

## **CHAPTER 1.0 THE GROWTH POLICY**

### **1.1 INTRODUCTION**

This update of the Sweet Grass County Growth Policy amends the Growth Policy adopted in 2003. Prior to that time, Sweet Grass County had not updated its Growth Policy since 1993. The county undertook an extensive revision process in the adoption of the 2003 Growth Policy, which is briefly described below. Due to the work done over a four-year period from 1999-2003, fewer amendments or modifications were necessary for this revision. The purpose of this revision is to update the background and trend information, include additional natural resource provisions and coordination language, update goals and objectives, and ensure the Growth Policy's continuing compliance with Montana's statutory requirements under 76-1-601 et seq., MCA.

### **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 significant new trends that may occur within the county.

### **1.3 PREPARATION OF THE GROWTH POLICY**

#### **1.3.1 HISTORY OF GROWTH POLICY**

The first Growth Policy Plan for Sweet Grass County was adopted in 1978 and later updated in 1993. An extensive re-write of the Growth Policy began in 1999, culminating in the eventual adoption of the 2003 Growth Policy.

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

A more complete record of the proceedings to adopt the 2003 Growth Policy, including survey results, drafts and public comments received by the Planning Board are maintained at the City-County Planning Offices.

In considering updates to the 2003 Growth Policy, the County Planning Board reviewed the issues that were of county-wide concern in the 1999-2003 proceedings. Those issues include appropriate land use, protection of private property rights, preservation of agricultural lands, weed control, planned development and maintenance of county infrastructure. The Planning Board reviewed these goals and objectives in updating the Growth Policy and determined that, for the most part, the goals and objectives remained the same. The Planning Board also solicited feedback from the public on these goals and objectives during public meetings.

However, the Planning Board felt the existing policy lacked guidance on some natural resource and land use issues that could arise outside of subdivision review, but would still be issues on which Sweet Grass County should include in the growth policy. To that end, this Growth Policy has had sections added to provide some preliminary goals and objectives on natural resource uses, energy and coordination with state and/or federal agencies on land use issues that affect Sweet Grass County and its residents.

### **1.3.3 POLICY DEVELOPMENT**

The Planning Board reviewed the existing Growth Policy in a series of meetings in 2010-2013. The Planning Board suggested modifications based on interpretation issues, a desire to consider resource use issues in addition to the prior focus on subdivision, and statutory changes since 2003. The Planning Board held \_\_\_ public meetings on the updates to the Growth Policy and public comments illustrated that \_\_\_\_>

## **1.4 GROWTH POLICY ADMINISTRATION**

### **1.4.1 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.

### **1.4.2 CONDITIONS FOR GROWTH POLICY REVISIONS**

The 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 or county commissioners request revisions.

### **1.4.3 TIMETABLE FOR REVIEW**

The Growth Policy shall be reviewed, but not necessarily re-written, every five years from the date of the most recent adoption. Existing conditions and trends shall be revised at that time, if necessary. 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.

#### **1.4.4 COORDINATION WITH OTHER GOVERNMENTAL ENTITIES**

##### **1.4.4.1 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/City Court Library, Big Timber Volunteer Fire Department, Airport and Planning are funded through joint service agreements between Sweet Grass County and the City of Big Timber.

##### **1.4.4.2 STATE AND FEDERAL JURISDICTIONS:**

A purpose of this Growth Policy is to foster cooperation and coordination between federal and state management agencies, other counties and Sweet Grass County with regard to county interests. These interests include but are not limited to grazing, agriculture, mining, recreation, wildlife, transportation and other activities related to, and reliant upon, the availability of natural resources on federal, state managed and private lands within their respective jurisdictions. Sweet Grass County also encourages coordination and cooperation between agencies in respect to, but not limited to, responding to emergencies, such as fire and wildfire suppression, noxious weed control, and maintenance of county, state and federal road systems.

Sweet Grass County has worked with private, state and federal land managers in a cooperative, collaborative and/or coordinated manner. Areas of the county are owned and managed by private, state and federal entities. The use and management of these lands have substantial impacts on the county and its people. Therefore, the Sweet Grass County Board of Commissioners is interested in participating effectively in the land and resource planning processes, and land use policy formulations and implementation by the various federal, state and private land managers.

Federal and state laws require federal and state agencies to coordinate with the local government and consider the local land use plans in the process of planning and managing federal and state lands within the geographic boundaries of Sweet Grass County, Montana. Sweet Grass County intends for this Growth Policy to be used in conjunction with state and federal requirements that impose obligations on federal and/or state land management agencies to cooperate or coordinate with local governments.

**76-1-607. Growth policy -- use and amendment for coordination and cooperation with federal agencies.** (1) A local governing body may use a growth policy as a resource management plan for the purposes of establishing coordination or cooperating agency status with a federal land management agency. (2) The governing body may amend the growth policy to include any elements required by a federal land management agency to establish coordination or cooperating agency status.

Sweet Grass County will amend documents as needed to establish coordination and/or cooperating agency status, and encourages all current and future collaborating agencies involved in work in Sweet Grass County to respect Sweet Grass County's goals, objectives and policies.

#### **1.4.5 PLANNING BOARD JURISDICTION**

The jurisdictional area of the City-County Planning Board is described below and shown in the City of Big Timber Growth Policy. The 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 westerly 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 of Big Timber has adopted its own Growth Policy (City of Big Timber Growth Policy adopted June 1, 2009). The City of Big Timber Growth Policy is intended to cover just the City of Big Timber. The Sweet Grass County Growth Policy considers all areas beyond the City limits of Big Timber. The City-County Planning Board, however, will be responsible for planning and review of development in this city-county jurisdictional area.

## **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.

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, which was 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 \$16,389,565 and the bonded indebtedness is \$162,374 excluding the Pioneer Medical Clinic. With the PMC bonded indebtedness, the number increases to \$1,767,365.

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 sectors in the county include government, construction and tourism. Energy development, including alternative energy, is also a potential area of growth in the County. 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, and 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, the 5 lot Metcalf Subdivision, 5 lot Foodland Subdivision, the 2 lot McLean subdivision, and 7 unit Powder Horn Ranch Planned Unit Development 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.

This area is important as a major drainage area to the Yellowstone and provides the sustenance for many agricultural and recreational activities. However, significant fires have occurred in this portion of the County, including the Derby fire in 2006 that burned over 200,000 acres, of which 150,000 acres were in Sweet Grass County.

### **2.2.2 GREYCLIFF**

Greycliff is an unincorporated platted town. The school population has dropped quite dramatically within the past few years. There are currently 6 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. Subdivisions in this area include the 9 lot Faw Subdivision, the 1 lot Duffy Subdivision, the 1 lot Collenborne Subdivision and the 1 lot Amen Acres.

