# COMPREHENSIVE LAND USE PLAN

FOR

MOODY COUNTY

DECEMBER 2002

PREPARED BY THE MOODY COUNTY PLANNING COMMISSION

WITH ASSISTANCE FROM THE FIRST DISTRICT ASSOCIATION OF LOCAL GOVERNMENTS

#### MOODY COUNTY, SOUTH DAKOTA

#### **COMPREHENSIVE LAND USE PLAN**

Notice of Public Hearing (Planning Commission/County Commission) Published: December 11, 2002 Public Hearing held by Planning Commission: December 23, 2002 Planning Commission Adoption and Recommendation: December 23, 2002 Public Hearing held by County Commission: December 23, 2002 Resolution adopted by County Commission: January 1, 2003 Summary of Plan Published: January 1, 2003 Effective Date: January 21, 2003

#### MOODY COUNTY COMMISSIONERS

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#### MOODY COUNTY PLANNING COMMISSION

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THIS MOODY COUNTY COMPREHENSIVE LAND USE PLAN WAS PREPARED WITH ASSISTANCE FROM THE FIRST DISTRICT ASSOCIATION OF LOCAL GOVERNMENTS

TODD A. KAYS, PROGRAM COORDINATOR

#### FORWARD

This document is the Moody County Comprehensive Land Use adopted pursuant to SDCL 11-2, and is the official policy guide for future land use decisions for Moody County. The written policies, goals and objectives, and recommendations along with the Future Land Use Map and other maps provide guidance for decisions affecting the use and development of land within the unincorporated areas of Moody County. It is also recognized that this document should be reviewed annually and revised to reflect the changing aspiration of the citizens of Moody County.

A public hearing of the Moody County Planning Commission and Board of County Commissioners was held on December 23, 2002. This plan was approved by the Moody County Planning Commission and recommended for approval by the County Commission on December 23, 2002. The Moody County Commission adopted this plan on December 23, 2002. The effective date of this document is January 21, 2002.

Chairperson Planning Commission

Chairperson Moody County Commission

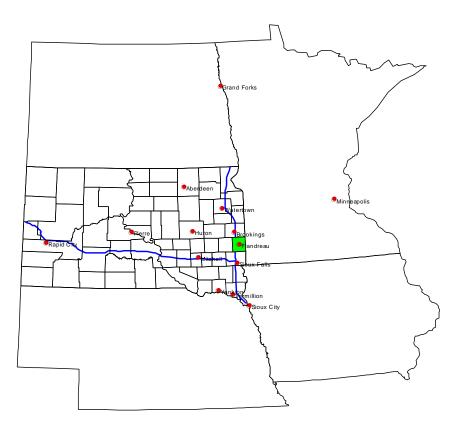
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#### BACKGROUND

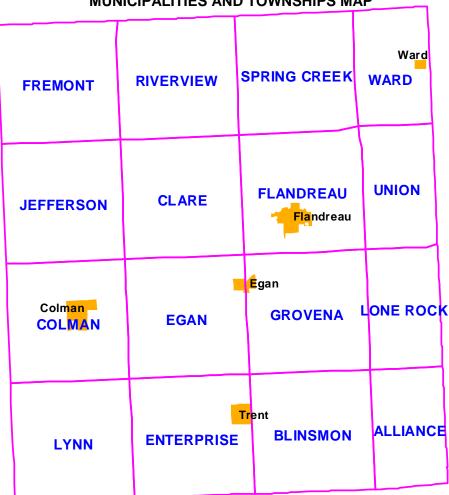
#### **REGIONAL LOCATION**

Moody County lies in the eastern portion of the State of South Dakota at the crossroads of South Dakota Highways 32, 34 and Interstate 29. Major cities within the area include Sioux City, Minneapolis, and Sioux Falls.

#### MAP 1 REGIONAL LOCATION MAP



The county is comprised of five incorporated communities (Colman, Egan, Flandreau, Trent, and Ward) and sixteen townships. The centrally located City of Flandreau is the county seat. The Flandreau Santee Sioux Reservation is also located within Moody County.



MAP 2 MUNICIPALITIES AND TOWNSHIPS MAP

#### 2 INTRODUCTION

Change is a constant that will affect individuals throughout their life. Individuals need to make plans, which will accommodate the changes they will encounter in the future. A plan can provide valuable insight into the possible solutions to the problems, which typically accompany change. Planning for change is not limited to individuals. It also applies to communities and counties. Although the Moody County Planning Commission and County Commission have excelled in the historical application of land use management controls to the unincorporated areas of Moody County, future development has the potential of applying new and varied pressures on local decision makers. Those pressures may be in the form of residents demanding new or additional

services of township or county governments, and/or the potential conflicts that occur in the siting of various uses – concentrated animal feeding operations, wellfields, wastewater treatment facilities, landfills, aggregate mining, and non-farm residences to name a few. The continued development of a quality county will not occur haphazardly or without insight to a plan for these future growth patterns. For without a wellprescribed plan for future expansion, municipal, township, tribal, and county leaders will be left unguided to make decisions, which could impact the county's ability to progressively develop.

This comprehensive land use plan is comprised of common characteristics. The first characteristic is that it is long-term in nature. The intent of this plan is to assist in the shaping of Moody County's future by providing the means necessary to attain a prescribed future. Second, this plan is comprehensive in that it will be directed toward all of the unincorporated areas of the county, and serve as a guide to the physical development of those areas. Finally, this plan is a statement of policy that will guide the decisions made by the Planning Commission, County Commission and various other governmental officials. This document offers a prescription that will assist in answering potential questions regarding future land use, and zoning and subdivision regulations. These policies form a common thread thoughout the plan, stressing the critical importance of compact and contiguous growth of municipalities and established growth areas. Finally, the plan emphasizes the importance of long-term agricultural use by seeking to minimize interference with farming activities and discourage premature development, which leads to costly and inefficient public expenditures.

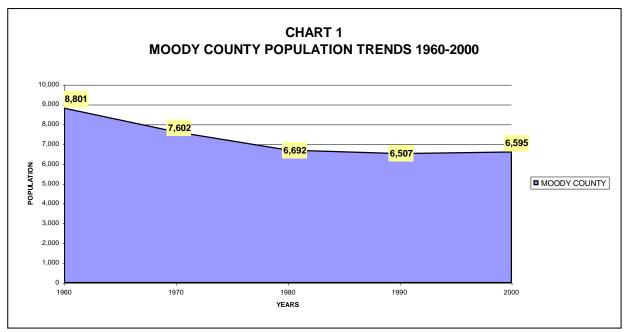
#### PLANNING HISTORY

Counties and municipalities are allowed by South Dakota Compiled Laws to prepare and adopt comprehensive land use plans, and zoning and subdivision regulations. Moody County began land use planning efforts in the early 1970's when the First District Association of Local Governments assisted Moody County in the development of a Comprehensive Water and Sewer Plan. This plan, adopted by the Moody County Commissioners in 1973, was used as the basis for the county's comprehensive plan. Zoning and subdivision ordinances were later adopted in June of 1975. Since the inception of zoning, the county has amended the ordinance as needed with a comprehensive update in 1998. The communities of Colman, Egan, Flandreau, and Trent have undergone comprehensive updates to their land use management regulations within the last five years.

Over an eight-month period, the First District Association of Local Governments worked with the Planning Commission, County Staff and other leaders in gathering information needed for the completion of this document. Thus, after many hours of meetings and the compilation and analysis of data, the Planning Commission has completed this comprehensive land use plan.

#### **POPULATION AND HOUSING**

The study of a county's population is an essential component in the development of a comprehensive plan. By understanding the makeup of its population, a county is then better prepared to plan for the future needs of its citizenry. The first section examines the population of Moody County with respect to such factors as population growth, migration trends and age structure.



Sources For Chart 1: US Bureau of Census of the Population 1960, 1970, 1980, 1990, and 2000.

