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# **CHAPTER 1.0 THE GROWTH POLICY**

## **1.1 INTRODUCTION**

This update of the Sweet Grass County Growth Policy amends the Growth Policy adopted in 1993. The purpose of this revision is to update the background and trend information, provide greater definition of goals and objectives, and bring the Growth Policy into compliance with the 1999 legislative changes to 76-1-601, MCA.

The Growth Policy developed over the period of four and one half years and involved extensive public participation, monthly Task Force and Planning Board meetings, commissioner review time and planning staff efforts.

## **1.2 STATEMENT OF INTENT**

The intent of the Sweet Grass County Growth Policy is to provide a description of the county's features, a good inventory of the county's facilities and services and a statement of public policy regarding future growth and administration in Sweet Grass County. The statement of public policy is conveyed by the goals and objectives listed in Chapter 4. These goals and objectives reflect the current principles and values held by county residents and provides vision for future direction.

A growth policy is not a regulation; rather, it is an official statement of public policy to guide growth and change within the county. The goals and objectives included in this growth policy provide a basis for the policies and regulations implemented by the county. The Sweet Grass County Growth Policy is designed to be a tool for decision making and further planning. The Growth Policy is intended to be useful to the homebuyer, land buyer and businessperson, as well as local government. Any directions given in this Growth Policy are general guidelines to follow and are not intended to be specific and inflexible. It is recognized that each situation may present a special or unique problem that may only be answered by further data or study. This document should be the base point from which to start work. Every part of this Growth Policy is intended to have a generally accepted meaning suggesting a "common sense" approach.

The goals and objectives outlined by this Growth Policy can only be achieved through planning, citizen support and involvement, and commitment on the part of county decision makers to treat the plan as a policy to be considered and continually reevaluated with any trends that may occur within the county.

## **1.4 PREPARATION OF THE GROWTH POLICY**

### **1.4.1 GETTING STARTED**

The update of the Sweet Grass Growth Policy Plan began in July 1998 when the County Planning Board directed the Planning Office to bring the Growth Policy into compliance with recent legislative changes. The Board felt that they wanted to see more definition of the goals, an update of the background data and a practical implementation strategy. The Planning Office contacted the county residents, suggested by the Board, to serve on a Growth Policy Task Force.

The volunteer, 16-member Growth Policy Task Force began meeting in July 1998 and continued to meet monthly until June 2000. The Task Force completed a draft revision of the plan and incorporated public involvement. The public was asked to provide input concerning the existing goals and the identification of current issues, needs and preferences.

### 1.4.2 REAFFIRMATION OF EXISTING GOALS

The first Growth Policy Plan for Sweet Grass County was adopted in 1978 and later updated in 1993. The goals in the first update were not altered from the original Growth Policy. In an effort to determine if the goals developed in the previous plans were still acceptable to county residents, a mail-in survey was sent to every resident and nonresident landowner in the county, outside the City-County Planning jurisdiction. Of the 787 surveys mailed, 675 were mailed to county residents and 112 were mailed to landowners residing outside the county. Two hundred seventy-seven surveys, or 35% were completed and returned.

The purpose of the survey was to quantify the number of residents who agreed or disagreed with the existing goals. The overwhelming majority of respondents agreed with the existing goal statements. Additionally, the respondents were requested to complete a few questions regarding where they lived and the size of their household. Partial results of this survey are shown in Table 1.1. A complete summary of the survey results and comments from individuals are available in the Sweet Grass County Planning Office.

**Table 1.1 – Results of mail-in survey, January 5, 1999**

<b>Part I – Demographic Information</b>		
1.	Do you consider yourself a part time or full time resident of Sweet Grass County?	
	Full time residents	203
	Part time residents	52
	Absentee	4
	Other	17
2.	How many people are in your household?	
	Sum of people in household	729
	Average number in household	2.6
3.	How many people in household are in the following age brackets:	
	Younger than 13 years	97
	14 – 18 years	49
	19-35 years	97
	36-60 years	279
	older than 60 years	169
<b>Part II – Numerical summation of responses to goal statements.</b>		
<b>Goal #1</b>	To protect, encourage and support the agricultural base of the county and its agricultural resources, and to achieve the most appropriate use of land within the district so that sufficient areas are provided for existing and future needs and at the same time, to enhance ecological and environmental values.	
	Agree	231
	Disagree	28
	Don't know	13

**Part II – Numerical summation of responses to goal statements (Continued).**

**Goal #2** To maintain, preserve, and enhance the environmental, ecological, aesthetic, and historical qualities of Sweet Grass County.

Agree	230
Disagree	24
Don't know	13

**Goal #3** To promote adequate housing for all present and future residents of the county.

Agree	191
Disagree	40
Don't know	32

**Goal #4** To promote location of residential development in and around presently developed communities.

Agree	219
Disagree	30
Don't know	15

**Goal #5** To stabilize existing employment areas and pursue employment opportunities in order to achieve full employment within the available county labor force.

Agree	204
Disagree	28
Don't know	29

**Goal #6** To plan for an adequate system of highway, rail, and air transportation to serve citizens of the area and tourists vacationing in the county.

Agree	222
Disagree	26
Don't know	17

**Goal #7** To promote diversified recreational activities in Sweet Grass County.

Agree	188
Disagree	39
Don't know	36

**Goal #8** To promote an adequate and continuing program of positive medical care, education, and welfare for all members of the county.

Agree	249
Disagree	12
Don't know	5

**Goal #9** To provide efficient and economical fire, police, library, waste disposal, and social services to county residents.

Agree	257
Disagree	5
Don't know	2

**Goal #10** To create attractive, enjoyable, and well-developed communities within the county. These communities should meet residential, commercial service, and employment needs of the majority of county residents.

Agree	204
Disagree	36
Don't know	18

### **1.4.3 IDENTIFICATION OF ISSUES, NEEDS AND PREFERENCES**

After the survey results were compiled, the Planning Office held five public meetings throughout the county to assess resident's needs and identify current issues and preferences. These meetings were held during January and February of 1999. Attendance at each meeting was very good. Thirty-four people attended the Melville meeting, 33 attended the Big Timber meeting, 26

attended the Bridge School meeting, 55 attended the Greycliff meeting, and 21 attended the McLeod meeting.

The format for each meeting was the same: each participant was asked to state their single most important issue, concern, or complaint concerning county services or policies. The statement was recorded on a large sheet of paper and attendants were asked to vote on whether they agreed or disagreed with the statement. Generally, most of the same issues were raised throughout the county. The six top issues receiving the most votes are:

1. Weed control should be a priority for the county.
2. Agricultural land, open space and the rural character of the county should be maintained.
3. The rights of property owners should be protected.
4. Development should be planned.
5. More funds should be spent on county road maintenance.
6. Economic development should be consistent with the agricultural character of the area.

A more complete list of responses to the issues and needs statements voiced at the public meetings is available in the Planning Office.

Weed control emerged as the number one issue in the county. Weed control policies and recommended actions which address this concern have been included in Chapter 4 as part of the implementation strategy for achieving goals and objectives related to our environment and natural resources.

Land use is also a critical issue. Citizens attending the public meetings held for issue identification expressed desire to preserve agricultural and open space lands. The protection of private property rights was equally valued by these citizens. To evaluate the available tools for planning and managing land use, the results from a workshop, "Managing Rural Land Use Change" was used. The workshop was held on February 7, 1998 and facilitated by Lee Nellis, a consulting planner. The Beartooth RC&D Area, Inc., and Carbon, Stillwater and Sweet Grass Conservation Districts sponsored it. Twenty individuals from Sweet Grass County attended the meeting including Planning Board members, Growth Policy Task Force members, and the County Commissioners. Local action for land use management suggested by the Sweet Grass County contingent included local agricultural economic development, growth management planning, a real estate transfer tax and agricultural zoning. Land use management concepts that were rejected, although considered good ideas, were transfer of development rights and purchase of development rights. The preferred actions developed at this workshop were considered when determining the land use goals, objectives and implementation recommendations included in Chapter 4 titled Goals, Objectives and Implementation.

#### **1.4.4 POLICY DEVELOPMENT**

Utilizing survey data concerning the county goals and the issue identification process, the citizen task force developed draft strategies to be incorporated into the Growth Policy. These strategies were displayed during the 1999 Sweet Grass County Fair. Anyone interested was invited to indicate their preference for the implementation strategies on display. The display attracted only twenty people all of whom were in favor of the strategies listed. The complete results from the fair display are available in the Planning Office.

Five additional community meetings were held in May and June, 2000 to present the draft strategies to the public. At each of these meetings the previously determined issues were



discussed and the strategies that addressed them were explained. Participants were asked to complete a survey stating their opinion of the proposed strategies. Forty-six residents attended the meetings and seventeen surveys were completed. The majority of respondents approved the strategies as presented.

Modifications were made to the draft Growth Policy and a final Task Force draft was presented to the Planning Board on July 11, 2000. The Planning Board then conducted public hearings on August 1, 2000 and September 5, 2000 to hear comment concerning the Task Force draft. A total of 74 citizens attended the August 1<sup>st</sup> hearing and 56 attended the September 5<sup>th</sup> hearing. During this process 26 citizens provided written comments to the Board. The Board followed the public hearings with a page by page review of the draft, revising format and content to best fit public comment and recent State law requirements. The Planning Board adopted a resolution to recommend their draft of the Growth Policy to the County Commissioners during their December 2001 meeting, which kicked off the commissioner's review process. The Commissioners then held numerous review meetings in which the content of the Growth Policy was considered. Considerable attention was given to refining the presentation of the Growth Policy's goals, objectives and implementation strategy and tools so that the county's intentions are clearly presented and could be easily understood.

The commissioners presented the Growth Policy Draft which incorporated the Commissioners' revisions to the public during a February 24, 2003 public meeting. The final 2003-2008 Growth Policy was adopted on March 31, 2003.

## **1.5 GROWTH POLICY ADMINISTRATION**

### **1.5.1 IMPLEMENTATION**

The Growth Policy shall be implemented through the continued utilization of existing policies along with the new implementation actions recommended with the goals and objectives listed in Chapter 4.

### **1.5.2 CONDITIONS FOR GROWTH POLICY REVISIONS**

The 2003 Sweet Grass County Growth Policy shall be revised when any of the following conditions occur:

1. Legislative changes mandate substantive additions, corrections, or amendments to the contents of the Growth Policy.
2. Court decisions require substantive additions, corrections, or amendments to the contents of the Growth Policy.
3. Individual neighborhood plans are developed in accordance with 76-1-601, et seq, MCA and shall be included as amendments to the current Growth Policy.
4. The planning board requests revisions.

### **1.5.3 TIMETABLE FOR REVIEW**

The Growth Policy shall be reviewed every five years from the date of the most recent adoption. Existing conditions and trends shall be revised at that time. The County Planning Board shall be responsible for reviewing the Growth Policy and making recommendations for any changes to the goals, objectives or implementation strategies. The Planning Board shall solicit public comment and conduct a public hearing in accordance with 76-1-602 through 76-1-6-3, MCA before recommended changes to the existing Growth Policy are forwarded to the County Commissioners for their review and adoption.

#### **1.5.4 COOPERATION WITH CITY OF BIG TIMBER**

In recognition that the goals, objectives and strategies contained in this Growth Policy will affect the residents of Big Timber, the county will strive to cooperate with the City to ensure orderly growth and adequate services. Services shared by city and county residents, including but not limited to Sheriff, Justice Court, Library, Airport and Planning shall be clearly agreed to by the city and county through interlocal agreements.

#### **1.5.5 CITY-COUNTY PLANNING BOARD JURISDICTION**

With adoption of this Growth Policy the City-County Planning Board jurisdiction is enlarged to include additional lands east of Big Timber. The revised jurisdiction includes the following:

*The area beginning at the common southeast corner of section 21 and northeast corner of section 28, Township 1 North, Range 15 East, then north to the Yellowstone River, then westernly along the river to the south section line of section 25 Township 1 North, Range 13 East, then east to the south common corner of section 25 Township 1 North, Range 14 East and section 30 Township 1 North, Range 15 East, then north to the south common corner of section 13 Township 1 North, Range 14 East and Section 18 Township 1 North, Range 15 East, then east to Interstate 90 and southeast along the interstate to the south section line of section 21, Township 1 North, Range 15 East, then east to the point of beginning.*

The boundaries of this jurisdiction are shown on the Existing Development Map which is maintained by the Planning Office. The City-County Planning Board will be responsible for planning and review of development in this jurisdiction.

## CHAPTER 2.0 COUNTY HISTORY AND DESCRIPTION

### 2.1 COUNTY HISTORY

There is evidence that prehistoric human populations inhabited the area around Big Timber, along the Boulder and East Boulder drainages, and the northern portion of the Beartooth Plateau over the last 10,000 years. Remnants of their existence in these areas include tipi rings, wickiups, knapping stations, and hunting and fishing camps.

Approximately 2,000 years ago, it is believed the prehistoric people called the Late Hunters arrived on the plains and major river valleys. These people preceded the Shoshone tribes that ventured through this area prior to the 1600's. After that date, many tribes migrated to Montana and established their general territories. The Crow came from the east, up the Missouri River, the Shoshone ventured further east from their traditional land in southwestern Montana pushing back the Salish and the Pend d'Oreille from the eastern plains into the western mountains and the Blackfeet arrived from the northeast. When Captain Clark passed through the Big Timber area in 1806, the Crow were established in the upper Yellowstone River Country.

In 1868, the Fort Laramie Treaty established reservations of land for the Crow tribes. A warehouse and storage compound of the original Crow Agency was located on Otter Creek in 1867 and later moved to Mission Creek on the Yellowstone River, approximately 25 miles west of Big Timber. The Crow Reservation included all of the upper Yellowstone River valley, the Boulder River valley, and the Beartooth Plateau. The 1868 treaty was renegotiated in 1880 resulting in a significant reduction in the size of the reservation. By 1875 the Crow Agency had moved from Mission Creek to Absarokee in Stillwater County. After nine years at that location, the reservation was reduced again and agency was moved to its present site near Hardin, Montana. Between 1851 and 1890 the U.S. Government embarked on an effective Indian removal campaign. The removal of Indians corresponded with the emigration of Europeans to Sweet Grass County.

After William Clark, white men began appearing in the Sweet Grass County area in the 1850's driven by the burgeoning fur trade. First beaver, then buffalo drew adventurous hunters to the plains and river valleys. By 1881 there were few buffalo left. One of the last great hunts occurred on the Musselshell River in December 1882. Within a few weeks a herd of 75,000 buffalo was entirely slaughtered.

As fur trading became less lucrative, more enterprising adventurers came west when gold was discovered in the Montana Territory. The prospect of gold mining lured many during the 1860's and 1870's. Gold was discovered in the upper Boulder River drainage in 1883. Independence, a mining town located at the headwaters of the Boulder River, had a population of 500 by 1892.

The Homestead Act of 1862 passed by the U.S. Congress did not affect Montana much because it gave title to only 160 acres of unoccupied public land to each homesteader, too little acreage for the dry prairie lands of Sweet Grass County. It was the Desert Land Act and the advent of dry land farming that did more to attract settlers. The 1877 Desert Land Act allowed homesteaders to acquire 640 acres of land for \$1.25 an acre if the purchaser irrigated a portion of the land and proved it up within three years. This larger acreage allowed farmers to practice dry land farming which required large tracts of land to lay fallow in alternate years.

Sheep and cattle ranching burgeoned during the 1870's. By 1900 there were over six million head of sheep in Sweet Grass County.

The railroad contributed significantly to the settlement of Sweet Grass County. Northern Pacific Railroad laid tracks up the Yellowstone Valley in the early 1880's joining with the western rail route at Gold Creek, Montana on September 8, 1883. The rail link provided a means to ship wool to eastern factories, greatly increasing sheep operations in the county. By the turn of the century, the railroad began selling its land holdings at competitive prices.

Additional federal legislation in the early 1900's provided more incentives for western land settlement. The Enlarged Homestead Act of 1909 offered 320 acres free to settlers in Montana and the Three-year Homestead Act of 1912 reduced the waiting period for ownership from five years to three years.

Sweet Grass County was organized in 1895. The name for the county was suggested for the abundant "sweet" grass growing on the prairies around Melville. The county was originally formed from parts of Gallatin, Park, Meagher, and Yellowstone Counties and later carved up to form portions of adjoining counties.

Several small towns emerged in the late 1800's and early 1900's that still exist today. McLeod, named for W.F. McLeod, opened a post office in 1886, which was closed in 1918 only to reopen again in 1920. The town site is not platted. Melville was named for the arctic explorer, Lieutenant Melville by its first postmaster, H.O. Hickox. The post office opened in 1883. The town site was platted years later in 1904. Greycliff's post office was opened in 1885. The post office preceded the town site of Greycliff which was platted in 1907. The town of Big Timber was originally located at the mouth of Big Timber Creek. It served as a stage stop and ferry station until it moved to its present location in 1883. The name of Big Timber has been attributed to William Clark's expedition when they camped at the mouth of Big Timber Creek and noted the size of the cottonwoods growing in the area.

Dornix was a town that did not survive. It was located on the east side of Boulder River. It was built in 1882 as a stop for the railroad. The trains were not able to stop in Dornix because of the grade and preferred the flat area west of the Boulder River. After only two years of existence, Dornix closed its doors and the enterprising town folk followed the railroad to the newly platted town site of Big Timber.

The town of Wormser City, now located in Stillwater County was platted in 1899; it does not exist today. Gibson is another town located in the eastern portion of the county, which did not survive. A plat for the town site was filed in 1921 and an order to vacate the town site was filed the same year.

The following account of Sweet Grass County history was prepared in 1994 from information obtained from the Crazy Mountain Museum archives and Sweet Grass County records.

## **The First 100 Years**

William Clark and his party were the first white men definitely known to have been in the present area of Sweet Grass County. They crossed the county in 1806, and for many years thereafter the hunters, trappers, and traders, were the only whites to venture into the territory. These were followed by James Stuart and his party in 1863, by the Bozeman and Bridger trains in 1864, and by surveying parties of railroad engineers under the protection of troops. Horatio N. Gage, the first settler in the region, located at the mouth of Duck Creek in 1873. He was followed soon after by Al and Waborn Harrison who drove cattle and horses to lower Sweet Grass Creek, and established a ranch. From 1873 to 1882, a few scattered settlers

established homes within the area of the present county. The advent of Northern Pacific Railroad in 1882 brought settlers in larger numbers, and by 1892 the area was enjoying considerable prosperity.

Montana became a full-fledged state on the eighth day of November 1889. On that day President Harrison issued a proclamation, announcing to the world that the people of Montana had fulfilled all of the conditions laid down by Congress for the formation of a state. Montana was forty-first in order of admission into the sisterhood of self-governing American commonwealths, which is the United States. The first star in the last row on the ensign of the flag may be thought of as standing for the Treasure State.

Eight new counties were created during the ten years that followed statehood, that is from 1889 to 1899. Five of these were set apart in 1893. In 1895, Carbon and Sweet Grass Counties were created, because of mining development.

A bill to create Sweet Grass County was introduced in the Senate in 1893 but was defeated by a vote of 7 to 9. The next year the people in the eastern part of Park County began working in earnest for the creation of a new county. Apparently they had learned a lesson from the technique used by Livingston's people when they had sought separation from Gallatin County. At the Republican Convention they secured the nomination of legislative representatives favorable to the creation of a new county. Then at the General Election, a solid vote was cast for these candidates thereby securing their election. The bill introduced in 1895 for the creation of Sweet Grass County was passed and became law on March 5, 1895 when it was signed by Governor Rickards.

The county was created from parts of Park, Yellowstone, and Meagher Counties. It was named by Judge William G. Strong for the Creek, which in return received its name from the fragrant grasses growing nearby.

The area of Sweet Grass County has been altered repeatedly since the county's organization. Stillwater County was formed in 1913. In 1915 an exchange of territory was made with Stillwater County. Wheatland County was formed in 1917 and Golden Valley County in 1920. All of these counties received some territory from the original Sweet Grass County. Its present area is 1,846 square miles.

Courthouse quarters were rented from George M. Hatch, and a courtroom was rented from W. L. Shanks. The County Treasurer, who at first maintained his office in his home, was ordered to move to the courthouse. In 1897, a courthouse site was purchased from Harvey Bliss for \$100.00. Bids for construction of a courthouse were opened, and a bid of \$8,729.00 from Anderson and Wagner was accepted, but the contract was not executed. The bidding plans were changed, and a new bid by H.T. Wolcott for \$9,590.00 was accepted. The new building was approved on November 6, 1897. It was damaged by fire in 1908, necessitating considerable repair work. The building was damaged again by fire in 1918 for which the county received indemnity totaling \$2,662.75. Repairs following this fire were made costing \$1700.00. Repair work and construction of an addition were contracted for in 1929 at a cost of \$1,697.00.

Soon after Sweet Grass County was organized, the commissioners established the three judicial townships of Big Timber, Stillwater, and Melville. In 1941 the only organized township in the county was at Big Timber. This township had two Justices of the Peace, but no constables. The names of the first election precincts established in the county were Lower Stillwater, Upper Boulder, Boulder, Reed Point, Greycliff, Morrill, Sweet Grass, American Fork, Fish Creek, Melville, Grace Park, Wright Creek, Swamp Creek, McLeod, and East Boulder. In 1940 there were 1,720 registered electors in the county. In 2002 there are 2,091 active registered electors. The 2000 Census reported 3,609 persons in Sweet Grass County.

In the settlement with her parent counties, Sweet Grass County assumed an indebtedness of \$42,774.90 from Park County, \$7,600.00 from Yellowstone County, and \$7,508.77 from Meagher County. The total debt was \$57,943.67. Park County sued for \$1,009.96 for interest from March 12 to June 7, 1895. The judgment rendered by the Supreme Court granted Park County \$1,210.00. The indebtedness of the county

was reduced from \$338,904.45 in 1923 to \$101,585.57 in 1940. Currently the county valuation is \$11,694,878 and the bonded indebtedness is \$1,320,000.

One of the duties of the county is to enforce the law within their boundaries. In Sweet Grass County vagrancy and other petty crimes caused the commissioners in 1906 to pass a resolution that “In order to dissipate the illusion that a short sentence to jail is just a pleasant vacation, the board hereby orders the sheriff to put all prisoners to work on the county roads under guard, and shackled with ball and chain if necessary. Any prisoner refusing to work must be put on a bread and water diet by the Sheriff.

Sweet Grass County remains predominantly an agricultural county although the ongoing development of the East Boulder Mine mirrors some of its early mining history. Other growing commercial sectors in the county include government, construction and tourism. While Sweet Grass County is experiencing relatively moderate to high growth at the beginning of the 2000 millennium, the population still falls more than 1,300 people short of its 1920 population of over 4,900.

*(The First Hundred Years, author unknown, information obtained from the Crazy Mountain Museum archives and Sweet Grass County records. Statements concerning current-day data have been updated for this document.)*

## **2.2 AREA DESCRIPTIONS**

Descriptions of characteristics within Sweet Grass County are provided below by area. These areas have distinct differences in physical and social character. The differences are driven by such things as the level of recreation travel, land attributes, location of a river, land ownership sizes, public land location and road types.

### **2.2.1 SOUTHEAST**

The Southeastern area of Sweet Grass County is bounded on the north by the Yellowstone River valley and on the west by the Boulder valley. The county boundary lines comprise the south and east boundaries. Prominent watersheds include the Yellowstone River, Bridger Creek, Lower Deer Creek Upper Deer Creek, Work Creek, Dry Creek and parts of Hump Creek.

Interstate 90 goes through the entire length of this area, as does the railroad. Frontage roads parallel much of the interstate, providing access to ranches. Ranches are also accessed by county roads along the major creek drainages. The Bridger Creek Road connects with the Spring Creek and Stillwater River roads, enabling travelers to cross over to the Stillwater Valley located in Stillwater County.

Most of the irrigated land is located along the Yellowstone River valley and within the various creek drainages. Flood irrigation is the primary method of irrigating; but there are some sprinkler systems along the Yellowstone River. The majority of the land is used for grazing as it consists of timber, grasslands and rocky ridges.

Recreation available in this area includes hunting, fishing, horseback riding, boating, hiking and camping. There is good public access to both the Yellowstone River and National Forest land. The Big Timber Waterslide is located at the Greycliff interchange, adjacent to the KOA campground. The Prairie Dog Town State Park is also located at this same exit.

Subdivisions in this area include, Stagecoach Estates, three miles west of Reed Point; River View Ranch on lower Work Creek; River Meadows along the Yellowstone River near Greycliff and the Lower Deer Creek Subdivision located along Lower Deer Creek Road. There are a few clusters of

small residential parcels located within 5 miles of Greycliff at the Four Winds area and the Overfelt Gulch area.

Manufactured Home Parks include the Duffy Trailer Park with spaces for 16 homes on the Lower Deer Creek and the Cottonwood Estates Trailer Park with spaces for 16 homes and two recreation vehicle sites, one mile east of Greycliff.

A small underground gold mine was recently permitted at the upper end of the Lower Deer Creek Road within Forest Service lands. The mill site for the mine is located on private property along the lower portion of the Lower Deer Creek Road.

This area is important as a major drainage area to the Yellowstone and provides the sustenance for many agricultural and recreational activities.

### **2.2.2 GREYCLIFF**

Greycliff is an unincorporated platted town. The school population has risen quite dramatically within the past few years. There are currently 26 students from grades K through 8 attending this school. Other services available in Greycliff include a post office and a mechanic's shop. There has been a restaurant near Greycliff and overnight accommodations may be found at several Bed & Breakfast establishments. Outfitters provide hunting and working-ranch experiences. Until recently a hardwood supply outlet was located near Greycliff on the same premises as a used-equipment business.

In 1998 an 18 lot mobile home park was constructed approximately 1 mile east of Greycliff. A new Greycliff Post Office was constructed in 2002.

### **2.2.3 YELLOWSTONE VALLEY WEST**

This area encompasses the Yellowstone River valley and outlying areas west of Big Timber; from the Boulder divide on the south, Crazy Mountains on the north, Whitetail Creek on the east, and the Park County line on the west.

The terrain of this region consists of irrigated fields, part flat, part hilly, some mountainous, grass, sage and a few trees, but mostly open grazing land with gravel or dirt roads.

The Bridge School lies within the area on the north side of the Yellowstone River. Many children attended the one-room school, which offered grades 1 through 8 from 1921 to 1998. In 2001 the Bridge School District was taken over by the McLeod School District.

Hunters Hot Springs Canal is an important ditch for irrigation located on the north side of the river. The head of the ditch is located above Springdale, in Park County. Construction of the ditch began about 1900. It was an awesome task for those days as holes were hand drilled into rock in order to blast away the rock bluffs. Today ranchers from Springdale to beyond Grey Bear Fishing Access irrigate their fields from the canal. Boulder River irrigation water is also delivered to this area through the Electric Light, Post-Kellogg and Ellis-King-Hawk ditches. Predominant streams in this area are: Mendenhall, Jarrett, Prather, Duck, Little Timber, and Whitetail Creeks. All flow into the Yellowstone River. Some of these streams provide irrigation in their respective drainages.

### **2.2.4 YELLOWSTONE VALLEY EAST**

This area encompasses the Yellowstone River valley and outlying areas east of Big Timber to the Stillwater County border. In 1806, Captain William Clark of the Lewis and Clark Expedition led

a group along the Yellowstone on their return east. The Yellowstone River has the unique distinction of being the largest free flowing river in the U.S. It remains as Capt. Clark found it; dam free. Many unsuccessful attempts were made to generate commercial navigation to the upper Yellowstone. The railroad became the primary mode of transportation in the late 1800's. Land travel was possible along the Old Yellowstone Trail on the north side of the river to Livingston and Overland Trail south of the river.

Two of the county's largest subdivisions, the Yellowstone Meadows and the Mallard Springs Subdivisions, are located within this valley approximately 3 to 4 miles east of Big Timber. There are currently 23 homes built within the 35-lot Mallard Springs Subdivision. In 2002, 63 lots were platted as the Phase 1 and 2 lots within the Yellowstone Meadows Subdivision. An additional 60 lots, Phase 3 lots, have received preliminary plat approval. As of this Growth Policy's adoption date, homes have not yet been built within the Yellowstone Meadows Subdivision.