### **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 was located 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. Subsequently, the Bridge School building was sold, moved to Otter Creek and is now used as a private residence.

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.

Subdivisions in the area include the 1 lot Bridge School Subdivision and subdivisions annexed into the City, including the Burmeister Subdivision and Burmeister Amended Plat. While some other acreage in the west end adjacent to Big Timber had preliminary plat approvals,, those approvals have lapsed or are close to expiration.

#### **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 26 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. All these lots, except for \_12 are sold and 14 homes have been built within the Yellowstone Meadows subdivision. Other subdivisions include River Springs Subdivision, a five lot minor and the 3 lot Faw Overland Express 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 Melville 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. Ownership is split between public and private lands. 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 along Highway 191, including the 5 lot Hathaway Subdivision, 3 lot Mehus Subdivision, 1 lot Deer Ridge Subdivision, and 11 lot Viking Springs (Stene) Subdivision.

### **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. Melville was settled by Norwegians and established in 1877 as a village named after Colonel Melville, the arctic explorer. The town site was platted in 1904 and most of it remains in single ownership with the exception of four parcels along Main Avenue.

Melville had the first school district in the County, established around 1882. A post office first went into operation in Melville in 1883 and the first Lutheran Congregation in the State of Montana (1885) built the Melville Lutheran Church around 1914. The first white child born in Sweet Grass County, in 1881, was Oscar Ellingson of Melville. At its height, Melville had a reputation for being rough and tumble and had at least 4 saloons, two stores, a drug store, a hotel, cheese factory and flourmill. It was a regional meeting place for Saturday night dances, horse races and gambling and had its own hockey team.

The Melville community now consists of a post office and convenience store on Highway 191, the Lutheran Church, and the Melville Elementary School, which at the start of the 2013-14 school year had eighteen children enrolled. There is a fire station on Cayuse Ranch and a central dial office for Triangle Telephone Cooperative located in the town site. Melville is a community center for ranchers operating in the Crazy Mountains and northwest area of the county. Much of the land has stayed in family-owned ranches, descended from settler days and there has been little subdivision in the Melville community.

### **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. Subdivisions since the last Growth Policy include the 3 lot Brandon Subdivision, 7 lot Panorama View, 2 lot Young Subdivision, 5 lot Gilbert subdivision, the 2 lot Hatch/Skinner subdivision. A 22 lot subdivision, known as Meriwether Bend Ranch, had been given preliminary plat approval but construction was never completed and the preliminary plat is now void. These subdivisions are typically lots of 5 or more acres on the higher ground above and away from the river, all have wells and septic tanks, and range from mobile homes, to double wide manufactured homes to more expensive, frame-construction 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.

Some of the housing developments immediately south of town on the Old Boulder Road are platted certificates of survey, not subdivisions. Subdivisions include the 2 Lot Indian Rings II subdivision, the 5 lot Indian Rings III subdivision, the 1 lot Boulder Meadows subdivision, the Oiestad subdivision, and the 1 lot Miller Subdivision. The main Boulder road is also the location for some Certificate of survey developments, as well as the 5 lot Fishing Hole subdivision.

### **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 2013-14 school year the school has --6 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 developments are located at McLeod and include a trailer park and bar and restaurant. Subdivisions have been few, although some of this area was platted into smaller tracts prior to 1993, when land could be sold or platted in 20 acre or larger parcels. Recent subdivisions include the 1-lot Lovely subdivision, and the 1 lot Ewan subdivision.

FAS 298 (Main Boulder Road) 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 72% 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 Service manages approximately 23%. 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.

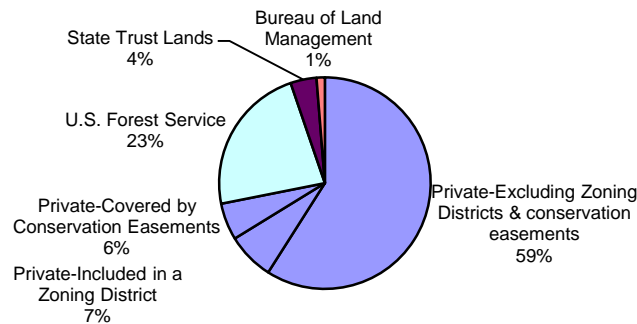


Figure 3.1 Summary of Land Ownership in Sweet Grass County

#### 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.

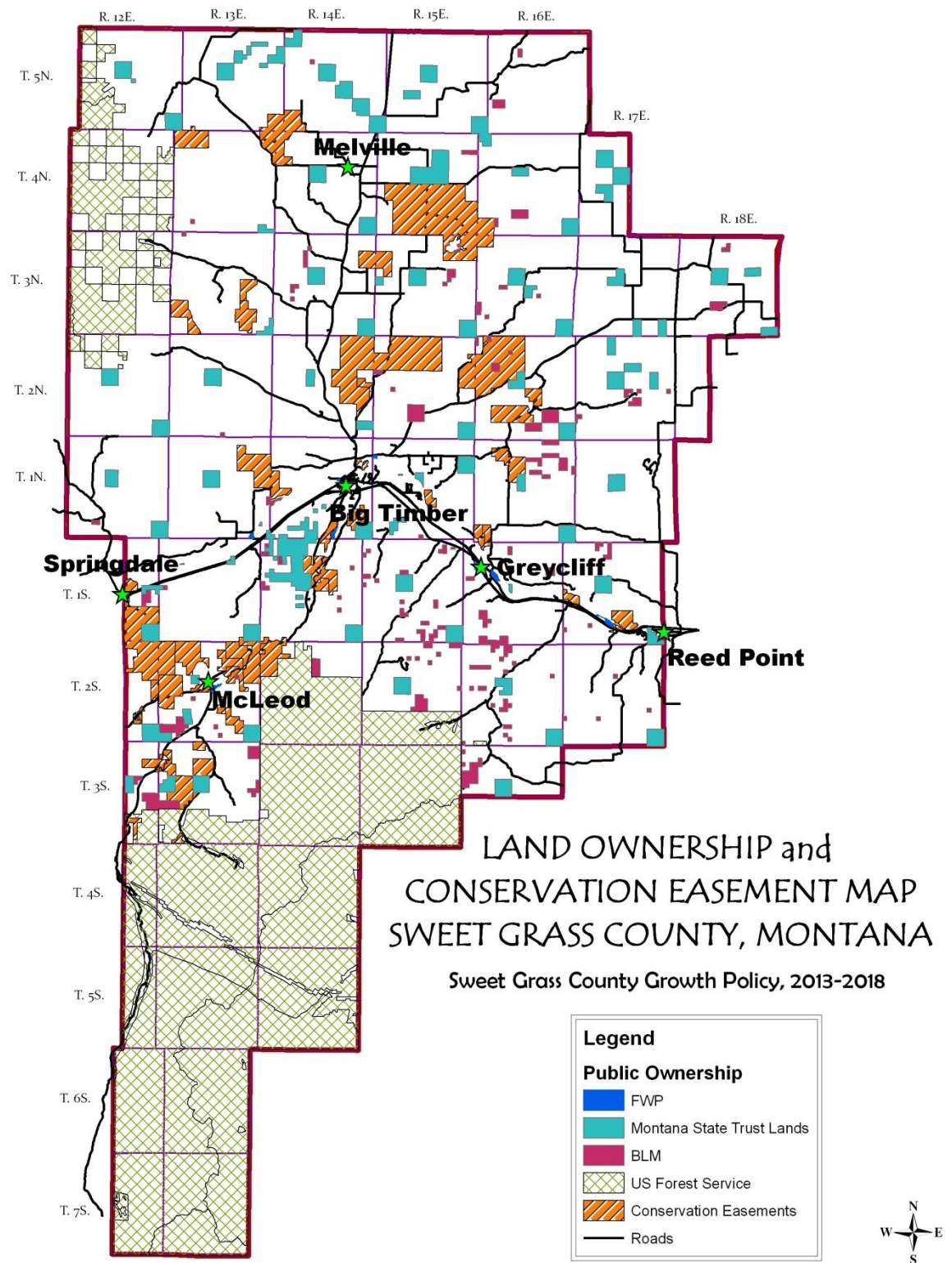
#### 3.1.3 CONSERVATION EASEMENTS/ZONING DISTRICTS