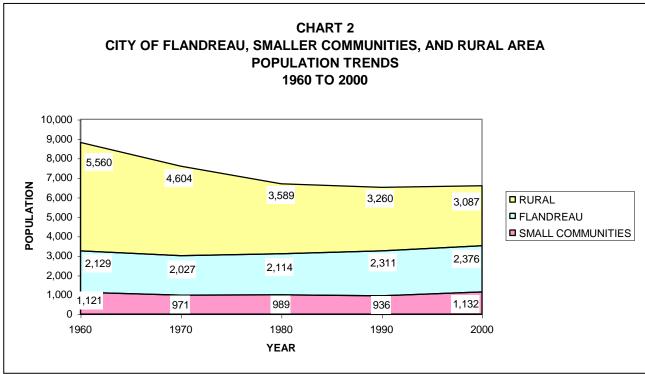
Moody County is comprised of five communities and sixteen townships. The estimated population of the county is 6,595 (2000 Census). Chart 1 displays information on the population trends for Moody County from 1960 to 2000. Although the County has a smaller population today than in 1960, the County did experience a population growth of 1.4% (88 individuals) between 1990 and 2000.

#### TABLE 1 MOODY COUNTY POPULATION HISTORY 1960-2000

CENSUS			SMALLER	TOTAL
YEAR	FLANDREAU	RURAL	COMMUNITIES	COUNTY
1960	2,129	5,560	1,121	8,801
1970	2,027	4,604	971	7,602
1980	2,114	3,589	989	6,692
1990	2,311	3,260	936	6,507
2000	2,376	3,087	1,132	6,595

The smaller communities population for 1960-2000 included Colman, Egan, Trent, and Ward.

Table 1 and Chart 2 detail Moody County population trends by dividing the county into three data subsets. They include the City of Flandreau, smaller communities, and the rural area. The smaller communities subset is defined to include Colman, Egan, Trent, and Ward.



Sources For Table 1 And Chart 2 – US Bureau of Census of the Population 1960, 1970, 1980, 1990, and 2000.

The City of Flandreau has steadily increased both its population and overall proportion of the county's population. In 1960, the City of Flandreau represented approximately twenty-four (24) percent of the county's population. In contrast, that number increased to a high of thirty-six (36) percent in 2000. Nearly seventy-four (74) percent of the increase of population in Moody County since 1990 is due to the growth of the City of Flandreau. Much of the City of Flandreau population growth may be attributed to its characteristics such as physical location, job center, education center, and county seat.

The population of the rural areas within Moody County has steadily been declining since 1960 (-44.5%). Although Moody County has continued to experience population losses in the rural areas of the county, the percentage decreases have slowed over the past ten years to an annual loss of approximately 0.5 percent. It is quite probable that the rural area of Moody County will continue to experience population decreases due to factors such as farm consolidation, and out-migration trends to larger communities.

Between 1960 and 2000 the population of the smaller communities in Moody County experienced a near-zero change. It should be noted that since 1990 the four smaller communities in Moody County have all experienced gains in population within their communities. However it should be noted these communities, like other small towns in

South Dakota, are suspect to forces which may influence future population decreases such as - lack of resident employers, loss of service sector industries, aging population, and out-migration of young adults.

Table 2 shows the population trends from 1990 to 2000 for Moody County (the rural area and incorporated communities). The data from Table 2 continues to support the historical migration patterns that shift the rural/urban mix of Moody County. Between 1990 and 2000 the population increases of the incorporated communities of Moody County were responsible for 100% of the county's population increase.

## TABLE 2MOODY COUNTY POPULATION ANALYSIS 1990 – 2000FLANDREAU, OTHER COMMUNITIES AND RURAL AREA PROPORTIONS

	POP 1990	PROPORTION OF MOODY COUNTY 1990	POP 2000	PROPORTION OF MOODY COUNTY 2000	CHANGE IN PROPORTION 1990 - 2000
COLMAN	482	7.4	572	8.7	+1.3
EGAN	208	3.2	265	4.0	+0.8
FLANDREAU	2,311	35.6	2,376	36.0	+0.4
TRENT	211	3.2	254	3.9	+0.7
WARD	35	0.5	41	0.6	+0.1
RURAL	3,260	50.1	3,087	46.8	-3.3
TOTAL	6,507		6,595		

Sources: US Bureau of the Census, Census of Population 1990, 2000.

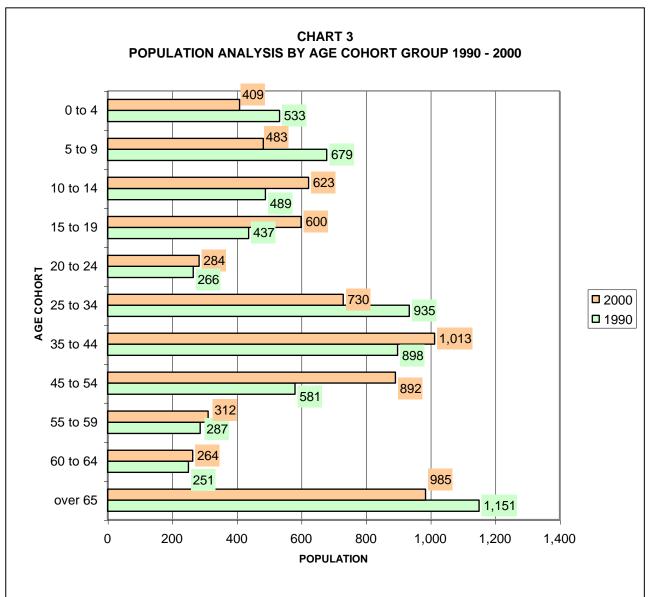
Chart 3 shows the age distribution of Moody County residents in 1990 and 2000. Several conclusions about the county's age distribution trends become apparent after reviewing the 1990 and 2000 Census age statistics. The most notable trends observed were the decrease in the number of individuals in the 0 to 4, 5 to 9, 25 to 34, and over 65 age cohort groups and the increases in all other cohort groups.

Between 1990 and 2000, the number of Moody County's children age 0 to 9 decreased by 26 percent (320 individuals). During this period, the State experienced an increase of 1.8% in these cohort groups. The 0 to 4-year-old cohort group decrease may be attributed to the fertility ratio. Upon examination of the fertility ratio, (the number of children under the age of five compared to the number of women in their childbearing years, ages 15 to 44) one can see a decrease in Moody County's potential birthrate. The fertility ratio in 2000 decreased by 25% (4.5 births per 10 women ages 15 to 44 in 1990 compared to 3.1 births per 10 women in their childbearing years in 2000).

The second trend is that of the 32% increase in the number of individuals who comprise the 10 to 19 year age group (297 persons). This positive statistic provides hope for the future if leadership within the county could provide incentives for these individuals to stay within the county or return after receiving an education.

The third observable trend is that of the 15.5% decrease in the number of individuals who comprise the 20 to 34 year age group. Generally, there is a decrease in this cohort

group because of several factors. The first is being that of the "baby boom/baby bust eras". The individuals who comprise the 25 to 34 age cohort group in 1990 were the final children born into the baby boom era. Meanwhile, individuals 25 to 34 years old in 2000 were the first children of the baby bust era. Also this age cohort group consistently across the state has historically experienced a very high migration rate. Between 1990 and 2000 the State experienced a loss of 16.8% in the same cohort group.



Source: US Bureau of the Census, Census of the Population 1990, 2000

The fourth observable trend is the increase in the number of individuals in the 35 to 54 year old age groups. Between 1990 and 2000, this group experienced an increase of 23.4% (an increase of 426 people). These individuals were born at the height of the "baby boom". During the same time frame the State experienced an increase of over 34% in this age cohort group.

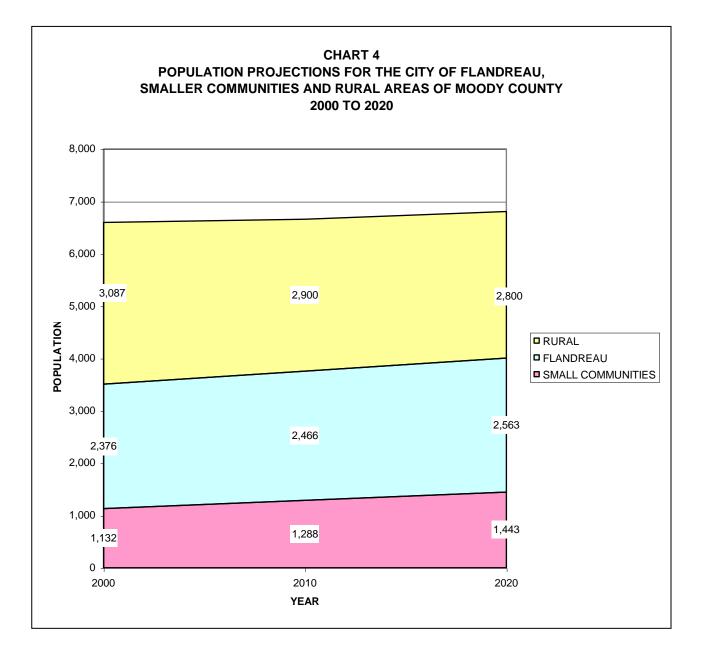
Finally, the number of individuals over the age of 65 experienced a decrease of 14.4 percent. This is an interesting anomaly. Most counties and the State have been experiencing an increase in individuals over the age of 65. Between 1990 and 2000 the State's population of individuals 65 years of age and older increased by 5.7 %. Even though Moody County experienced a decrease in this age cohort group, it should be noted that with extended life spans, migration of elderly individuals from rural areas and the increased number of the baby boomers getting older, the "Graying of Moody County" will continue at a higher pace over the next fifteen to twenty years.