There is abundant wildlife in this area including mule deer, white-tailed deer, elk, bear, antelope, upland birds, coyote, fox, eagles, sandhill cranes, geese, ducks, pelicans, trumpeter swans and many species of fish. Fishing and rafting are popular sports along the Yellowstone River. There is a lot of big game hunting and bird hunting in the area as well.

Agriculture has pervaded the social as well as economic aspects of this region since the advent of settlement here. Traditionally, livestock such as sheep and cattle along with crops such as hay and grains are grown. For this reason, irrigation water from the Yellowstone River as well as the Boulder River has played a critical role in the welfare of the area.

### **2.2.5 THE CRAZY MOUNTAINS**

The Crazy Mountains rise spectacularly from the high plains of northwestern Sweet Grass County. The range is composed of glaciated valleys and rolling foothills and several peaks over 10,000 feet. Crazy Peak is the highest, with an elevation of 11,214 feet. Several medium-sized streams drain the east side of the Crazy Mountains; Big Timber Creek, Otter Creek and Sweet Grass Creek drain east and south into the Yellowstone River; American Fork drains east and north into the Musselshell River.

The range is surrounded by rolling grasslands used for livestock grazing and hay production. The local ranches are typically large parcels over several sections in size. Swamp Creek Road, Big Timber Canyon Road, Wheeler Creek Road and Sweet Grass Road are county roads providing access to private land. Public land can be accessed using Big Timber Canyon Road.

Land ownership in the Crazy Mountains is arranged in a checkerboard fashion. Approximately forty percent is private and sixty percent is public. The pattern developed as a result of railroad land grants allocating every other section to the Northern Pacific Railroad. The railroad subsequently sold these lands to individuals. There has been relatively little development in and around the Crazy Mountains. Approximately 88,000 acres located in Townships 4N and 5N are included in the Crazy Mountain Zoning District which was created by citizen petition in 1979. Most of the smaller parcels are located along Highway 191, Wormser Loop and Big Timber Canyon Roads. A cluster of small residential tracts is also located at the mouth of Swamp Creek and Hauge Roads.

### **2.2.6 MELVILLE**

Melville is an unincorporated, platted town site located 19 miles north of Big Timber and one mile west of the intersection of the Melville Road (S371) and State Highway 191. The town site



was platted in 1904 and most of it remains in single ownership with the exception of four parcels along Main Avenue.

The Melville community consists of a post office and convenience store on Highway 191, the Melville Elementary School, and the Lutheran Church. There is a fire station and a central dial office for Triangle Telephone Cooperative located in the town site. Melville is a community center for farmers and ranchers operating in the Crazy Mountains and northeast area of the county.

### **2.2.7 NORTHEAST PLANNING AREA**

The Northeast area of Sweet Grass County is bounded on the west by Highway 191, north by Wheatland County and east by Wheatland, Golden Valley, and Stillwater Counties. The south side more or less follows the Yellowstone River Valley to the Stillwater County line.

Predominant streams in this area are Sweet Grass Creek, Otter Creek and part of Big Timber Creek flowing into the Yellowstone River, and Tony Creek, Antelope Creek, Cherry Creek, Simmons Creek, Big Coulee Creek, and Whitney Creek flowing into Fish Creek and on to the Musselshell River.

Howie Road is a main road, going east, intersecting with the lower Sweet Grass Road. Rapelje Road goes to Rapelje and beyond. The Otter Creek Road, which goes north past the Glasston Lakes and eventually intersects with the Cremer Road, which goes east from near Melville. The Tony Creek Road goes east, starting north of Melville. With the exception of Howie Road, all roads are gravel or dirt surfaced. Howie is paved with asphalt millings for the first mile.

The Rapelje Road goes northeast, then east, but is connected to the more northern part of the county by South Shawmut Road, a partially graveled dirt road that is five miles long then enters Golden Valley County.

The terrain in this area is generally hills and valleys starting at 4,200 feet elevation around the Yellowstone River, rising to over 5,300 feet on the divide, and down to around 4,200 feet on the drainages of Fish Creek and Musselshell River in the north. There is considerable irrigated land generally in the valleys of the predominant streams. Most of this is flood irrigation, but some center pivot systems are becoming more popular on some of the large ranches. There are a lot of larger farming areas generally in the central and northern part of the area, and a great deal of grazing land throughout the area. The Cayuse Hills (timbered ridges) run along the higher elevations and there has been a lot of commercial logging done in some areas.

Two man-made reservoirs known as the Glasston Lakes are in the central portion of this area. Their primary purpose is irrigation, but there is some recreation on the lower lake. Other recreation would include some limited fishing in streams, and hunting. There is a small herd of elk in the Cayuse Hills, and Mule deer, White-tailed deer, antelope, upland birds, turkeys, bear, bobcat mountain lion, coyote, wolf, and all other smaller game in the area.

The northern part of the area tends to be sparsely populated with large ranches and/or farms. The people in that area tend to identify with the Melville area.

The rest of the area population tends to be on medium size ranches or farms along the streams of Big Timber Creek, Otter Creek, and Lower Sweet Grass Creek. Those people on the Lower Sweet Grass Creek tend to identify with the Greycliff area, and the rest with the Big Timber area.

There has been some subdividing of property along the Yellowstone River and around the Howie Road area. These are generally 40 or more acre ranchettes on the higher area above and away from the river, all have wells and septic tanks, and range from mobile homes, to double wide manufactured homes to expensive, nicely constructed homes.

### **2.2.8 LOWER BOULDER RIVER**

The Boulder River is the most significant geographic feature of the valley. The valley is approximately one to two miles wide and most housing is concentrated near the river bottom, out of the floodplain. The stream runs year round and flows through reworked glacial material in a generally poorly drained floodplain. All of the irrigated land is located within the valley bottom. Water for livestock on the Airport Flats is pumped from ponds to stock tanks and other water is collected in small manmade ponds. The soil located in the valley is composed of loam, sandy loam and clay loam derived from alluvial deposits.

Between 1882 and 1890, the Boulder River constituted the western boundary of Montana's Crow Indian Reservation. It was during this period (1885) that the first irrigation development project began in the area. Shortly thereafter, the first domestic grains were sown. Chiefly, high elevation grains such as oats and barley.

Cattle, sheep and horses also started to gain prominence in the agricultural economy of the community during this era as homesteading provided the chief means of land settlement. Even today these three varieties of livestock comprise an integral part of the Boulder River Valley's livelihood and land use in the area.

This area supports numerous deer, antelope and fish. Occasionally bears, mountain sheep and moose may be observed. Both Bald and Golden Eagles may be observed frequently. As well as many other varieties of bird life.

Big Rock Fishing Access site located on the Old Boulder Road and the Lion's Club campground offer primitive campsites and picnic tables. Other areas near the river allow opportunities to access the river for fishing, floating, and boating. There are numerous areas of state lands accessible to the public primarily for walking, hiking and hunting from Highway 298. Areas on the Old Boulder Road are not quite as accessible. There is also a commercial campground/fishing business that is open from April through October of each year.

At this time there are approximately 100 homes located within the lower Boulder valley. Additionally, there is a 20 lot mobile home park located directly south of Big Timber which sits along the Boulder River.

The road accessing the main Boulder is state secondary 298. At this time the highway is in need of major repairs. Reconstruction of the route from Big Timber to Eight Mile Bridge is currently underway. The first three miles were reconstructed in 2000. The next five miles are scheduled for reconstruction in 2003. The dirt road called the Old Boulder Road is primarily used by locals to access homes located on the east side of the river. Accessibility during the winter on both the old road and the highway can be limited. Highway 298 is serviced by the school bus; however, the Old Boulder is not. Parents are required to bring their children to Big Timber or to the junction of the Old Boulder and Hwy 298 at the Eight Mile Bridge.

### **2.2.9 MCLEOD**

McLeod is a small community located near the confluence of the West Boulder River and the Boulder River. It is not a platted town site, however a post office and elementary school are located in what may be considered near the center of town. The McLeod School includes

kindergarten through eighth grade levels. As of the 2002 school year the school has 11 students. The McLeod School District was expanded in 2001 through consolidation with the Bridge School District.

At a time in its past McLeod enjoyed active hot springs. The town operated somewhat as a resort then where visitors could enjoy the hot springs, close fishing access and cabin rentals.

### **2.2.10 UPPER BOULDER VALLEY**

The Boulder River begins high in the Absarokee-Beartooth Range at the foot of Sheepherder Mountain. From an elevation near 10,000 feet, the river drains north for approximately 50 miles before joining the Yellowstone River at an elevation of 4,000 feet. The character of the river and its valley changes from a fast-moving mountain stream surrounded by steep, forested hillsides to a more moderately paced river meandering through a mile wide valley edged by gently sloping hills. Throughout its course the river is characteristically full of boulders.

Natural Bridge, a natural landform created when limestone beds were undercut by the Boulder River, forms a dividing line between Forest Service land to the south and private land to the north. South of Natural Bridge the area is high, mountainous country underlain by Precambrian granitic rocks. These rocks were deposited over 570 million years ago and brought to near their present height approximately 37 to 65 million years ago. Since that time, glaciers have carved the surface of the plateau and deposited debris along the range front. Numerous alpine lakes are located on top of the plateau and the Boulder and East Boulder Rivers originate in the plateau. The Stillwater Complex, a unique geologic formation occurs east of the Boulder River and south of the East Boulder River. The Complex hosts significant reserves of platinum and palladium that are currently being developed by the Stillwater Mining Company. The portal for the East Boulder Mine is located in the East Boulder drainage. Two, three-mile long adits access the ore bodies that strike approximately southeast-northwest and continue into Stillwater County.

South of natural bridge the landforms are lower and more softly rounded. These foothills are underlain by younger, sedimentary and volcanic rocks. Most of this area is under private ownership and is used for agricultural purposes, primarily cattle grazing and hay production. The Boulder valley has the highest concentration of conservation easements in the county.

Residential land use is confined to a few areas in the valley. The highest densities are located just on Susie Creek and the West Boulder and East Boulder Rivers. The majority of these residential properties are 20 acres or larger. A few commercial development are located at McLeod and include a trailer park and bar and restaurant. There are several dude ranches, bed & breakfasts and numerous group camps operating in the valley.

FAS 298 is a State secondary route that accesses most of the valley. At Natural Bridge, the road becomes a Forest Service road that is maintained by the county. The West Boulder and East Boulder Roads are also county roads that convert to Forest Service roads at the Forest Service boundaries.

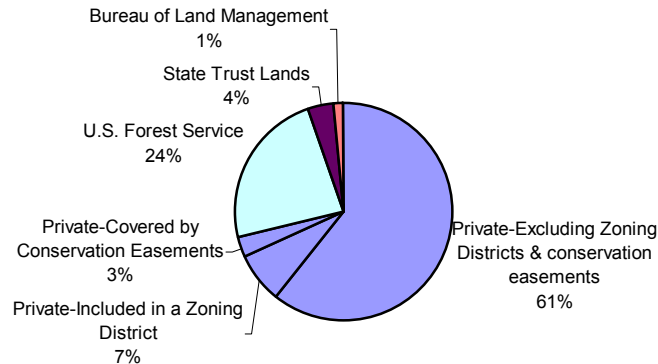
The Boulder Valley has a history of being a corridor for over 32 bands of sheep, which were trailed to grazing permits on the Forest Service lands as well as a corridor to mining claims. Today the valley is very much a route for recreationists. There are four church camps, several dude ranches and approximately 80 vacation cabins located in the valley.

## CHAPTER 3.0 - EXISTING CONDITIONS AND PROJECTED TRENDS

### 3.1 LAND USE

#### 3.1.1 CURRENT LAND OWNERSHIP

Sweet Grass County contains approximately 1,853 square miles or 1,186,000 acres of land under multiple ownerships. Approximately 71% of the land is owned by private individuals. Under Federal ownership, the Bureau of Land Management manages only 1% of the total land area and the U.S. Forest Services manage approximately 24%. Four percent is owned by the State of Montana. Sweet Grass County owns less than 1% of the total land area. Figure 3.1 displays the general ownership categories and percent of total land area. The geographic distribution of land ownership is shown on Map 3.1.



**Figure 3.1** Summary of Land Ownership in Sweet Grass County

#### 3.1.2 CURRENT LAND CLASSIFICATION

The Montana Department of Revenue classifies land for taxing purposes. In Sweet Grass County, the tax land classifications reinforce the fact that the county is primarily agriculturally based. Over 64% of the land area is taxed as agriculture. The next largest land class is Federal land which constitutes 25% of the land base. Private timberlands include 6% of the land base and state lands include 4%. Residential tracts amount to less than 1% of the total land base. A detailed list of land classifications is provided in Table 3.1.

<b><u>LAND USE CLASSIFICATION</u></b>	<b><u>ACRES</u></b>
Agricultural	
Irrigated	31,965
Non-irrigated	18,417
Wild hay	18,548
Grazing	<u>687,287</u>
Total Agriculture	<b>756,217</b>
One Acre Farmsteads	<b>486</b>
Private Timberland	<b>70,966</b>
Commercial Tracts	<b>176</b>
Industrial Property	<b>585</b>
Tract Land	
Less than 20 acres	1,500
20-160 acres	<u>6,442</u>
Total Tract Land	<b>7,942</b>
City/Town	<b>480</b>
Exempt*	
Agricultural	1,926
Residential	<u>16</u>
Total Exempt	<b>2,123</b>
Federal (F.S., BLM, Water)	<b>299,135</b>
State	<b>48,510</b>
<b>GRAND TOTAL</b>	<b>1,186,620</b>

\*Exempt means non-taxed property that is owned by nonprofit, state, federal or school entities.

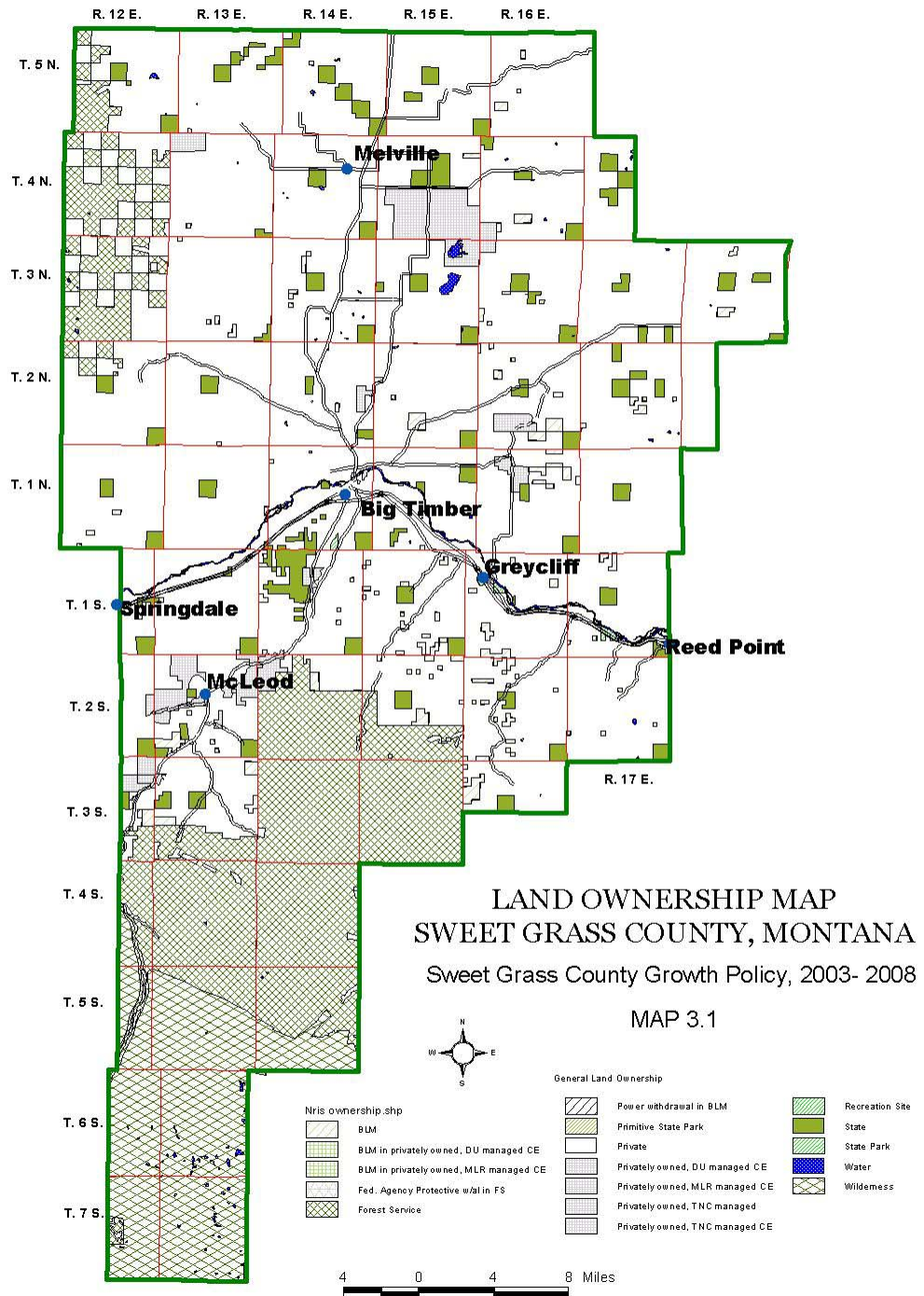
**Table 3.1** Land classification allocations for Sweet Grass County

### **3.1.3 CONSERVATION EASEMENTS/ZONING DISTRICTS**

Conservation easements are legal restrictions applied by the landowner to limit future development and protect agricultural and natural resources. The landowner's development rights are transferred to conservation trusts such as the Montana Land Reliance, Ducks Unlimited and The Nature Conservancy. The number of conservation easements applied to private land is increasing in Sweet Grass County. As of 2002, there were approximately 35,179 acres under conservation easements. The location of the existing conservation easements is shown on Map 3.1.

Sweet Grass County contains two zoning districts, the City of Big Timber Zoning District and the Crazy Mountain Zoning District. The City of Big Timber Zoning District is authorized under state statute and includes the entire city and some of the adjacent county lands. The City-County Planning Board, a Board of Adjustment and the City Council administer this district.

State law also permits zoning initiated by petition from the property owners within an area of 40 acres or larger. The only zoning district currently under County jurisdiction is a citizen petitioned zoning district called the East Crazy Mountain Zoning District. The East Crazy Mountain Zoning District, located in the northwest corner of the county, was created through the petition process in 1979. The purpose of this zoning ordinance is to preserve the agricultural and natural resources of the area and provide for forestry and recreational opportunities. The area, which covers approximately 88,000 acres, is divided into two districts (Map 3.2). Most of the zoned area, from U.S. 191 west to the Crazy Mountain foothills is located in the Agriculture Exclusive (AE) District. One dwelling unit per 160 acres is permitted in this district along with uses related to farming and ranching. The Recreation and Forestry (RF) District is located along the front of the Crazy Mountains. This district allows for a single family, detached residence on not less than 160 acres. Other permitted uses include those associated with logging, agriculture and guest ranches. The East Crazy Mountain Zoning district is administered by a Planning and Zoning Commission composed of the county commissioners, the county road supervisor and another county employee appointee.



**Map 3.1** Land Ownership

### **3.1.4 COUNTY SUBDIVISIONS**

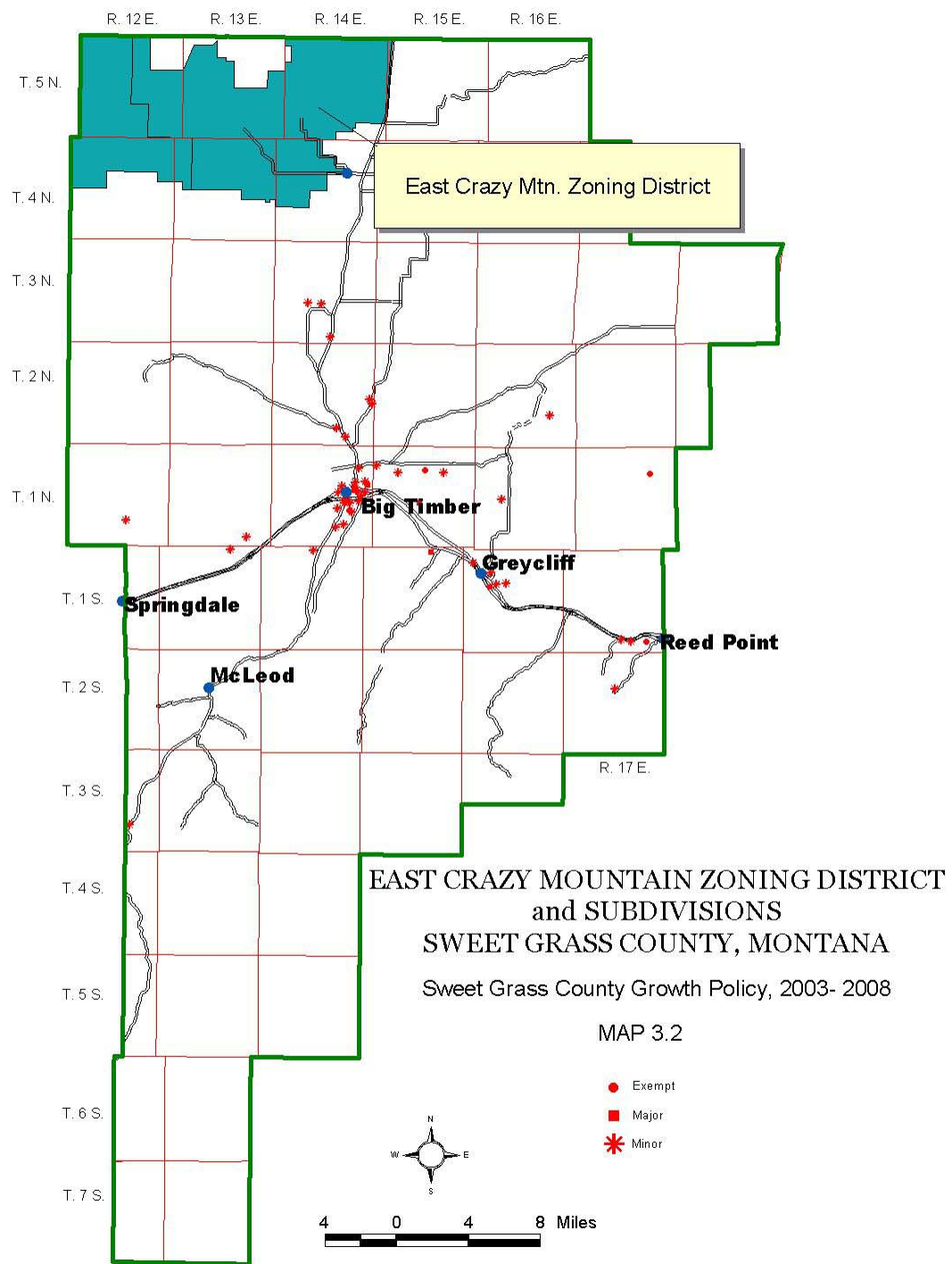
Sweet Grass County first adopted subdivision regulations in 1973. At that time, subdivisions were defined as land divisions creating two or more parcels of 10 acres or less, mobile home parks, recreation vehicle parks, and condominiums. The statutory definition of subdivision was changed in 1975 to include all divisions of land less than 20 acres. This size designation for subdivision remained in place until 1993 when the state legislature again increased the size, this time to 160 acres.

Since 1973 Sweet Grass County has filed 60 divisions of land that are platted subdivisions. Of these 60 subdivisions, 17 are located within the City-County Planning jurisdiction as outlined by this Growth Policy and 43 are in the County Planning Board jurisdiction. There are a total of three major subdivisions within the City-County Planning Board jurisdiction and there are no major subdivisions platted in the County Planning Board jurisdiction, however; there are two manufactured home parks, one located near Greycliff and one on the Upper Deer Creek along Highway 10 East in the County Planning Board jurisdiction which are major subdivisions for lease or rent of the lots. Map 3.2 shows the location of the major and minor subdivisions created in the county since 1973. Also shown are the land divisions that, because of exemptions from subdivision review or size, do not qualify as subdivisions. These divisions exhibit subdivision-like qualities, like shared roads, and would by today's standards be classified as subdivisions. They include Stagecoach Estates and Yellowstone Progress near Reed Point, and Indian Rings near Big Timber.

### **3.1.5 PROJECTED LAND USE TRENDS**

Overall land use is projected to remain fairly consistent in Sweet Grass County. New tracts created by subdivision are forecasted but acreage consumed by subdivision is expected to be insignificant relative to total land representation. As the agricultural economy goes through cycles of economic pressures there is potential that some ranch property may convert to recreational purposes. Citizens' value of open space is expected to increase and more encouragement and support may arise for citizen initiated zoning actions that protect open spaces.





**Map 3.2** East Crazy Mountain Zoning District and Subdivision Locations

## 3.2 DEMOGRAPHIC PROFILE

### 3.2.1 CURRENT POPULATION

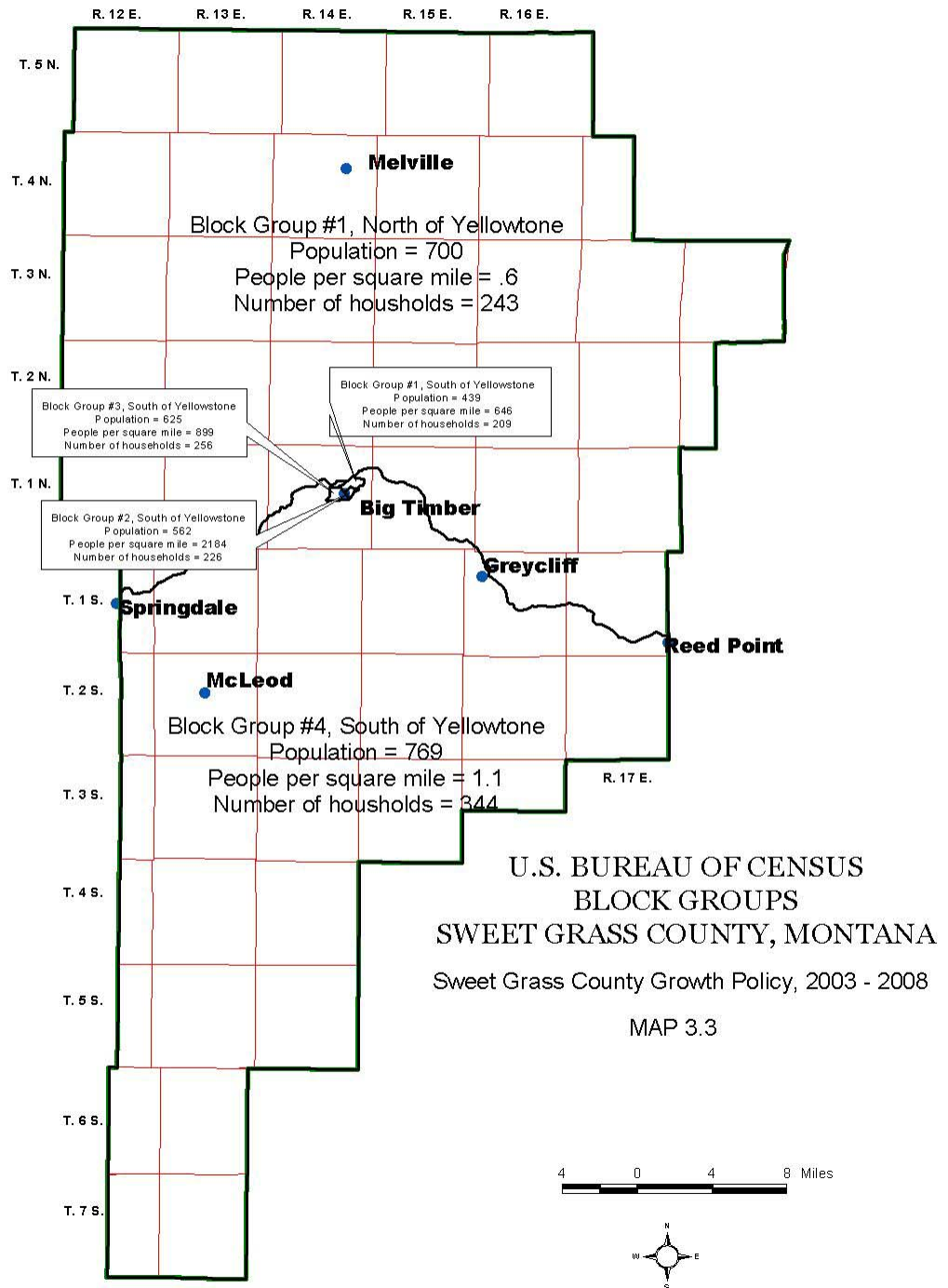
Census data indicates the total population for Sweet Grass County has steadily increased since 1970. Table 3.2 summarizes the change in population and household characteristics from 1970 to 2000, where data are available. The data show that as the population has increased, so has the median age of the residents.