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 September 2012, there were approximately 68,034 acres under conservation easements compared to 35,179 acres in 2002, although very few conservation easements were granted in the last few years. The location of the existing conservation easements are shown on Map 3.1 - Land Ownership.

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 depicted on 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**

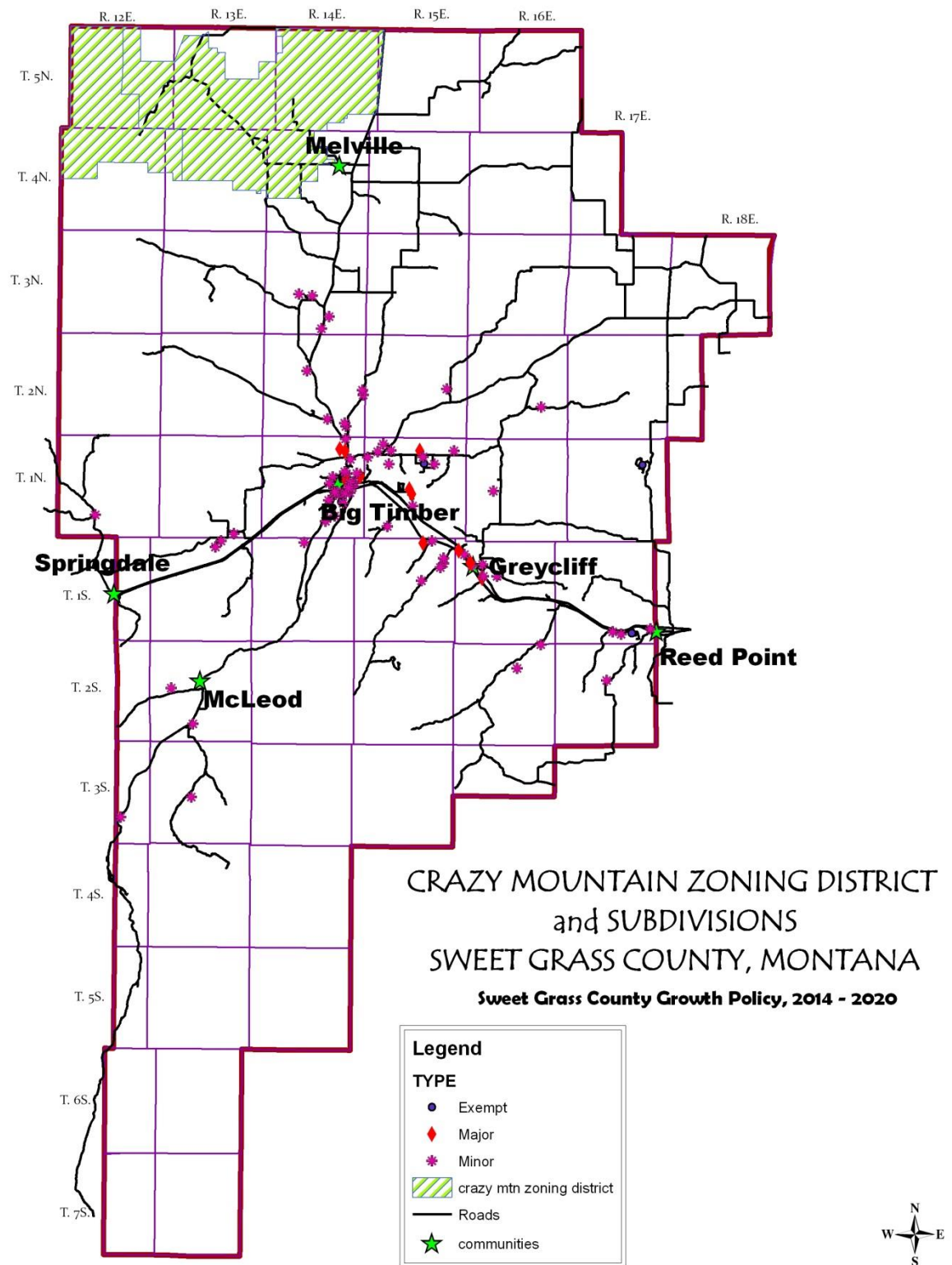
Sweet Grass County first adopted subdivision regulations in 1973. At that time, subdivisions were defined as land divisions creating two or more parcels of 10 acres or less, mobile home parks, recreation vehicle parks, and condominiums. The statutory definition of subdivision was changed in 1975 to include 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 83 divisions of land that are platted subdivisions. Of these 83 subdivisions, 21 are located within the City-County Planning jurisdiction as outlined by this Growth Policy and 62 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 four major subdivisions platted in the County Planning Board jurisdiction. In addition, 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 with historical practice 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. Certain areas are emerging as having higher subdivision potential, including acreage off Howie Road and Otter Creek Road, the first 5 miles north of Big Timber along Big Timber Creek, and acreage east of Big Timber along the Yellowstone River. As the agricultural economy goes through cycles of economic pressures, there is increasing potential that more ranch property will convert to recreational or subdivision purposes. Citizens' visual and emotional appreciation of undeveloped agricultural and range land within the county is expected to increase and more encouragement and support may arise for citizen-initiated zoning actions and other statutory means that protect some of these undeveloped lands as open space.