In 1995, the South Dakota State Data Center estimated that in the year 2000 Moody County would have a population of 6,580 (an increase of 1.1 % since 1990). By the year 2020, the estimates project a population to remain at 6,580. The 2000 Census exceeded the 1995 population estimates by fifteen individuals. However, the trends of growth in the number of the elderly, individuals having fewer children, potential outmigration of individuals 15 to 29 years old, and farm consolidation may continue to have an impact on Moody County's potential for future growth. If the recent trends are to continue, it is likely that the county will exceed the 1995 State Data Center population projection estimates.

The communities of Colman, Egan, Flandreau, and Trent will probably continue to contribute to the county's future population base. The community of Ward is an example of a location within the county that could experience modest population expansion during the planning period. These numbers are based upon their existing economies and proximity to the Interstate, and economic centers in Brookings, Madison, and Sioux Falls. Although there may be potential for growth in the rural unincorporated areas, it is probable that the rural area will continue to lose population throughout the planning period. Table 3 and Chart 4 exhibit population projections for Moody County. The population projections were based on regression analysis utilizing U.S. Census Data and some local building permit information.

	2000	2010	2020
COLMAN	572	657	743
EGAN	265	291	315
FLANDREAU	2,376	2,466	2,563
TRENT	254	292	330
WARD	41	48	55
RURAL	3,087	2,900	2,800
TOTAL	6,595	6,654	6,806

## TABLE 3MOODY COUNTY POPULATION PROJECTIONSMUNICIPALITIES AND RURAL AREA 2000 – 2020



#### HOUSING

The number of housing units in the unincorporated areas of Moody County totaled 1,215 in 1990. Between 1990 and 2002\* there were 116 residences either constructed or moved-in into the rural area of the county (Tables 4 and 5). The rural housing stock is comprised almost entirely of single-family residences.

#### TABLE 4 RESIDENTIAL BUILDING PERMITS BY TYPE RURAL MOODY COUNTY 1990-2002

	90'	91'	92'	93'	94'	95'	96'	97'	98 ,	99'	00'	01'	02'*	Total
Stick Built	0	2	3	1	4	5	5	4	9	7	9	8	7	64
Manufactured	2	3	5	1	7	2	6	1	1	8	8	5	3	52
Total	2	5	8	2	11	7	11	5	10	15	17	13	10	116

TABLE 5
<b>RESIDENTIAL CONSTRUCTION 1990 – 2002</b>

								U	nits	s Ac	dde	d				
	# of Housing Units 1990		91	92	93	94	95	96	97	98	99	00	01	02	Total adde	
Townships	Census	90'	,	,	,	,	,	,	,	,	,	,	,	,	d	Total
Alliance	46	0	0	0	0	0	0	2	0	0	1	0	0	1	4	50
Blinsmon	101	2	1	0	0	0	0	1	0	1	0	3	3	0	11	112
Clare	73	0	0	0	0	0	0	0	0	0	1	0	1	0	2	75
Colman	88	0	0	3	0	0	0	0	0	0	0	1	1	0	5	93
Egan	71	0	0	0	0	1	0	0	0	0	1	2	1	1	6	77
Enterprise	93	0	1	0	1	0	0	3	0	1	2	1	2	2	13	106
Flandreau	141	0	0	0	0	1	0	1	2	1	0	0	0	0	5	146
Fremont	114	0	3	3	0	2	3	1	1	2	3	1	1	2	22	136
Grovena	83	0	0	1	0	3	0	1	0	1	1	0	1	0	8	91
Jefferson	60	0	0	1	0	1	2	0	1	3	0	1	1	1	11	71
Lone Rock	42	0	0	0	0	0	0	0	0	0	0	1	1	1	3	45
Lynn	93	0	0	0	1	1	1	1	1	0	2	5	0	2	14	107
Riverview	71	0	0	0	0	1	0	1	0	1	0	1	0	0	4	75
Spring Creek	52	0	0	0	0	1	1	0	0	0	1	0	0	0	3	55
Union	53	0	0	0	0	0	0	0	0	0	1	1	1	0	3	56
Ward	34	0	0	0	0	0	0	0	0	0	2	0	0	0	2	36
Township																
Total *2002 Building permit	1,215	2	5	8	2	11	7	11	5	10	15	17	13	10	116	1331

\*2002 Building permits through May 2002.

Approximately fifty-five (55) percent of the new residential construction within the county over the last twelve years has been stick-built, with most of which being on-site constructed. Manufactured homes represent approximately forty-five (45) percent of

new residential housing. It should be noted that not all of the 116 new residences were on previously undeveloped sites.

Map 3 shows that nearly sixty-nine (69) percent of the homes constructed between 1990 and 2002 were located within townships along the western and southern tiers of the county. This is most likely due to the location of the Interstate, Lake Campbell, and proximity to the City of Sioux Falls. Excluding Blinsmon, Enterprise, Fremont, Grovena, Jefferson, and Lynn, the remainder of the townships averaged residential building permits of less than one-half permit per year.

FREMONT	RIVERVIEW	SPRING CREEK	WARD
22	4	3	2
JEFFERSON	CLARE	FLANDREAU	UNION
11	2	5	3
COLMAN	EGAN	GROVENA <sup>L</sup>	ONE ROCK
5	6	8	3
LYNN	ENTERPRISE	BLINSMON	ALLIANCE
14	13	11	4

MAP 3 RESIDENTIAL CONSTRUCTION IN RURAL AREAS OF MOODY COUNTY 1990 to 2002

Rural farm and non-farm residential construction is expected to continue at a pace consistent with past trends (approximately thirteen to seventeen units per year). This range could fluctuate in either direction if certain events take place. It is probable that future residential increases may be related to expanded development of Lake Campbell and Flandreau Santee Sioux Tribal Trust and Fee lands. Potential construction decreases may be the result of regional economic conditions, mortgage interest rates, additional density zoning requirements and/or lack of supply of developable lots. Based upon the future land use policies within this plan, county residents will still continue to have the choice of either an urban, small town, lake, or rural lifestyle.

#### EXISTING LAND USE

Where and how a county will develop is influenced by the usage of the county's existing land resources. In order for a future plan to properly develop, an understanding of the existing types of land use within the county is necessary. Existing land development was categorized into one of two general classifications.

The first land use category consists of incorporated municipalities. Within Moody County there are five incorporated communities. They include Colman, Egan, Flandreau, Trent, and Ward. For the purpose of this comprehensive plan, individual land uses and available infrastructure within these communities will not be reviewed.

The second land use category includes the unincorporated areas of the county. By area, this is the largest land use category within the county. Agricultural activities are the primary uses in this category. Also within this category there are individual farm and non-farm residences, public/quasi-public uses, conservation/recreation areas, commercial and industrial uses, residential uses adjacent to Lake Campbell, Flandreau Santee Sioux Tribal lands, and aggregate mining.

The primary focus of this report will deal with the management of development within the second land use category.