	1970	1980	1990	2000
Total Population	2,980	3,216	3,154	3,609
Number of Households	1,056	1,236	1,281	1,476
Males	1,556	1,653	1,542	1,800
Females	1,424	1,563	1,612	1,809
Age				
Under 5 years	248	266	208	211
6 to 19 years	746	671	701	784
20 to 54 years	1111	1313	1266	1,584
55 to 64 years	381	358	312	395
Over 65 years	494	608	667	635
Average age	37.1	36.1	39.2	41.1
Household Type				
Family household	765	874	872	987
Non-family household	291	362	409	489

**Table 3.2** Selected population characteristics. (U. S. Census Bureau)

The 2000 Census divided the county into 5 smaller subdivisions for which statistical population data are available. The population data for these “Block Groups” are presented on Map 3.3. Approximately 803 people or 22% of the total population live north of the Yellowstone River. This area is the least populated Block Group in the county and averages approximately .7 people per square mile. South of the Yellowstone River, excluding the area in and around Big Timber, the population is estimated at 857 which amounts to approximately 24% of the county population, averaging 1.1 people per square mile.

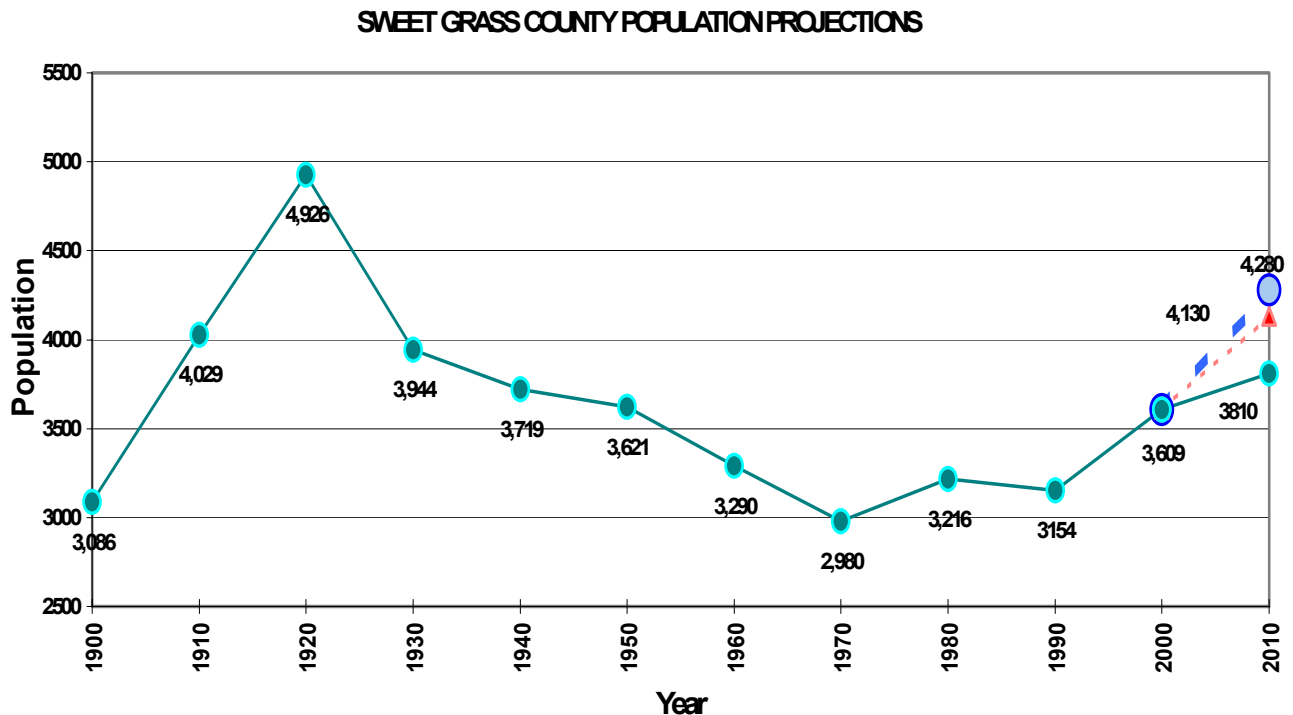
More than half the county population lives in or around the City of Big Timber. This pattern of development is expected to continue because of access to schools and local services. The pattern of development is also dependent on the policies of this Growth Policy that encourage development in or around existing communities.



**Map 3.3** Census Block Groups

### 3.2.2 PROJECTED POPULATION TRENDS

The population of Sweet Grass County has grown since 1990 from 3,154 to 3,609 in 2000. This figure still falls below the peak of 4,926 people residing in the county in 1920. The chart in Figure 3.2 shows the county population from 1900 to 2000 based on U. S. Bureau of Census data. Three sets of population projections are also shown up to year 2010. The slow growth scenario represents the natural growth of the county. Natural growth is determined by calculating the difference between the expected birth rate and the death rate. A rapid growth scenario reflects mine-related growth. If Stillwater Mining Company were to go forward with an expansion from its current 1000 tons per day production rate to a 2000 tons per day rate, it is estimated that an additional 150 people would move into the county. A rapid growth scenario is shown which reflects possible mine related growth added to the current growth rate of 1.44% per year. The intermediate data set represents the current population growth rate.



**Figure 3.2** Sweet Grass County historic population and population projections

Between 1990 and 2000, the county grew by 14.4% or 1.44% per year. If this rate were to continue, the population would reach 4,130 by year 2010. The future growth rate estimate for the slow growth scenario is approximately .6% a year, which would increase the population to 3,810 by year 2010. The growth rate for the rapid growth scenario is approximately 2% a year increasing the population to 4,280 by year 2010.

### 3.3 ECONOMIC PROFILE

The economic base of Sweet Grass County, since the late 1800's, has been almost exclusively agriculture. Raising sheep and wool production were the leading industries through most of the county's history. In 1891, 2,000,000 pounds of wool and 115 carloads of sheep were shipped. By 1895, the wool shipment exceeded 4,000,000 pounds. Since 1963 the sheep industry has steadily declined. In 1964 the number of beef cattle exceeded the number of sheep. This trend continues

as the number of all cattle and calves is now estimated to be 46,000 and the number of sheep and lambs is 12,000 (U.S. Dept. of Agriculture, State Statistical Report, 2001). A comparison of the agricultural statistics for 1975-76 and 2000-01 are presented in Table 3.3.

<b>Crops</b>	<b>1975 Yield per Acre</b>	<b>1975 Production</b>	<b>2000 Yield per Acre</b>	<b>2000 Production</b>
Winter Wheat	29.8 Bu.	181,600	15.0 Bu.	9,000
Spring Wheat	24.3 Bu.	7,300	15.0 Bu.	19,000
Barley	46.3 Bu.	363,600	50.0 Bu.	100,000
Oats	56.8 Bu.	73,800	39.0 Bu.	39,000 Bu.
All Hay	1.74 tons	129,800	1.53 tons	39,000
<b>Livestock</b>	<b>Number of Head – 1976</b>	<b>Rank in Montana</b>	<b>Number of Head – 2001</b>	<b>Rank in Montana</b>
Cattle	54,200	25	46,000	24
Sheep	23,700	4	12,000	6
Hogs	1,800	26	Not reported	Not reported

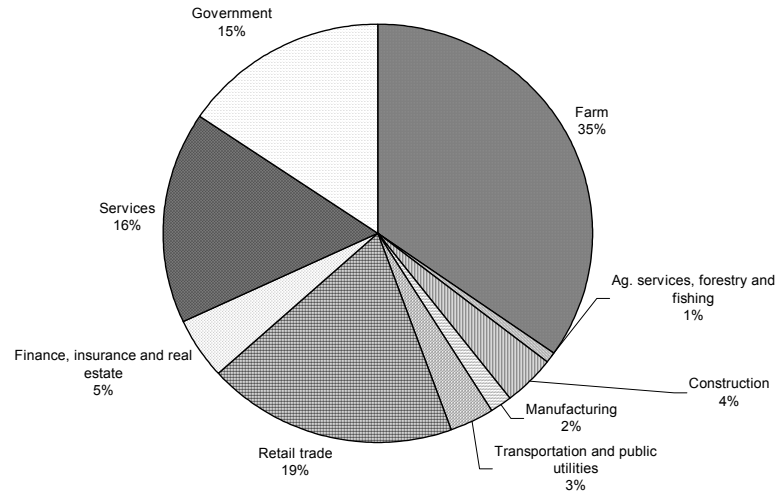
**Table 3.3** Agricultural statistics for Sweet Grass County, 1975/76 and 2000/01 (MT Agricultural Statistics Service)

While still the dominant land use, agriculture has slipped slightly in its leading economic role. In 1970 agricultural jobs accounted for 35% of all county employment. Based on 2000 data, less than 23% of all jobs are in agriculture. Consolidation of land and improved equipment account for most of the reduction of agricultural jobs.

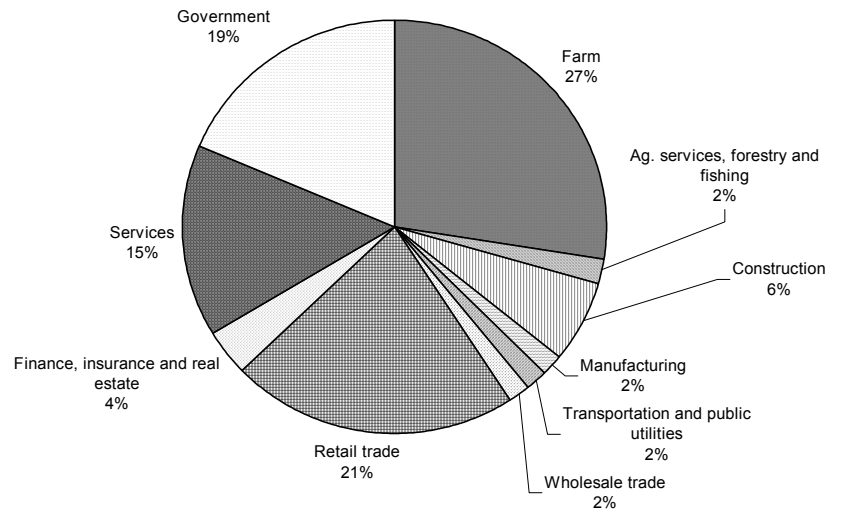
Retail-related jobs account for 18% of all county jobs partially due to the increase of the tourism and travel sectors. Thirty-five retail establishments were operating in the county in 1997. Tourism-related enterprises also bolstered employment and earnings in the service industry. Service now comprises at least 17% of all county employment. The 37 service establishments operating in 1997 include hotel and other lodgings, auto repair, health, personal, legal and other professional services. Government related jobs account for 16% of all county employment. The construction industry has also been steadily increasing since the 1970s in terms of earnings and employment. The three graphs shown in Figure 3.3 compare the employment levels of basic and derivative industries for years 1970, 1980, and 2000.

**Figure 3.3** Percentages of jobs by industry for years 1970, 1980, and 2000 (U.S. Bureau of Economic Analysis)

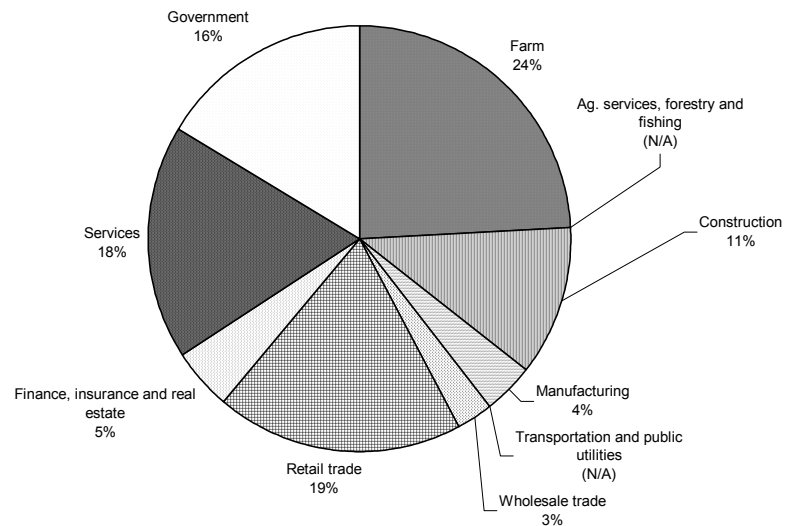
**Employment  
Industry - 1970** by



**Employment  
Industry - 1980** by



**Employment  
Industry - 2000** by



### 3.3.1 PERSONAL INCOME

Personal income is the income earned by the residents and firms of the county from all sources, including earnings by individuals, corporations, and companies. It includes wages salaries, and sales made by stores and services.

Personal income produced from agricultural operations has declined since 1970 when it amounted to 27 % of the total personal income for the county. By 1991, farm income shrunk to approximately 5% of the total. The 2000 earnings estimates from the Bureau of Census reported a net of \$855,000 in income from agricultural operations. As income from agriculture declined, incomes from other industries have steadily increased, most notably government, services, and construction. Per Capita personal income or the amount of income every person in the county averages, has increased since 1970, reaching a high of \$19,968 in 2000. Table 3.4 shows the earnings (in \$000s) per industry for the years 1970, 1975, 1980, 1985, 1991, 1996 and 2000.

		1970	1975	1980	1985	1991	1996	2000
<b>Total Personal Income</b>		24,460	27,680	34,130	32,580	48,421	59,616	72,524
	Non Farm Personal Income	17,780	25,680	28,060	31,030	46,061	60,389	71,669
	Farm Personal Income	6,680	2,000	6,070	1,550	2,360	-773	855
<b>Per Capita Personal Income (actual value)</b>		8,154	9,227	10,666	9,872	15,333	17,488	19,968
<b>Earnings By Industry</b>								
	Farm	6,680	2,000	6,070	1,550	2,360	-773	855
	Agricultural Services, Forestry and Fisheries	0	240	310	240	581	667	N/A
	Mining	0	0	0	0	0	0	112
	Construction	1,090	1,150	1,490	1,600	3,230	4,979	5,435
	Manufacturing	140	110	160	130	375	2,111	1,582
	Transportation & Public Utilities	930	1,440	580	610	1,211	1,883	N/A
	Wholesale Trade	0	1,540	390	840	443	845	1,414
	Retail Trade	560	3,170	500	3,050	2,330	4,378	5,936
	Finance, Insurance & Real Estate	330	500	610	500	752	992	1,681
	Services	1,830	1,960	1,840	2,430	2,834	4,182	4,439
	Government	2,270	2,730	2,920	3,230	4,907	6,193	7,935
	Dividends, Interest and Rent	5,600	7,180	9,760	11,880			
	Transfer payments*	2,860	4,210	4,920	6,120			

**Table 3.4** Personal Income by Major Source and Earnings by Industry, 1970-2000 (\$000 of dollars, U.S. Bureau of Economic Analysis).

*Transfer payments include payments to persons such as unemployment compensation, welfare benefits and Social Security benefits.*

### 3.3.2 LABOR FORCE

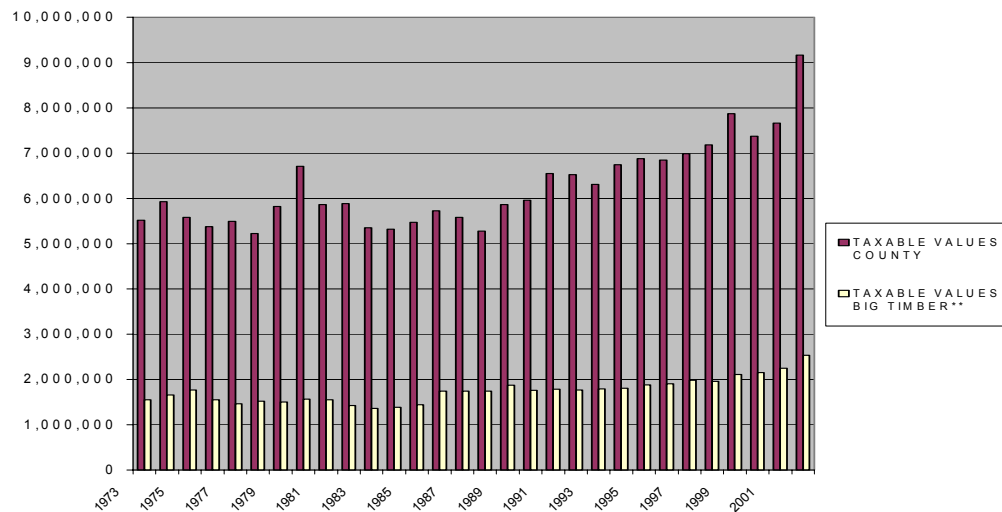
In 2001, the available labor force in Sweet Grass County was 1,838 persons. Of these, 1,791 were employed resulting in an unemployment rate of only 2.6%. The state average unemployment rate for 2001 was 4.6%. The low unemployment rate may be attributable to the reluctance of

residents to remain in the county without work, although no data is available to support that assumption.

### 3.3.3 PROJECTED ECONOMIC TRENDS

Sweet Grass County is experiencing a shift in the dominant industry as measured by tax revenues as the East Boulder Mine develops. The 2002 taxable valuation from this mine facility alone is \$2,906,838, or 25% of the total county taxable valuation. The mine is currently operating at an average production rate of 1,000 tons per day (TPD). The 1998 East Boulder Mine Impact Plan includes an estimate of \$7,500,000 for the total property/equipment valuation if full production in the future reaches an average of 2,000 TPD, with an additional \$4,000,000 valuation on gross proceeds from mine production. The gross proceeds valuation will be dependent on platinum and palladium prices each year.

The county's total taxable value in 2002 is \$11,694,882 which includes the City of Big Timber. Figure 3.4 below shows the history of the county's taxable value since 1973.



**Figure 3.4** County history of taxable value

Total tax mills levied to the taxable values within the county vary by school district. The below Table 3.5 lists the total mills per school district.

**DISTRIBUTION OF 2002 TAX MILLS BY SCHOOL DISTRICT**

School District	State	County	City of Big Timber	Elem/HS School**	Total Mills Levied 02/03
Big Timber (1)-Outside the City of BT	101.00	131.18		169.58	401.76
Big Timber (1C)-Inside the City of BT	101.00	96.92	90.90	169.58	458.40
Greycliff (16)	101.00	131.18		150.63	382.81
McLeod (29)	101.00	131.18		119.39	351.57
Melville (5)	101.00	131.18		139.55	371.73
Springdale (56-63)	101.00	131.18		130.77	362.95
Reedpoint HS (9HS)	101.00	131.18		314.57	546.75
Reedpoint Elementary (9-9)	101.00	131.18		229.53	461.71

\*\* SGHS included in the above districts except Reedpoint HS District

**Table 3.5** Total 2002 tax mills by school district



Actual tax revenues received will be dependent on the tax rate structure at that time. Coincident with the increase in taxable value from the mine will be the increase in mining industry related employees. As of the third quarter of 2002, Stillwater Mining Company reported a total of 311 employees, of which, 85 were immigrating employees residing within the county. Stillwater Mining Company anticipates eventually hiring up to 600 employees for the East Boulder Mine. Of these, 100 were forecasted to immigrate to Sweet Grass County, including Big Timber. If housing availability increases within Big Timber the immigration figures may be higher.

Agricultural jobs and income will remain relatively unstable primarily because of the cost of labor and commodity prices. Government jobs and income will slowly increase, particularly for critical services such as police protection. This increase will be in response to the general population increase. Immigrating mine employees will bring their families, thereby increasing the available labor force. The 1998 Hard Rock Mine Impact Plan, projects that approximately 120 local employees may vacate their non-mine jobs to work for Stillwater Mining Company. This shift in employment will result in increased jobs in the mining sector. If dependents of mine workers fill the vacant jobs, the shift will serve to stabilize employment in other sectors. Foreseeable conditions that will increase employment in the service industries include an increase in new retail, lodging, and food businesses created to serve the increasing population and tourist industries.

## **3.4 HOUSING NEEDS**

### **3.4.1 CURRENT CONDITIONS**

Based on 2002 rural addressing data, the existing number of residential structures outside the Big Timber city limits is about 1200. This number includes residences within the City-County Planning jurisdiction. The majority of these residences are located on large tracts, outside of platted subdivisions. According to the Montana Bureau of Mines and Geology, there are 1263 domestic water wells located in Sweet Grass County. With the exception of one 18-lot manufactured home park, there are no central water or sewer facilities outside the city limits.

According to the 2000 Census, there are 1,860 housing units within the county, including Big Timber. Of these 1,476 are occupied by owners and approximately 200 are estimated to be recreational, part time use. The average household size is 2.41. The majority of the housing stock in Sweet Grass County was built prior to 1940. Housing units are typically stick-built structures. Rock foundations are common as are two story houses.

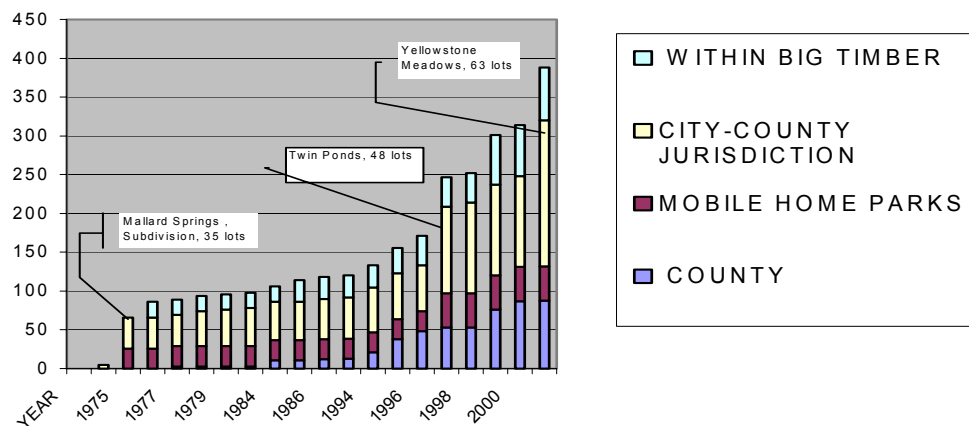
Demand for small acreage, rural residential property comes mainly from two sectors, year-round, working-class residents and part-time, leisure-class residents. Both of these sectors appear to be increasing. The leisure-class demand will be driven by the increasing number of retirees and a healthy stock market. The working-class resident market will be greatly affected by the East Boulder Mine operating plans.

Rental options are mostly confined to the Big Timber where privately operated and government subsidized apartment housing is located. Rental property in the county is almost exclusively single-family housing.

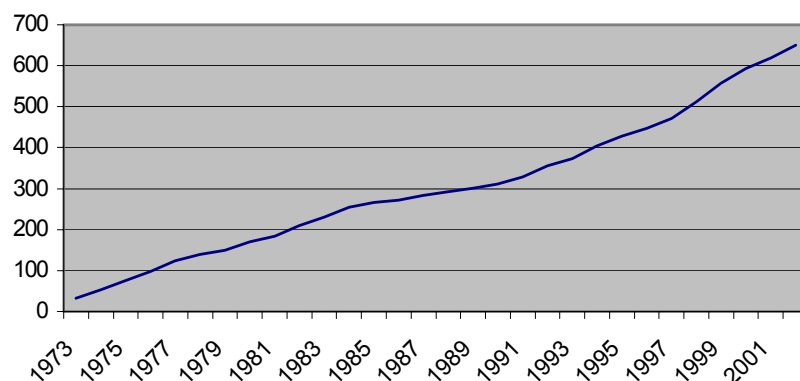
### **3.4.2 PROJECTED TRENDS FOR HOUSING NEEDS**

New construction in Sweet Grass County has held steady until recently. Since 1998 there has been a significant increase in subdivision and new construction activity within the county. Figure 3.5 below shows the number of lots subdivided annually and Figure 3.6 shows the

cumulative number of permits issued by year for new individual sewage disposal systems in the county.



**Figure 3.5** Number of platted subdivision lots since 1973



**Figure 3.6** Number of permits issued for new individual sewage disposal systems since 1973

The county population is expected to increase between 200 to 700 people within the next ten years. At an average household population of 2.4, this expected growth could generate a demand for 83 to 292 additional dwelling units. The 1998 East Boulder Hard Rock Mining Impact Plan projected approximately 70% of the mine related population to live in the county. Of that growth, the majority would be located within the city-county planning jurisdiction. Currently close to half the population in the county lives within the city limits. It is expected that properties adjacent to Big Timber will develop and developments adjacent to the city would be annexed when they are platted. This would increase the proportion of population living in the city. A reasonable projection for housing needs in the rural county would be approximately 20 to 30% of the expected growth from the working and leisure populations, or 20 to 80 dwelling units. There is a need for more low to moderate-cost housing for low to moderate-income families and individuals.

## **3.5 LOCAL SERVICES**

### **3.5.1 COUNTY SERVICES**

**Administration.** Sweet Grass County is governed by a three-member board of county commissioners. At present, county administrative staff totals 31 full-time employees, 11 part-time employees, four temporary employees, and 72 people employed by the Pioneer Medical Center. An organization chart showing the county's departments and services is given in Figure 3.9.

In addition to the services preformed by the county employees and elected officials, the county utilizes several advisory boards consisting of citizen volunteers. These boards include the following:

- Airport Board
- Chemical Dependency Board
- Cemetery Board
- City-County Planning Board
- County Planning Board
- Fair Board
- Health Board
- Library Board
- Mental Health Board
- PMC Board
- Tax Appeal Board
- Weed Board

The county department budgets total \$2,658,370 for fiscal year 2002/03. A breakdown of county budget requirements for each department is shown in Table 3.6.