Some counties have experienced concerns with land application of septage waste, although Sweet Grass County recognizes proper land application of such waste in rural areas and with permission of the landowner.



**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 1980 to 2010 where data are available. The data shows that as the population has increased, so has the median age of the residents.

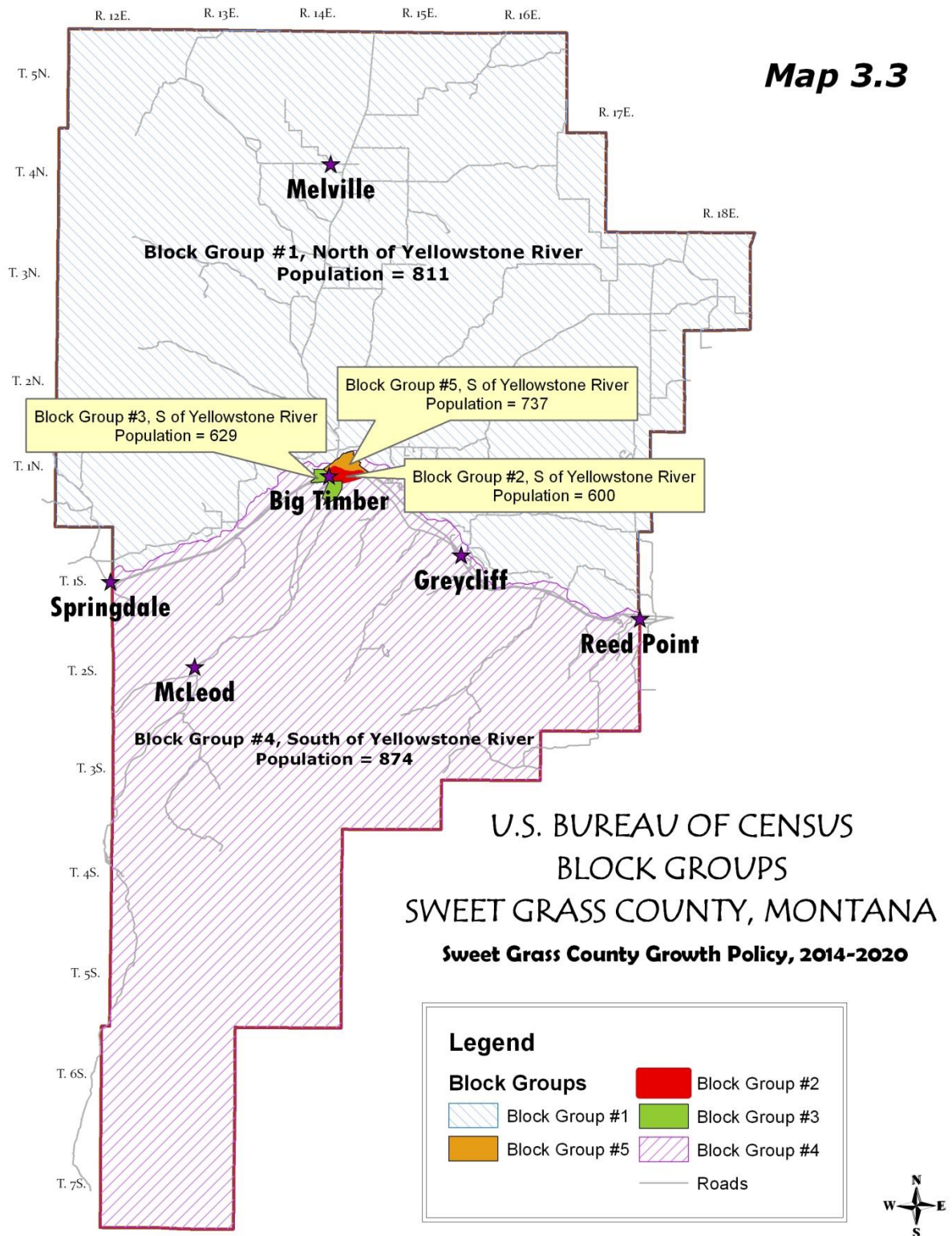
	1980	1990	2000	2010
Total Population	3,216	3,154	3,609	3651
Number of Households	1,236	1,281	1,476	1510
Males	1,653	1,542	1,800	1846
Females	1,563	1,612	1,809	1805
Age				
Under 5 years	266	208	211	199
6 to 19 years	671	701	784	708
20 to 54 years	1313	1266	1,584	1416
55 to 64 years	358	312	395	584
Over 65 years	608	667	635	754
Median Age	36.1	39.2	41.1	45.5
Household Type				
Family household	874	872	987	1045
Non-family household	362	409	489	545

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

The 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 to 3,651 in 2010. 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 2010 based on U. S. Bureau of Census data. Population growth slowed during the period from 2000-2010. This slower growth was, in part, a function of the recession. Natural growth is determined by calculating the difference between the expected birth rate and the death rate. The previous growth policy included a rapid growth scenario based on Stillwater Mine expansion. However, the recession decreased mine production and the necessary work force. Since those declines in 2008-2009, the population has increased slightly. Absent significant growth in mining, oil and gas exploration and development or wind energy, Sweet Grass County is likely to experience slow to intermediate growth. The Census Bureau does provide estimates on population growth, as depicted in the table below. .

#### **County Total Population - Nominal change over decades**

	1990	2000	2010	2020	2030	2040	2050	2060
Sweet Grass Co	3,146	3,633	3,651	4,241	4,323	4,223	4,200	4,446

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

<b>Historic Estimates for 1990 - 2010; Projected Figures for 2011 - 2060</b>		
Source: eREM - a product of Regional Economic Models, Inc. (www.remi.com) - Released April 2013		
Compiled by the Census & Economic Information Center, MT Dept. of Commerce (www.ceic.mt.gov)		

Between 1990 and 2000, the county grew by 14.4% or 1.44% per year. Between 2000 and 2010, the County grew by slightly over 1 percent. If Sweet Grass County were to see a return to the 1990s growth rate, or then population would increase substantially by 2020. This estimate from CEIC indicates a scenario of rapid growth in the next decade, slowing and even declining slightly by 2050, but maintaining a fairly stable character after the initial growth period.

### 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 39,500 and the number of sheep and lambs is 5100 (U.S. Dept. of Agriculture, State Statistical Report, 2012). A comparison of the agricultural statistics for 2002, 2007 and 2012 are presented in Table 3.3.