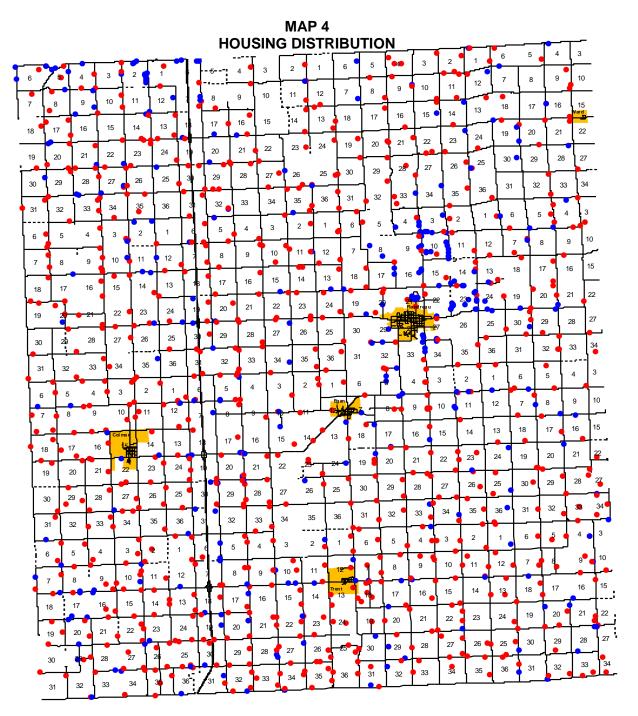
#### UNINCORPORATED AREAS OF THE COUNTY

In order for a future land use plan to properly develop, an understanding of the existing types of land use is necessary. Staff from the First District Association of Local Governments conducted land use inventories within the unincorporated areas of the County.

#### Rural Land Use Patterns

#### Agricultural Land Use

Agriculture is the major land use in the approximately 516 square miles of Moody County. This basic land use has been altered very little through urbanization or the development of communities. Although there have been population losses in the rural areas of the county, there has been an increase of non-farm residential development pressures and those pressures are expected to grow in the future. It is important for the Moody County Planning Commission, County Commission and local township Governments to have farmers continue to operate their farms and remain on the land. Any growth in the non-farm population will continue to make it more difficult for farmers to improve efficiency and effectiveness of agricultural operations.



- Farm Residences
  - Non-farm Residences

#### **Residential Land Use**

While most residential construction occurred within municipal service areas, 116 residential housing units were built in the unincorporated area between 1990 and 2002. This increase of 116 units brought the total number of housing units in rural Moody County to 1,331. It should be stated that most townships within Moody County are rural in nature – eleven of the sixteen townships have less than 100 residential units in the countryside.

#### Commercial/Industrial Land Use

There is very little commercial/industrial activity at the county level of a specific business district nature; rather there are occasional commercial/industrial establishments (approximately twenty-two) scattered along major highways. The largest concentration of commercial/industrial land uses exists at the Colman exit of Interstate 29, adjacent to South Dakota Highway 34 and within two miles of the City of Flandreau.

Although the rural area will continue to experience pressure to provide locations for both commercial and industrial development, it is the intent of Moody County to encourage commercial and industrial development to occur within, thereby preserving agricultural lands and production. Factors that may determine potential commercial/industrial sites include rail access; large contiguous undeveloped land parcels, increased traffic volume, access, rural population growth, and lower real estate costs.

Map 5 denotes the locations of commercial/industrial sites.

#### Construction Aggregate Land Use

There are approximately ten (10) rock, sand, and gravel extraction sites scattered across the county. These extraction sites have the potential to impact adjacent land uses. The many negative impacts associated with aggregate mining include – dust, noise, trucking of material, road damage, environmental concerns, and appearance.

Map 6 denotes the locations of construction aggregate mining sites.

#### MAP 5 COMMERCIAL AND INDUSTRIAL SITES

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#### MAP 6 CONSTRUCTION AGGREGATE MINING SITES

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**Gravel Pits** 

#### TRANSPORTATION

A well-conceived transportation system is one of the most important features of a comprehensive plan. The transportation plan attempts to program road and street use to prevent congested and unsafe street design. Through long-term planning of designated street types, new developments can be coordinated and potential problems minimized.

#### **COUNTY TRANSPORTATION SYSTEM**

Moody County's transportation system is generally laid in a one-mile rectilinear grid system with a majority of the roads having sixty-six (66) foot right-of-ways. The public right-of-ways for County, State and Federal Highways with a bituminous or concrete surface generally exceed sixty-six (66) feet in right-of-way. The township highway system represents the largest road system within the county.

#### STREET CLASSIFICATION

Roads within the county support diverse volumes of traffic. Thus, before a transportation plan can be implemented, the determination and development of the County's existing road system according to classification must be undertaken. The development of these classifications will be specifically related to the function that the road is expected to perform. Developmental expectations are dependent upon the varying amount and type of traffic.

The following generally recognized hierarchy of road classifications would be used to assist in the development of intermediate and long range transportation needs.

<u>Arterials</u> - serve as primary circulation routes. These roads generally carry the majority of traffic volume within the county. Their basic function is to facilitate movement of medium and long distance, high-speed traffic between regions and communities with a minimum of impediments. Since arterials serve for traffic movement between regions and subareas, all direct access to abutting property should be restricted. Further, parallel service roads should be added, where appropriate, to maintain traffic carrying capabilities of the thoroughfare. South Dakota Highways 13, and 32, 34, and Interstate 29 are considered arterials.

<u>Collectors</u> - form an intermediate category between arterial and local roads. Collectors serve as a link between arterial and local roads by "collecting" traffic from local roads and transferring it to arterial roads. Collectors may further be classified into major and minor collector categories. Presently, the Moody County Paved Highway System serves as collectors.

**Local Streets** - primarily provide access to abutting properties. They are not designed to carry large amounts of through traffic and are primarily characterized by short trip Length and low traffic flow. County gravel and township gravel highway systems act as local streets.

#### MAJOR STREET PLAN

The Major Street Plan shown on Map 7 classifies roads as arterial, collector, or local. The plan is designed to effectively move traffic through the county and between major attraction points.

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MAP 7 MAJOR STREET PLAN MAP

ARTERIAL



COLLECTOR

COUNTY & TOWNSHIP GRAVEL ROADS

#### Transportation Goal

### To provide a safe and effective transportation system that promotes the efficient movement of people, goods, and services within and through the county.

#### Policies

- Plan and provide an integrated street and highway system that is planned, designed, developed, and maintained consistently with the County's existing and anticipated future land use patterns and activities.
- Limit access (driveway/curbcut) and utilize frontage roads on arterial and major/minor collector streets.
- Secure and preserve sufficient rights-of-way for future arterial and major collector traffic routes.
- Require developers to have sufficient parking to meet existing and future demands.
- Classify major streets and highways according to function and establish design standards for various street classifications.
- Coordinate plans with communities in the development of a network of arterial and collector roads that promote efficient traffic movement and supports growth in projected development areas.
- Identify maintenance responsibilities as part of the platting of new subdivision roads.
- Require new development to finance road improvements needed to support increased traffic.
- Discourage strip type development along major thoroughfares to maintain the carrying capacity of highways and to avoid conflict with other land uses.

#### PHYSICAL ENVIRONMENT

#### Streams, Lakes and Wetlands

The water drainage in Moody County is concentrated in the Big Sioux River basin. The Big Sioux River along with Mud Creek, Flandreau Creek, Spring Creek, Skunk Creek, Bachelor's Creek, Brookfield Creek and Pipestone Creek form the major surface drainage features in Moody County.

Wetlands are prevalent throughout the entire county. Wetlands perform a variety of functions, serving as natural water purifiers by filtering out pollutants, thereby enhancing Surface and groundwater quality, increasing wildlife and fish habitat and providing

recreational opportunities. Wetlands also reduce siltation and control flooding by slowing runoff during rapid snow melt and heavy rainfall, releasing water gradually so erosion and downstream flooding are minimized.

There are five prairie lakes located in Moody County. They include, Anderson Slough, Mud Lake, Mill Pond, Poison Lake, and Lake Campbell. Presently there is a clustered residential development on Lake Campbell.

#### Soils

There are ten soil associations, or types of soil patterns in Moody County. A soil association is landscape that has a distinctive proportional pattern of soils. It normally consists of one or more major soils and at least one minor soil, and it is named for the major soils.

The Natural Resources Conservation Service recently completed a major update of the Moody County Soil Survey. Soil boundaries were provided in digital format for entry into the county's geographic information system (GIS) along with attribute information associated with the various soil types.