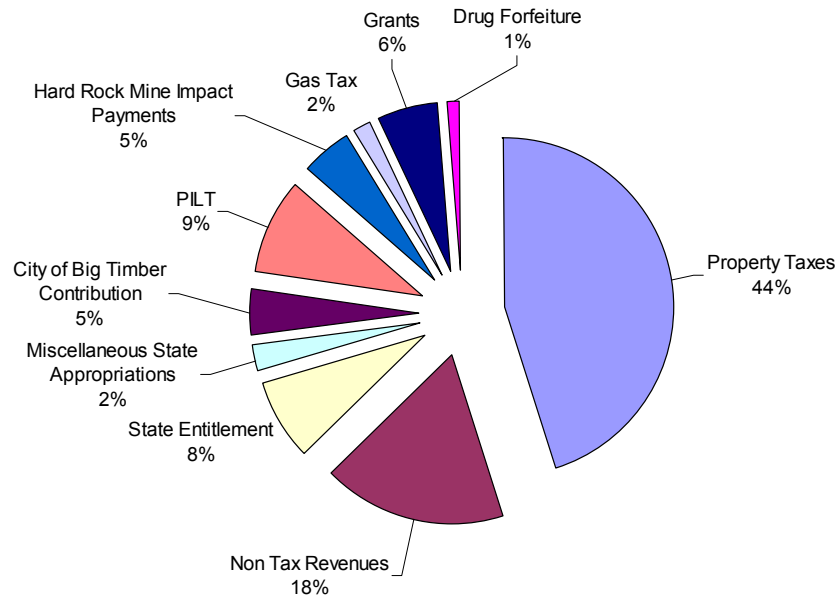
# DEPARTMENT BUDGETS FOR 2002/2003

DEPARTMENTS	% OF BUDGET	02/03 BUDGET	MILL LEVY ASSIGNMENTS
<b>General Fund:</b>			
Administration	3.9%	105,000	
Justice Court	3.4%	90,720	
Treasurer Office	3.3%	87,000	
Clerk & Recorder Office/Elections/Records	5.3%	142,200	
County Attorney Office	3.0%	78,870	
General Facilities Budget	3.5%	93,325	
Public Schools	0.8%	21,300	
Law Enforcement	19.1%	507,609	
Civil Defense	0.7%	18,980	
Coroner	0.3%	7,500	
Sanitation/Junk Vehicles	0.7%	17,660	
Welfare/Family Services	0.2%	6,500	
Liability Insurance	0.8%	22,000	
Building Reserve	1.1%	30,316	
<b>Subtotal-General Fund</b>	<b>46.2%</b>	<b>1,228,980</b>	<b>54.976</b>
Roads and Bridges	16.5%	438,490	29.204
Weed Control	4.1%	109,830	6.609
Fair	1.5%	41,070	1.500
Airport (1)	2.0%	52,480	1.000
District Court	3.8%	100,390	1.425
Community Service	5.6%	148,800	6.328
Cemetery	2.3%	61,220	2.694
Planning	2.6%	67,970	2.565
Health & Welfare Services	1.8%	48,160	0.503
PMC Bond Payments	4.0%	107,400	6.460
County Extension Service	2.1%	56,700	4.394
Soil Conservation	0.2%	5,740	1.500
Library (2)	1.4%	36,140	4.392
Ambulance	3.7%	99,200	3.158
Fire Department (3)	2.1%	55,800	4.422
	<b>53.8%</b>	<b>1,429,390</b>	<b>76.154</b>
<b>TOTAL COUNTY DEPARTMENT BUDGETS 02/03</b>	<b>100%</b>	<b>\$2,658,370</b>	<b>131.130</b>

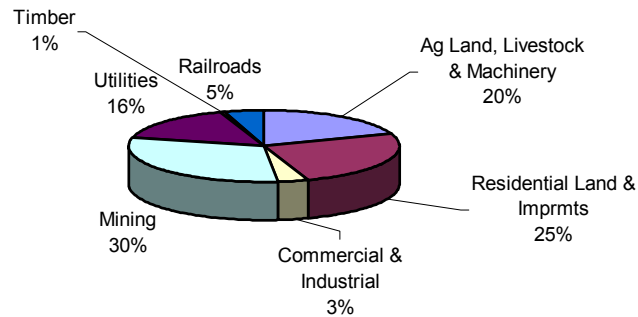
- (1) The 02/03 City of Big Timber budget includes an additional \$4,800 for the Airport which is not included in the above county budgets
- (2) The 02/03 City of Big Timber budget includes an additional \$72,565 for the Library which is not included in the above county budgets
- (3) The 02/03 City of Big Timber budget includes an additional \$29,000 for Fire Dept operations and \$10,000 for capital outlay which is not included in the above county budgets

**Table 3.6** 2002/03 county budgets by department

Funding for the county's budgets come from numerous revenue sources. The below Figure 3.7 shows the breakdown of revenue sources for county operations. The following Figure 3.8 breaks down the county's property tax revenue by tax classification.



**Figure 3.7** Breakdown of county revenue sources for FY 2002/03



**Figure 3.8** Breakdown of the 2002/2003 county property tax funding by tax classification

# SWEET GRASS COUNTY ORGANIZATION

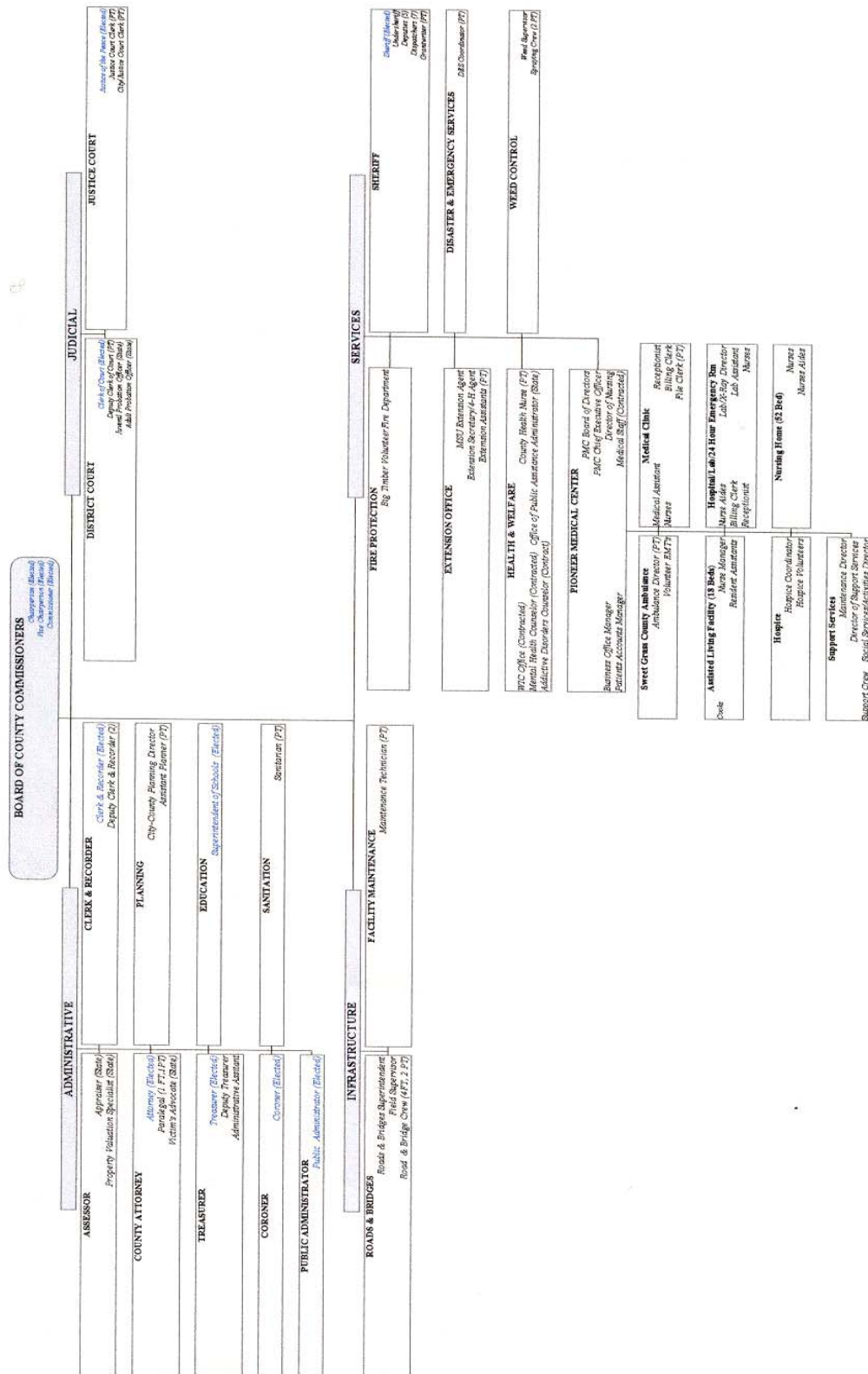


Figure 3.9 Sweet Grass County Organization Chart of Departments

**Law Enforcement** The Department of Sheriff provides law enforcement for the county, and for the City of Big Timber under an interlocal agreement. The department includes the Sheriff, Under Sheriff, five full-time deputies, five full-time dispatchers, two part-time dispatchers, and 15 reserve officers for enforcement at special events. The sheriff and deputies are all stationed in Big Timber, and an officer is on duty at the courthouse 24 hours per day. Each officer drives his own vehicle, which he leases to the county. The 911 emergency number serves the entire county. The Sheriff Department also administers the Department of Emergency Services, Coroner Services and Civil Defense.

**Fire Protection** Fire protection is provided by a county volunteer fire department with three substations located in Big Timber, Melville, and Reed Point. The fire department is supported by the City of Big Timber and the county. The fire department has an Insurance Service Organization (ISO) rating of 5. One-third of the fire department's funding comes from county funds, one-third from the city, and one-third from private donations.

**Roads and Bridges** Sweet Grass County has approximately 570 miles of county roads. There are approximately 110 miles of state secondary roads, 32 miles of Highway 191 and 39 miles of Interstate 90 within the county. The county road department maintains the county roads and 35 miles of graveled state secondary roadway (Rapelje Road, FAS 478). The department consists of a road supervisor, five full-time employees, and three temporary employees (bridge crew).

**Library** The Carnegie Public Library provides library services for the county and Big Timber. The county and city jointly fund the library, with Sweet Grass County providing 40 percent of the funding. The library, staffed by a permanent part-time librarian and a part-time employee, has three reading rooms and a fourth for periodicals. Approximately 19,000 volumes and 65 periodicals are available at the library.

**Emergency Medical Services** An organization consisting of one paid, part-time employee and volunteers provides emergency medical services (EMS) to the county. All volunteers are registered emergency medical technicians (EMTs). Up to 6 EMTs are on call at any one time, 24 hours a day and are paid when they respond to a call. About one-half of the EMT budget comes from fees charged for service. EMS handles approximately 200 calls per year.

**Weed Control** The Sweet Grass County weed control program is administered by a county weed district governed by a weed board, and staffed by a full-time weed supervisor. During summer months some weed control duties are contracted.

**Social Services and Public Assistance** The Sweet Grass County Office of Public Assistance offers the following programs: Families Achieving Independence in Montana (FAIM), Medicaid, foster care, and food stamps. Sweet Grass County receives 20 percent of the director's time (the director also serves Stillwater and Carbon Counties). Sweet Grass also receives 65 percent of the available staff time from a FAIM coordinator and 50 percent of staff time from an eligibility assistant. The Sweet Grass County Department of Family Services offers adult protective services, child protection services, and adoptive services. The staff includes one half time social worker and one half time social worker aide.

**Mental Health** The District III Mental Health Center, headquartered in Billings provides mental health services to Sweet Grass County. The local office in the Community Services Center offers evaluation, counseling, and therapeutic services through a counselor who travels to Big Timber one day a week.

**Addictive Disorder Treatment.** The county commissioners have appointed an 11-member advisory board to help govern the county's addictive disorders program. Sweet Grass County contracts with the District III Mental Health Center in Billings for counseling services one to two days a week.

**Cemeteries.** The county owns and operates two cemeteries, Mountain View in Big Timber and the Reed Point Cemetery near Reed Point. A 5-member board administers the cemeteries. Three members represent Mountain View Cemetery and two represent Reed Point Cemetery.

Mountain View Cemetery is approximately 7 acres and contains an estimated 6,000 gravesites. Approximately half of the gravesites are occupied. Reed Point Cemetery is much smaller, approximately 1.87 acres. There are also several private cemeteries within the county.

**Pioneer Medical Center** The Pioneer Medical Center is a medical facility complex that provides quality health care to Sweet Grass County residents. The Center consists of a Physicians' Clinic, an 8-bed hospital, a 52-bed skilled and long-term care facility, an assisted living facility with 16 self-contained apartments and ambulance service. The clinic, hospital, long term care facility and assisted living facility share a staff of 125, supplies, building space, maintenance, repairs, utilities, billing system, administration, kitchen service, and equipment. The facility is a County owned medical service enterprise governed by an appointed board that reports to the Sweet Grass County Commissioners. With the exception of the physicians, the staffs are county employees. Physicians servicing the center are employees of Livingston Healthcare.

The Center is both self sufficient for many medical situations and provides a full range of services including outpatient surgery, acute care, 24 hour emergency, laboratory, respite care, adult day care, hospice, physical, occupational and speech therapy, and cardiac stress testing. Specialty clinics are provided periodically and include internal medicine, gynecology, orthopedics, cardiology, urology, audiology, podiatry and dermatology. The Center maintains affiliations with Park Clinic and Livingston Healthcare in Livingston and Deaconess Billings Clinic and St. Vincent's Healthcare in Billings.

### **3.5.2 STATE OFFICES**

**Department of Revenue - County Appraiser.** The Montana Department of Revenue employs one part-time Appraiser, one part-time Property Evaluation Specialist, and one part-time Property Evaluation Technician. These employees are responsible for determining the taxable value of property in the county. The office identifies and values new construction of real property and audits existing real and personal property for taxing purposes. Information about property ownership, taxable value and tax relief programs are also available from this office.

**Department of Transportation - Highway Maintenance.** The Montana Department of Transportation employs six highway maintenance workers in Big Timber. This crew is responsible for maintenance and minor repair of Interstate 90, state primary routes and paved state secondary roads within the county. Maintenance responsibilities include snowplowing, repairing signs, guardrails and right-of-way fences, and patching pavement. A maintenance shop and sand shed are also located in Big Timber. There are several stockpiles of asphalt millings located throughout the county.

**Sweet Grass County Conservation District** The Big Timber Conservation District is one of 58 political subdivisions in the state, which helps local residents conserve their soil, water and other



renewable resources. A board of supervisors composed of five, county- elected officials serves the district. Funding for the board comes from 1.5 mills levied on real property within the district. The Conservation District also administers the State 310 Permit (Montana Natural Streambed and Land Preservation Act), required for any work proposed in or near a stream. The local office is located in Big Timber.

### **3.5.3 FEDERAL OFFICES**

**USDA Forest Service** Over 24% of the land area in Sweet Grass County is publicly owned and administered by the US Forest Service (USFS). This land is encompassed in part by the Gallatin National Forest, Big Timber Ranger District and the Custer National Forest, Red Lodge District. The Forest Service is charged with managing the land to benefit the public by providing a balance of resources and uses in harmony with the capability of the land. The Forest Service oversees multiple uses within the National Forests including logging, mining, oil and gas development, recreation, and grazing. The Forest Service manages an extensive transportation network of roads and trails. In addition to managing the controlled uses, the Forest Service is also charged with protecting the soil, air, and water quality on public land as well as the fish, wildlife and vegetative resources.

The Big Timber Ranger District is headquartered in Big Timber and has a staff of nine full time employees, five permanent seasonal employees and additional seasonal summer hirings which ranges from 4 to 16 employees. The Forest Service and BLM are not required to pay state property tax but instead provides payments to the county in lieu of taxes (PILT). The annual PILT from the federal agencies for the 2002/03 fiscal year was \$275,850. Sweet Grass County also receives funds from the state Forest Reserve program. Funds from this program amounted to \$49,283 for the 2001/02 fiscal year. Forest Reserve funds are used exclusively for road and school needs.

**USDA Natural Resource Conservation Service** The Natural Resource Conservation Service (NRCS) is a federal agency that works with private landowners to help protect their natural resources. The agency emphasizes voluntary, science-based assistance, partnerships, and cooperative problem solving at the community level through the locally led conservation process. The NRCS has a field office in Big Timber. The Big Timber office is staffed by five full time employees. The Sweet Grass Conservation District Administrator is also located in this office.

**Farm Service Agency** The USDA Farm Service Agency is another land and water conservation agency helping farmers and ranchers stabilize income and providing credit to new or disadvantaged agricultural operators. The agency also administers federal disaster assistance loans. The Farm Service Agency office is located in Big Timber. This agency is governed by a 3-member local board elected by local agricultural producers. The office has one full time employee and one part time employee who is shared with the Stillwater County office.

**US Postal Service** There are four post offices located in Sweet Grass County in the communities of Big Timber (59011), Greycliff (59033), McLeod (59052) and Melville (59055). The U.S. Postal Service recently completed construction of new post offices in Greycliff (2002) and Big Timber (2000).

### **3.5.4 PRIVATE UTILITIES**

Private companies provide electricity, gas, telephone, and solid waste collection and disposal in the county. Park Electric and Northwestern Energy are the primary providers of electricity. Northwestern Energy also provides natural gas. Electric power is not immediately available in

two-phase and three phase service configurations to all parts of the county. The cost of extending electrical service to an area is borne by the power company and the user.

Telephone service is provided through Triangle Telephone and several long distance providers.

Sweet Grass County does not provide trash pickup. Solid waste disposal is the responsibility of county residents. The two existing options for county residents are to contract with either a private hauler or to haul garbage to the transfer station in Big Timber. A recycling container is provided at the transfer station. Presently newspaper, aluminum cans and cardboard are recycled. Large appliances may also be deposited at the site for recycling. Expansion of the recycling program is possible.

### **3.5.5 PROJECTED TRENDS FOR LOCAL SERVICES**

Population and economic growth in the County will increase needs from most local services. The increased burden on a service is affected by population increase and location of the new populations or business developments. Actual County tax revenue does not always meet the County's income needs for maintenance of public services. Although growth does increase tax revenue, it may not always translate into sufficient tax revenue to meet public service needs.

The demand for most local services comes not just from full-time residents, but also from seasonal residents and visitors. Given the projections of continued population and economic growth, local services can expect to see greater demands for service. In many cases, lack of resources to meet the demands will continue to be a challenge. Capital improvements planning by the County and other local service providers is vital and will promote cost-effective investments.

## **3.6 TRANSPORTATION**

The transportation system in Sweet Grass County is relatively simple and consists of a highway, road and street network, bridges, a single rail line and a general aviation airport. Two bus lines also serve the county. The transportation system has not grown significantly since US Interstate 90 was completed in 1980. Several significant upgrades and repairs, however, have occurred or are scheduled.

### **3.6.1 COUNTY ROADS**

Sweet Grass County Road Department maintains approximately 570 miles of county road. Funding for road repair, maintenance and construction comes from property tax revenues, PILT (Federal payment in lieu of taxes) funds, and statewide gas tax.

The county has classified roads according to maintenance levels, traffic count, design specifications and whether or not the road is a bus route or a mail route. An inventory of road classification and design standards are provided in the "Sweet Grass County Road Classifications and Inventory". Table 3.7 lists the classification of county roads. Class 1 roads are those roads that are eligible for federal aid where the county has relinquished design and/or maintenance responsibilities to the State or Federal Highway Administration. The county does not own class 1 roads.

Class 2 roads include all collectors, major and minor arterial roads. These roads are typically surfaced with processed shale, gravel, or cold mixed asphalt pavement. Design standards for Class 2 roads require raised roadbeds and 24-foot wide roadway and bridge widths. The county is responsible for maintaining Class 2 roads. Class 2 roads and bridges are inspected annually

and repaired or replaced as needed. Maintenance, including snowplowing, patrol grading and asphalt patching is completed on an “as needed” basis.

Class 3 roads are elevated local, feeder roads with distinct borrow pits and cross drainage. Standards require 21-foot roadway widths and 20-foot bridge and cattle guard widths. The county maintains Class 3 roads to all weather standards. Class 3 roads are surfaced with processed shale or pit-run gravel. Surfacing may also include native soils where stone or shale is a significant component of the soil. Snowplowing and patrol grading are performed as needed, although the maintenance priority for Class 3 is less than Classes 1 and 2.

Class 4 roads are defined as local, low use dirt roads constructed of native soils, have shallow borrow pits and 12 to 21 foot roadbed widths. Patrol grading is done at least once a year but snow removal is done only in emergency situations. Class 4 roads are maintained by the county.

Class 5 roads are unimproved dirt roads generally passable in dry weather. No regular annual grading is scheduled for these roads and no snowplowing occurs.

Class 6 roads are included as a means of recognizing legitimate claims of county road status for roads not included in Classes 1 through 5. These roads are not maintained.

All county and public roads receive state and federal fuel tax distribution. Classes 5 and 6 receive no fuel tax revenue unless they meet the criteria for fuel tax allocation.

<b>ROAD NAME</b>	<b>ROAD CLASS</b>
SG 1 – Otter Creek Road to Glasston crossroads	CLASS 2
SG 2 – Cremer Road (all)	CLASS 2
SG 4 – Tony Creek Road (all)	CLASS 2
SG 5 – Rapelje Road (all)	CLASS 2
SG 7 – (FAS 478) Howie Road (all)	CLASS 2
SG 8 – Lower Sweet Grass Road from Howie junction to Greycliff	CLASS 2
SG 14 – Bridger Creek Road (all)	CLASS 2
SG 18 – Old Boulder Road (all)	CLASS 2
SG 24 – Wormser Loop Road (all)	CLASS 2
SG 30 – West Boulder Road (all)	CLASS 2
Airport Road (all)	CLASS 2
MT 371 – Melville Road from Hwy 191 to Basin Creek.	CLASS 2
Fairgrounds Road (all)	CLASS 2
Cemetery Road (to cemetery but not in the cemetery)	CLASS 2
SG 1 – Otter Creek Road from Glasston junction to junction with SG 2	CLASS 3
SG 1A – Glasston Road	CLASS 3
SG 1B – Orchard Road	CLASS 3
SG 2B – Berg Road	CLASS 3
SG 2C – S. Shawmut Road	CLASS 3
SG 3 – Jabs Road	CLASS 3
Melville School Loop Road	CLASS 3
SG 5A – S. Shawmut Road	CLASS 3
SG 7A – Spannering Road	CLASS 3
SG 8A – Shanks Basin West Road to Hobble Diamond Ranch gate	CLASS 3
SG 8B – Bainter Road	CLASS 3
SG 8C – East Fork Road	CLASS 3
SG 9 – Deadmans Canyon Road	CLASS 3

SG 10 – Stephens Hill Road from Deadman’s Canyon intersection to Body Corner	CLASS 3
SG 10B – Bays Road	CLASS 3
SG 11 – Shanks Basin East Road from county line to Sec. 16	CLASS 3
SG 12 – Hump Creek Road	CLASS 3
SG 12A – Mysse Road	CLASS 3
SG 12B – Pine Hills Road	CLASS 3
SG 13 – Work Creek Road	CLASS 3
SG 14C – Stockade Road	CLASS 3
SG 15 – Lower Deer Creek Road	CLASS 3
SG 16 – Upper Deer Creek Road	CLASS 3
SG 17 – Dry Creek Road to H. Faw Home	CLASS 3
SG 21 – North Yellowstone Trail Road	CLASS 3
SG 21A – Dugout Road to Grosfield Ranch	CLASS 3
SG 21B – Cow Creek Road	CLASS 3
SG 22 – Featherbed Road	CLASS 3
SG 22A – Whitetail Road	CLASS 3
SG 23 – Swamp Creek Road to Robert. Burns Ranch	CLASS 3
SG 25 – Big Timber Canyon Road	CLASS 3
SG 26 – Wheeler Creek Road	CLASS 3
SG 27 – Anderson Road	CLASS 3
SG 29 - Susie Creek Road to Susie Creek Crossing	CLASS 3
SG 31 – East Boulder Road	CLASS 3
MT 371 – Melville Road from Basin Creek to county line	CLASS 3
MT 298 – Main Boulder Road south of Natural Bridge	CLASS 3
SG 1C – Glasston Lake Road	CLASS 4
SG 1D – N Orchard Road	CLASS 4
SG 2A – Rupert Road	CLASS 4
SG 4A – Cooney Road	CLASS 4
Russell Gulch Road	CLASS 4
SG 6 – Sourdough Road	CLASS 4
SG 10A – Union hall road	CLASS 4
SG 14A – Terland Road	CLASS 4
SG 14B – West Bridger Creek Road	CLASS 4
SG 19 – Mendenhall Creek Road	CLASS 4
SG 20B – West Fork Duck Creek Road	CLASS 4
SG 22 – Featherbed Road from Arlian Ranch to Dugout Road	CLASS 4
SG 23 – Swamp Creek Road from Burns upper ranch gate to Little Timber crossing	CLASS 4
SG 28 – Donald Road	CLASS 4
SG 31A – Elk Creek Road	CLASS 4
SG 20 – Duck Creek Road from Prevost gate to Dooley Corral	CLASS 5
SG 20C Fetter Road	CLASS 5
SG 21A – Dugout Road from junction with SG 22 to end of road	CLASS 5
SG 28 – Donald not abandoned on Wheatland County line	CLASS 5
SG 11 – Shanks Basin East Road west from Raisland ranch	CLASS 5
SG 15A – Lower Deer Creek Road from Langford corral to old Burkeholder place	CLASS 5
Cummings or Cosgriff Road	CLASS 6
SG 10 – Stephens Hill Road from Gibson Road to Rapelje Road	CLASS 6
SG 17 – Dry Creek Road from Harold Faw place to Robert’s property	CLASS 6
All other county roads, trails, or rights-of-way	CLASS 6

**Table 3.7** Inventory and classification of county roads

### 3.6.2 STATE ROADS

State primary routes through Sweet Grass County include US Highway 10 (FAP 91) and US Highway 191 (45). US 10 is the frontage road to Interstate 90, and US 191 continues north from Big Timber to Harlowton. Most rights-of-way of both routes are owned by the Federal Highway Administration (FHA) and are maintained by Montana Department of Transportation (MDT). Some portions of the rights-of-way on Highway 191 are easements only. Eight miles of US 191 was reconstructed in 1997 and 1998, including realignment, widening, and resurfacing. The next ten miles are scheduled for reconstruction in 2003.

There are three Federal Aid Secondary roads in Sweet Grass County that are part of the state highway system. The main Boulder Road (FAS 298) from U.S. Highway 10 in Big Timber to the Forest Service boundary is a two-lane paved route. FAS 478, also known as Howie Road, is surfaced with asphalt millings for approximately one mile then continues as an “all weather” road to Rapelje Road.

The Montana Department of Transportation collects average daily traffic (ADT) counts for the four on-system roads in Sweet Grass County and Interstate 90. Table 3.8 shows the ADT for Interstate 90, US 10, US 191, Howie Road and the Boulder Road for years 1995, 1996, and 1997. The data trends vary for each route. Interstate traffic remained fairly constant except in 1997 when more vehicles were counted entering and leaving the county east of Big Timber than were counted west of Big Timber. The flow of traffic increased significantly through Big Timber on US 10 from 1995 to 1997, especially on the west end. Traffic volumes were significantly reduced on Howie Road as a result of the City landfill closure in 1996. The closure was also probably a factor for the decrease in traffic on US 191 at the Junction of US 10 for the same period.

Route	Location	1999	2000	2001
I-90	Park Co. – Sweet Grass Co. border	7600	6720	7660
I-90	Springdale Interchange	7400	7910	7850
I-90	DeHart Interchange	7400	7910	7850
I-90	West Big Timber Interchange	6530	6820	7010
I-90	East Big Timber Interchange	7420	7510	7940
I-90	Greycliff Interchange	6660	7260	6870
I-90	Sweet Grass Co. – Stillwater Co. border	6660	7260	6870
US 10	Big Timber City Limits, west	2975	3010	3420
US 10	Junction of Main Boulder	3750	3750	4530
US 10	Junction of US 191	2005	2270	2275
US 10	Big Timber City Limits, east	1700	1820	1750
US 191	Junction of US 10	1710	1980	2070
US 191	Junction of Howie Rd	666	809	802
US 191	Sweet Grass Co. – Wheatland Co. border	586	615	562
Main Boulder	Junction US 10	1941	1953	1960
Main Boulder	Big Timber City Limits, south	578	493	576
Howie Road	Junction US 191	151	233	229

**Table 3.8** Annual daily traffic counts for state primary and secondary highways in Sweet Grass County (Montana Department of Transportation)

### 3.6.3 INTERSTATE 90

Interstate 90, completed in 1980, is the major east-west route through the county. It is a four-lane asphalt highway with six interchanges located at Springdale, DeHart, Big Timber (east and west), Grey Cliff, and Bridger Creek.

### 3.6.4 BRIDGES

There are approximately 100 bridges on the county and state road system. Bridges that are part of the interstate and state highway system are considered “on-system” and are inspected and maintained by the MDT. “Off-system” bridges are the responsibility of the county, although any bridge over twenty feet in length is inspected by the MDT.

The bridges inspected by the MDT are listed in Table 3.9. It is the policy of the county Road and Bridge Department to replace existing small bridges with steel culverts where possible. The Department tries to replace approximately 10 bridges under 20 feet per year.

Otter Creek Bridge, located on Howie Road (FAS 478) and the Voges Bridge, located on the Yellowstone River on North Yellowstone River Road (SG 21) were replaced in 1999. In 2002 an inventory of all county bridges was completed. Each bridge was addressed using the same addressing system as used for rural addressing and located for mapping purposes utilizing GPS equipment. The county is currently pursuing grant funding for reconstruction of some of its most deteriorated bridges.