	2002 Yield Per Acre	2002 Production	2007 Yield Per Acre	2007 Production	2012 Yield per Acre	2012 Production	Current Rank in MT
<b>Crops</b>							
Barley	75 Bu.	120,000	46 Bu.	23,000	22.0 Bu.	40,000	46
Oats	35 Bu.	45,000	50 Bu.	55,000	17.2 Bu.	*	*
Other Spring Wheat	*	*	27 Bu	49,000	19.3 Bu.	27,000	50
All Hay	1.98 tons	70,400	1.79 tons	74,300	1.82 tons	51,000	36
Alfalfa	1.9 tons	53,400	1.9 tons	62,000	1.95 tons	43,000	23
Other hay	2.1 tons	17,000	1.4 tons	12,300	1.35 tons	8,000	47
	<b>Number of Head 2002</b>				<b>Number of Head 2012</b>	<b>Rank in Montana</b>	
<b>Livestock</b>		<b>Rank in Montana</b>	<b>Number of Head 2007</b>	<b>Rank in Montana</b>			
Beef Cattle	26,900	23	30,300	19	23,000	33	
All Cattle	41,000	27	43,100	30	39,500	31	
Sheep	11000	7	7200	9	5,100	11	
<b>Numbers of Farms in 2002</b>	<b>Acres in Farms in 2002</b>		<b>Number of Farms in 2007</b>	<b>Acres in Farms in 2007</b>		<b>Number of Farms in 2012</b>	<b>Acres in Farms in 2012</b>
357	867,058		N/A	N/A		355	812,759

**Table 3.3** Agricultural statistics for Sweet Grass County, 2001-02; 2006-07; 2011-12 (USDA, Montana Profiles)

While still the dominant land use, agriculture has slipped slightly in its leading economic role. The chart above also shows harvested acres fluctuating and even livestock production declining somewhat. Some of these declines may reflect drought and sale periods, as well. In 1970 agricultural jobs accounted for 35% of all county employment. Based on 2010 data, less than 20% of all jobs are in agriculture. Consolidation of land and improved equipment account for most of the reduction of agricultural jobs.

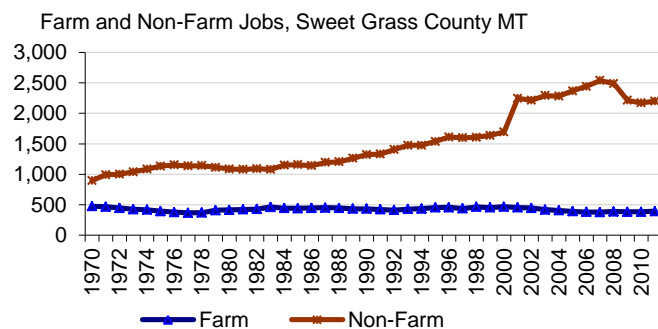


Table 3. Source: US Bureau of Economic Analysis and EPS-HDT Headwaters Economics

Due to changes in reporting procedures, it is difficult to compare all industry segments by decades, although the chart below attempts to do so. Retail-related jobs account for 12% of all county jobs. Thirty-five retail establishments were operating in the county in 1997 and 34 operate in 2013. . Tourism-related enterprises also bolstered employment and earnings in the service industry. Services now comprises about 35% of all county employment. The service establishments include hotel and other lodgings, auto repair, financial services, health, personal, legal and other professional services. Government related jobs account for 14% of all county employment and these figures include the Pioneer Medical Center ("PMC") employees. The construction industry has slowed down a bit in the last decade and mining employment has been the source of much of the growth in the private sector.. The graph shown in Figure 3. compares the employment levels of basic and derivative industries for years 1980, 2000, and 2010.

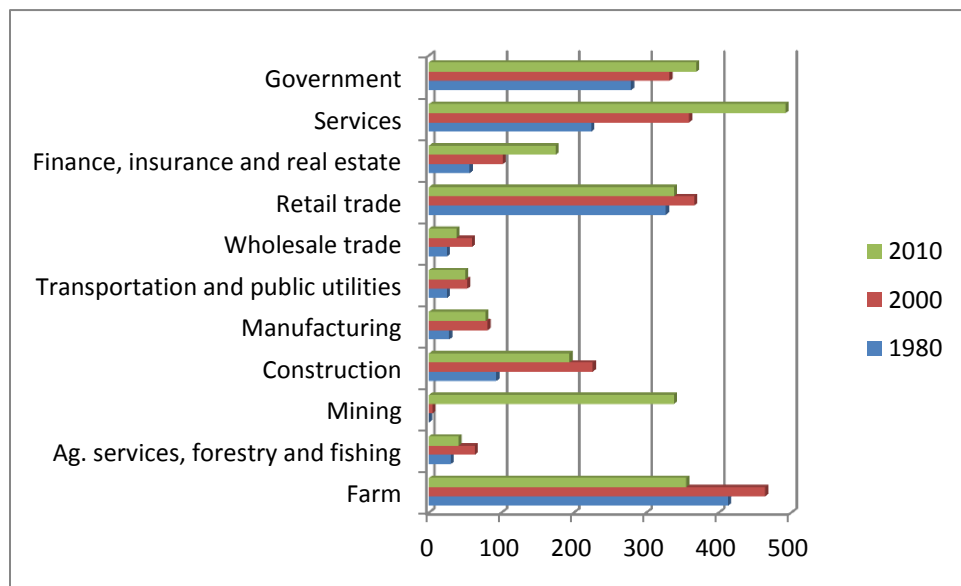
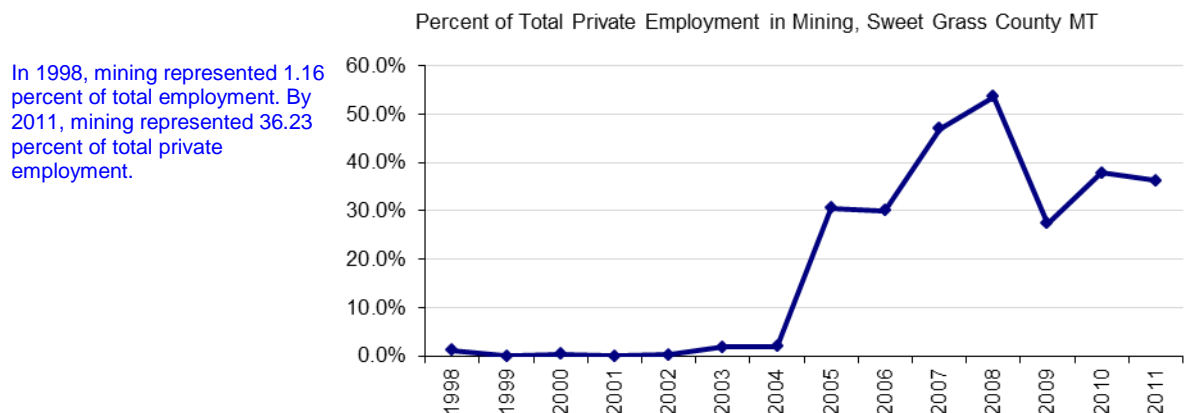


Table 3.2 Employment by Industry 1980, 2000, 2010 (U.S. Bureau of Economic Analysis)  
Due to self-reporting of industry, categories add up to more than total employment.

