion.

3. *Telecommunications Goal* - Becker County will promote access to the latest telecommunications technology throughout the County.

- A. Regulate the use of telecommunications towers to minimize visual impacts and other nuisances.
- B. Encourage the extension of telecommunications infrastructure when other public infrastructure is extended so as to minimize environmental and visual impacts.
- C. Promote investment in information and telecommunications technology to sustain local industries, spur industrial growth, and improve residents’ quality of life.

4. *Intergovernmental Infrastructure Goal* - Becker County will work with other governmental entities for staged urban expansion.

- A. Support community-based infrastructure in unincorporated communities.
- B. Work with the White Earth Reservation to meet housing development goals that efficiently use urban infrastructure.
- C. Work with incorporated communities to promote sustainable expansion of infrastructure consistent with County Comprehensive Plan, regional transportation goals, and regional natural resource goals.

5. *Community Water Systems Goal* - Becker County will encourage community water and septic systems for cluster and lakeshore development.

- A. Create management standards that encourage community septic systems that meet state technology or performance standards in targeted sensitive areas and watersheds.
- B. Support efforts to develop community management structures for septic systems, including homeowner associations, sanitary districts, and co-operative efforts, to improve compliance with health, safety, and environmental standards.
- C. Strictly enforce existing on-site wastewater regulations.
- D. Support community efforts to promote safe drinking water, including replacing contaminated wells with community water supplies.

6. Solid Waste Management Goal - Becker County will use solid waste management methods that require minimal use of landfills.

- A. Support the goals of the County Solid Waste Plan.
- B. Encourage source reduction and recycling efforts within County buildings and agencies.
- C. Consider County procurement practices that support waste reduction and pollution prevention goals.
- D. Continue to offer on-site solid waste management tools, such as composting bins and source-separated recycling.
- E. District 2 – Create incentive programs and improve enforcement to prevent dumping in undeveloped areas and County-managed lands.
- F. District 2 - Improve solid waste management opportunities within Becker County.



Strategies

Strategies

The implementation priorities in the Comprehensive Plan should direct action by the County, governmental agencies, citizens, and others. The following strategies are the beginning of the decisions that go into ordinance language, educational efforts, and program design. The following priorities should thus not be considered the final word, but the start of the discussion.

The Comprehensive Plan vision and policies are made more specific by identifying priorities for implementation strategies. The County has a wide variety of strategies at its disposal, and must decide how to choose the most effective and sustainable portfolio of strategies in order to achieve its vision. An appropriate framework to understand the range of implementation strategies is described in the four categories below:

- ❑ **Encouragement** – Educating or promoting individuals or businesses to act consistently with the community’s vision or policies.
- ❑ **Incentives** – Providing an inducement for individuals or businesses to act consistently with the community’s vision or policies.
- ❑ **Regulation** – Requiring individuals or businesses to act in ways that are consistent with the community’s vision or policies.
- ❑ **Public Ownership or Management** – Buying or keeping land or resources in public ownership to ensure management and use that is consistent with the community’s vision or policies.

Following these four strategy categories, implementation of the Comprehensive Plan can include the establishment of programs and educational efforts, the creation of incentive programs, changes to zoning and other ordinances, and public ownership or management priorities.

In evaluating the appropriateness or sustainability of a particular strategy, the community should evaluate it on a variety of criteria, such as the following:

- ❑ **Cost** - the initial implementation and any ongoing maintenance or administration costs. The community must be willing and able to expend sufficient resources on its selected strategies.
- ❑ **Political Will** – the willingness of political decision-makers to use a particular tool or strategy. A strategy may be effective, but is not sustainable if it requires large changes in the community’s political culture.
- ❑ **Market Characteristics** – the compatibility of the strategy with current market conditions and market forces. The market does not dictate the community’s vision, but does influence the community’s ability to achieve its vision. Strategy selection must recognize the direction of the market forces.
- ❑ **Permanency** – the length of time for which the strategy is effective. Regulation can, for instance, be changed. An incentive program for using conservation easements or to meet design standards will, however, be much more permanent.
- ❑ **Importance of Policy**– the level of societal benefit to be achieved in meeting the policy or goal. Different policies or goals carry different levels of priority to the community.