Bridge Number	On/Off System	Approximate Location	Name of Feature Crossed	Structure Sufficiency Status	Last Inspected Date
L49001000+080 01	Off	SE Greycliff	Yellowstone River	Structurally sufficient	Mar - 2000
L49001007+000 01	Off	10M E. Big Timber	Sweet Grass Creek	Structurally sufficient	Apr - 2000
L49007009+080 01	Off	6M SE Melville	Sweet Grass Creek	Structurally deficient and eligible for replacement.	Jan-1999
L49009011+000 01	Off	11M NW Melville	Sweet Grass Creek	Structurally sufficient	Nov-1998
L49011006+010 01	Off	11M SE Melville	Ten Mile Creek	Structurally sufficient	Apr-2000
L49012000+010 01	Off	2M NE Big Timber	Big Timber Creek	Structurally sufficient	May 2000
L49014000+050 01	Off	3M NE Big Timber	Drainage 021	Structurally sufficient	Nov-1998
L49014009+040 01	Off	12M NE Big Timber	Sweet Grass Creek	Structurally deficient and eligible for replacement	Dec-1998
L49014010+030 01	Off	14M NE Big Timber	E Fk Sweet Grass Creek	Structurally sufficient	Nov-1998
L49016006+020 01	Off	13M NE Big Timber	Sweet Grass Creek	Structurally sufficient	May-1998
L49028000+080 01	Off	6M SW Big Timber	Yellowstone River	Structurally deficient and eligible for replacement	Jan-2001
L49044001+030 01	Off	W Melville	Sweet Grass Creek	Structurally sufficient	Apr-2000
L49051000+090 01	Off	9M SE Big Timber	Sweet Grass Creek	Structurally deficient and eligible for replacement	Apr-2000
L49102000+020 01	Off	12M S McLeod	Boulder River	Structurally sufficient	Nov-1998
L49102007+000 01	Off	19M S McLeod	Miller Creek	Structurally sufficient	Nov-1998
L49102007+010 01	Off	19M S McLeod	Boulder River	Structurally sufficient	Oct-1998

Bridge Number	On/Off System	Approximate Location	Name of Feature Crossed	Structure Sufficiency Status	Last Inspected Date
L49102008+05001	Off	20M S McLeod	Speculator Creek	Structurally sufficient	Oct-1998
L49103000+02001	Off	East Big Timber	Boulder River	Structurally sufficient	Jan-1999
L49104002+07001	Off	9M S Greycliff	Bridger Creek	Structurally sufficient	Oct-1998
L49107000+03001	Off	9M SE Greycliff	Work Creek	Structurally sufficient	Apr-2000
L49109002+03001	Off	6M SE Big Timber	Upper Deer Creek	Structurally deficient and eligible for replacement	Apr-2000
L49116000+03001	Off	2M S McLeod	Boulder River	Functionally obsolete and eligible for replacement	Nov-1998
L49116001+01001	Off	3M S McLeod	E. Boulder River	Structurally sufficient	Nov-1998
L49118000+01001	Off	4M S McLeod	E. Boulder River	Structurally sufficient	Nov-1998
L49118001+03001	Off	5M S McLeod	E. Boulder River	Structurally sufficient	Nov-1998
L49118001+09001	Off	6M S McLeod	E. Boulder River	Structurally sufficient	Nov-1998
L49124000+02001	Off	5M SE Grey Cliff	Bridger Creek	Structurally deficient and eligible for replacement	Apr-2000
L49126000+02001	Off	1M S McLeod	Boulder River	Structurally deficient and eligible for replacement	Nov-1998
L49143000+06001	Off	McLeod	West Boulder River	Structurally sufficient	Jan-2000
S00298000+08841	On	Big Timber	SEP I-90	Structurally sufficient	
S00298004+07001	On	4M S Big Timber	Stock pass		Nov-1998
S00298005+03001	On	5M S Big Timber	Drainage		Nov-1998
S00298005+09001	On	6M S Big Timber	Stock pass, drainage		Nov-1998
S00298008+03001	On	8M S Big Timber	Boulder River		Jan-2000
S00298008+05001	On	8M S Big Timber	Boulder River	Structurally sufficient	Dec-1998
S00298013+00001	On	3M NE McLeod	Boulder River	Functionally Obsolete	Dec-1998
S00298016+03261	On	McLeod	West Boulder River	Structurally sufficient	Jan-2000
S00478000+02001	On	1M NE Big Timber	Big Timber Creek	Functionally Obsolete	Jan-1999
S00478001+07001	On	2M NE Big Timber	Otter Creek	Functionally Obsolete	Jan-1999
S00478010+07391	On	11M NE Big Timber	Sweet Grass Creek	Structurally sufficient	Apr-2000

**Table 3.9** Inventory of off system and on system bridges in Sweet Grass County (Montana Department of Transportation)

### 3.6.5 ACCIDENT DATA

The Montana Department of Transportation compiles vehicle accident data from information provided by the State Highway Patrol and local sheriff's office. Between 7/01/97 and 12/31/01 Interstate 90, within the county, experienced 393 accidents, FAS 298 logged 25 accidents, FAS 45 (US 191) had 57 accidents, and six accidents were recorded on the Howie/Rapelje Road (FAS 478).

### **3.6.6 RAIL SERVICE**

A single rail line runs east and west through Sweet Grass County, parallel to Interstate 90. Montana Rail Link (MRL) provides freight service to Big Timber, primarily grain shipments. MRL has a maintenance office located in Big Timber. Burlington Northern/Sante Fe also runs trains through the county but does not provide local freight service. Approximately 12-15 freight trains run through Sweet Grass County daily.

### **3.6.7 AIRPORT**

Sweet Grass County and the City of Big Timber joint airport board administers a general aviation airport located three miles southwest of Big Timber. The 5,285 feet long landing strip is paved and lighted and can accommodate light aircraft and business-class jets. A second sod airstrip is 3,475 feet long and runs crosswise to the paved strip. A fixed base operator that leases the airport for charter air flights, flight instruction, fuel, maintenance and agricultural spraying services also contracts with the county to provide airport management services. There are ten hangers located at the airport and a paved tie-down apron for aircraft.

The paved runway was recently resurfaced and extended approximately 1,000' in 1996. Future expansion plans include additional taxiways and hanger space.

### **3.6.8 FOREST SERVICE ROADS AND TRAILS**

In 1998, the Forest Service reported there are approximately 126 miles of system and limited access roads and 322 miles of trails on the Big Timber Ranger District. The road system includes only 40 miles of on-system roads. The remainder of the roads are un-maintained, 2-track roads that generally require 4WD. The number of roads has increased since 1977 when only 40 miles of on-system roads were reported. The trail mileage has decreased from 335 miles in 1977.

The 1987 Gallatin National Forest Plan identified several areas in Sweet Grass County where improved access to forest land is needed. These areas include the east front of the Crazy Mountains, and Cherry Creek, Elk Mountain and the East Boulder drainage along the north side of the Beartooth – Absaroka Range. Access to Cherry Creek is currently being negotiated. The Stillwater Mining Company's East Boulder project up the East Boulder has limited access to that drainage. The Forest Service's goals are to cooperate with other landowners in developing roads or road systems that serve mutual needs (U.S. Forest Service, 1987).

### **3.6.9 PROJECTED TRENDS FOR TRANSPORTATION**

Historically the County revenues allow for only maintenance work and minimal new construction or reconstruction. As business/industry needs as well as general population transportation increases more significant capital improvements will be necessary. Preparation for these types of improvements will require preparation and maintenance of a capital improvements plan for County roads.

## **3.7 COUNTY FACILITIES**

### **3.7.1 BUILDINGS**

**Sweet Grass Courthouse** The majority of the county offices are housed in the courthouse located at 200 West 1<sup>st</sup> Avenue in Big Timber. The courthouse was built in 1897 at a cost of \$9,590. It is a two-story, sandstone building of unique design. The individual dimensional sandstone blocks were quarried locally and are held together with raised, red-colored mortar. Many of the original interior details remain including fir trim around the doors and windows, fir baseboard molding,



brass door handles and hinges, and solid hardwood doors and floors. Much of the trim and molding has been painted and the floors carpeted or covered with vinyl flooring. The original structure houses the Commissioners', Treasurer, Sheriff, dispatcher, and Justice Court offices and the courtroom. The original building is approximately 5,456 square feet.

Two, two-story additions were added to the original structure in 1928. The additions are made of concrete block and mortar and are not built in a style consistent with the original structure. These additions house the Clerk and Recorder's and Appraiser's office and the jail downstairs, and the Planning Office, Clerk of District Court, Law Library and jury rooms upstairs. The additions add another 3,300 square feet.

The physical plant of the building is outdated. Hot water heat is circulated through old radiators from a boiler located in the basement. Lighting varies from room to room. Most offices are equipped with fluorescent lights but several older light fixtures remain. Electrical wiring has been updated in places, but is generally very old. Most of the original windows have been replaced with a smaller, double hung type. In general, the courthouse structure is sound but the electrical and heating systems are outdated. A handicap accessible ramp is located at the front entrance. The second story, however, is not handicap accessible.

**Community Service Center** The Sweet Grass Community Hospital closed its doors in 1992, at which time the county began using it as an annex to house county offices. The structure, located at 101 West 5<sup>th</sup> Avenue, is owned by the county and was built in 1950 and added onto in 1976. It is a single story brick structure and when used as a hospital and clinic consisted of 17 beds and space for two medical doctors and a dentist.

The structure is now being used for county offices. The County Attorney Office, Office of Public Assistance and Family Services, Mental Health, County Extension, County Health Nurse and Weed Supervisor, as well as the School Superintendent all have offices in the new Community Service Center. The building is in good condition and is fully operational.

**Pioneer Medical Center.** The PMC is a medical campus located at 301 West 7<sup>th</sup> Avenue. It is owned by Sweet Grass County and is medically affiliated with Deaconess Billings. The campus includes a 52-bed nursing home, an 8-bed critical care hospital unit (MAF), a medical clinic, laboratory, and a 16 unit assisted living facility. The structure is single story and originally included only the nursing home that was built in 1965. In 1996 the Medical Assistance Facility was added to the original structure and the clinic was added on in 1997. At that time, major remodeling of the interior was also completed. The campus is fully operational and is in good physical shape. Construction of a new, 16-unit assisted living facility was completed in 2000. The facility provides care for people who need assistance with activities for daily living, such as bathing, dressing and taking medications, but do not need a full service nursing home. Some apartment-style units are available for a single person and some for two people.

**Ambulance Barn** After many years of renting space for ambulances, the county built its own ambulance barn in 1995 located adjacent to the courthouse at 15 Hooper Street in 1995. The facility consists of three ambulance stalls and an office. It is in good shape and fully operational. There are no plans for expansion at this time, however, the original design of the existing ambulance barn allows for expansion.

**County Road Department Shops** The County Shops are located adjacent to the courthouse on the west side. The shops consist of thirteen garage stalls and a maintenance shop area in a large, single story L-shaped masonry structure with stucco siding and a metal roof. A small room in the rear serves as the Road and Bridge Supervisors Office. The maintenance area is heated with a

gas heater. An additional insulated, metal shop building is located behind the main building and 5 additional stalls, two of which are maintenance bays. This structure is heated by gas heaters. Both structures are functional, though outdated. A new structure located out of town with sufficient room for equipment storage and material stockpiles is needed.

### **3.7.2 COMMUNITY MEETING FACILITIES**

Most of the meeting facilities in the county are located in Big Timber. The rural communities must improvise meeting space and generally use churches and schools. Melville has a couple of facilities that may accommodate small to medium-sized groups. The Melville Elementary School may accommodate a small group but is not equipped formal presentations. The Lutheran Church, west of Melville, has ideal meeting space and may accommodate at least 60 people. It is well-equipped for presentations and workshops. Public meeting facilities in Greycliff, McLeod and Bridge School are limited to the elementary schools in these communities.

Most public meetings related to county issues are held in the courtroom of the County Courthouse. This room has a capacity of approximately 70 and is not handicapped accessible. City Hall also has a small space used for City Council and other public meetings. It's capacity is no greater than 30 people. The Dugout, a city-owned meeting hall located on East 8<sup>th</sup> Avenue across from City Park, is a modestly-sized open room well-suited for workshops and presentations. It is used for a variety of civic events including boy scouts and square dancing. The largest public meeting space in Big Timber is the High School and meetings are frequently held in the gymnasium or the library. The High School also has the Big Timber Civic Center available for meetings. Many churches in town provide some gathering space for public and private events. The Grand Restaurant and Legion Hall offer space for private events. The county is currently planning for construction of a need multi-purpose building to be located at the fairgrounds. This building will be available for meetings as well. Construction is planned during 2003.

### **3.7.3 FUTURE NEEDS**

Because of increased service demands and existing space limitations, the county will need room to expand the courthouse services. County service buildings are currently near or exceed their capacity. The county is in critical need of new or updated jail space to house prisoners. Feasibility studies are necessary to evaluate alternatives such as building a new jail, renovating the existing jail or contracting with an adjacent county for jail use while maintaining only minimal holding space for use while arranging transport to the contract jail facilities.

The county shops, while functional, are located in town and have little room for expansion and storage of equipment and materials. The garages and maintenance facilities are old and inefficient. The commissioners have discussed replacing or expanding the county courthouse but nothing has been scheduled. Both the courthouse and the community service center are fully occupied. The library also needs an addition for expansion and improved accessibility.

## **3.8 PUBLIC SCHOOLS**

Over the last hundred years, as Sweet Grass County developed, as many as 69 school districts were created and abandoned. As of the 2002-03 school year, only four grade school districts and one high school district serve Sweet Grass County. Three of the four grade school districts are rural; Melville, McLeod and Greycliff. Each school district is its own separate taxing authority and may levy taxes to pay for operating and capital costs. School districts also receive funding from the state equalization program based on the Annual Number Belonging (ANB), direct state aid, and district special education payments. In addition to the county's school districts, portions of Park County's Springdale School District (#56-63) overlaps into the western part of

Sweet Grass County and a portion of the Reed Point School District (# Elem 9-9 and 9HS) from Stillwater County overlaps into the eastern portion of the county.

### **3.8.1 SWEET GRASS COUNTY HIGH SCHOOL**

The Sweet Grass County High School (SGHS) provides secondary education to students in grades 9 through 12. The district was originally organized in 1902, but the school building was not constructed until 1904. Over the next 50 years, the original building, located on 4<sup>th</sup> Avenue West and Hooper Street, was added on to and remodeled substantially. By the 70's the building could no longer accommodate the expanding educational needs of Sweet Grass County and plans were developed for a new building. The new facility, located on the west edge of town, was completed in 1981. There are 17 classrooms, two vocational laboratories, a gymnasium and locker rooms, kitchen and lunchroom, music room and four administrative offices. Associated athletic facilities include a football field with surrounding track, a field events field and a baseball field. The athletic teams are called the "Sheepherders" in recognition of the role the sheep industry played in the development of the county. The school has a capacity of 220 students. Enrollment for the 2002-03 school year was 187 students with a student/teacher ratio of 11.7 to 1.

The School District owns and operates 10 school buses that serve 6 bus routes. The school is responsible for providing transportation to students that live more than 3 miles from the school building. High school and grade school students from all districts share the use of the buses.

### **3.8.2 BIG TIMBER GRADE SCHOOL – DISTRICT 1**

The first grade school in Big Timber was located on McLeod Street. The small, two room building was erected in 1884. In 1881, a two-story brick schoolhouse was built and served an area slightly larger than a township around Big Timber. Presently, District 1 encompasses over ten townships stretching from the county boundary on the west to within 3 miles of the east boundary (Map 3.4). The existing facility, located between 5<sup>th</sup> and 6<sup>th</sup> Avenues West and Anderson and Harris Streets was constructed in 1953 and contains 21 classrooms. Two modular classrooms were added in 2001 to offset expected enrollments increases due to the immigration of workforce for the Stillwater Mining Company's East Boulder Project. Grades 1 through 8 have two classrooms each, and there is one classroom each for kindergarten, music, and special education. The facility includes gymnasium and support rooms. The Grade School enrollment is currently near 360. The capacity of the school, prior to the two classroom modular addition, was estimated at approximately 380 students.

### **3.8.3 GREYCLIFF GRADE SCHOOL – DISTRICT 16**

The County Commissioners initially created district 16 in 1895. The original schoolhouse was located near the gray cliffs east of town along the railroad. The location of the building changed several times and is now located on leased property within the platted town site of Greycliff. The present school, built in 1948, consists of two structures. One building includes three classrooms, an entry hall and foyer, two restrooms and a small kitchen. The second building, originally a teacherage, is used as a resource room and library. The school has capacity for 36 students and in 2002-03 enrollment was at 26. The Greycliff district encompasses most of the area south of the Yellowstone River within the Upper and Lower Deer Creeks and Bridger Creek drainages. A portion of the district extends north into the Deadman Creek drainage. The district borders Reed Point school district to the east as shown on Map 3.4.

### **3.8.4 MCLEOD GRADE SCHOOL – DISTRICT 29**

The present day McLeod School District began as the Loasby District in 1899. At that time, the district was part of Park County. The original school building was located near where the McLeod Bar now stands. In 1923, the schoolhouse was moved, from that location to its present

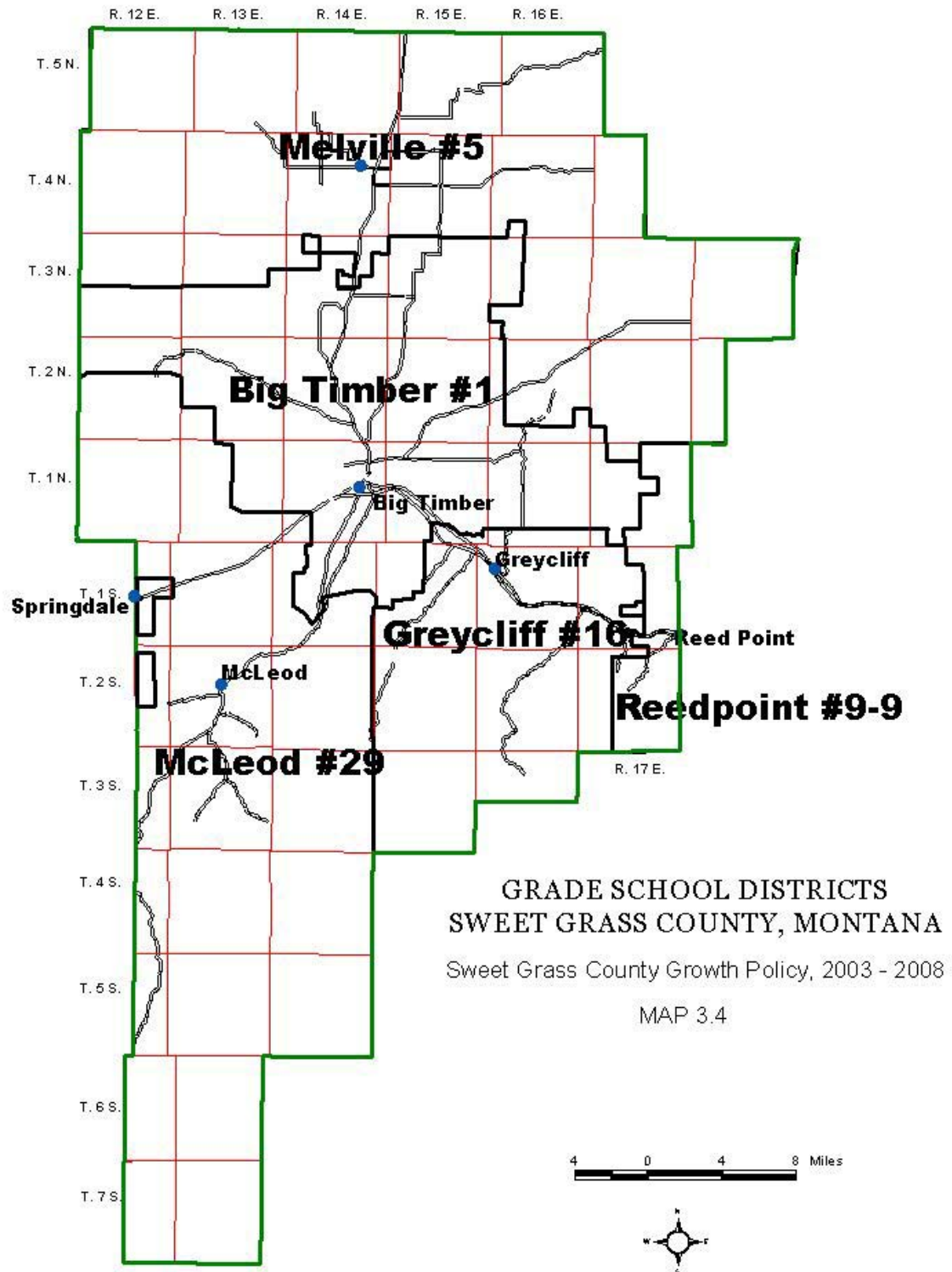
location. Moving the structure required several months and caused a great disruption to the upper Boulder River residents briefly while it remained stuck on the West Boulder River Bridge. The original McLeod District (District 13) and the Loasby District consolidated in 1950.

The present-day schoolhouse is located on the south side of the West Boulder River and was constructed from two separate buildings that were combined into a single facility. The schoolhouse consists of two classrooms, a library, restrooms, storage room, and kitchen facility. The McLeod School has a capacity of 25 students, grades K through 8. The 2002-03 enrollment was 11.

In 2001 the Bridge and McLeod School Districts were consolidated to make an expanded McLeod School District. The Bridge School District was notable for two reasons. First, the district was the last district to be created in Sweet Grass County. It was established in 1920. Second, the Bridge School, also known as Voges School, was the only functional one-room schoolhouse left in the county. It was rare when enrollment exceeded more than a dozen students and in 1997-98 school year, the last operating year for the school, there were only 7 students. The school building was built in 1921 and is located approximately six miles west of Big Timber on the north side of the river, just across the Voges Bridge. The school consists of a large classroom, a small kitchen and a couple of restrooms. A bell tower and bell were added later. Bridge School was considered an “isolated” rural school due to the difficulty in reaching the schoolhouse when snowdrifts block the roads. This state designation qualified the rural school for accreditation regardless of the number of students.

### **3.8.5 MELVILLE GRADE SCHOOL – DISTRICT 5**

District 5 is the largest grade school district in the county. It covers approximately the entire north third and northeast quarter of the county. No fewer than 17 districts were consolidated to create the present configuration of District 5. The Melville School is located just south of the platted town site of Melville. The school serves grades K through 8 and consists of three classrooms and a library. The capacity of the school is approximately 30 students. During the 2002-03 school year, 11 students were enrolled.



**Map 3.4** School Districts within Sweet Grass County

## **3.9 NATURAL RESOURCES**

### **3.9.1 SOIL**

The soils in Sweet Grass County are composed of material that either has been transported by water or glaciers, or has developed in place from the underlying bedrock. The transported soils include the recently formed alluvial soils occupying the stream and river valley, adjacent benches, and alluvial fans radiating from mountain valleys. Glacial melt waters emanating from the mountains also contributed large deposits of material from which soils developed. The residual soils, or soils formed in place are derived from the underlying bedrock. Most of the parent materials for residual soils are shale, silt and sandstone, volcanic mudflows, and to a lesser extent, igneous rock.

Undifferentiated, recent alluvial soils occur in floodplains and low terraces within major stream drainages. The soils are developed from alluvium originating from a variety of parent materials and vary considerably in texture and structure. Alluvial soils typically lack significant soil profile development. Particle size varies also, and in some locales, the soil is fine grained, consisting mostly of silt and clay. In other places, the numerous cobbles and boulders comprise the majority of the alluvial deposit. Large materials make cultivation difficult. Because of this, much of the valley bottom is used for irrigated pasture instead of cultivated crops. Where finer material occurs, it may be cultivated. All the soils occur on level or gently sloping land, which is well drained.

Alluvial soils derived from glacial outwash tend to be better developed than recent alluvial soils. The soil is composed of sand, silt and clay particles, with large amounts of pebbles and cobbles. Glacial alluvial soils occur on the gently sloping terraces and outwash plain adjacent to the mountains. The moisture holding capacity of these soils is low and they are not typically irrigated. Their agricultural value is primarily for livestock grazing.

Located in the foothills, on alluvial fans, and along the edges of major drainages are soils formed from a mixture of materials deposited by water (alluvium) and gravity (colluviums). Colluvium is material that has been deposited at the base of steeper slopes after creeping, sliding or washing its way down under the forces of gravity. The soils are composed of cobbly sandy loam, loam, and clay loam with abundant stones and gravels at or near the surface. These soils are found on moderately steep to very steep hillsides, are generally poorly formed and well drained. The primary agricultural value is for livestock grazing.

Sedimentary rocks composed of shale, siltstone and sandstones underlie much of Sweet Grass County north of the Yellowstone River. The soils derived from these rocks have weak to moderately well developed profiles and are well drained. They consist largely of clay loam, loam, silty loam and can contain large amounts of angular sandstone chips. These soils have good moisture holding capacity and are sometimes irrigated. Irrigated soils have high agricultural value for grain and forage crops, while non-irrigated soils are used for livestock grazing and dry land crops.

South of the river, the predominant bedrock consists of volcanic mudflows and assemblages of volcanic rubble. The soil that develops from this parent material is composed of silt and sand with lesser amounts of clay. The slopes are gentle to very steep and the soils are mostly well drained. The soils produce native grasses and other forage for livestock grazing.

In the mountains, soil is typically shallow and poorly developed. The soil consists of sandy and stony loam with abundant rock fragments. Parent material may be sandstone, limestone or

igneous rock. Agricultural value varies because native grasses and other forage for livestock grazing ranges from sparse to abundant.

There are twenty-five cattle grazing allotments and one sheep allotment on the National Forest.

### 3.9.2 PRIME FARMLAND SOIL

The Natural Resource and Conservation Service recently completed a new soil survey for Sweet Grass County. The survey has been released in 2002 on CD-ROM. In addition to the easy access, the soil survey is searchable according to attributes of different soil map units. An example of a searchable attribute is prime farmland designation. Key to determining suitability of land use is to determine if the local soil is considered prime farmland soil.

The NRCS makes a distinction between Prime Farmland, Farmland of Statewide Importance and Farmland of Local Importance. Prime farmland soils are considered the best suited to food, seed, forage, fiber, and oilseed crops. These soils have characteristics that are favorable to the economic production of sustained high yields of these crops. Common characteristics include adequate and dependable supply of moisture, a favorable growing season, and the level of acidity or alkalinity and the contents of salts and sodium are acceptable. The soils must be tillable, not excessively erodible or saturated for long periods and slopes range under 6%.

Sweet Grass County has 14 map units that may be considered prime farmland as shown in Table 3.10. Most of these soils require special measures to be taken to overcome certain limitations such as an inadequate and unreliable supply of water. Farmland of Statewide Importance and Local Importance has not been designated yet.

MAP SYMBOL	PRIME FARMLAND CODE	SOIL MAP UNIT NAME
104	4	Meadowcreek Loam, 0 to 2 percent slopes
135	4	Fairway Loam, 0 to 2 percent slopes
147B	4	Kremlin Loam, 0 to 4 percent slopes
183B	4	Tamaneen Clay Loam, 0 to 4 percent slopes
232B	4	Work Loam, 0 to 4 percent slopes
236B	4	Verson Loam, 0 to 4 percent slopes
268B	4	Greycliff-Roy Complex, 0 to 4 percent slopes
271B	4	Sweetgrass Gravelly Loam, 0 to 4 percent slopes
274B	1	Work Clay Loam, 0 to 4 percent slopes
275B	4	Greycliff Clay Loam, 0 to 4 percent slopes
278B	4	Perma Gravelly Loam, 0 to 4 percent slopes
282B	1	Straw Clay Loam, 0 to 4 percent slopes
288B	4	Turner Loam, 0 to 4 percent slopes

Prime Farmland Code

1 - All areas are prime farmland

4 - Only irrigated areas are prime farmland.

**Table 3.10** Prime Farmland Soil Map Units of Sweet Grass County (1999 Soil Survey of Sweet Grass County, NRCS)

### 3.9.3 GEOLOGY

Sweet Grass County hosts a variety of rock types developed over a great period of time. The oldest rocks found in the county are among the oldest found in the world and date older than 2.7 to 3.2 billion years. The youngest formation have yet to consolidate into rocks, but over time the floodplain deposits of the Yellowstone River will add their material to the geologic record. The

geologic history of the county has been as active as it has been varied, as evidenced by the mountain ranges and hills and the well-formed river valleys. The significant events that helped create these landforms were the Cretaceous Laramide Orogeny, and the Tertiary volcanic activity. Even today, landforms are being carved out by glacial activity, water erosion, and seismic activity.

### **Precambrian Crystalline Rocks**

The core of the Beartooth-Absaroka Range consists of the oldest rocks located in the county, approximately 2.7 to 3.2 billion years. The rocks are composed of medium and coarse-grained granitic gneisses, schist, granite and diorite. After this material was emplaced it was intruded by an iron and magnesium rich magma within a bowl-shaped chamber. As the magma cooled, minerals settled out producing a variety of unique igneous rocks, some containing reserves of platinum group metals (pgms), chromite, nickel, copper, and alumina. The Stillwater Complex is renowned for its unusual character and is presently being mined for its commercial reserves of PGMs. These rocks were tilted and uplifted into the present location through a series of later tectonic events.