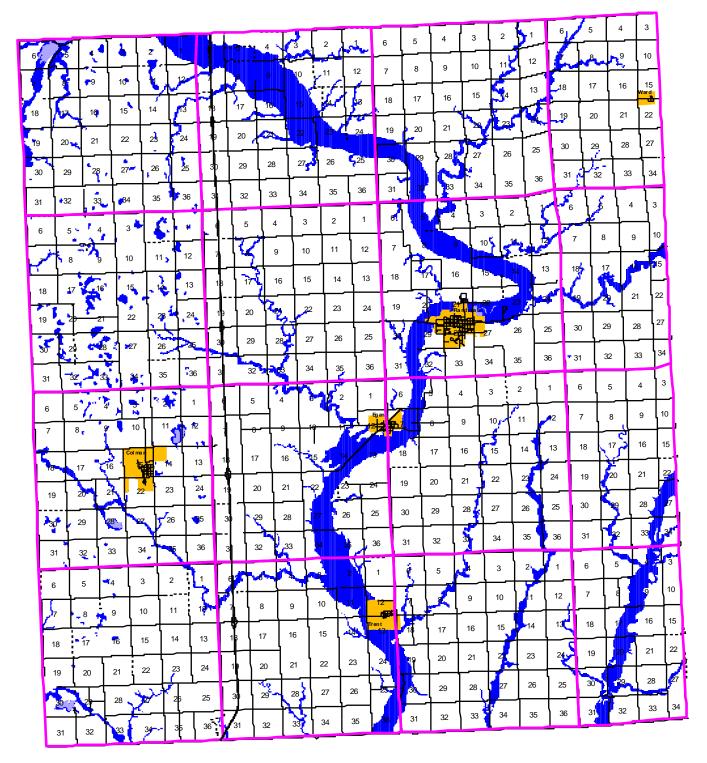
Soil attributes provide information on agricultural productivity, erosion factors, and limitations for the use of wastewater absorption fields, lagoons, buildings, roads and other engineering applications. GIS affords the opportunity to analyze these attributes as part of the site development evaluation process.

#### Flood Plains

Floodplains are lowlands adjacent to the channels of rivers, streams, and other watercourses where inundation periodically occurs due to extreme natural events.

The Flood plain has two constituents – a floodway and a flood fringe. Together they comprise the flood hazard area generally referred to as the 100-year flood plain identified by the Federal Emergency Management Agency (FEMA), where the chance of experiencing a flood of such magnitude is one (1) percent every year.

Moody County maintains eligibility in the National Flood Insurance program by enforcing the Flood Damage Prevention Ordinance. Participation in the program enables residents of flood plain areas to purchase special insurance at subsidized rates. The County's present ordinance requires that residential structures be flood-proofed. This is done by requiring the lowest floor of residential structures to be constructed to a standard of one foot above the base flood elevation. Residential structures are prohibited from being constructed in flood ways while encroachments, including fill and new construction, are prohibited unless engineering certification demonstrates that the activity will not result in an increase in flood levels. Flood plain areas (shown in dark blue) in Moody County are depicted on Map 8 and on the Future Land Use Map.



MAP 8 FLOOD PLAIN MAP

#### **Big Sioux Aquifer and Water Source Protection**

The County's water resources consist of surface water found in streams and lakes, and groundwater. The Big Sioux Rural Water System and the Cities of Colman and Flandreau provide water to all rural and municipal users, excluding those with private wells.

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#### MAP 9 AQUIFER AND WELLHEAD PROTECTION AREA MAP

AQUIFER

The water resources are at risk of contamination by a variety of sources – inadequate wastewater treatment and disposal attributed to both on-site and municipal sources, mismanagement of waste from livestock facilities, overuse of fertilizers and pesticides, solid waste disposal sites, and sites for the storage and manufacture of regulated substances. The county enforces measures to protect these vulnerable areas through the water source protection overlay district provisions of the zoning ordinance. The overlay district prohibits uses, which pose a high risk of contamination to surface and groundwater resources, and regulates other potential damaging uses so that adverse environmental impacts are minimized.

#### 3 4

#### LAND USE PLANNING POLICIES

The purpose of this Comprehensive Land Use Plan is to outline what is to be produced or accomplished in the County relative to the physical environment. Moody County's Comprehensive Land Use Plan shall consist of land use planning policies and a future land use map. The land use planning policies contain numerous goals and policies. These policies and maps should all be used collectively as they set a comprehensive framework for a review and evaluation process upon which plans, developments, and programs can be formulated and instituted.

The primary objective of this study is to identify where and how this growth can best take place. This required the documentation of existing land uses and the identification of opportunities and constraints that will affect future land development.

The development of land use planning policies was required to establish the basis on which future development would take place. By integrating the county's vision and growth objectives with the available resources, a preferred direction and pattern for future development was determined, and thus, became the basis for the recommendations and future land use plan as presented in this report.

Generally, a comprehensive land use plan will utilize written policies to paint a picture of how a county should look in 10 to 15 years. An initial step in the development of a comprehensive plan is that of establishing land use planning policies. The following are the major goals, objectives and policies, which have an application to the development of the comprehensive plan for Moody County.

#### DEFINITIONS

This section contains the development "vision" for Moody County. It is expressed through goals and policies. A definition for each term is presented below.

- **Goal** A general statement that reflects ideals, ambitions or hopes.
- **Policy** A statement concerning a specific, measurable target or purpose or an action or position that will be taken to achieve the goal.

The Goals and Policies spell out various roles and responsibilities for Moody County. To better understand the county's role for each Goal and Policy, a number of the key terms are defined below.

- **Create -** Bring about the desired goal, usually with county staff and Planning Commission involved in all levels from planning to implementation.
- **Continue -** Follow past and present procedures to maintain desired goal, usually from county staff and Planning Commission involved in all levels from planning to implementation.
- **Encourage -** Foster the desired goal through county policies.
- Endorse Subscribe to the desired goal by supportive county policies.
- **Enhance -** Improve current goal to a desired state through the use of policies and county staff and Planning Commission at all levels of planning.
- **Identify -** Catalog and confirm resource or desired item(s) through the use of county staff and actions.
- **Maintain -** Keep in good condition the desired state of affairs through the use of county policies, staff and Planning Commission.
- **Recognize -** Acknowledge the identified state of affairs and take actions or implement policies to preserve or change them.
- **Prevent -** Stop described event through the use of appropriate county policies, staff or Planning Commission action.
- **Promote -** Advance the desired state through the use of county policies and staff/Planning Commission activity at all levels of planning.
- **Protect -** Guard against a deterioration of the desired state through the use of county policies, staff and Planning Commission.
- **Provide -** Take the lead role in supplying the needed financial and staff support to achieve the desired goal.
- **Strengthen -** Improve and reinforce the desired goal through the use of county policies, staff and financial assistance, if needed.
- **Support -** Supply the needed staff support, policies, etc. at all levels to achieve the desired goal.
- **Sustain -** Uphold the desired state through county policies and staff/Planning Commission action to achieve desired goal.

**Work -** Cooperate and act in a manner through the use of county staff/Planning Commission actions, policies, etc. to create the desired goal.

The goals and policies spell out various roles and responsibilities for Moody County. The following statements will direct the implementation of the Comprehensive Land Use Plan. They are being presented under the following eight headings:

- Fundamental Goals
- Areas of Development Stability
- Areas of Development Advantage
- Areas of Development Transition
- Areas of Development Limitations
- Environmental Policies
- Residential Development
- Commercial and Industrial Development
- Management and Coordination

#### FUNDAMENTAL GOALS

- To provide for orderly, efficient land development within the unincorporated areas of Moody County.
- To manage growth within the framework of the Moody County Comprehensive Land Use Plan and other municipal or tribal comprehensive plans.
- To maintain a distinction between rural areas and municipalities.
- To provide a transportation system that promotes the safe and efficient movement of people, goods, and services.
- To achieve the maximum efficiency in the provision of public services and facilities.
- To preserve and enhance environmental, historical, and cultural resources.
- To promote compatible development in the rural area.
- To support and encourage the growth of the county's economic base and promote the expansion of job opportunities.
- To maintain a viable agricultural economy.
- To preserve the quality of life of the residents of Moody County.
- Promote only responsible residential, commercial and industrial development based upon sound siting criteria.

#### AREAS OF DEVELOPMENT STABILITY

This category represents the bulk of agricultural land (cropland, rangeland, and pasture) and sites that are not expected to experience any anticipated change during the planning period. This land use category should be regulated to prevent the encroachment by urban uses until such time development meets the established land use planning policies. There may be an occasional residence, or an agricultural-oriented commercial/industrial venture constructed, but the primary use or focus should remain agricultural. Major, land intensive projects such as a landfill, sewer lagoon, or concentrated animal feeding operation may dramatically alter the area and or adjacent areas. However, these particular uses would involve mandatory public input, a comprehensive site plan review, and environmental assessment procedures.