In adopting particular strategies, the County must also recognize the distinctions in the County’s policy districts. Each district has unique population, natural resource, market development pressure, and property ownership characteristics. These differences result in distinct strategic approaches to implementing the vision and supporting policies in each geographic district. A regulation approach, for instance, may be appropriate and sustainable in one district, but may be less appropriate than an incentive strategy in another district.

A list of strategy priorities was developed through the Steering Committee’s policy discussions, from suggestions at public meetings, and from suggestions by County staff and County Board. The Steering Committee then identified each priority as high, middle, or low within each issue area, and offered additional comments on strategy language. Strategies with generally low priority status were then removed from the list. The result of this prioritization is presented below by issue area. Three levels of priority are assigned:

- ⇒ *Top Priority* - the Steering Committee identified these strategies as having the highest priority for that issue area, and deserving of the greatest attention for resources or staff time.
- ⇒ *High Priority* - the Steering Committee identified these strategies as being important, but less of a priority than top priority strategies.
- ⇒ *Secondary Priority* - the Steering Committee believes these strategies to be useful in meeting vision and goals. Secondary priority strategies are ranked lower for allocation of additional staff time and supporting funds, because the strategy is seen as a longer term strategy, or because the strategy is already in place and no significant changes are needed.

Strategies for the NATURAL RESOURCE ISSUE AREA

Top Priorities

- ⇒ *Lake and Watershed Carrying Capacity* – Create a process for designating lake and watershed carrying capacities in regard to different types of land uses (residential or commercial development, agriculture, impervious surfaces). Carrying capacity designations will ultimately guide the following:
 - ❑ Lake shore or surface water zoning district definitions;
 - ❑ Decisions on conditional use and variance applications;
 - ❑ Infrastructure investment;
 - ❑ Identifying priority areas for septic system enforcement or education programs.

- ⇒ *Performance Standards for Gravel Mining on County-Managed Land* – Set specific performance standards for mining on County-managed land, including management of roads created for access, rehabilitation of depleted mining areas, and recognition of watershed impacts.

- ⇒ *Shoreland Septic Monitoring* – Publicize the successful results of the County’s current shoreland septic system monitoring program. Consider the following actions:
 - ❑ Fund an expansion of the County’s targeted monitoring of shoreland septic systems, and publicize future priorities for additional monitoring programs.
 - ❑ Develop materials to encourage upgrading and repair of failing systems to accompany monitoring.

- ❑ Consider technical partnerships with the MPCA on incentive- and education-based monitoring.

- ⇒ *Designate Agricultural Conservation Areas* – Identify characteristics of agricultural conservation areas and designate areas meeting the characteristics. Create an agriculture conservation program that:
 - ❑ Promotes sustainable agriculture and livestock management, including designated BMPs for sustainable management
 - ❑ Guides County and township zoning, subdivision, land use variance, and conditional use decisions in designated agricultural areas, protecting viable agricultural practices and resources.
 - ❑ Identify Best Management Practices (BMPs) for the particular conditions of the Ponsford Prairie area. Promote or provide incentives for the use of BMPs to limit risk to ground water supplies, the Straight River and nearby lakes, and wetland areas.

- ⇒ *Promote Private Conservation Efforts* - Through the use of local media, recognize individuals and organizations who create successful programs to restore and protect natural resources. Publicize lake and water quality data and observations in local media.



High Priorities - Natural Resources

Formally Endorse State Legislative Incentives - Create legislative language or draft a statement of support for existing language that reduces the property tax rates or provides other state incentives to maintain undeveloped and conserved undeveloped lakeshore.

Improve Enforcement Procedures - Consistently enforce rules, ordinances, and County policies that protect habitat, fish and wildlife populations, and natural resources valuable to the County economy. Consider the following changes: ensure that development fees charged by the County provide sufficient resources to enforce County policy and regulation; change administrative regulatory procedures to provide proscriptive standards for granting variances, conditional uses, and rezonings in sensitive natural areas and priority areas with valuable economic resources; adopting public involvement standards for administrative or enforcement decisions; cooperative enforcement agreements across enforcement jurisdictions; conduct new public education efforts on rights and responsibilities of landowners.

Education Programs on Fish and Wildlife Habitat - Create a County education effort that identifies specific BMPS protecting fish and wildlife populations. Encourage private landowners to adopt BMPs.