### **Paleozoic Era (570 – 245 million years ago)**

The sedimentary rocks of the late Paleozoic Era were deposited at a time when most of Montana was submerged below sea level. Vast shallow seas covered the land and thick sequences of marine limestone were deposited. The Madison Formation, a 1,100-foot thick section of limestone is a prevalent formation of this Era. The Madison limestone outcrops along the northern flank of the Beartooth Mountains and forms steep cliffs and ridges. Natural Bridges located in the upper Boulder River valley is a prominent landform developed in the Madison limestone. Overlying the irregular surface of the Madison Formation is a 1,000-foot section of undifferentiated sedimentary rocks. Because of the unevenness of the limestone surface, the distribution and thickness of these sedimentary rocks vary considerably.

### **Mesozoic Era (245 – 66 million years ago)**

The earliest part of the Era, the Triassic Period, is missing from the geologic record in Sweet Grass County. Not until the Jurassic Period is the record preserved in thin beds of poorly exposed sediments. The rock consists of continental sandstone, mudstone, and shale. Some of these deposits are rich in organic material owing to the warm, wet climate during the time of dinosaurs. The rich organic layers resulted in the formation of coal, oil and gas deposits.

The Cretaceous Period of the Mesozoic Era was a time of mountain building, erosion and deposition. The geologic history during this time is well recorded by the emplacement of the Beartooth Mountains and the subsequent deposition of thousands of feet of sediment. Sediment eroding from the highlands was carried to shallow seas by broad, braided stream channels choked with sediment. The first rock formations to form were composed of sand and mud, deposited within the stream channels and their floodplains. Marine sediments formed in the shallow seas that later flooded the land. The following Cretaceous sedimentary formations are represented in the county.



Kootenai Formation	Non-marine, massive, cross bedded sandstone, often forms ridges. 25 to 40' thick. Overlain by mudstones, 220 to 260' thick.
Thermopolis Shale	Marine shale and sandstone, 500' thick, dark gray.
Mowry Shale	A dark gray to yellowish gray marine shale, 430 to 500' thick. Landslides often occur in this formation such as the one on the main Boulder Road at mile marker 22.
Frontier Formation	Calcareous sandstone, interbedded with siltstone and pebble conglomerate. Sandstone unit is over 100' thick. Exposed on the West Boulder River valley near McLeod. Sometimes called the Boulder River Sandstone.
Cody Shale	A nonresistant sequence of brownish gray marine shale with interbeds of bentonite and sandstone. 1,285 – 1,375' thick.
Telegraph Creek Fm.	A marine siltstone, 300' thick. Interbedded with sandstone and grades into the overlying Virgelle sandstone.
Eagle Formation	Prominent sandstone formation containing, massive crossbedded beds, some coal and carbonaceous shale and tuff. 600' thick. Virgell sandstone at base is light gray massive rock that often forms cliffs. Exposed in a large sequence south of McLeod. Also contains mineable coal deposits.
Livingston Group	Occurs in the west and south part of county. Consist of continental sediments composed of undifferentiated shale and sandstone and volcanic mudflows. Volcanic sequence stretches from southeast of Big Timber to north of Nye in Stillwater County. Forms high cliffs, same as those at Greycliff, which are composed of angular fragments of dark gray andesite suspended in mud and volcanic ash.
Montana Group	Occurs in the north and east part of county. 1,850 to 2,150' thick. Contains interbedded marine sandstone and shale.
Hell Creek Formation	Covers the east half of the county. Is visible along the Yellowstone River for several Miles. 500 to 750' thick, gray to brown, fine-grained sandstone interbedded with green to gray mudstone and shale.

### **Cenozoic Era (66 million years ago to present)**

In this part of the world, the Cenozoic Era was an active time. The Fort Union Formation, a 6,600' thick sequence of sandstone, conglomerate, siltstone and shale was deposited in the earlier part of this Era, called the Tertiary Period. The Fort Union stretches across the county from Big Timber north and east to the county line. It is the most extensive rock formation in the county. Also in the Tertiary Period, the Crazy Mountains were being formed. A series of stocks (small bodies of igneous rock) intruded into the Cretaceous sediments northwest of Big Timber. The largest of these is the Big Timber stock, a medium-colored, coarse-grained crystalline rock that is low in silica. The Crazy Mountains are made up of a number of smaller intrusives and large vertical dikes. The dikes are unique in that they are higher in sodium and potassium than the main Big Timber Stock.

In the south part of the county, in the South Snowy Block of the Beartooth Range, volcanic material was being extruded onto the surface. The volcanic rock consists of andesitic lava flows and volcanic breccias.

The late part of the Cenozoic Era starting at 1.6 million years ago is referred to as the Quaternary Period. Landforms we see today began to develop such as the Yellowstone and Boulder valleys. The ancestors to the present drainages were much higher in elevation, wider, and transported more sediment. The alluvial deposits that comprise the high terraces along the Boulder and Yellowstone Rivers are remnants of these ancient rivers. Alluvial deposits consist of unconsolidated, poorly sorted clay, silt, sand, gravels and boulders.

The Quaternary Period also included multiple periods of ice accumulation at the higher elevations. Up to 20 separate ice ages may have affected Montana in the last three million years. During these ice ages, alpine glaciers covered the Crazy Mountains and Beartooth Plateau. This glacial action eroded sharp ridgetops and U-shaped valleys and deposited linear moraines and glacial outwash in many valleys. Glacial till, or the material resulting from ice grinding away at solid rock, is composed of mixture of unstratified clay, silt, sand, gravel and boulders.

## **3.9.4 NATURAL HAZARDS**

### **Landslides**

Unstable slopes and landslides are most common in the area south of the Yellowstone River. The underlying Cretaceous sediments in this area consist of thinly bedded shales, some containing beds of bentonite. This material tends to slide along the bedding planes when excavated, particularly if the beds are sloping into the excavation. Examples of this type of slide can be seen at mile marker 22. Other types of slides and slope instability are caused from excavating into or over wetting unconsolidated material, such as river terraces. These types of slides can be seen along the East Boulder River Road and on the main Boulder Road approximately 3 miles south of Big Timber.

### **Seismic Activity**

Sweet Grass County lies just to the northeast of the most seismically active zone in Montana and northern Wyoming; Yellowstone National Park. The probability that Sweet Grass County will experience significant earth shaking is proportional to the distance from the earthquake epicenters in and around Yellowstone N. P. The United States Geological Survey has estimated that Sweet Grass County has a 1 in 10 chance of experiencing a significant earthquake within 50 years. In this case, significant means where the horizontal acceleration from seismic shaking is greater than 2 meters per second per second (20% of the acceleration of gravity).

The Uniform Building Codes has adopted standards for building in different seismic zones. Sweet Grass County is located within a Zone 2b zone. Zone 4 presents the greatest risk of property damage resulting from earthquakes, and Zone 1 has the lowest risk. Yellowstone Park is considered Zone 4.

#### **Snow Loads**

The estimated ground snow load is approximately 20 pounds per square foot over a 50-year mean recurrence interval for Sweet Grass County.

#### **Wind**

The fastest wind speed measured 33 feet above ground for Sweet Grass in general is 80 miles per hour. There is a .02 annual probability of this wind speed occurring. Localities within the county may experience greater wind speeds more frequently.

#### **Other**

In addition to the hazards mentioned above are other natural hazards which occur periodically within the county. These hazards include flooding due to spring runoff, large storm events or ice jams; wild fire; and extreme cold events.

### **3.9.5 SURFACE WATER RESOURCES**

**Yellowstone River:** The Yellowstone River, a major tributary of the Missouri River, bisects the county west to east. The total length of the Yellowstone River is 633 miles from its source at Yellowstone Lake in Yellowstone National Park to the confluence with the Missouri River in western North Dakota. Most of the valley through Sweet Grass County is flat and wide, ranging from 1 to 2 miles in width. Near its confluence with Bridger Creek, the valley narrows to one-half mile wide. There are no dams on the Yellowstone River. Water flows range from a minimum daily discharge of 590 cfs in 1940 to a maximum daily discharge of 37,500 cfs in 1997<sup>1</sup>. Significant flooding occurs along the Yellowstone River where the floodplain measures over one-half mile wide in places. Any development within the designated 100-year floodplain is subject to the Sweet Grass County Floodplain Regulations.

The Yellowstone is a significant feature in Sweet Grass County. It has historical significance because it was the route Capt. William Clark chose on his return journey from the northwest in 1806. It also has a high recreation value as a prime river for rafting, kayaking and drift boating as well as sport fishing. Perhaps the most valuable contribution to the county is water for irrigation. Most of the land along the Yellowstone is agricultural.

Most of the county lies within the drainage basin of the Yellowstone River. The principal tributaries include the Boulder River, Big Timber Creek, Otter Creek, Sweet Grass Creek, Bridger Creek, and Upper and Lower Deer Creeks. Other streams of importance include Swamp Creek, East and West Boulder Rivers, and Little Timber Creek.

**Boulder River:** The Boulder River joins the Yellowstone River just east of the city limits of Big Timber. The Boulder flows from south to north for a distance of 66.4 miles from its source in the Beartooth-Absaroka Range. The Boulder is a fast moving mountain stream that is characteristically bouldery. The alluvial deposits contain a high percentage of well-rounded boulders derived from glacial till. The Boulder River is a blue-ribbon trout stream and considered to have outstanding fishery values. It is heavily fished along most of its length. It is

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<sup>1</sup> The flow measurements are obtained at the USGS gauging station located near Livingston, MT, station number 06192500.

also used as a source for irrigation water. A maximum of 15,997 acres in the Boulder valley are potentially irrigable from the Boulder River.

The Boulder has had serious flood problems; the latest was in 1997 when flows reached near 100-year flood levels of 10,000 cfs. Most of the damage occurred to bridges and stream banks. The Boulder River and its floodplain from Big Timber to Natural Bridges are subject to the Sweet Grass County Floodplain Regulations. Residential land use is clustered between Eight Mile Bridge and Big Timber. Above Natural Bridge the river flows through predominantly Forest Service property and some patented homesteads and mining claims. There are numerous summer cabins, church camps, and campgrounds located in this area. The remainder of the Boulder valley is used for grazing and hay land.

**Big Timber Creek:** Big Timber Creek enters the Yellowstone approximately 1 mile northeast of Big Timber. This creek is said to have been named by Captain William Clark in 1806 when his party camped near here on their way back to St. Louis. The name is attributed to the presence of large cottonwood at the confluence, still present today. Big Timber Creek is a perennial stream approximately 30 miles long. It flows east out of the Crazy Mountains, then south towards the Yellowstone River valley. The creek has only moderate fishery value. Its primary use is for irrigation water. Approximately 19,612 acres are potentially irrigable with Big Timber Creek water. Because of the intense irrigation use, Big Timber Creek loses much of its in-stream flow every year. Development in the Big Timber Creek floodplain is controlled by the Floodplain Regulations from the confluence to just above Wormser Loop Road. While there are a few scattered residents along the creek they are mainly related to agricultural operations.

**Otter Creek:** A tributary to the Yellowstone River, Otter Creek flows approximately 47.2 miles from its source in the Crazy Mountains to the confluence 1.5 miles east of Big Timber. Otter Creek flows through high grassland prairie most of its length. It deposits a bed load of mostly smaller sized material along its many meanders. Fishery resources are considered moderate. Irrigation use is moderate, only 5,000 of maximum irrigable acres are located in the basin. The lower stretch of Otter Creek is partially fed by two reservoirs located midway along the creek: Upper and Lower Glasston Lakes. Residences on Otter Creek are mainly located near Howie Road. Most of the drainage is used for agricultural purposes.

**Sweet Grass Creek:** One of the longer tributaries to the Yellowstone River in the county, Sweet Grass Creek begins high in the Crazy Mountains and flows for approximately 78 miles to its confluence located a mile north of Greycliff. Once in the plains, the creek cuts deep meanders along its length, which consists of small to fine, sized alluvial deposits. The lower stretch of Sweet Grass Creek is within the floodplain regulations jurisdiction. The creek is considered to have only moderate fishery values. It is used extensively for irrigation water. Approximately 41,500 acres are potentially irrigable within the Sweet Grass Creek basin.

**Upper Deer Creek:** Upper Deer Creek flows into the Yellowstone River approximately 6 miles east of Big Timber. Upper Deer Creek is 23.8 miles long and begins in the north flank of the Absaroka Range near Elk Mountain. The creek has moderate to high fishery value. The lower 4 to 5 miles of the basin is irrigated with water from the creek. Chronic dewatering is a problem most years. The designated 100-year floodplain is mapped along the lowest 2 miles.

**Lower Deer Creek:** Two miles east of the Upper Deer Creek confluence, Lower Deer Creek flows in to the Yellowstone River. The two Deer Creeks run parallel for most of their length but Lower Deer Creek headwaters are located further south. Lower Deer Creek is 26.2 miles long and considered a high to outstanding trout stream. Irrigation water is drawn from the creek for the last 5 to 6 miles. Low stream flows is an annual problem. The 100-year floodplain is mapped

from the confluence up to a half-mile beyond Highway 10. There are several buildings, commercial and residential, located in the floodplain and a portion of a commercial campground.

**Bridger Creek:** The headwaters of Bridger Creek are located 19 miles from the Yellowstone River in the Absaroka Range. Bridger Creek flows rapidly south through the foothills and into a narrow valley where it is joined by West Bridger Creek. The creek is considered to have moderate fishery value. Several irrigation ditches draw water off Bridger Creek greatly reducing in-stream flow each year. Low-density residential land use is clustered towards the lower end and at the confluence of West Bridger Creek. The rest of the drainage is predominantly used for agricultural purposes or is located on Forest Service land.

**Swamp Creek:** Swamp Creek is a 14-mile long stream that drains into Big Timber Creek 4 miles north of Big Timber. This creek drains the Crazy Mountains and is important for its irrigation value. Water is taken from Swamp Creek as far as 10 miles above Big Timber Creek. It is considered to have only moderate fishery values. There is some residential development near the confluence but most of the land use is agricultural.

**Little Timber Creek:** Little Timber Creek drains from the base of Fairview Peak in the Crazy Mountains, 19 miles from its confluence with the Yellowstone River. The creek provides water for irrigation and is considered an outstanding fishery resource. The primary land use along the creek is grazing and hay land.

**East Boulder River:** The East Boulder River is a mountainous stream and most of its 22.7 miles is located on the Gallatin National Forest. The river is considered a substantial to outstanding fishery resource. The East Boulder Mine is the most significant land use located on the river 10 miles up from its confluence with the Boulder River. The portion that flows through private property is moderately developed with year-round and part-time residences. Several large ranches draw water from the East Boulder for irrigation purposes. Approximately 1,450 acres in the drainage are irrigable.

**West Boulder River:** Only five miles of the West Boulder River flows through Sweet Grass County before it drains into the Boulder River. The headwaters of the West Boulder begin in the Absaroka Range on Forest Service land. There is some low-density residential development on the river where it enters the county but most of the adjoining land use is agricultural. The West Boulder River also flows through the community of McLeod adjacent to McLeod Grade School and the post office.

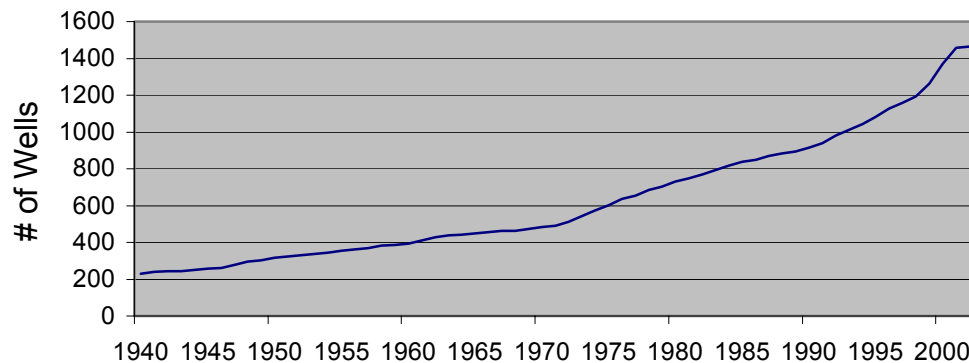
**American Fork:** This drainage is one of the few in the county that flows north into the Musselshell River. American Fork begins its journey in the Crazy Mountains then flows east and north for 33.8 miles to its confluence.

### **3.9.6 GROUNDWATER**

County wells typically tap surficial aquifers located within the alluvial deposits along the Yellowstone and Boulder River floodplains. North of the Yellowstone River there are a few isolated deposits of alluvium that host surficial aquifers along Big Timber Creek, Otter Creek and Sweet Grass Creek. The water quality of the surficial aquifers is ranked as Class 1, the best quality water. This class could be used for public and private water supplies.

The only other reliable sources for ground water are the bedrock aquifers. Due to greater amounts of dissolved solids and lower hydraulic conductivity, water quality from these aquifers is worse than water from surficial aquifers but may still be acceptable for domestic and stock use.

Figure 3.10 below shows the number of wells drilled since 1940. Based on data collected by the Bureau of Mines and Geology, a total of 1464 wells have been drilled in Sweet Grass County as of May 2002.



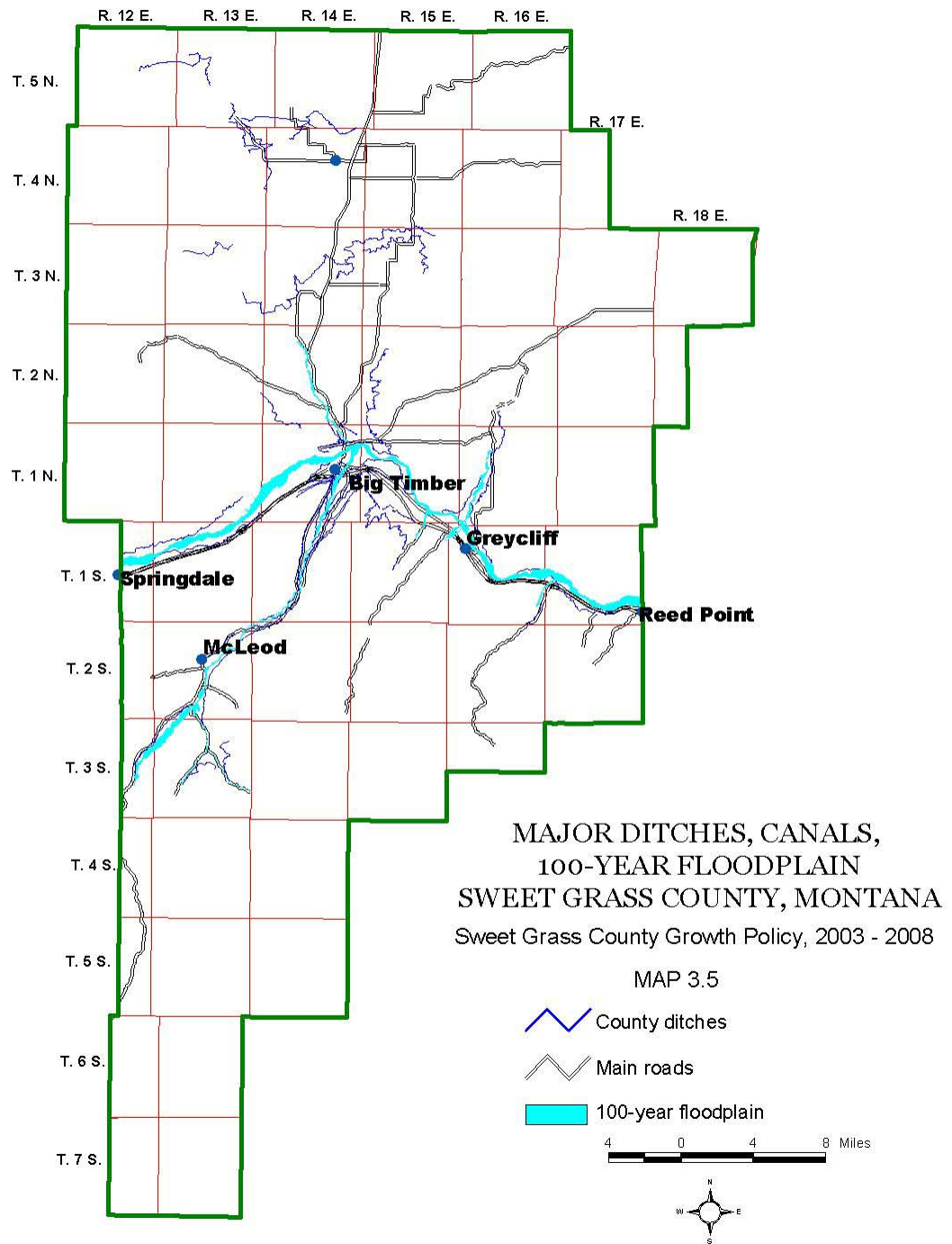
**Figure 3.10** Wells drilled in Sweet Grass County

### **3.9.7 IRRIGATION FACILITIES**

Irrigation ditches and canals are the primary facilities used to transport water from natural drainages to cropland and hayfields. In Sweet Grass County there are at least 48 main ditches, as shown on Map 3.5. Extending from these ditches are countless laterals feeding individual parcels that are not shown on the map. Many other ditches that head directly on streams and rivers may also not be shown on the map. Irrigation water is a valuable agricultural resource. It is important that users be conscious with their use of the water. In an effort to conserve water and reduce irrigation labor some irrigators have been converting to the use of sprinklers and gated pipe.

Water rights to water controlled by these ditches are owned by individuals, corporations, trusts, limited partnerships and associations. There are at least eight ditch companies with decreed water rights (as of 1999) operating in Sweet Grass County, including Auwater Ditch Company, Big Timber Creek Canal Company, Dry Creek Canal Company, Hogan Ditch Company, Hunter's Hot Springs Canal Company, Kent Mutual Ditch, Pioneer Ditch Company, and Sweet Grass Canal and Reservoir Company.

The majority of the major ditches were constructed around 1900's. At the time of construction water rights were decreed to the entity controlling the ditch. In some cases, water rights were filed in the individual's names rather than the ditch company's name. A complete list of water right owners in Sweet Grass County is available through the State's Department of Natural Resources and Conservation.



**Map 3.5** Ditches

### 3.9.8 VEGETATION

#### Major Ecosystems

Vegetation within Sweet Grass County has been classified into ecosystems. Montane forest, Intermountain grassland, Plains grassland, and Riparian areas are representative of vegetation communities identified in the county. Agricultural lands also support a variety of range and farmland vegetation. The brief description of these ecosystems indicates their location within the county and associated characteristics. Matt Ricketts of USDA-NRCS in Livingston provided information. A map of these ecosystems is available from the City-County Planning Office.

Montane forest ecosystem is located in the southern section and northwestern corner of Sweet Grass County. Sweet Grass County is bounded by the Gallatin National Forest on the south and northwest. The mountain ranges in the county are the Crazy Mountains in the northwest corner and the Beartooth Mountains occupy most of the southern part of the county. The Crazy Mountains have a central core of steep, glaciated land but are surrounded by benches, ridges, and outwash plains, all of which have low relief. The Beartooth Mountain Range is steep and rocky. It includes U-shaped glacial valleys, glaciated peaks, and high plateaus. The Montane forest is dominated by lodgepole pine in the higher elevations and Douglas fir in lower elevations. Other tree species include subalpine fir, whitebark pine, and Englemann spruce. Mountain grassland and mountain shrubland occupy the Montane forest. The vegetation in these areas includes Idaho fescue, bluebunch wheatgrass, junegrass, western needlegrass, big sagebrush, and forbs. Other vegetation included in the understory is sticky geranium, bearded wheatgrass, mountain brome, and timber oatgrass in the moist areas. grouse whortleberry, blue huckleberry, and twinflower, snowberry, pinegrass and elk sedge. In the streams/seeps vegetation also includes heartleaf arnica, virginsbower, tufted hairgrass, baneberry, horsetail, sweetscented bedstraw, and bluejoint can be found. In the montane forest ecosystem forbs make up the higher percentage of the production of the potential native plant community in the open grasslands at about 20% (species include lupine, bracted lousewort, hoods phlox, pussytoes, spring beauty, blue-eyed grass, green gentian, tall larkspur, death camas, elk thistle, etc.). Shrubs are similar to those in the foothills with a bit more shrubby cinquefoil than big sage and various willow species showing up depending on elevation, and subalpine big sage. The grasses would be dominated by spike fescue, and slender wheatgrass with lesser amounts of Columbia needlegrass, bluebunch wheatgrass, Idaho fescue, mountain brome, various needlegrasses, purple oniongrass, and various sedges. The general plant community as it stands today is dominated by around 50% forbs with Idaho fescue or non-native timothy or Kentucky bluegrass often being the dominant grass and shrubs making up 15 to 40% of the production.

Intermountain grassland ecosystem is dominant in the western part of the county. A small section is identified in the upper southeastern corner of the county. South of the interstate and west of Highway 191 to Harlowton the landform is dominated by foothills of the mountains where transported soils were formed out of rocks associated with the mountains. The potential natural vegetation varies some with different soil types but is generally characterized by bluebunch wheatgrass being dominant, making up about 60% of the current years production with green needlegrass, Idaho fescue, and cussiks bluegrass making up 5 % each. Other perennial forbs would make up about 10% of the production (these would include death camas, fringed sagewort, hoods phlox, common starlily, dotted gayfeather, lupine, slimflower scurfpea, pussytoes, etc.) and shrubs making up about 5% of the production with mountain big sage being the most common with minor amounts of shrubby cinquefoil, rubber and green rabbitbrush, antelope bitterbrush, and gray horsebrush. The last 10% of the production is made up of various grass and sedges including threadleaf and needleleaf sedge, western and thickspike wheatgrass, prairie junegrass, and sandbergs bluegrass and spike fescue. In parts of this area that receive



higher precipitation, spike fescue can become a co-dominant with bluebunch wheatgrass. The general plant community in the foothills as it stands today is characterized by western and thickspike wheatgrass being dominant with lesser amounts of the other grass species and forbs making up around 30% of the production and shrubs around 10-15% of the production.

The Plains grassland ecosystem is located in the eastern half of the county extending north and south. North of the Interstate and east of Highway 191 to Harlowton sedimentary geologic formations dominate with the soils formed in place. Bluebunch wheatgrass dominates in the potential natural plant community making up about 50% of the production, followed by green needlegrass and western wheatgrass at 15% each, thickspike wheatgrass at 5%, and various grasses and sedges at 10% (including prairie junegrass, sandberg bluegrass, blue grama, needle and thread, prairie sandreed, plains reedgrass, plains muhly, threadleaf and needleleaf sedge). The forbs and shrubs would make up 5% of the production each (includes fringed sagewort, hood's phlox, Lambert's crazyweed, white pointloco, dotted gayfeather, slimflower scurfpea, hairy goldenaster, etc., and Wyoming or mountain big sage along with minor amounts of broom snakeweed, silver sagebrush, and rubber rabbitbrush). The general plant community as it stands today is dominated by western wheatgrass, needle and thread, and prairie junegrass with forbs making up about 15-25% of the production and fringed sage being the most common. Shrubs would make up about 10% of the production with big sage being dominant.

Riparian ecosystems in Sweet Grass County run along the major water drainages, Yellowstone River, and Boulder River. These areas have the potential to include Nebraska sedge, American mannagrass, different spike sedges and various rush species. Also American sloughgrass along with several willow species and cottonwood (slender leaf cottonwood) trees have the potential to thrive in this ecosystem. A few aspen and alder can be found in the higher riparian areas near the mountains. Currently, Kentucky bluegrass, timothy, red top, and smooth brome dominate the riparian ecosystem. There is a small population of American mannagrass, Nebraska sedge, and reed grass. Other plant species found in the riparian include spike sedges, bull rushes, leafy spurge (noxious weed species), and willows.

### **Agricultural Lands and Crops**

In 1997 the Montana Agricultural Statistics Handbook estimated that 301 farms total 839,345 acres of farmland in Sweet Grass County. Irrigated farms totaled 154 and 44,901 acres. Wheat and barley are the principal dryland crops located in the northeastern part of the county. Hay, oats and barley are principal irrigated crops in the county. In 2000, 21,120 irrigated acres were reported as harvested and 9,100 non-irrigated acres were harvested. Over 46,000 head of cattle and calves, 12,000 sheep were reported in Sweet Grass County in 2001.