Areas identified for development stability or agricultural uses shall be managed in such a way as to promote these uses and prevent premature intensification of other land uses. Land in this area shall be regulated so as to limit non-farm residential and urban density development through the use of minimum lot sizes, setbacks, and other regulations.

It should be noted that if agricultural lands are not protected though land use controls their optimum utilization will diminish in disproportion to the amount of area reverting to urban use. Thus, much of the remaining economic potential of the land, in terms of agricultural production, is lost.

#### **Agricultural Preservation Policies**

- > The premature development of agricultural land should be discouraged.
- Discourage development patterns that require public improvements financed in part by the farming community but which are not necessary to support agriculture.
- Best management land practices must be employed to protect valuable agricultural land, soils, water supplies, as well as other amenities.
- Preserve agricultural lands and protect the rural area from uses which interfere with and are not compatible with general farming practices.
- Recognize and improve upon regulations which have a negative impact on familyfarming operations.
- Promote development patterns which will avoid producing inflated agricultural land values.
- > When considering future land use decisions, the preservation of agricultural land should be of significance.

#### **Miscellaneous Policies**

- Areas designated appropriate for development stability will not experience public water and sewer extensions.
- > Limit rural developments to densities that do not exceed current service levels.
- Discourage the random and haphazard siting of commercial and industrial uses within the rural area where such uses do not support the agricultural industry.
- Protect construction aggregate resources by restricting adjacent land uses to those that are compatible with extraction operations. Require operators to meet developmental and operational standards (such as road haul agreements).
- Regulate concentrated animal feeding, processing and related operations to protect environmental quality and minimize conflicts with existing and future development areas.
- In order to protect the aquifer, lakes, and wetlands, establish and maintain an inspection program to ensure proper installation and maintenance of on-site wastewater disposal systems.
- Only future development (residential, commercial, industrial, etc.) which cannot be accommodated in a community (incorporated or unincorporated) or in a Lake Park District, or sanitary sewer district should be encouraged in the unincorporated areas of the county that have appropriate infrastructure – roads, water, sewer.
- Moody County encourages the identification and retention of historic and cultural resources – i.e. historic farms, cemeteries, etc.
- 5 6

#### 7 AREAS OF DEVELOPMENT ADVANTAGE

These areas have qualities that encourage development in the near future. These areas are located within and immediately adjacent to municipalities and lakes with adequate infrastructure in place. There is often access to transportation routes and the property is served or could be economically served with public services – water, and sewer.

#### Policies

Concentrate future non-farm growth in or contiguous to municipalities where public infrastructure can be economically provided. Maximize the utilization and efficiency of existing public facilities.

- Discourage premature development in municipal or developed lake fringe areas. Premature development is defined as development that could limit future land use options and opportunities to locate and finance public infrastructure facilities.
- Seek input of municipal officials in the review of development proposals which could potentially impact future municipal expansion and public infrastructure projects.
- Seek input of Tribal officials in the review of development proposals which could potentially impact future tribal expansion and infrastructure projects.
- Encourage annexation of potential development sites within municipal fringe areas before development plans are approved.
- > Recognize municipal growth plans when considering future development proposals.
- Preserve the identity of existing communities by discouraging sprawl and leapfrog development.

#### 8

#### 9 AREAS OF DEVELOPMENT TRANSITION

These areas are located near incorporated and unincorporated communities and/or developed lakes. They have been experiencing requests for residential or commercial/industrial development. The current land use is generally agriculture or open space. These areas could be potential conflict zones in terms of availability of public infrastructure, incompatible uses, and municipal/county interests.

#### Policies

- Uses and activities, when compatible, shall be concentrated and clustered into functionality related areas or centers.
- Development will not be permitted in areas, without available infrastructure i.e. paved roads, public water, and sewer services and such development shall include connection to said municipal/sanitary sewer district/road district infrastructure.
- In areas of development transition, leapfrog development on land which cannot be economically provided with public services and facilities is discouraged.
- Cooperation and coordination in land use planning should be promoted between municipal areas and the County in the development of land and utilities in the extraterritorial jurisdictional area outside of a community's corporate limits.
- Cooperation and coordination in land use planning should be promoted between Moody County and the Tribe in the development of land and utilities on Tribal Trust and Fee Lands.

- In areas of development transition, annexation of the land adjacent to the municipal corporate limits and sanitary sewer districts is encouraged prior to development.
- In areas of development transition, only the subdivision of land, adjacent to the city limits, which would enhance future city development, is encouraged.
- Require county-approved developments within the areas of development transition to require utilities compatible with municipal or sanitary sewer district requirements.
- > Promote optimum land use relationships and minimize land use conflicts.
- Promote cooperative efforts with the municipalities in dealing with development issues in municipal/developed lake fringe areas.
- Encourage new residential construction to locate on previously platted lots and other parcels which already qualify as building sites.
- Limit rural densities adjacent to communities and sanitary sewer districts so that current service levels are not exceeded, thereby avoiding the creation of new special purpose districts (i.e. sanitary, water and road districts).
- Contain urban expansion to areas which are adjacent to incorporated communities and sanitary sewer districts.
- Future community growth should occur in areas contiguous to existing development to allow economical expansion of municipal facilities and services.

#### Rural land will be converted to urban development in accordance with the Comprehensive Plan and in such a way as to promote economic and orderly extension of the urban services.

- In many cases, because of the scattered locations of land developments, extension of municipal and sanitary sewer district utilities may not be a practical matter. It is therefore, important that the various governing jurisdictions encourage development of land parcels contiguous to existing developments in order to prevent the creation of large areas of passed land.
  - Regarding the development of property adjacent to lakes located within the County, the Planning Commission realize that these lands are also areas of development transition and will require extensive review prior to the approval of new developments and/or the expansion of existing developments. Policies or issues to consider in the development of lake property include:
    - In areas of development transition adjacent to lakes, the subdivision and development of land will not be permitted without approved water and

#### sanitary sewer services.

- The development and maintenance of interior streets shall be the responsibility of the developer or homeowners association.
- The Planning Commission shall consider the impact upon county and township roads servicing the proposed lake developments.
  - A piecemeal approach to the development of lake property is not encouraged. A comprehensive design and site review shall be required.
- The Planning Commission encourages the development of public and/or private parks/access areas adjacent to lakes after a comprehensive site review.

#### AREAS OF DEVELOPMENT LIMITATION

These areas have characteristics that would either prevent them from being developed or would result in excessive construction costs. Regular flooding, depth to the aquifer, steep slopes, fragile soils, proximity to certain facilities (gravel pits, lagoons, landfills, concentrated animal feeding operations, etc.) would all be limiting factors. Limited access to transportation routes and public facilities further limit the areas potential for development.

#### **Development Constraints in the Unincorporated Areas of the County**

The following types of development constraints have been identified and will be accommodated in the future land use plan.

**Floodplain** - This development constraint category has been designated from flood plain studies on land experiencing flooding, standing water, or extremely high water table conditions. The land areas vary in the intensity of problem water conditions, but special consideration should be given to preventing development to occur unless coordinated precautionary measures are instituted.

**Shallow aquifer** - This development constraint category has been designated from groundwater shallow aquifer studies. Special consideration should be given to preventing types of development, which have the potential to pollute the aquifer (concentration of residences, chemical storage, concentrated animal feeding operations, certain commercial and industrial uses, etc.) unless coordinated precautionary measures are instituted.

**Soils** - This development constraint category has been designated from Natural Resource Conservation Service soil studies. These studies provide information on the suitability of the general soil associations to support certain types of land use activities, such as septic tank absorption fields, sewage lagoons, shallow excavations, dwellings

with basements, sanitary landfill, roads and streets. The Zoning Officer and Planning Commission will utilize the information from these studies in making decisions relating to the development of specific sites. Special consideration should be given to preventing development to occur in areas where soil types are not conducive to associated development requests.

**Natural Resources** - This development constraint category has been designated from Natural Resource Conservation Service and Corps of Engineer's wetland inventory studies. The land areas vary from bodies of water to game propagation areas. Special consideration should be given to preventing development to occur unless coordinated precautionary measures are instituted.