Conduct a Natural Resources Inventory (or similar natural resource planning effort)- Enlist Federal agencies, private landowners, the White Earth Tribe, and watershed organizations, in a joint effort that identifies and designates priority areas for landscape management of natural areas. Identify similarities and contradictions between each entities' open space/green space, habitat, natural resource management plans or goals. Results of the NRI can direct other actions including: 1) Educational efforts for promoting the value of distinct ecological zones and fish/wildlife habitat); 2) Incentive-based efforts to encourage private landowners to manage natural resources consistent with community goals; 3) Regulatory approaches such as natural resource overlay districts or special protection zones; 4) Natural resource priorities in the 2-mile boundary around incorporated cities, particularly the area around Detroit Lakes, currently the only city exercising subdivision regulatory control within its two-mile sphere of influence, and; 5) Public acquisition priorities.

Secondary Priorities - Natural Resources

Create Overlay Districts – Working with the varied agencies that regulate development in watersheds – Watershed Districts, cities, Pollution Control Agency, and Department of Natural Resources – create overlay districts that set performance standards for development in the watersheds of degraded waterways or lakes. Recognize distinct priorities for those areas with existing regulatory framework, documented problems, and ongoing successful rehabilitation effort, particularly in District 3.

Land Asset Management Program – Continue or expand resources for this program that encourages land exchanges where both the public and private landowner benefit. The program facilitates the exchange of remote privately-owned land without access to existing maintained roads, County or township services, or infrastructure, for County-managed land in areas that are appropriate for development.

Mining Restoration Incentives – Consider possible incentives that the County can offer for new mining operations to exceed minimum requirements for mitigating nuisances, and for restoration work after closing a mining area. Consider technical assistance identifying best management practices when closing or remediating problems from existing or previous mining sites.

Private Woodland Management – Develop promotional materials and targeted education efforts to educate owners of private or corporate woodlands on the value of sustainable management. Promote existing management standards, including the Minnesota Forest Resources Council's Voluntary Site-Level Forest Management Guidelines, Forest Stewardship Plans, Minnesota Tree Farm system, and woodland cooperatives that centralize sustainable management practices.

Forest Riparian Management Standards – Adopt management standards for wooded riparian lots in watershed of targeted sensitive water areas. Targeted areas must be consistent with Natural Resources Inventory and watershed carrying capacity designations. Ordinance can require consistency with guidelines, but guidelines can

be separate from the ordinance in order to allow a living document that reflects the best science and management practices.

Coordinate County-Managed Land Priorities with the White Earth Tribe – Enter into a dialogue with the Tribe on management and use of County-managed lands in within the Reservation boundaries, including possible land exchange, right of first refusal, and Tribe lands outside the reservation.

Take Credit for Good Management - Publicize the sustainable timber harvest practices on county-managed land to residents and stakeholders. Consider third-party certification of the County's sustainable management practices, both as part of a promotional campaign, and to position the County for market-share and maximum profitability in its timber sales.

Improve Access to Public Lands - Ensure that large tracts of public land have public access. Limit access to marked easements or right-of-ways when access is for non-motorized use.

Strategies for the ECONOMIC DEVELOPMENT Issue Area

Top Priorities

- ⇒ *Create Economic Resource Preservation Zones* – Create zoning districts or overlays that protect prime agricultural lands, targeted forest areas, and aggregate resource areas. Zoning districts can prohibit residential or commercial development, or make it conditional based on:
 - ❑ Buffers built into the residential or commercial development;
 - ❑ The ongoing viability of natural resource extraction or use;
 - ❑ Use of conservation easements that allow continued natural resource utilization.
- ⇒ *Coordinate Commercial Zoning with the Cities and White Earth Reservation* – Inventory industrial park and commercially-zoned land in the County. Assess the likely market need for commercially developable land. Coordinate economic expansion or development plans of cities and the Tribe with the County’s land use policies including the following:
 - ❑ Allow small commercial clusters, consistent with the White Earth Reservation Strategic Plan.
 - ❑ Work with the City of Detroit Lakes to encourage planned extension of infrastructure and City annexation of land supporting industrial and commercial growth that meets local, County, and regional growth objectives.
 - ❑ Work with District 1, 2, and 4 municipalities and townships to prioritize commercial and industrial development sites and infrastructure expansion plans.