### **Noxious Weeds**

A noxious weed is any plant designated by federal, state, or county government to be injurious to public health, agriculture, recreation, wildlife or any public or private property. Noxious refers to those weeds that have invasive characteristics. Long-term ecosystem management is necessary to reduce all weeds' threat to healthy, diverse rangelands and forests. The following noxious weeds have been identified and are of concern in Sweet Grass County, along with being listed within the Montana County Noxious Weed Act.

**Leafy spurge** Leafy spurge is a long-lived, deep-rooted perennial weed that displaces all other vegetation primarily in untilled, non-cropland including disturbed and undisturbed sites. The root system of leafy spurge ensures the spread and persistence in the soil. This weed is very invasive because of the number of seeds it produces and its capability of producing large numbers of underground shoot buds that can individually produce a new shoot. In Sweet Grass

County leafy spurge infests the most acres. The Boulder River is seen to be the worst infestation starting at the Natural Bridge and following down stream to the Yellowstone River. There are infestations up the East Fork and patchy infestations up the West Fork of the Boulder River. Leafy spurge has followed along irrigation canals out of the Boulder drainage and now infests significant acreages of Dry Creek and Upper Deer Creek drainages. Infestation occurs in nearly all the adjacent lands along the Yellowstone River where it runs through the county. Melville has large infestations of leafy spurge. Infestations are dispersed along Sweet Grass Creek from Melville to where it joins the Yellowstone River. The Lower Sweet Grass Creek area has a very large spurge problem also. It is estimated that leafy spurge infests at least 60,000 plus acres in the county.

**Spotted knapweed** Spotted knapweed is an aggressive, biennial or short-lived perennial weed species that rapidly invades pasture, rangeland and fallow land. This weed is spread by its prolific seed production, 1000 seeds per plant. Spotted knapweed invasion is associated with reductions in biodiversity, wildlife and livestock forage, and increased soil erosion. Spotted knapweed is established in Sweet Grass County and large infestations are located between Big Timber and Springdale, around and in Greycliff, east of Greycliff, and in the northeast part of the county along the Tony and Spring Creek areas. The northern edge of the county along highway 191 also has infestations of spotted knapweed. Many areas with existing and abandoned gravel pits contain this weed. It has been estimated that this weed infests approximately 5,000 acres in the county.

**Diffuse knapweed** Diffuse knapweed has a deep taproot, which is highly competitive and aggressive weed species that quickly invades disturbed and undisturbed grasslands, shrubland, and riparian areas. Most plants have white flowers, but purple and lavender flowered plants are not uncommon. Diffuse knapweed has been credited with reducing biodiversity, increasing soil erosion, reducing land value, increasing cost of roadside maintenance, and replacing wildlife and livestock forage on rangeland and pasture. This weed is primarily spread by its ability to produce up to 18,000 seeds per plant. In Sweet Grass County the main infestation of diffuse knapweed is located south and east of Big Timber between the Boulder and Yellowstone River drainages.

**Russian knapweed** Russian knapweed is a perennial weed species that commonly invades open, disturbed land, suppresses growth of surrounding plants, and once established, forms a single-species stand. This weed species has an extensive root system which functions as the major means of propagation and spreading. Russian knapweed is widely dispersed throughout the county. The largest infestations are located in the Otter Creek/Glasston area. A small infestation has been located along the Main Boulder Road.

**Field Bindweed** Field bindweed is a persistent, perennial vine of the morning-glory family, which spreads by rhizomes and seed. This weed species can be found in a wide range of habitats. Infestations in Sweet Grass County can be found in nearly all roadsides/ rights-of-way and disturbed areas. Also along ditch banks, creek banks, and croplands throughout the county.

**Dalmation Toadflax** Dalmation toadflax is a broad-leaved herbaceous perennial adapted to cool, semi-arid climates and coarse textured soils. This weed species spreads through vegetative propagation and seed. It is found most often on sparsely vegetated soils and degraded rangelands. Dalmation toadflax can establish along roadsides, areas near dwellings, vacant lots, cemeteries, gravel pits, fields, waste areas, and other disturbed sites. In Sweet Grass County the majority of the dalmation toadflax population can be found along the railroad right-of-way near Springdale adjacent to where the Engle ditch comes out of the Yellowstone. Also an area adjacent to Mallard Springs is becoming a dense population.

**White top** White top is an extremely invasive weed commonly called perennial pepperweed, perennial peppergrass, perennial peppergrass, broad-leaved peppergrass, peppergrass, slender perennial peppergrass, tall whitetop or dittander. This weed species can be found in moist habitats, especially sub-irrigated pastures, rangeland, roadsides, and ditch banks. White top is spread by seed and rhizomes. White top can be found in most all areas of the county. It is mostly found in small patches along the interstate, Boulder River above McLeod, and four miles north on Highway 191. There are many small infestations along the interstate, railroad, and frontage roads between Greycliff and Reed Point. Significant infestations occur four miles east of the west county line on Sweet Grass 21. Significant infestations are found in Sweet Grass Creek and Otter Creek drainages.

**Canada thistle** Canada thistle or California thistle is a colony-forming, aggressive perennial plant that reproduces by seed but mostly spreads by lateral roots sending up new shoots each year. Canada thistle is found throughout the county, especially in disturbed areas. County landowners' most significant problem is the invasion of crop and haylands by Canada thistle.

**St Johnswort** St. Johnswort, also known as goatweed, is a long-lived herbaceous perennial that reproduces by seed and short runners. This weed species can be a serious problem in rangeland and pastures where dense stands, through their displacement of valued forage and indigenous plant species, can greatly depreciate livestock and wildlife carrying capacities, and endanger biological diversity of these grazing lands. The weed also infests forest clearings, transportation right-of-ways, and neglected lands. St. Johnswort has been identified in Sweet Grass County along the roadside in the Boulder River drainage.

**Sulfur cinquefoil** Sulfur cinquefoil is a long-lived perennial that has become one of the most serious invaders of the Northern Rockies. This weed grows 30 to 45 cm tall or taller and sometimes confused with native northwest cinquefoil. The plant has a single taproot and several shallow, spreading, branch roots. This weed species is very competitive in wide ecosystem. Sulphur cinquefoil is common in semi-arid to mesic grassland sites and can become dominant in forest habitats where the overstory has been reduced. Sweet Grass County has infestations on forest service land up the Boulder River drainage and in the Lower Deer Creek area.

**Houndstongue** Houndstongue is a biennial that is reproduced by seeds and appears as a leafy rosette in the first year. Animals and humans disperse the seeds by picking up the burrs in their fur or clothing when walking through an infested area. This weed species grows in ranges, pastures, and roadsides. Houndstongue can be found throughout the Sweet Grass County in the grasslands and riparian areas, especially in overgrazed grasslands.

**Dyers woad** Dyers woad is a winter annual, biennial or short-lived perennial that has a thick taproot, which can extend five feet deep. This weed thrives on rocky soils with limited water-holding capacity. Dyer's woad is a prolific seed producer, which enables this species to spread at a rapid rate. This weed can be found in disturbed sites and spreads to range and croplands by seed. Dyers woad has been positively identified growing in an isolated patch along the Sweet Grass County and Park County border. This weed has been confirmed in Park County along the county line so there is need to be alert, aware, and concerned about this weed.

### **Other Weed Species of Concern:**

*Common burdock*  
*Common cocklebur*  
*Common mullein*  
*Black henbane*  
*Yellowstar thistle*  
*Common crupina*  
*Tansy ragwort*  
*Rush skeletonweed*

### **3.9.9 WILDLIFE**

The diversity of wildlife species in Sweet Grass County includes big game species and other ungulates, furbearers, raptors, upland game birds, numerous other birds, waterfowl, amphibians and reptiles, and several fish species.

Big game species in Sweet Grass County and the location in which they can be observed are listed below.

Elk are found in higher populations in the Beartooth and Crazy Mountain Ranges. Populations have been found north of the Yellowstone River in the ponderosa pine area and also in the northeastern corner of the county. White-tailed deer are increasing in numbers and are found mainly along riparian and agricultural lands. Mule deer are common throughout the county and in high numbers. Moose are generally found along the Boulder River in the southern half of the county, mostly in the forest portion of the county. Mountain goats inhabit mainly the higher elevations of the Crazy and Beartooth Mountains. In Sweet Grass County there are two populations of big horn sheep, one around the lower Boulder and the other higher near the head of the Boulder. Black bear are found mostly in forested habitat, commonly south of the Yellowstone and the eastern face of the Crazy Mountains, but are becoming more common throughout the county. Mountain lion are mainly observed south of the Yellowstone River, but are increasing just north of the Yellowstone River. They are generally found in areas of dense populations of deer. Pronghorn antelope are associated with prairie habitat. Major populations are found north of the Yellowstone River, but can be found in some areas south of the Yellowstone River.

Other major mammals, predators and furbearing species are represented in the list below:

1) Wolverines are found in higher elevations of the Crazy and Beartooth Mountains. (A very rare species.) 2) Beaver are common in all riparian and perennial streams throughout the county. 3) Muskrat are mainly in marshy/wetland areas throughout the water drainages in the county. 4) Bobcat are throughout the county, but found mainly where there is a high population of rodents. (shrubland area) 5) Lynx is a species that has been petitioned for the Threatened and Endangered list. Lynx are tied to heavy timber areas, Beartooth and Crazy Mountains where snowshoe hares populations are located. 6) Mink can be found mainly in riparian and perennial streams throughout the county. 7) Marten is found in the more mountainous and timber areas of the county. Mainly the Crazy and Beartooth Mountain Ranges. 8) Skunks are common throughout the county in cultivated lands, brushy grassland, and riparian areas. 9) Weasel can be found anywhere in the prairie and grasslands of the county. 10) Badgers are commonly found in the prairie habitat of the county where ground squirrels and prairie dogs are located. 11) Raccoon are commonly found along wooded streams. They can be found along the major drainages in the county.

The following are the major game bird species found in the county: 1) Blue grouse and ruffed grouse are found in the mountainous areas of the county. 2) Hungarian partridge, ringed-tailed pheasant, sharp-tailed grouse, and sage grouse are commonly found in the prairie habitat of the county. Sage grouse is decreasing in number and very limited to areas where sagebrush habitat is established. 3) The majority of the Merriam Turkeys (wild turkey) are found in the eastern part of the county (Between Bridger Creek and Reed Point & East of Sweet Grass Creek).

There are many waterfowl species found in Sweet Grass County and they include Canada geese, mallard ducks, blue & green-winged teal, pinned-tail duck, shoveler ducks, golden-eye duck, buffle-head & Merganser ducks, whooping crane, Sand Hill crane, pelican, great blue herrings, swans, snow geese, widgeons, coot, curlew, canvasback, scaups and cormorants. These species are found in the major drainages and ponds throughout the county. The harlequin duck is a species of special concern and is located up the Boulder River. Also in Sweet Grass County numerous other species of birds have been recorded. Robins, sparrows, finches, meadowlarks, juncos, wrens, buntings, warblers, flickers, woodpeckers, bluebirds, starlings, crows, red-headed black birds, waxwings, chickadees, nuthatches, magpie, jays, terns, gulls, swallows, hummingbirds, larks, ravens, sandpipers, killdeer and mourning doves are some of the more common species noted.

The major raptor species found in the Sweet Grass County are bald eagle, golden eagle, peregrine falcon, prairie falcon, red-tailed hawk, rough-legged hawks, kestrel, great horned owl, burrowing owl, and long-eared owls.

Sweet Grass County has approximately 69 rivers, streams, and creeks. There are a wide variety of fish species found in these tributaries throughout the county and they include cutthroat trout, rainbow trout, brown trout, brook trout, Yellowstone cutthroat, whitefish, large mouth bass (ponds near Greycliff), common carp, goldeye, minnow, Artic grayling, lake chub, emerald shiner, creek chub, fathead minnow, stonecat, shorthead redhorse, longnose sucker, white sucker, mountain sucker, mountain whitefish, burbot, yellow perch, mottled sculpin, Plains minnow, western silvery minnow, and finescale dace. In the mountain lakes there are rainbow-golden hybrid, cutthroat-golden hybrid, and golden-rainbow-cutthroat hybrid, along with northern pike-muskie hybrid (tiger) in Glasston Reservoir

A few reptiles and amphibians are noted in Sweet Grass County. These species include snakes, frogs, and turtles.

### **Animals of Special Concern**

The bald eagle, grizzly bear, gray wolf, peregrine falcon, harlequin duck, and whooping crane have been listed as threatened or endangered species.

**Bald eagles** prefer forested habitats near bodies of water. Eagles concentrate near open water in the wintertime where fish and waterfowl are abundant. Migrating eagles are found throughout Montana. Sweet Grass County has found this species along the Yellowstone River and East Boulder and Main Boulder Rivers below Anderson Springs.

**Grizzly bears** use a wide variety of habitats within a range of variable size depending on food availability and distribution. Moist open-land habitats in combination with timbered areas are essential for optimum grizzly bear habitat. Sweet Grass County has this species located in the southern region of the county.

**Gray wolf** occupies almost all habitats in Montana. In Sweet Grass County the Gray Wolf is considered an experimental population which was introduced south of the county in the

Yellowstone Park in 1995. Gray wolves will usually hunt large animals such as moose and deer although beaver and other smaller animals supplement their diet. They are also known to kill livestock. As of 2002, one legal kill was made near Deer Creek and other confirmed sitings have been made up the Boulder River and Crazy Mountains.

**Peregrine falcon** inhabits scrub-oak or pinion-juniper woodlands and typically nest within 1 mile from a stream or river where prey is abundant. Peregrine falcons nest on cliffs of igneous or sedimentary formations, most frequently in large holes or wide slits rather than a broad ledge or shelf. This species prey on waterfowl, shorebirds and passerine birds; black birds, jays, dove, cliff-nesting species are commonly consumed. Swallows, robins, and Clark's nutcracker are likely prey species for peregrines in the East Boulder River. The historic site on Tee Pee Mountain is a release site for peregrine falcons.

**Harlequin duck** inhabit fast moving, low gradient, clear mountain streams. Often seen in compact flocks during the winter. In Montana, the Harlequin Duck breeds very locally on mountain streams in the western part of the state. There is indirect evidence of breeding along the Boulder River.

Other possible species that have been petitioned for the Threatened and Endangered Species List include lynx (is found east of the Crazy Mountains and up the Boulder River), sage grouse, wolverine, whooping crane and all have been sited in Sweet Grass County. This information was taken from the National Heritage Program website and the local Montana Fish, Wildlife and Parks Game Biologist.

### **3.9.10 RECREATION SITES AND FACILITIES**

Year-round outdoor recreation opportunities are plentiful in Sweet Grass County. Fishing, rafting, boating, hiking, horseback riding, and camping can all be enjoyed during the spring, summer and fall months. Fall is dominated by fishing and big game, upland bird, and waterfowl hunting. Winter sports include cross-country skiing, snowshoeing and snowmobiling. This wide variety of outdoor activity is largely due to two outstanding recreational assets, the Gallatin National Forest and the Yellowstone River. The open expanses of private land also provide a strong base for privately operated enterprises that cater to outdoor activities. The quality and variety of year-round recreational opportunities support a strong tourist and sportsman economy. Numerous public and private recreation sites exist to accommodate the recreational needs of local residents and visitors alike. An inventory of recreational sites and their facilities is shown in Table 3.10. Map 3.6 shows the location of all sites.

The Gallatin National Forests occupies over 400,000 acres of public land in the south half of the county and the area surrounding the Crazy Mountains. All National Forest in the county is administered from the Big Timber Ranger District, located in Big Timber. The southern portion of the district encompasses 96,000 acres of the Absaroka-Beartooth Wilderness and approximately 152,000 acres of multiple use land. Access to forest lands is provided by Forest Service roads within the Boulder, East Boulder, Deer Creek and Bridger Creek drainages. There are numerous developed campgrounds along the main Boulder Road and one along the East Boulder Road maintained by the Forest Service. Several trails provide access to roadless and wilderness areas.

The Crazy Mountain portion of the Big Timber Ranger District includes approximately 34,000 acres of public land. Forest Service land and private land are arranged in a checkerboard fashion that tends to limit public access. Big Timber Canyon Road is the primary public access to the

Crazy Mountains. A Forest Service trailhead and campground are located at the end of Big Timber Canyon Road. Other trails may be accessed with permission from the local landowners.

The public is permitted access to the Yellowstone and Boulder Rivers from fishing accesses administered by Montana Department of Fish, Wildlife and Parks (FWP). There are four fishing access sites located along the Yellowstone River in Sweet Grass County. Grey Bear, Otter Creek and Pelican sites are equipped with concrete boat ramps; Bratten is not. Grey Bear is the only site developed for overnight camping.

Two FWP fishing access sites are located on the main Boulder River, Big Rock and Boulder Forks. Big Rock is an undeveloped site three miles south of Big Timber and Boulder Forks, near McLeod allows overnight camping. A third access site is located adjacent to Big Timber along the Old Boulder Road. This site is owned by the City of Big Timber and offers primitive campsites and picnic tables.

There are several privately operated campgrounds in the county. The KOA campground in Greycliff is locally owned and provides water, electricity, sewage disposal and toilet and shower facilities for recreational vehicle and tent use. Adjoining the campground is the Big Timber Water Slide. Spring Creek Campground is located approximately three miles south of Big Timber. It is also a full service recreational vehicle park and has a separate tent camping area. The campground also operates a commercial trout fishery.

There are no developed subdivision parks located in the county. The City of Big Timber owns and maintains the only developed community park. City Park includes a public swimming pool with bathhouse, a ball field, horseshoe courts, tennis courts, basketball courts and picnic facilities. Sweet Grass County has a 25 acre fairground site which is used for the annual 4-H fair, rodeos and other events such as picnics.

Several Guest Ranch and Bed and Breakfast establishments operate in the county. These establishments provide a variety of activities, as well as food and lodging, in a rural setting. Those establishments known to be operating in the county are listed in Table 3.11. The variety of outdoor sports and recreation activities provides opportunities for guiding and outfitting businesses. There are approximately twelve registered outfitting and fishing guide services located in Sweet Grass County.

Recreation Site	Map Index No.	Owner	Available Facilities	Acreage
<b>Community &amp; Subdivision Parks</b>				
Big Timber Lion's Club Park	1	City of Big Timber	Swimming pool, picnic tables, horseshoe courts, tennis courts, basketball court, baseball field, playground	4.8
Sweet Grass Addition	2	Private	Undeveloped	.74
Sweet Grass County Fairgrounds	3	Sweet Grass County	Arena, exhibit building, public restrooms	—
<b>Picnic Areas</b>				
Yellowstone River Hatchery	4	MT Dept. FWP	Picnic tables	120.91
Boulder River Campground	4	City of Big Timber	Picnic tables, handicap access	.833

Recreation Site	Map Index No.	Owner	Available Facilities	Acreage
Fishing Accesses				
Big Rock	6	MT Dept. FWP	Toilet, parking	170.13
Bratten	7	MT Dept. FWP	Toilet, parking, boat launch	308.52
Boulder Forks	8	MT Dept. FWP	Toilet, parking, camp sites	26.55
Grey Bear	9	MT Dept. FWP	Toilet, parking, boat ramps, camp sites	
Glasston Lakes	10	Private	Toilet, parking, boat ramps	26.86
Otter Creek	11	MT Dept. FWP	Toilet, parking, boat ramps	
Pelican	12	MT Dept. FWP	Toilet, parking, boat ramps	167.76
State Parks				
Greycliff Dog Town	13	MT Dept. FWP	Toilets, parking	95.69
Natural Bridge	14	MT Dept. FWP	Toilets, parking, nature trail	39.25
Campgrounds				
Aspen	15	US Forest Service	10 camp sites, 10 picnic sites, toilets, drinking water	10.019
Big Beaver	16	US Forest Service	4 camp sites, toilets	
Chippy Park	17	US Forest Service	6 camp sites, 6 picnic sites, toilets	
East Boulder	18	US Forest Service	4 camp sites, toilets	
Greycliff KOA and Water Slide	19	Private	55 trailer sites, 20 tent sites	
Halfmoon	20	US Forest Service	7 camp sites, 4 picnic sites, toilets, drinking water	
Hell's Canyon	22	US Forest Service	11 camp sites, toilets	
Guest Ranches & Resorts				
Bucking Horse Bunk House		Private		
Burnt-out Lodge		Private		
Big Timber Inn		Private		
Carriage House Ranch		Private		
Campbell Ranch		Private		
Hawks Hideaway		Private		
Java Inn B & B		Private		
Medicine Bow Ranch		Private		

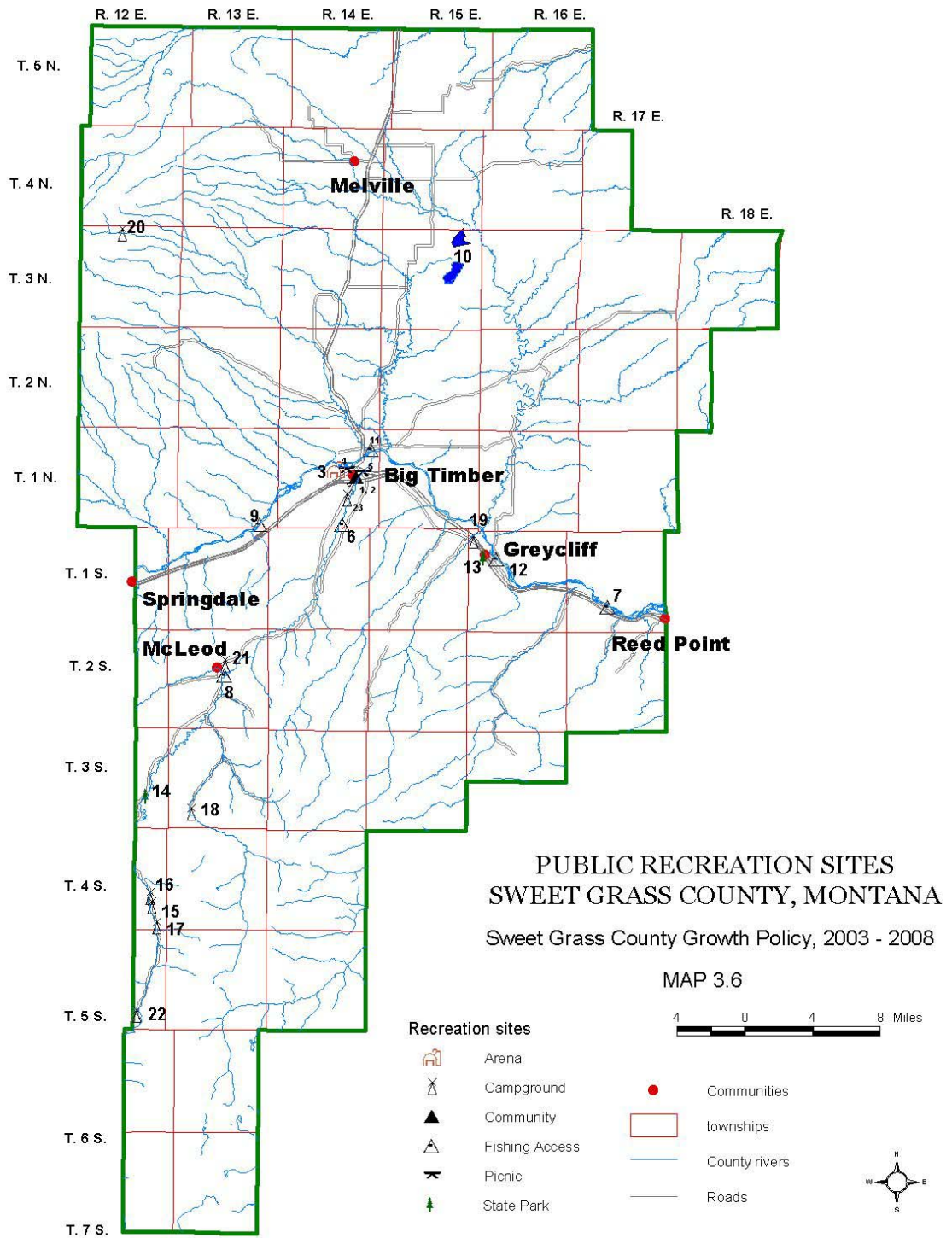
**Table 3.11** County Recreation Sites



### **3.9.11 PROJECTED TRENDS FOR NATURAL RESOURCES**

Efforts to conserve and efficiently utilize natural resources will continue. Public awareness of the impact of their actions on our resources appears to be increasing.

Noxious weeds continue to pose an environmental and economic threat. Continued regulation by the county on new developments as well as cooperative actions by government and landowners will be necessary to control weed infestations.



**Map 3.6** Recreation Facilities

# CHAPTER 4.0 - COUNTY GOALS, OBJECTIVES AND IMPLEMENTATION STRATEGIES

## 4.1 GENERAL

The goals and objectives set forth in this chapter establish the guiding principals for elected officials, county staff and citizen boards responsible for providing services, managing growth, and protecting the health, safety and welfare of all county residents. Section 1.4.2 of Chapter 1, Public Participation, lists survey results which showed an overwhelming support of the county's goals as stated in previous county growth policies. The content of goals from the previous county growth policies have been retained in this update with modifications meant to reduce redundancy and improve clarity.

The Board of County Commissioners shall be guided by and give consideration to the general policy expressed by these goals and objectives in all decisions and in adoption of regulations affecting county residents and resources. In addition to providing guidance in decision making, the adoption of these goals and objectives initiates the need for actions by the county which will implement policies necessary to support the goals and objectives. In place, on-going and recommended policies and actions are listed for each subject included in this chapter. In addition to the policies and actions listed in this chapter, the adoption of the Growth Policy also initiates action mandated by 2001 revisions to State statute, MCA 76-3-504, which states that within one year after the Growth Policy is adopted the County's local subdivision regulations shall be "made in accordance with the goals and objectives established in the growth policy."

The county's goals and objectives have been categorized into the following primary subjects: Land Use, Environment and Natural Resources, Economic Development and Public Infrastructure and Services. For each of these subjects, this chapter includes a goal or goals, objectives and an implementation strategy for achieving the goals and objectives.

As used in this Growth Policy, the following definitions apply:

**Goal:** A general statement that embodies the values and principles agreed to by county residents as they pertain to the primary subjects of land use, the environment, natural resources, economic development, and public infrastructure and services .

**Objective:** A statement that specifies priority issues and concerns related to the primary subjects and their goals, offering general direction concerning the consequences desired by adopting the listed goals.

**Strategy for Implementation:** A non-exhaustive list of current policies and recommended actions that provides methods for implementing support of the county's goals and objectives. The policies and actions included in the list are examples that support the intent of the specified goals. Some of these policies and efforts are currently in place and shown as "in place or on-going". The county intends to perform the implementation strategies utilizing current staff positions, board members along with volunteer assistance. The timetable for completion or adoption of new recommended actions, not currently on-going, will be dependent on the workload and schedule of these individuals. It is the county's intent to implement each

recommended action, based on favorable review findings, within the duration of this Growth Policy term which is scheduled to end five years from the adoption of the Policy. One should keep in mind that as actions are implemented, new actions may very well be discovered that should also be incorporated into the implementation strategies.

## **4.2 GOALS & OBJECTIVES**

### **4.2.1 LAND USE**

#### **Goal**

- ❖ *To protect, encourage and support the agricultural base of the county and its agricultural resources, and, to achieve the most appropriate use of land within the County so sufficient areas are provided for existing and future residential, commercial and industrial needs and, at the same time, to enhance ecological and environmental values.*
- ❖ *To encourage future residential, commercial, and industrial growth within or near the presently existing communities of the county in a manner that provides for efficient use of the county's infrastructure and services.*

#### **Objectives**

- a) Provide resources that support existing and expanding, productive agricultural activities in the county.
- b) Encourage future uses where they are compatible with the best use of the land and natural resources in terms of social, economic, engineering, ecological, and planning principles.
- c) Maintain the pleasant environment of the area by assuring future open space and development to enhance the beauty of the area.
- d) Promote high quality subdivisions and manufactured home parks through the continued application and refinement of local subdivision regulations.