The big change from 1980 to 2010 occurred in the mining industry.





Data Sources: U.S. Department of Commerce. 2013. Census Bureau, County Business Patterns, Washington, D.C.

Government employment grew, too, but at a slower pace.

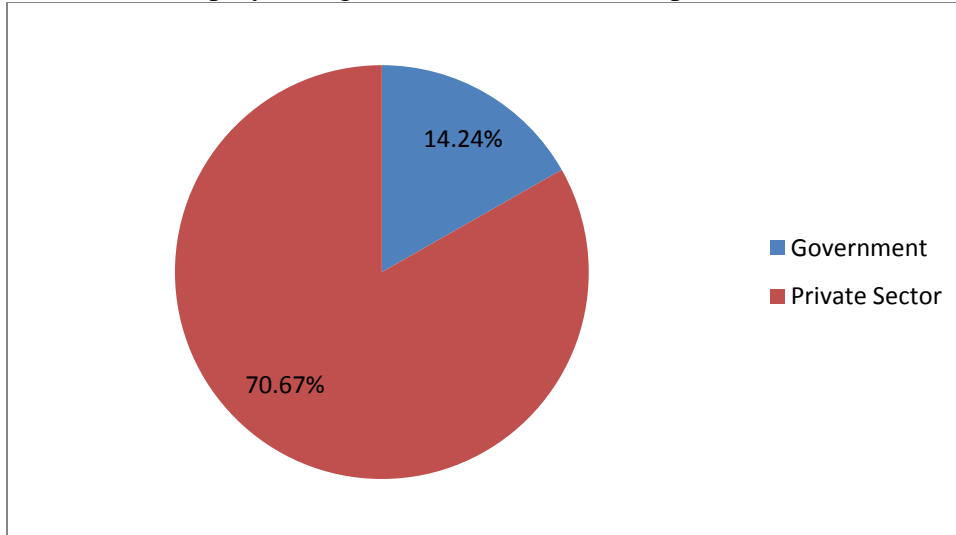


Table 3.1

In 2011, total employment was 2591, with 369 persons employed in government services and 1831 in private business. Of the 369 in government services, 317 were state and local government employees including the PMC, 34 were federal and the rest were military.

### 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 had 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 \$28,031 in 2010. Table 3.4 shows the earnings (in \$000s) per industry for the years, 1980, 1985, 1991, 1996 2000 and 2010.

**Table 3.4** Personal Income by Major Source and Earnings by Industry, 1980-2010 (\$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.*

		1980	1985	1991	1996	2010
<b>Total Personal Income</b>		34,130	32,580	48,421	59,616	101,555
	Non-Farm Personal Income	28,060	31,030	46,061	60,389	106,152
	Farm Personal Income	6,070	1,550	2,360	-773	-4597
<b>Per Capita Personal Income</b> <b>(actual value)</b>		10,666	9,872	15,333	17,488	28,031
<b>Earnings By Industry</b>						
Farm		6,070	1,550	2,360	-773	-4597
	Agricultural Services, Forestry and Fisheries	310	240	581	667	N/A
	Mining	0	0	0	0	
	Construction	1,490	1,600	3,230	4,979	5542
	Manufacturing	160	130	375	2,111	1695
	Transportation & Public Utilities	580	610	1,211	1,883	N/A
	Wholesale Trade	390	840	443	845	1812
	Retail Trade	3,050	2,330	4,378	5,936	4616
	Finance & Insurance	610	500	752	992	2142
	Real Estate					1582
	Services accommodation and Food services; Repair and Maintenances	1,840	2,430	2,834	4,182	6170
	Government (Federal, state, local,	2,920	3,230	4,907	6,193	12382
	Dividends, Interest and Rent	9,760	11,880			see chart
	Transfer payments*	4,920	6,120			see chart

### **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. During the economic recession of 2008-2011, unemployment hit 4.8%\_ in Sweet Grass County and 7.% in Montana. In February of 2014 the available labor force in Sweet Grass County was 2,443 persons. Of these, 2,373 were employed resulting in an unemployment rate of 2.8%.

### **3.3.3 PROJECTED ECONOMIC TRENDS**

Sweet Grass County has had a shift in the dominant industry as measured by tax revenues as the East Boulder Mine develops. The 2013 taxable valuation from this mine facility alone is over 30% of the total county taxable valuation. As of the end of 2013, there were 88 local employees and 60 in-migrating employees in Sweet Grass County employed by Stillwater Mine. 45.68% of the mineral employees reside in Sweet Grass, 46% in Park County and 8.6% in Stillwater. The gross proceeds valuation will be dependent on platinum and palladium prices each year. While Stillwater is a vital part of the community and its tax base, Stillwater Mine also has a projected mine life of 27 years, which began in February of 1998 and is expected to end December of 2025. Given recent ore discoveries and development in the Graham Creek area, this mine life will likely be extended, but it is not infinite. Should Sweet Grass County wish to continue the level of employment and services available with Stillwater Mine, the County will need to continually consider economic development associated with other businesses and industries.

The county's total taxable value in 2013 is \$17,533,500 which includes the City of Big Timber. Figure 3.4 below shows the history of the county's taxable value since 1973.

YEAR	TAXABLE VALUES COUNTY	Current Year		Carry Forward Mills Available
		Authorized Levy	Actual Levy	
1980	6,709,295			
1990	5,967,879			
2000	9,986,698	77.10	79.59	0.00
2000-01	9,527,900	79.58	79.58	0.00
2001-02	9,907,195	88.54	88.54	0.00
2002-03	11,694,878	92.42	92.42	0.00
2003-04	13,060,900	90.54	90.54	0.00
2004-05	16,488,014	94.06	94.06	0.00
2005-06	14,640,510	93.31	93.31	0.00
2006-07	15,806,500	93.70	93.70	0.00
2007-08	17,252,550	95.11	95.11	0.00
2008-09	17,664,510	97.06	97.06	0.00
2009-10	17,141,634	110.27	110.27	0.00
2010-11	16,091,971	115.16	115.60	0.00
2011-12	16,389,565	120.50	114.55	5.95
2012-13	17,533,500	125.13	118.42	6.71
2013-14	17,528,261	128.65	122.28	6.37