High Priorities - Economic Development

Locally-owned Resort Incentive - Consider incentives that minimize the effects of escalating shoreland value on resort properties. Incentives could include: 1) Technical assistance or cost sharing for wastewater management; 2) Property tax reductions conditional on wastewater improvements or conservation easements on undeveloped shoreland; 3) Use Purchase of Development Rights (PDR) or Transfer of Development Rights (TDR) programs to reduce tax burdens and preserve undeveloped shoreland for tourism enjoyment.

Head of Household Wages Incentive – Give priority, when considering any tax assistance, TIF designation, or other financial partnership with developing companies, to companies that meet minimum wage standards or create a threshold number of new jobs capable of supporting families. Encourage information and computer technology businesses, which typically have higher wages, to locate or expand in Becker County.

Encourage Rural Housing Development – Direct rural housing development to appropriate locations within the County. Modify zoning districts, conditional use requirements, and variance standards to reflect rural housing priorities. Consider conditional use standards that require consistency with lifecycle housing goals in appropriate zoning districts.

Implement the Community Housing Assessment Team (CHAT) Recommendations – The CHAT report outlines a number of strategic steps, including: 1) Encourage cities, townships and developers build market rate rental developments; 2) Encourage development of additional moderate to middle-cost owner-occupied housing; 3) Support extension of urban infrastructure that is consistent with other County Comprehensive Plan goals and policies, and municipal Comprehensive Plans; 4) Create financing strategies such as infrastructure banking; 5) Work with municipalities and the White Earth Tribe to protect and enhance existing housing stock

Create Brownfield Mitigation Program – Brownfields create investment barriers for current and future businesses. Elements of a prevention and mitigation program could include: 1) Link businesses with perceived brownfield problems with technical and financial assistance programs offered by State agencies; 2) Coordinate with the White Earth Tribe to prevent and limit the creation of brownfield sites and other barriers to private investment within the Reservation.

Secondary Priorities - Economic Development

Infrastructure Support - Identify infrastructure improvements (road improvements, wastewater or water systems, other utilities) needed to support the County's existing viable businesses. Incorporate infrastructure priorities into the County's capital planning processes, and identify needed infrastructure for White Earth Reservation economic initiatives. Market areas in the County where resource or infrastructure (water supply, electric capacity, human resources) is available for economic use.

Financial Assistance for Small Businesses - Support the creation of financing or technical assistance efforts to assist small businesses with gap financing environmental compliance, and marketing efforts.

Use Tax Incentives for Economic Development - Create guidelines for tax abatement, conditional use permits, rezonings, variances, or density bonus, that give priority or set conditions that are consistent with Comprehensive Plan Economic policies, including: Cultural diversity in the workplace; supporting families through appropriate wages and benefits, and; economic development that sustains natural resources and environmental assets.

Identify Economic Development Sites throughout the County – Begin an effort to coordinate with cities and townships to specify commercial and industrial development sites, allowing for coherent land use and infrastructure decisions by the County, state, and other regulators.

Promotional Programs for Economic Development – Participate in the recruitment and marketing efforts of local economic development organizations and local governments. Support promotional efforts that are consistent with the Comprehensive Plan, including: County festivals and recreational events (require promoters to reduce nuisances and costs); recruitment of businesses, emphasizing the creation of living wage jobs that encourage stable communities and attract new residents to the County; promote institutions that serve as assets, including Northwest Technical College, St. Mary's Regional Health Center, and other regional institutions,

EDA Strategic Planning Effort - Strengthen economic diversity goals or other Comprehensive Plan priorities within the by-laws of the EDA.

Improve Housing Opportunities in the White Earth Reservation - Work with the Tribe to improve housing opportunities within the Reservation. Identify community wastewater options for new development. Create targeted programs with the Tribe to limit housing and building abandonment. Modify regulations consistent with White Earth Reservation Strategic Plan housing priorities.