#### Policies

- Development of this area shall be compatible with features of the natural environment and accommodated without destroying environmental features and natural amenities. At a minimum, the following areas shall be considered Areas of Development Limitation:
  - 1. Shallow Aquifer Zone A and B
  - 2. Soils that cannot support certain land use activities –these are defined within the NRCS Moody County Soil Survey
  - 3. Identified Flood Plains
  - 4. Identified Wetlands
- The following physical features may be preserved in a natural state and properly maintained: Low-wet areas, lakes and streams, drainageways, wildlife areas, and tree-cover.
- Zoning and subdivision regulations shall require protection of drainage ways, wetlands, water courses, water bodies, soils, and aquifer; and shall require easements for such and make them integral parts of land development site plans.

#### ENVIRONMENTAL POLICIES

#### It is the goal of Moody County to avoid development in areas that:

- 1. Are environmentally fragile or unique;
- 2. Present health and safety hazards, as defined in County, State and Federal statutes, to county residents.
- Policy 1. Soil characteristics, depth to aquifer, topography and other construction limitations should be carefully considered in project site planning.

**Policy 1 - Supporting Policies** 

- County officials shall be provided assurances of environmental protection measures, prior to the approval of any required permit or legal document.
- The development of stream corridors, the aquifer, natural floodplains and drainageways and other significant natural areas that are unsuitable for construction shall be precluded.
- County Officials shall strive to protect surface water and groundwater, especially in those areas that are designated wellhead and shallow aquifer protection areas.
- Soil erosion and downstream sedimentation shall be minimized through appropriate design.
- Prior to development in unsewered areas, soils shall be tested and analyzed for absorption capability and no building permits allowed unless tests determine site meets established sanitary standards.
- Those areas identified floodplain, groundwater aquifer; natural resource shall be managed in such a way as to prevent premature development of other land uses.
- Natural drainage courses should be protected in their capacities to carry runoff water.

### Policy 2. Development shall be limited within areas that are known to experience regular and/or severe flooding.

#### **10 Policy 2 - Supporting Policies**

- Citizens seeking county permission for development within a known flood hazard area shall provide documentation that their project will not present a risk to public health and safety.
- Proposed developments in flood hazard areas shall comply with the National Flood Insurance Program and associated regulatory agencies.

## <u>Policy 3.</u> Drainage, air quality, noise, and other environmental factors will be considered for impacts on neighboring property.

#### **11 Policy 3 - Supporting Policies**

- > The preservation of agricultural production practices should be a priority consideration in land use decisions.
- In situations where permission is needed and the situation warrants an evaluation, the county will rely upon both technical sources and public input in making decisions.

#### **RESIDENTIAL DEVELOPMENT**

#### **12 Residential Development Goal**

In order to maintain an agriculturally based community where conflicts with agricultural practices are reduced and in order to maintain the quality of the lakes within the county so they are viable, it is the goal of Moody County to encourage the expansion of residential development only in existing incorporated communities, and in those areas included within a sanitary sewer district.

#### 14 Policies

- Non-farm residential development should take place at locations that minimize public infrastructure costs and potential agricultural/residential conflicts, and promote safety.
- Restrict the density of residential uses and direct higher development densities to the municipalities (incorporated and unincorporated) and sanitary sewer districts.
- Preserve and protect the agricultural productivity of rural land by restricting the development of non-farm residential sites.
  - In Areas of Development Stability Rural residential density of one eligible building site (minimum of 2 acres), per forty (40) acres of land (quarter-quarter section).
- > Scattered non-farm residential developments shall be discouraged.
- Pedestrian and traffic safety, infrastructure capacities, environmental impacts, and adjacent land uses should be considered in evaluating residential development proposals.
- > The location of Planned Residential Districts shall not be adjacent to, or in the growth path of incorporated municipalities.
- > Planned Residential Districts shall only be located along paved roads.
- So that the location of Planned Residential Districts shall not cause environmental problems, Planned Residential Districts shall not be allowed over an identified Aquifer Protection Overlay District or in an identified floodplain.
- Within the framework of zoning when small lot developments on a quarter-quarter section of land is proposed, every effort should be made to cluster residential uses and limit driveway approaches onto arterial and collector roads.
- > Public services and facilities shall be provided at a level sufficient to meet the needs

#### of a low-density agricultural population only. COMMERCIAL AND INDUSTRIAL DEVELOPMENT

It is the goal of Moody County to encourage the continuation of agricultural production, while promoting cost effective, value added agricultural processing efforts.

#### **Policies**

- Promotion or encouragement should be given to agricultural production and processing activities that benefit the agriculture industry.
- County regulations should protect the property rights and promote the economic opportunities of farm operators.
- Commercial and industrial development should take advantage of existing utility networks and transportation systems.
- The locations, capacities and relationships of public infrastructure systems should be reviewed as part of development proposals requiring county permission.
- The Moody Planning Commission should encourage the redevelopment and reuse of existing business locations.
- Commercial and industrial development, such as value added Ag industries should be compatible with adjacent land uses.
- Commercial and Industrial development projects should take place in designated industrial parks or already developed highway locations.
- Commercial and Industrial development projects which potentially pose a threat to the environment shall be precluded from siting in Areas of Development Limitation
- Commercial and industrial developments which can be accommodated in an incorporated or unincorporated municipality shall be discouraged in the unincorporated areas of the county.
- Municipal commercial districts should be protected and should not be diluted by a scattered pattern of commercial uses developed at random throughout the unincorporated areas of the county.
- Developers should be encouraged to reserve "buffer" areas between different land uses to minimize the potential for conflict.
- Discourage commercial and industrial development in the rural area unless the uses are directly supportive of agricultural operations.

- Discourage strip development along transportation arteries, particularly those which serve as gateways to the municipalities.
- Prior to construction, each commercial/industrial development project should be subject to a specific site design, review and approval process. The arrangement of the on-site buildings should provide for efficient and viable long-term usage. Further, appropriately locating and designing the development's service areas should discourage disruption to on-site circulation or adjacent land use. Vehicular access to highway commercial and industrial areas should be sufficiently set back from intersecting streets with appropriate sight distance maintained at all entry points. Also, to enhance vehicular traffic flow strict controls affecting the number and location of accesses to commercial/industrial areas should be established.

#### MANAGEMENT AND COORDINATION

It is the goal of Moody County to efficiently and effectively manage and coordinate land use plans and implementation tools.

- Coordination should take place between local, state and regional entities on development issues.
- > Employ an area-wide approach in planning utility and drainage systems.
- > Citizen participation should be a major component of the development process.
- Ample opportunity will be provided for direct public comment, in every appropriate situation.
- Planning and other development documents will be written using plain language, with an absence of jargon or specialized terminology.
- Flexibility within the planning and zoning process will be retained so as to readily cope with changing social and economic conditions.
- All extensive land development proposals should be guided by a plan for site development. Such plans would determine the optimum intensity of the use for land and identify corresponding densities of land occupancy so that proper precautions could be taken to assure adequate utilities and environmental concerns.
- It is the intent of Moody County to maintain a consistent high level of inspection performance.

#### LAND USE LOCATION AND DESIGN CRITERIA

The following are specific location and design criteria that should be considered when siting an associated development request in the rural area of the county.

#### RESIDENTIAL

- In Areas of Development Stability Rural residential density of one eligible building site (minimum of 2 acres), per forty (40) acres of land (quarter-quarter section).
- Discourage non-farm residential development which access township/county gravel roads; and
- Discourage land splits which erode the integrity of agricultural use areas.

#### **COMMERCIAL/INDUSTRIAL**

- Adjacent to county and state highways
- Rail access for industrial uses
- Controlled access onto major highways
- Adequate buffering from neighboring uses
- Hard surfaced driveways and parking areas

#### **SPECIAL USES**

Intensive Agricultural Uses-Includes feedlots, concentrated animal feeding operations

- Environmental impacts aquifer protection, runoff, land application of animal waste
- Adequate separation from residences, churches, institutional uses, parks
- Prevention of construction of Class A and B concentrated animal feeding operations in the floodplain, or over shallow aquifers
- Compliance with requirements for land application of animal wastes and for odor minimization
- Construction and land application to prevent runoff of animal wastes

#### **MINING**

- Developmental criteria based on type of extraction, intensity and duration of use
- Appropriate separation from existing residences
- Adjacent to hard surfaced roads or upgrade existing roads used for hauling
- Visual considerations Berms and Natural Screening
- Environmental impacts noise, dust, hydrology
- Reclamation as an ongoing process

#### **IMPLEMENTATION**

The comprehensive land use plan for Moody County has been designed to provide guidance for future growth for approximately fifteen years. With any plan of this nature, it needs to be reviewed periodically to ensure conditions and circumstances affecting development are occurring as originally anticipated. The Moody County Planning Commission recommends that this document is reviewed on an annual basis and that a comprehensive update to this plan occur in ten years or as deemed necessary by the Moody County Planning Commission.