#### ***Implementation Strategy for Land Use Goals & Objectives:***

##### **Policies/Actions In Place or On-Going:**

- a) Mitigate impacts that subdivision may have to the existing character and primary land use of the surrounding area in order to minimize or eliminate those impacts considered negative .
- b) Continue differential tax assessment based on tract size/use.
- c) Continue efforts to master plan an Urban Growth Area around Big Timber and plan for the development of infrastructure and local services within the area.
- d) Open space land means any land that is essentially free of significant man-made structures, and that possesses an intrinsic aesthetic, agricultural, historic, natural resource, recreational or scenic value. The effect of a proposed subdivision on open space land shall be considered in the subdivision review process. Open space land can

be encouraged through the use of zoning, subdivision design, protective covenants.

- e) The Sweet Grass Board of Commissioners should be notified of, consulted with, and otherwise involved in all land use decisions concerning federal and state lands within the county. The county shall strive to collaborate, coordinate and cooperate with Federal and State agencies in the process of planning and taking regulatory actions.

***Recommended New Actions:***

- a) Investigate methods to encourage preferred location, density and type of development through the use of legal development incentives as opposed to development restrictions and adopt subdivision regulations which encourage the continued agricultural production on irrigated and dry cropland.
- b) Investigate utilizing the creations of Special Improvement Districts for tax assessment or the use of a general levy to fund the extension of city services prior to annexation.
- c) Prepare and distribute guidelines for Part I zoning to interested citizens.
- d) Explore the preference for a development permit system to facilitate mapping and addressing.
- e) Maintain a map showing existing land use which will be a guide for future consideration by administrators, developers and buyers working in Sweet Grass County. Use NRCS soil maps in subdivision review.
- f) Adopt subdivision regulation that require subdivision design to minimize potential nuisances and hazards caused from seeping, flooding and washouts for subdivisions located below primary ditches or canals and subdivisions that contain primary ditches or canals. Subdivisions shall be individually reviewed for hazards due to ditch or canal flows.
- g) Adopt subdivision regulations that are designed to prevent interference with the maintenance and operation of agricultural water user facilities on or near a subdivision. Regulations should include requirements for watercourse easements of sufficient width granted to all documented water rights owners for access, use, maintenance and repair of water user facilities including headgates and diversion structures. Such easements shall be shown on the face of the subdivision plat.
- h) Adopt subdivision regulations that require the appropriate representatives from affected canal or ditch companies be notified of any subdivision that will affect their facility.
- i) Adopt subdivision regulations that require any known historical access to a head gate or water facility within a subdivision be shown on the face of the plat.
- j) Subdivision proposals which include open space shall submit measures to be implemented to maintain the open space quality.
- k) Include reference to State statutes concerning rights of farming and agricultural operations in subdivision regulations.

#### **4.2.2 ENVIRONMENT AND NATURAL RESOURCES**

##### ***Goal***

- ❖ *To maintain, preserve, and enhance the environmental, ecological, aesthetic, and historical qualities of Sweet Grass County.*

##### ***Objectives***

- a) Protect areas of environmental significance such as wetlands, floodplains and critical wildlife habitat.
- b) Improve the visual appearance, attractiveness to business, or quality of life in our communities.
- c) Maintain high quality groundwater, surface water, air and general environment qualities.

##### ***Implementation Strategy for the Environment and Natural Resources Goals & Objectives:***

###### ***Policies/Actions In Place or On-Going:***

###### ***General Environment:***

- a) The Sweet Grass Board of Commissioners should be notified of, consulted with, and otherwise involved in all land use decisions concerning federal and state lands within the county. The county shall strive to collaborate, coordinate and cooperate with Federal and State agencies in the process of planning and taking regulatory actions.
- b) Review resource management proposals and activities and evaluate their impact on the physical and social environment of the county.
- c) Base recommendations and decisions concerning environmental issues on available data and investigations.
- d) Establish and maintain good communications and coordination between Big Timber, Sweet Grass County, Forest Service, State of Montana, and other agencies concerning resource use and management.

###### ***Noxious Weed Control:***

- f) Contain the existing infestation of weeds with the goal of control and strive to prevent the infestation of new weeds.
- g) Monitor road, utilities, and highway construction activities to ensure all is being done to prevent new infestation and the spread of existing ones.
- h) Conduct public education programs aimed at plant recognition, effects on agriculture and wildlife habitat, landowner responsibilities and effective control measures.
- i) Coordinate weed control and education efforts with other governmental agencies.
- j) Aggressively seek supplemental funding for noxious weed control through state and federal sources.
- k) Require state, federal, railroad, utility companies and private landowners performing construction or disturbance within county rights-of way to file an individual weed management plan and/or request prepayment to implement county's weed plan.

- l) Require subdividers to include a weed management plan and a method to assess fees to cover implementation of the plan.
- m) Assess subdivider a weed evaluation fee during subdivision review and provide the subdivider with a weed inventory.
- n) Continue to advertise weed sprayer loan units and increase or replace units as needed.

***Water Quality:***

- o) Specify subdivision participation in water quality studies in areas of existing or potential high density development.

***Wildlife:***

- p) Review decisions for effects on humans and wildlife.
- q) Require subdivision proposals to include provisions which mitigate or protect critical wildlife habitat.

***Recommended New Actions:***

***Noxious Weed Control:***

- 1. Update the county noxious weed management plan.

### **4.2.3 ECONOMIC DEVELOPMENT**

***Goal***

- ❖ *To stabilize existing employment areas and pursue diverse employment opportunities in order to achieve full employment within the available county labor force.*

***Objectives***

- a) Encourage value adding by manufacturing of finished products from local raw material.
- b) To encourage and support economic development that would create more jobs, enhance community commerce, and improve the quality of life that residents now enjoy.
- c) Strengthen and broaden the economy of Sweet Grass County in order to reduce the adverse effects of a downturn in a specific economic sector.

***Implementation Strategy for Economic Development Goals & Objectives:***

***Policies/Actions In Place or On-Going:***

- a) Work toward expanding and sustaining a diverse economic environment for Sweet Grass County.
- b) Promote additional utilization of the existing industrial park.
- c) Revitalize local agricultural support business development and promote other local business development and expansion through continued alliance with local and regional economic development organizations such as:
  - Beartooth Resource, Conservation and Development District
  - Sweet Grass Opportunities
  - Sweet Grass Chamber of Commerce
  - Local realtors

- Montana Department of Commerce programs
- Sweet Grass Conservation District
- MSU Extension Service
- d) Utilize a portion of the Metal Mines License tax revenue for supporting planning and economic development.
- e) Utilize the MSU Extension Office to promote agricultural diversity by educating the public about new products, cooperatives, and marketing techniques.

***Recommended New Actions:***

- a) Solicit for industries and tourism by developing a county website.

#### **4.2.4 PUBLIC INFRASTRUCTURE AND SERVICES**

***Goal***

- ❖ *To provide the following services in an efficient, well coordinated and economical manner:*

- o *Emergency medical services*
- o *Fire protection*
- o *Law enforcement*
- o *Medical care*
- o *Education*
- o *Social services*
- o *Cultural services (library)*
- o *Recreation opportunities*
- o *General county administration*

- ❖ *Provide county infrastructure which satisfies transportation, utility and solid waste disposal needs of county residents, businesses/industries and visitors in an effective and efficient manner.*

***Objectives***

- a) Obtain maximum usage of existing community and public facilities as multiple-use centers.
- b) Maintain properly equipped and trained organizations for county police, fire, ambulance, and rescue services and be well prepared for emergency and disaster events.
- c) Improve county road systems to efficiently serve transportation needs within the county.
- d) Have adequate railroad and motor freight activities which will provide for shipment of raw materials and finished products.
- e) Maintain high quality airport services and facilities.
- f) Provide adequate medical care for all residents of the county.
  - Hospital                      -Emergency Services
  - Nursing Home              -Clinic
  - Assisted Living            -County Health Nurse



## ***Implementation Strategy for Public Infrastructure and Services Goals & Objectives:***

### ***Policies/Actions In Place or On-Going:***

#### *Law Enforcement, Fire Protection and Medical Services:*

- a) Provide access to affordable quality health care service in the county.
- b) Coordinate emergency and disaster training with other organizations and agencies, and neighboring counties.
- c) Maintain the existing “Advanced Life Support” level of certification for the Sweet Grass County Ambulance service.

#### *Cultural/Recreation:*

- d) Support the City/County Library and maintain an active role with the City of Big Timber regarding Library services.
- e) Support community park and recreation facilities.
- f) Promote and support county and Big Timber recreation facilities.

#### *Transportation:*

- g) Repair and routinely maintain county roads on a planned and prioritized schedule to achieve the most efficient results. Maintain and improve county roads and bridges according to the county’s road and bridge standards and classification ratings.
- h) Insure county road railroad crossing areas are kept visible and free of obstructions.

#### *General Administration of Services:*

- i) Coordinate as needed with the Big Timber solid waste system and private disposal services to insure that solid waste disposal alternatives are available for the county and support recycling programs within the county.
- j) The county shall monitor the effects of mining developments on county revenue, population, and local services.
- k) Compare the actual costs and revenues resulting from the mine development and adjust the Hard Rock Mine Impact Plan if warranted.
- l) Continue to monitor and implement the Hard Rock Mine Impact Plan with Stillwater Mining Company.
- m) There are currently no public drinking water or wastewater treatment facilities in Sweet Grass County, outside of the City of Big Timber. The county will continue monitoring the needs of its unincorporated towns and communities in the county and assist with the formation of water or sewer districts if requested.
- n) Maintain all public facilities at acceptably safe levels and replace overcrowded and irreparable. Provide for continued maintenance of public facilities and plan for future improvements and replacement needs.
- o) Work with state, local, municipal, and federal agencies when considering improvements or changes to county infrastructure and services.

### ***Recommended New Actions:***

#### *Law Enforcement, Fire Protection and Medical Services:*

- a) Reduce the response time of emergency services through well planned network of services and facilities.

- b) Define service areas based on level of service standards.
- c) Locate fire substations within every service area.
- d) Educate new and existing property owners of potential fire risks.
- e) Adopt new subdivision regulations that establish fire facility requirements.
- f) Complete and periodically update the County Disaster Plan.
- g) Complete and maintain county rural addressing and development of an E-911 plan.
- h) Investigate methods for recruitment and retention incentives of Emergency Medical Technicians.
- i) Explore alternative funding sources or increased mill levy for the emergency medical service funding.
- j) Explore the feasibility of jail replacement/expansion options such as constructing a new joint detention facility with adjoining counties or expanding/replacing the existing Sweet Grass County jail.
- k) Encourage community watch programs for communities and subdivisions within the county by offering training courses to interested organizations.

*Cultural/Recreation:*

- l) Explore the creation of a county park district which could support recreational facilities such as:
  - Bike paths in and around Big Timber
  - Swimming Pool
  - Tennis Courts
  - Multipurpose ball/sport fields
  - Park areas and greenways

*Transportation:*

- m) Designate an Airport Influence Area and adopt rules to regulate requirements within the area.
- n) Develop and maintain a Capital Improvement Plan for county roads and bridges. Include on-MDT system priorities, which are recommended to the Montana Department of Transportation.
- o) Produce a County Road Department annual work plan that will specify projects and budgets scheduled for the following year.
- p) Require subdividers to install and maintain livestock-proof fence along all county rights-of-ways and install cattleguards or gates on all approaches to county roads.
- q) Review and update the county's road encroachment permit policy and procedures.
- r) Adopt permit rules for tower construction/abandonment within the county to insure unhampered air transportation.

*General Administration of Services:*

- s) Prepare and maintain a capital improvement plan for all county facilities and property.
- t) Develop an organized reference library within the courthouse containing all county regulations, policies and procedure manuals and plan documents.
- u) Review fees charged for permitting such as sanitation, subdivision and road encroachment and revise as necessary to reflect current review costs.

- v) Explore the feasibility of implementing a local option tax or other revenue to fund county infrastructure.
- w) Review county facility needs and utilization and plan for recommended expansions or replacements.

## **CHAPTER 5.0 - COUNTY ADMINISTRATION**

### **5.1 REGULATIONS**

As supplements to regulations mandated by state statutes, Sweet Grass County maintains regulations which are specific to the county needs and methods of review. The regulations are an important tool in providing for protection of public health and safety needs within the county and orderly management of infrastructure, services and resources. Regulatory documents maintained by the county include:

- Sweet Grass County and Big Timber Subdivision Regulations
- Sweet Grass County Rules Governing Individual Subsurface Wastewater Treatment Systems
- Sweet Grass County Floodplain Development Regulations
- Road Encroachment Regulations
- County Ordinances

In addition to regulations, the county has prepared several planning documents which are utilized for policy and regulation development. Planning documents currently utilized by the county include:

- Road Classification Standards
- Bridge Standard
- Capital Improvement Plan
- Emergency Operations Plan
- Flood Hazard Mitigation Plan
- Weed Management Plan
- East Boulder Hard Rock Mining Impact Plan

#### **5.1.1 SUBDIVISION REGULATIONS**

##### **5.1.1.1 APPLICATION REVIEW**

Subdivision development is a significant factor affecting growth patterns and development of lands. It is important that the subdivision regulations adopted by the county contain review and design requirements which incorporate the policies set in the county's Growth Policy.

Subdivisions and subdivision developments are governed by Title 76, Chapter 3 and 4, Montana Code Annotated. These statutes require the Sweet Grass County Commissioners, to review subdivisions for consistency with state law, any zoning (pursuant to Title 76, Chapter 2, MCA) and local subdivision regulations. This is a legal process that analyzes specific items, which are spelled out in statute and in local subdivision regulations. Subdivision applications must fulfill the statutory requirements and be consistent with local subdivision regulations. Those that vary from the requirements may be denied, or approved subject to specific conditions which may include mitigation of certain impacts.

##### **5.1.1.2 LAND USE CONSIDERATIONS**

The Sweet Grass County Planning Office maintains an Existing Development Map which shows current land use trends within the county. The following table describes Land Use Classifications utilized in the development mapping. Land use classifications will be utilized in

subdivision review. New subdivision applications shall identify the current Land Use Classification of the subdivided and surrounding property and the Land Use Classification for the proposed subdivision based on the definitions listed in this table. Subdivision review shall consider the subdivider's intent for any land use change and the impact of a change in land use.

LAND USE CLASS	DESCRIPTION
High Density Residential (HDR)	Areas of residential development at average densities of less than 1 acre per dwelling
Rural Residential (RR)	Areas of residential development at average densities of 1 to 5 acres per dwelling
Small Tract	ST-1 Areas of 5 to 20 acre tracts ST-2 Areas of 20 to 40 acre tracts ST-3 Areas 40 to 160 acre tracts
Clustered Residential (CR)	No more than 15% of the original tract of record may be developed in a clustered development. The remaining 85% of the tract must be at least 20 acres and dedicated as common open space to a Homeowners' Association. The intent of the clustered design is to protect agricultural land and the natural environment. This type of design may be viewed as a measure to lessen the impacts to agriculture, natural environment and local services.
Commercial (Com)	Businesses such as general retail, service providers and professional offices.
Industrial (Ind)	General manufacturing, processing, assembly bulk handling of products, storage, heavy trucking. May involve activities that should be isolated because of hazards and nuisances.
Parks and Recreation	Land designated for recreational purposes.
Open & Resource Lands	Generally open space areas and land of agricultural production. These lands are classified by the Montana Department of Revenue as agricultural or timber lands.

#### **5.1.1.4 PRIMARY REVIEW CRITERIA, 76-3-608 (3), MCA6.3**

*State law requires that a growth policy include a statement explaining how the governing body will define the primary review criteria listed in the Subdivision and Platting Act [74-3-608(3)(a), MCA], and how subdivision impacts will be evaluated regarding the primary the primary review criteria. The Subdivision and Platting Act requires evaluation of a subdivision's effects on the following primary review criteria: agriculture, agricultural water user facilities, local services, the natural environment, wildlife and wildlife habitat and public health and safety.*

#### **EFFECT ON AGRICULTURE**

##### **1. Definition**

**Agriculture** 41-2-103, MCA Definitions: As used in this part, the following definitions apply: (1) "Agriculture" means : (a) all aspects of farming,

including the cultivation and tillage of the soil; (b)(i) dairying; and (ii) the production, cultivation, growing, and harvesting of any agricultural or horticultural commodities, including commodities defined as agricultural commodities in the federal Agricultural Marketing Act (12 U.S.C. 1141j(g)); (c) the raising of livestock, bees, fur-bearing animals, or poultry; and (d) any practices, including forestry or lumbering operations, performed by a farmer or on a farm as an incident to or in conjunction with farming operations, including preparation for market or delivery to storage, to market, or to carriers for transportation to market.

81-8-701, MCA Definitions. "Agriculture and food product" includes a horticultural, viticultural, dairy, livestock, poultry, bee, other farm or garden product, fish or fishery product, and other foods.

## 2. Evaluation Criteria

- a. The number of acres that would be removed from the production of crops or livestock. Acreage will be obtained from Department of Revenue tax records.
- b. Removal of agricultural lands that are critical to the county's agricultural base. Maps and land capability classifications developed by the USDA Natural Resource Conservation shall be used to determine the agricultural significance of land.
- c. It will be determined whether the unsubdivided parcel is part of a continuing farm or ranch unit by evaluating the use of the remainder and adjoining properties.
- d. Potential conflicts between the proposed subdivision and adjacent agricultural operations shall be evaluated including:
  - Interference with the movement of livestock or farm machinery
  - Interference with agricultural production and activities
  - Maintenance of fences
  - Proliferation of weeds
  - Increased human activity
  - Harassment of livestock by pets

## EFFECT ON AGRICULTURAL WATER USER FACILITIES

### 1. Definition

**Agricultural water user facility** shall mean any part of an irrigation system used to produce an agricultural product on property used for agricultural purposes as defined in 15-7-202, MCA, including but not limited to ditches, canals, headgates, sprinkler systems, water pipelines, tanks, reservoirs, ponds or developed spring used for agricultural purposes.

### 2. Evaluation Criteria

- a. Location and proximity to a ditch, canal, headgate, sprinkler system, watering tank or developed spring shall be considered.
- b. Consider potential subdivision nuisance complaints or problems due to agricultural water user facilities such as safety hazards to residents or water problems from irrigation ditches, headgates, siphons, sprinkler systems or other facilities..
- c. Ownership of water rights and the historic and current use of facility on the proposed subdivision shall be examined. . Easements to protect the use of water user facilities on or accessed through a subdivision shall be considered.

- d. Allocation of water rights within a subdivision shall be considered.

### EFFECT ON LOCAL SERVICES

#### 1. Definition

**Local services:** Any and all services or facilities that local government entities are authorized to provide.

#### 2. Evaluation Criteria

- a. Increased demand on services and need to expand services for a proposed subdivision.
  - Sheriff
  - Big Timber Volunteer Fire Department
  - Sweet Grass County Ambulance Service
  - Schools
  - Roads and Bridges
- b. Cost of services
  - Current and anticipated tax revenues
  - Cost of services for the subdivision
  - Evaluate the need for special or rural improvement districts

### EFFECT ON NATURAL ENVIRONMENT

#### 1. Definition

**Natural environment** means the physical and biological features of an area that may be altered by human activity including topography, soil, geology, vegetation, and surface and groundwater.

#### 2. Evaluation Criteria

- a. Expected alteration of any streambanks or lake or reservoir shorelines. Any draining, filling or alteration of any wetland.
- b. Needed cuts and fills on slopes as a result of road or building construction.
- c. Significant removal of vegetation contributing to potential soil erosion or bank or slope instability.
- d. Effect on the level of the aquifer.
- e. Evaluate whether the subdivision design maintains significant open space.

### EFFECT ON WILDLIFE AND WILDLIFE HABITAT

#### 1. Definitions

**Wildlife** means animals that are neither human nor domesticated.

**Wildlife habitat** means the sum of environmental conditions in a specific place that is occupied by a wildlife species or population.

#### 2. Evaluation Criteria

- a. Location of subdivision and access roads with respect to critical wildlife areas such as big game wintering range, calving areas, migration routes, nesting areas, wetlands, or habitat for endangered or threatened species.
- b. Expected effects of pets and human activity on wildlife.

### EFFECT ON PUBLIC HEALTH AND SAFETY

#### 1. Definition

**Public health and safety** refers to natural or man-made conditions that may pose a physical threat to either future residents or the general public.

#### 2. Evaluation Criteria

- a. Potential hazards to residents of subdivision from high voltage lines, high-pressure gas lines, highways, roads, railroads or railroad crossings, nearby industrial or mining activity.
- b. Evaluate existing activities taking place in the vicinity of the subdivision.
- c. Evaluate traffic and fire conditions.
- f. Presence of natural hazards such as flooding, rock, snow or landslides, high winds, wildfire, or difficulties such as shallow bedrock, high water table, expansive soils or excessive slopes.

### **5.1.1.5 PUBLIC HEARING PROCEDURES**

*State law requires that a growth policy include a statement explaining how public hearings regarding proposed subdivisions will be conducted.*

#### **1. Public Notice Procedures**

- a. Public hearings shall be held for all subdivisions except first minor subdivisions on a tract of record which are exempt under State statute from the requirement of holding a public hearing.
- b. All subdivisions that come before the Planning Board for their recommendations in accordance with the Sweet Grass County – City of Big Timber Subdivision Regulations, will be legally noticed. Published legal notices shall include instructions for requesting alternate accessible hearing locations or formats required by persons with disabilities who wish to participate in the hearing.
- c. All adjoining landowners shall be notified of any proposed subdivision.
- d. Adjoining landowners mean owners of record of properties that share common boundaries or that are located directly across a road, river, stream, ditch, or lake and would otherwise be sharing a boundary in the absence of such feature.

#### **2. Public Hearing**

- a. Circulate a sign up sheet, provide a place for public to indicate whether they intended to speak.
- b. Set up any equipment, if needed, such as tape recorder, podium, screen, or other visual aid equipment.
- c. The hearing is opened by the Planning Board Chairperson-describe reason for the public hearing – subdivision application
- d. Explain subdivision review procedure – staff provides recommendation to board; board makes recommendation to County Commissioners.
- e. Establish ground rules for speaking – go over subdivision review criteria to be considered.
  - i. Statutory review criteria
    - Effect on agriculture, agricultural water user facilities, local services, the natural environment, wildlife and wildlife habitat and the public health and safety.
    - Compliance with the requirements of the MSPA and the regulations and review procedures of the local subdivision regulations.
    - The provisions of easements for the location and installation of any necessary utilities.
    - The provision of legal and physical access to each parcel within the subdivision and the notation of that access on the applicable plat and any instrument transferring the parcel.
  - ii. Whether the preliminary plat conforms to the provisions of:



- The Montana Subdivision and Platting Act
- The Sweet Grass County and City of Big Timber Subdivision Regulations
- Applicable zoning regulations
- Other regulations in effect in the area.
- f. Introduce speakers
  - i. Staff presentation – City-County Planning Staff
    - Based on staff report
    - Present findings of fact and recommendations
  - ii. Subdivider’s presentation – Subdivider or Authorized Representative
  - iii. Public input of the proposal
    - Information submitted should be factual, relevant and not merely duplication of previous presentation.
    - A reasonable time shall be allowed each speaker.
    - Each person speaking shall give name, address and nature of interest in the matter.
- g. A question and answer period for the board to inquire into statements made earlier.
- h. Rebuttal at the discretion of the chairman.
- i. Motion for adjournment.
- j. Adjourn

### **5.1.2 INDIVIDUAL SUBSURFACE WASTEWATER TREATMENT SYSTEMS RULES**

This regulatory document describes minimum standards for the design, construction and installation of individual sewage treatment systems. Permit requirements for a system installation are also included in this regulation. The Sweet Grass County Board of Health administers the content of this regulation. The County Sanitarian issues the permits required by the regulations. Variances requested by individuals for their installations must be presented to the Board of Health for approval.

### **5.1.3 FLOODPLAIN DEVELOPMENT REGULATIONS**

The Sweet Grass County Floodplain Development Regulations were adopted in 1982 in order to comply with the Montana Floodplain and Floodway Management Act (Title 76, Chapter 5 of the MCA) and to ensure compliance with the requirements for continued participation by the county in the National Insurance Program. The Floodplain Development Regulations apply to land use within the mapped 100 year floodplains of streams within the county. The City-County Planning Director administers the county’s floodplain regulations. Floodplain Development Permits are required from the Planning Office for all land use activities such as expansion or alteration of existing structures or facilities, streambank alteration, excavations or fills or utility or road crossings.

### **5.1.4 COUNTY ROAD ENCROACHMENT REGULATIONS**

Encroachments on road right-of-ways may be hazardous to travel and cause maintenance problems. The county has adopted a Road Encroachment Policy which provides for removal of unsafe or unapproved encroachments within county road right-of-ways. Any new encroachment such as burial of a utility or culvert, installation of an approach or a cattleguard requires approval by the County Commissioners.

### **5.1.5 COUNTY ORDINANCES**

Currently Sweet Grass County has adopted two ordinances. Ordinance #1 was adopted in 1990 and sets the speed limit at 30 MPH on all county roads for a distance of three miles from the conjunction of any county road and highways. The speed limit on all other county roads is 40 MPH. The ordinance allows for fines from \$10 to \$500 for violations.

The county's Ordinance #2 requires restraint of vicious dogs. Such dogs are not allowed to run at large. Persons convicted for violation of this ordinance shall be fined up to \$300 or imprisoned up to three days.

## **5.2 OTHER GUIDING DOCUMENTS**

The county also maintains planning documents such as this Growth Policy, other management plans and standards, which are utilized for setting county policy and specifications. The Board of Sweet Grass County Commissioners are guided by and give consideration to these documents in the:

- Authorization, construction, alteration, or abandonment of public ways, public places, public structures or public utilities
- Authorization, acceptance, or construction of facilities and utilities
- Adoption of zoning ordinances or resolutions
- Authorization of county regulations/ordinances

### **5.2.1 ROAD CLASSIFICATION STANDARDS**

County roads are assigned classifications under these standards. The classification guides the county in maintenance and quality expectations for the roads.

### **5.2.2 BRIDGE STANDARD**

In April 2002 the County adopted a Bridge Standard which specifies design requirements for bridge upgrades and replacement.

### **5.2.3 CAPITAL IMPROVEMENT PLAN**

Currently the county's Capital Improvement Plan (CIP) includes only bridges. As workload allows the county plans to eventually include all facilities for which the county has responsibility. The CIP will be utilized for planning capital investment requirements and budgeting.

### **5.2.4 EMERGENCY OPERATIONS PLAN**

This plan identifies and assigns disaster responsibilities for the City of Big Timber and Sweet Grass County personnel in preparation for, response to, recovery from and mitigation of natural or man-made disasters. The plan provides guidelines for the personnel who have responsibilities to provide services to disaster victims.

### **5.2.5 FLOOD HAZARD MITIGATION PLAN**

The Sweet Grass County Flood Hazard Mitigation Plan identifies flood hazards within the county and provides mitigation measures that may reduce the potential for flood damage to private and publicly owned property. The county is required to maintain a Flood Hazard Mitigation Plan in order to be eligible for grant assistance from the Federal Emergency Management Agency (FEMA) for projects that may reduce flood damage potential to a property that has suffered repeated losses due to flooding.

### **5.2.6 WEED MANAGEMENT PLAN**

The “County Noxious Weed Management Act” which became effective in 1985 required county weed boards to create a noxious weed program for their county. The Sweet Grass County Weed Plan was adopted in order to comply with this law. The plan offers guidelines for implementation of a weed management program in Sweet Grass County. This program is intended to prevent or reduce the economic and other losses to county residents from noxious weed invasion.

### **5.2.7 EAST BOULDER HARD ROCK MINING IMPACT PLAN**

The Montana Hard Rock Mining Impact Act requires large scale mineral developments to prepare an impact plan that describes the financial impact the mineral development will have on a local government agency. Stillwater Mining Company prepared this plan which was approved by Sweet Grass County and then adopted by the Hard Rock Mining Impact Board which oversees the implementation of the plan. The original plan was adopted in 1995 with an amendment adopted in 1998. As required by the Hard Rock Mining Impact Act, the plan provides estimates of persons coming into the impacted area as a result of the mine development and projects increased capital and operating costs to local government units for providing services that can be expected as a result of the development. There is a significant lag time between the time when additional facilities and services must be provided and the time when additional tax revenue is available as a result of the increased tax base. The plan describes financial assistance that the developer will give to local government units.