Strategies for the TRANSPORTATION ISSUE AREA

Top Priorities

- ⇒ *County Roadway Performance Classification System* – Create a roadway performance classification system to guide investment and maintenance decisions. The classification system should incorporate design, safety, traffic flow and maintenance characteristics for each class of roadway, consider diverse needs of businesses, residents, and visitors, and recognize physical and fiscal limitations faced by the County.
 - ❑ Develop a prioritization schedule based on projected available funds, pavement life, and performance classification system; to include the transportation needs of the agricultural industry, rural economic development goals, forestry industry needs, and scenic considerations.
 - ❑ Emphasize maintenance of existing roadways over expansion needs.
 - ❑ Create local access-management goals for County roads that reflect land use priorities.
 - ❑ Incorporate regional and inter-regional access-management goals consistent with County land use and transportation priorities.
 - ❑ Formally assign the new classification system to County roads, following a public participation process to elicit public comment and education public on decision tradeoffs. Develop a Geographic Information Systems (GIS) based tool that incorporates the measurable parameters and goals.
- ⇒ *Promote and Create Trail Networks* – Set aside adequate resources to promote, invest in, and maintain existing trail networks.
 - ❑ Identify news sources of funding for acquisition of snowmobile and other permanent trail right-of-ways;
 - ❑ Fund and build bike trails to connect to regional bike trails and improve the tourist economy.
 - ❑ Encourage private developments and local governments to create biking, walking and cross-country ski trails into and near more developed areas and resort areas.
 - ❑ Evaluate the potential of County-managed lands for designated non-motorized trails.
- ⇒ *Develop a Motorized Trail Plan* - Through a facilitated public process, identify motorized trail performance standards, buffer requirements, and enforcement mechanisms. Evaluate the potential of County-managed lands for designated motorized trail development.



High Priorities - Transportation

Create Education Program regarding Transportation Planning – Starting with the creation of the Performance Classification System, use public participation processes to guide transportation decision-making. The process should be designed to:

- Educate non-technical decision-makers, residents and others on the tradeoffs between road design, investment, and maintenance standards;
- Receive guidance from stakeholder on the County’s investment priorities;
- Identify township and Reservation roadway maintenance and investment goals;

Education or Incentive Programs to Redirect Commercial Truck Traffic - Encourage heavy truck traffic to use roads designated as through routes.

- Place additional signage directing truck traffic.
- Consider traffic calming measures in local traffic areas to discourage through traffic use.
- Consider changing size or weight restrictions on targeted roads.

Incorporate County Comprehensive Plan Goals in MnDOT’s IRC Planning and Implementation - Participate in planning efforts for the Highway 10 and Highway 34 Inter Regional Corridor planning process. Coordinate with MnDOT on ensuring consistency with County land use priorities.

Facilitate Coordinated Transit Planning – Start discussions with on-profit para-transit entities, the White Earth Reservation, and other governmental entities, including surrounding counties to reduce costs and expand service options. Discuss possibilities for joint vehicle acquisition and use, driver training, vehicle maintenance, and dispatching.

Regulation of Air Strips - Modify language in the County’s zoning ordinance relating to conditional and allowed air strip land uses, including:

- Allow use of rural airstrips for exclusively agricultural purposes in designated agricultural zones.
- Use performance standards to limit non-agricultural use.
- Use performance standards to limit nuisance and safety problems for in non-agricultural areas and for water landings.

Gravel Road Notification Standard - Inform real estate purchasers about likely nuisances associated with real estate that is accessed or borders a gravel road. Notification should include statement on paving or improvement priorities developed in the County’s Classification System (see Top Priorities).

Secondary Priorities

Expand Promotion of Transit – Develop new marketing and promotional efforts for existing transit and para-transit. Develop cooperative promotional efforts with para-transit and regional transit entities.

Funding – Identify new funding resources to ensure County roads (non-state aid) maintained in accordance with performance classification system.

Start a New Dialogue with Rail Companies - Work with railroad companies to promote an efficient and safe freight rail system, including implementation of the Rail Crossings study recommendations. Advocate for more convenient access to the passenger rail system.

Create Subdivision Regulation Requiring Trail Connections – Require, or set as a condition for projects needing a conditional use permit, new developments to create links to existing trail systems where the development abuts an existing or designated planned route for a trail system.