**Figure 3.4** County history of taxable value 1980 to present

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

### 2012-13 County Levy Distribution:

#### County levies:

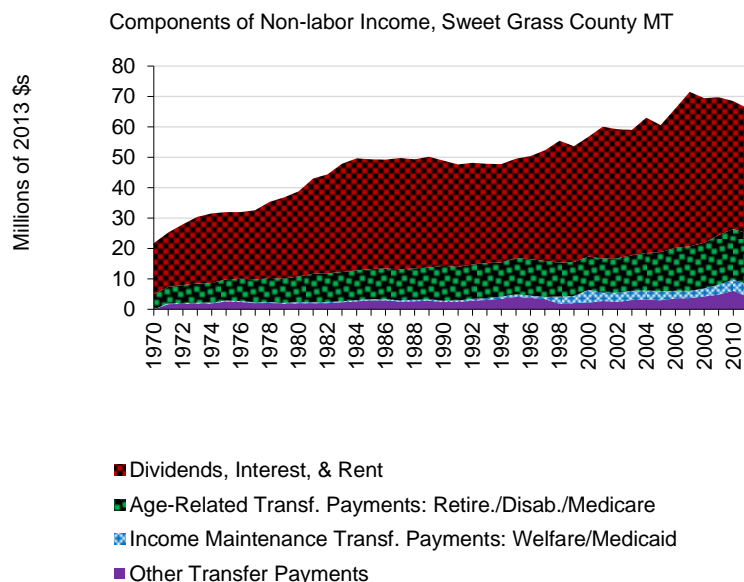
PURPOSE:	# of MILLS:
County Elementary Equalization Aid:	22.00
Elementary School Retirement:	15.93
County High School Equalization Aid:	22.00
Retirement:	15.33
County Transportation:	3.18
University:	6.00
Total County:	89.44

(State Equalization adds 40.00 mills)

Actual tax revenues received will be dependent on the tax rate structure at that time.

The number of people employed in agriculture has dropped and non-farm income has increased. Per capita income in Sweet Grass County ranks 28<sup>th</sup> in the state, but average annual wages are slightly higher than the state average annual wage. Sweet Grass County has had a fairly low unemployment rate for years, with a 1.4 unemployment rate in 2207, dropping to 4% in 2010 and holding at 2.8% at present. With the Stillwater Mine layoffs in late 2007/early 2008, employment dropped significantly, but the labor force also declined as people left the county. Population dropped from 3778 to 3595, but is estimated at 3800 now. Population projections estimate a population of 4241 by 2020, driven in part by oil, gas and mineral development in eastern Montana.

Non-labor income is increasing in Sweet Grass County. Part of this may be due to an aging population that has more investment and interest earnings, as well as age-related increased in payments.



Data Sources: U.S. Department of Commerce. Multiple Years (See Data Sources & Methods page). Bureau of Economic Analysis, Regional Economic Information System, Washington, D.C. Tables CA05N & CA35.; EPS-HDT

## 3.4 HOUSING NEEDS

### 3.4.1 CURRENT CONDITIONS

Based on 2013 rural addressing data, the existing number of residential structures outside the Big Timber city limits is about 1500. 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 1934 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 2010 Census, there are 2148 housing units within the county, including Big Timber. Of these 1590 are occupied by owners and approximately 347 are estimated to be

recreational, part time use. The average household size is 2.24. 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. From 1998 to 2008 there was a significant increase in subdivision and new construction activity within the county. Activity slowed after the recession, although subdivision is continuing. Figure 3.5 below shows the number of lots subdivided annually.

Number of Lots by Year					
Year	City- County	City	County	Mobile Home	Total
1975	5	20	0	0	25
1985	49	28	3	26	106
1995	58	33	21	26	138
2005	241	71	97	44	453
2013	241	72	161	44	518

**Figure 3.5** Number of platted subdivision lots since 1975.

The county population has grown slower than anticipated after Stillwater Mine began operations. While some growth in population is attributable to Stillwater Mine, much of the work force already lived in Sweet Grass or Stillwater Counties, or commutes from other towns because of the flexible work schedules offered by SMC. 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. However, a major subdivision on the west side of Big Timber is on hold and if the use of that land changes to the Cowboy Hall of Fame, museum and some business, the proportion of population living in the city versus the county will likely maintain the same or decline slightly. A reasonable projection for housing needs in the rural county would be approximately 30 to 40% of any expected growth from the working and leisure populations. As we have seen in the last ten years, people desire to live in the country and development in and around the City of Big Timber has been slow to occur. The west end, which was Master Planned in 2003 had a preliminary subdivision approved which would have added 38 lots. The Montana Cowboy Hall of Fame chose Big Timber as its new home, and as that museum facility is constructed, the west end properties not leased or purchased by the MCHF may begin to develop. There is a need for more low to moderate-cost housing for low to moderate-income families and individuals.