It should be noted that the completion of a comprehensive land use plan is only the first step in the implementation of a planning program. The plan itself is merely a guide for achieving an orderly and attractive county. The County will need to take a number of steps in order for the plan to be successful. The first is the identification and prioritization of public improvements required to support and serve the future development areas. Second, is the adoption or modification of applicable implementation tools, such as regulatory ordinances to ensure that the objectives embodied in the plan are adhered to as future parcels and tracts of land are developed. These tools, which are discussed in the following section, may include zoning and subdivision ordinances, building codes, etc. Finally, the Moody County Planning Commission should continue to review all matters affecting physical development and remain active in promoting the plan with other planning agencies in the area.

#### ZONING ORDINANCE

The basic function of the zoning ordinance is to carry out the goals, objectives, and policies of the comprehensive land use plan. The zoning ordinance, which reflects these long-range goals, is the primary regulatory tool utilized by the county for various land use activities in the rural unincorporated area.

Since the inception of zoning in 1976, the county has amended the ordinance as needed with a comprehensive update in 1998. It is recommended that to insure the policies embodied within this plan are implemented, the zoning ordinance should be reviewed and appropriate changes incorporated.

#### ZONING TECHNIQUES

#### Density Zoning

Since 1975, Moody County has enforced a two-acre minimum lot size with density requirement of 1 building right per quarter-quarter section (40 acres) in the Agriculture District. This requirement of large lot zoning was put into effect for a number of reasons which include but are not limited to the following:

- Pollution of groundwater/aquifers from septic tanks;
  - Moody County has instituted an aquifer protection ordinance. There are many shallow aquifers dispersed throughout the county. Concentrated, small lot developments have the potential to pollute the aquifer directly or from run-off situations.
  - Communities have invested millions of dollars in sewage treatment facilities. These facilities generally have excess capacity which could be utilized, not only in the City of Flandreau, but also in the smaller communities as well.
- Demand for increased services road improvements, snow removal beyond what farmers and township officials need or want to pay for;
  - Rural subdivisions or strip developments often demand improvements or increased services over and above what is normally required by the farming community. These requirements often come in the form of improved road surfacing or maintenance and snow removal requirements. At a time when residents of the county are requesting reduced property taxes and in some instances, reduced services, the change from large lot zoning to small lot zoning would only tend to increase the demand for tax dollars.
- Conflict between non-farm residential development and farming operations;
  - Farming operations continue to change over time. Farming today needs to be classified as heavy industry. Heavy industry and residential uses are generally not compatible. It used to be that a livestock operation would be comprised of 100 head of stock cows. Today many feedlots must include a thousand head of cattle to be economically viable. Crop farming is not generally compatible with residential development. Potential conflicts here include herbicide drift, blowing dirt, and noise. Obviously, the spreading of animal waste and odors from livestock operations has been, and will continue to be, a major problem.
- Problems relating to strip development along county and state highways; and
  - Small lot developments along county and state highways pose a different type of problem. A strip development along these highways with multiple driveways reduces the function of the highway and also causes a traffic problem. School bus stops along these strip developments not only cause potential for accidents, but also reduce the flow of traffic.
- Removal of farmland from agricultural use.
  - > The end result of small lot development in the established rural agricultural area

#### is the removal of prime farmland from its "highest and best" use.

Density zoning can work for Moody County in reducing potential conflict between agricultural and non-agricultural uses. It can also reduce the need of an increased level of services and can preserve farmland for agricultural uses. Obviously, at this time, there is a demand for small lot development in rural areas. However, this demand for rural-type living should be encouraged to develop in and adjacent to communities which have the ability to provide the necessary services. If small lot zoning were allowed to develop in the county, it would be very difficult to change back to large lot zoning in the future.

#### **Agriculture Preservation**

Farmland protection has come to be recognized as a key ingredient in the overall effort to manage growth. Land use planning and regulatory control's primary purpose is to separate conflicting land uses. Moody County has and will continue to use zoning to promote the continuation of agricultural activities in the rural area and to minimize residential land uses that are incompatible with farming.

In the future, the county should assist the agricultural sector in exploring methods for preserving and protecting agricultural resources. These methods may include the development of nuisance disclaimers, urban growth boundaries, exclusive agricultural zones and right-to-farm ordinances.

#### JOINT JURISDICTIONAL (EXTRATERRITORIAL ZONING)

The County recognizes the rights of and obligations of municipalities to plan for their individual development. South Dakota Codified Laws enable municipalities to adopt zoning regulations for areas within their corporate limits and, with county approval, they may exercise zoning powers in areas up to three miles outside of their municipal boundaries. For municipalities to exercise these extraterritorial zoning powers, the county and city must adopt identical zoning ordinances. Presently, there are no areas of joint jurisdictional zoning within the County.

If communities do not want to go through the formalized relations of joint jurisdictional zoning, another approach is to have effective communication between the governing bodies. Coordination between Moody County and the incorporated municipalities will be essential if the goals, objectives, policies, and recommendations within this plan are to be realized. Without a coordinated approach, urban/rural sprawl and scattered development could simply push the problem out beyond the extraterritorial jurisdiction. A high priority should, therefore, be placed on resolving any policy conflicts which might exist between the County and the incorporated communities.

#### SUBDIVISION ORDINANCE

The Subdivision Ordinance constitutes another tool that the county may utilize in carrying out the objectives of the comprehensive land use plan.

Subdivision regulations are enforceable by communities in the county that have adopted comprehensive land use plans and a major street plan, filed with the County Register of Deeds. The reason for this joint authority is that if development is to occur within these prescribed areas, it should conform to development standards as required within the community. This is because these areas are those most susceptible to annexation; therefore, they will become a part of the same municipal structure which determined the physical standards under which they are constructed. When a community exercises platting control over rural property, the statutes require plats to be submitted to the County Planning Commission for review and recommendation. Communities with extraterritorial platting authority in Moody County include – Colman, Egan, Flandreau, and Trent.

Because municipal subdivision regulations may require unrealistic or unreasonable development requirements when applied to the rural areas of the county, the county should work with those communities who are or will be involved in platting outside municipal borders to ensure that subdivision regulations take into consideration the rural character of the property.

It is recommended that to insure the policies embodied within this plan are implemented, the subdivision ordinance should be reviewed and appropriate changes incorporated.

#### BUILDING CODE

A building code establishes minimum construction standards for new structures as well as for remodeling and repair work performed on existing buildings. These standards are intended to safeguard life, health, property, and the public welfare by regulating and controlling design, construction, quality of materials, and occupancy of structures.

Presently Moody County does not maintain a building inspection program utilizing a nationally recognized building code. It is recommended that the county pursue the development of a building code, which would ensure that construction meets minimum structural and life requirements.

#### SITE DEVELOPMENT REVIEW

Moody County's present ordinances utilize site plan and special exception processes for development review purposes. It is recommended that these practices continue and be further refined to address specific design requirements such as screening, setbacks, landscaping, site configuration, access etc. These procedures will accelerate the administrative review process and expedite the Planning Commission/Board of Adjustment decision-making process. In addition it is recommended that Township Boards and municipalities be acknowledged as required participants in the discussions regarding special exception and variance requests within their respective areas of planning authority and township boundaries.

#### GIS (GEOGRAPHIC INFORMATION SYSTEMS)

GIS is a computer technology used to capture, manage, store, manipulate, analyze and display spatial information.

GIS technology provides a valuable tool to assist in implementing the comprehensive land use plan. Much of the spatial data information gathered for this plan has been entered into a GIS, including, existing land use, flood plains, aquifers, water resources, and transportation systems.

GIS involves spacial operations such as the linking of data from different sets, which is stored in a digital form. An infinite variety of analyses could be conducted on the data. Examples may include:

- What is at a certain location?
- Where do certain conditions exist?
- What has changed over time?
- What spatial patterns exist with the data?
- What if..?

Modeling can be performed to determine the impact of the location of a new concentrated animal feeding operation may have on the aquifer. The possibilities are only constrained by the limits of the database. It is recommended that GIS technology be implemented to assist in the implementation of the Comprehensive Land Use Plan as well as to support other county departments.