Strategies for the INFRASTRUCTURE ISSUE AREA

Top Priorities

- ⇒ *Develop On-Site Wastewater Treatment Performance Standards* - Consider performance standards that allow the use of new on-site wastewater management technologies, or existing alternatives that can be demonstrated to meet performance thresholds.
- ⇒ *Develop Additional Anti-Dumping Strategies* - Create incentive programs and improve enforcement to limit dumping in undeveloped areas, County-managed lands, and the White Earth Reservation.
- ⇒ *Green Infrastructure Education Program* – Produce materials that define “green infrastructure” for the benefit of developers, elected and appointed officials, and the general public. Describe why green infrastructure is part of the Comprehensive Plan, and how it will improve the quality of life in Becker County.
 - ❑ Urban areas and resort areas - emphasize green spaces and linear greenway connections;
 - ❑ Sensitive areas - Define green infrastructure limitations on heavily developed or degraded lakes;
 - ❑ Agricultural areas – promote green infrastructure as mitigating risk for erosion.
- ⇒ *Continue Solid Waste Education and Promotion Efforts* – Expand source reduction and recycling efforts within County buildings and agencies, promote these efforts as demonstrations, and continue education efforts to meet the goals of the County Solid Waste Plan. Create County procurement standards designed to minimize waste or pollution.



High Priorities - Infrastructure

Create Centralized Wastewater Management Entities – Identify those areas where on-site wastewater management presents risks to community health or sensitive natural areas. Create Sanitary Districts or other centralized management entities to ensure investment in and management of on-site systems, or to create and management community systems. Encourage and support the development of community-based infrastructure in unincorporated communities, including Pine Point, Osage, and White Earth.

Performance Standards or Incentives for Green Infrastructure – Modify the subdivision ordinance to require or set an incentive for specific elements of green infrastructure, such as on-site infiltration of stormwater, appropriate retention of existing tree cover and creation of new tree cover, and landscaping that uses native species.

Sensitive Natural Areas Overlay District - Create an overlay district that sets septic system performance standards in targeted sensitive areas and watersheds, and requires community systems in new developments. Target lakes with heavily developed lakeshore that are without access to sewers.

Improve Septic Enforcement – Allocate resources to ensure strict enforcement of on-site wastewater regulations, particularly in District 3.

Encourage On-Site Solid Waste Management - Continue to offer on-site solid waste management tools, such as composting bins and source-separated recycling.

Secondary Priorities

Develop an Adequate Public Facilities Ordinance - Identify performance standards that measure the impact of new development on existing infrastructure (roads, wastewater and water systems, schools, telecommunications, etc.). Rely on public capital improvement plans to demonstrate potential remedies to losses in level of service. Threshold Level-of-Service (LOS) standards can also be used to guide decisions on applications for rezoning, conditional use permits, and variances.

Promote Information Technology Investment – Engage technology companies in a discussion on how to leverage private and public technology infrastructure. Encourage the extension of telecommunications infrastructure when other public infrastructure is extended.

Cooperatively Plan for Infrastructure Extensions - Work with cities with centralized water or wastewater systems (Detroit Lakes, Audubon, Callaway, Frazee, and Lake Park) to extend urban infrastructure consistent with County Comprehensive Plan, regional transportation goals, and regional natural resource goals.

Tower Ordinance - Regulate telecommunications towers to minimize visual impacts, set appropriate performance standards, and ensure for timely removal upon economic or technological obsolescence.

Develop New Solid Waste Management Opportunities in Rural Communities – Offer easier and more convenience solid waste management opportunities in unincorporated communities, including Osage, Ponsford/Pine Point, and White Earth, and townships.

Strategies for the DEVELOPMENT ISSUE AREA

Top Priorities

- ⇒ *Incentives for Private Shoreland Restoration* – Support private landowners who restore their shoreland areas to provide green infrastructure and habitat. Consider the following incentives:
 - ❑ Provide tax incentives, cost sharing, technical assistance, or other incentive for landowners to restore vegetative shoreland buffers.
 - ❑ Support State shoreland buffers legislation to fund the purchase of conservation easements from willing shoreland owners and provide cost-sharing for restoration of vegetative shoreland buffers.
 - ❑ Investigate other options for providing local incentives that leave the final choice on restoration to the property owner.

- ⇒ *Create Watershed Zoning Districts or Watershed Overlay Districts* – Create zoning districts or overlays that follow the borders of designated sensitive watersheds or subwatershed (consistent with the lake carrying capacity limits, Natural Resources Inventory, or other studies or efforts by the SWCD, NCRS, Watershed Districts, or DNR).
 - ❑ Limit, through zoning or subdivision ordinance, the amount of impervious surface within sensitive watersheds or subwatersheds, and protects existing shoreland buffers.
 - ❑ Allow selected mitigation for exceeding impervious surface thresholds through investment in off-site stormwater controls or green infrastructure.

- ⇒ *Encourage Sustainable Use of the County’s Natural Resources* – Market the County’s assets for development and recreational use, consistent with wise, prudent use standards, as described in the Comprehensive Plan goals.



High Priorities

Agricultural Notification Standard – Protect agricultural practices from nuisance pressure. Adopt rural development notification for residential or non-ag commercial in designated agricultural areas. Standards state that agricultural practices have priority – performance standards for noise, smell, and other nuisances are set at levels to accommodate agricultural practices.

Educate Public and Public Officials on Non-point Pollution - Develop education programs for targeted audiences on the effects of non-point pollution. Possible programs include the following: 1) Create a Non-point Education for Municipal Officials (NEMO) program for appointed or elected official, including state legislators; 2) Educate landowners on the importance of natural, native shoreline vegetation for maintaining water quality and lake habitat, and encourage maintenance and restoration of native vegetation along shorelines; 3) Work with Becker County COLA, watershed districts, and other organizations to recognize good stewardship and replicate good practices.

Encourage Development Patterns that Protect Resources – Modify the zoning ordinance to allow development patterns, such as some cluster development, that exceed minimum standards in the protection of agricultural practices, forests, and wetland functions. Conduct outreach efforts to land owners and developers on green infrastructure and exceeding minimum standards for resource protection. Consider incentives in District 3 shorelands, waterways, and wetlands as the most at risk, to limit farm and urban nutrient loading and pollution. Create model rural development standards that encourage stewardship of natural and economic resources. Ensure that development fees provide adequate resources for County enforcement of its regulations.

Voluntary Tools to Protect Rural Character and Agricultural Resources – Use voluntary conservation tools to protect rural areas where development pressure is greatest, such as in the rural areas of District 3, including: 1) Promote participation in Conservation Reserve Program (CRP) and similar efforts that protect agricultural practices,

the County’s rural character, and enhance natural resource conservation; 2) Use the purchase of development rights/conservation easements to protect prime ag land; 3) Encourage sustainable agricultural practices to reduce the risk of non-point pollution, conserve soil, and emphasize closed loop or natural inputs.

Guide Development Through Restricting Infrastructure – Use road development and maintenance standards to discourage development pressure in sensitive areas or where resources need to be protected. Restrict extensions of existing County roads, or designating private or township roads as new County roads, in areas designated as forest, agriculture, or large-lot-only residential. Create road and street standards for shoreland developments that minimize the effects of development, traffic, and impervious surfaces on shoreland areas and water quality.

Secondary Priorities

Continue or Expand Lake Water Quality Monitoring - Continue lake water quality monitoring. Build on the current multi-organizational efforts to measure lake water quality and expand efforts to other lakes, particularly heavily developed lakes in District 3.

Develop Animal Agriculture Performance Standards and Development Opportunities – Direct feedlots and animal agriculture to appropriate locations in the County. Limit new feedlot development or expansion near population centers and developed lakes. Develop land and natural resource protection performance standards for feedlot operations near sensitive areas or areas targeted for rural residential development.

Cluster Development Standards – Create cluster development standards for selected areas with forest, agricultural, aggregate, habitat, or other important natural resource such as shoreland areas. Standards can include density bonuses, can be mandatory or voluntary, and can set specific performance standards for resource conservation or incorporation of green infrastructure. Ensure that cluster development standards in designated agricultural areas include substantial buffers to working agricultural lands.

Prohibit Lawn Chemical Use in Selected Watersheds – Prohibit use of harmful lawn and garden chemicals for which more sustainable substitutes exist. Develop a list of substitutes and create a promotional program to accompany new regulations that notifies property owners about alternatives. Work with the Soil and Water Conservation District (SWCD), MnDNR, and other entities on conducting workshops to help property owners comply with regulations.

Continue to Include a Public Input Process for Reviewing Subdivisions or Plats – For large subdivisions or plats in sensitive areas, encourage the consideration of public input and public suggestions for ensuring that the final plat meets community standards.

Designate Large Lot Development Areas - Designate a zoning district for large lot development (20 to 40 acre minimum lot size). Support large-lot or cluster requirements in township zoning within County-designated agricultural areas.