## **3.5 LOCAL SERVICES**

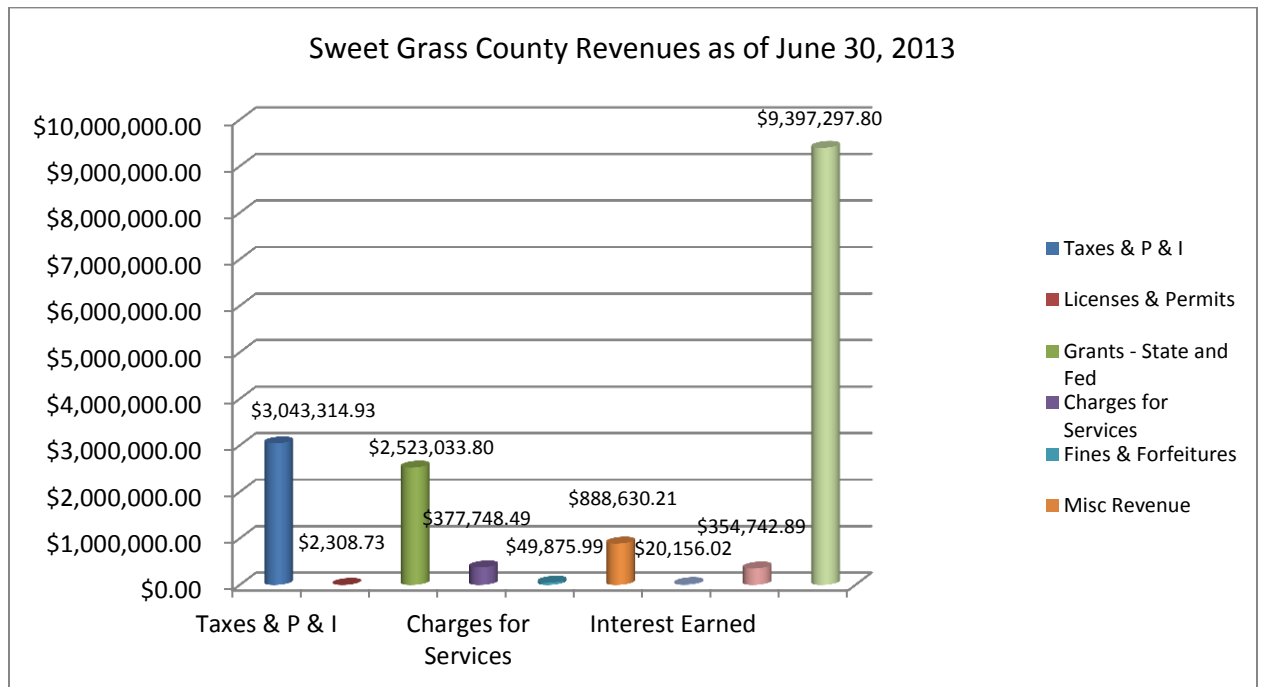
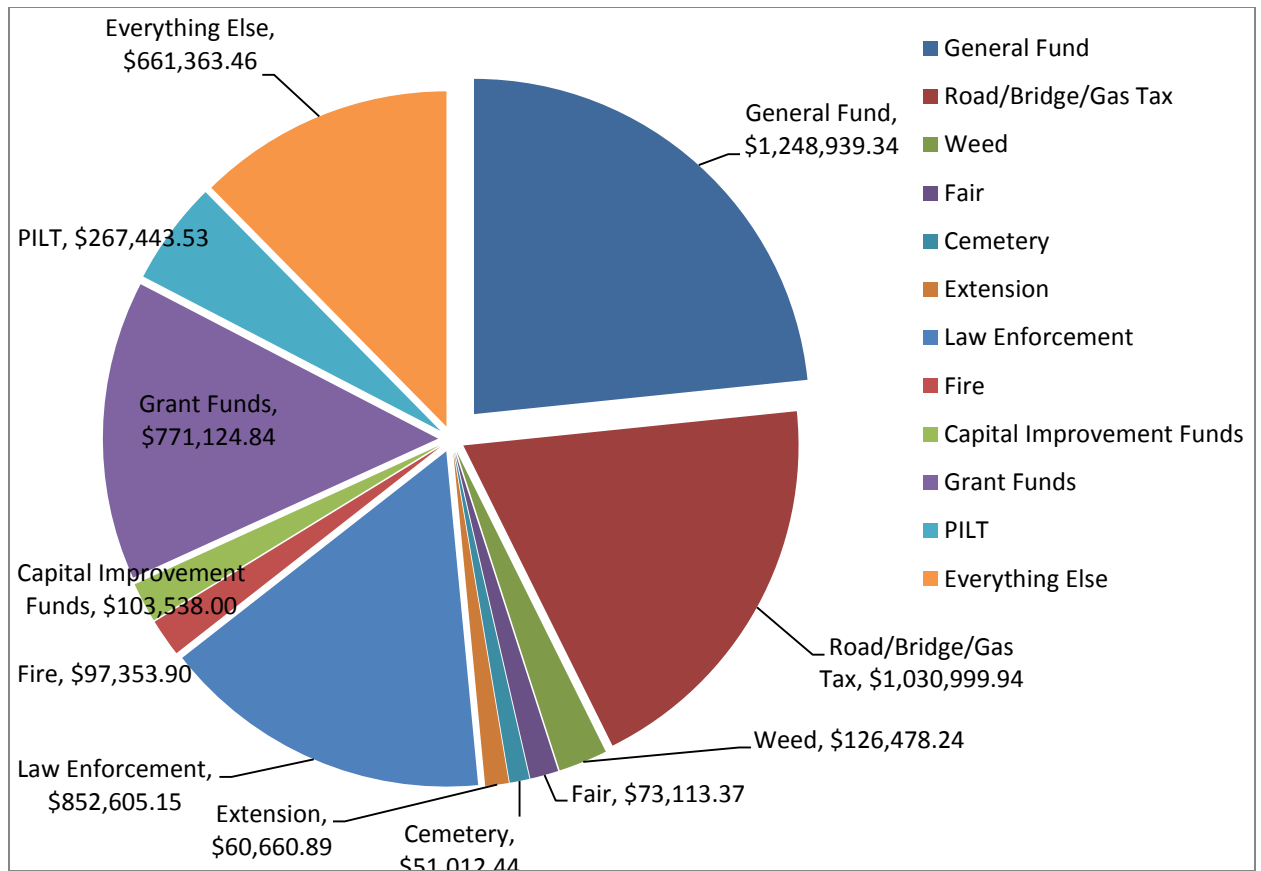
### **3.5.1 COUNTY SERVICES**

**Administration.** Sweet Grass County is governed by a three-member board of county commissioners. At present, county administrative staff totals 35 full-time employees, 16 part-time employees, 10 seasonal employees, and 99 full time and 35 part-time 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 performed 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

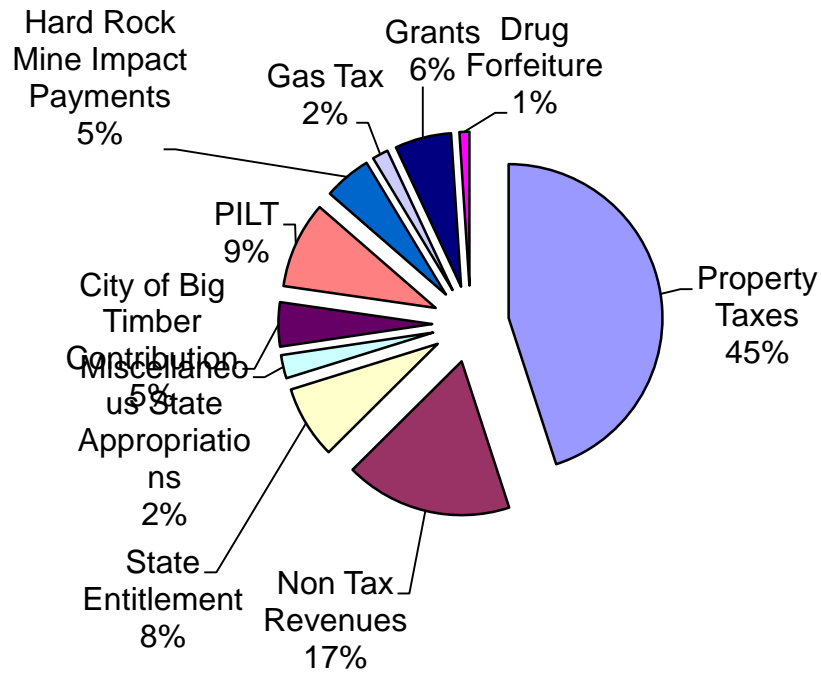
A breakdown of County budgets, including the PMC, are shown below.



**Table 3.6** 2013 County budget and revenues



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.



# SWEET GRASS COUNTY ORGANIZATION

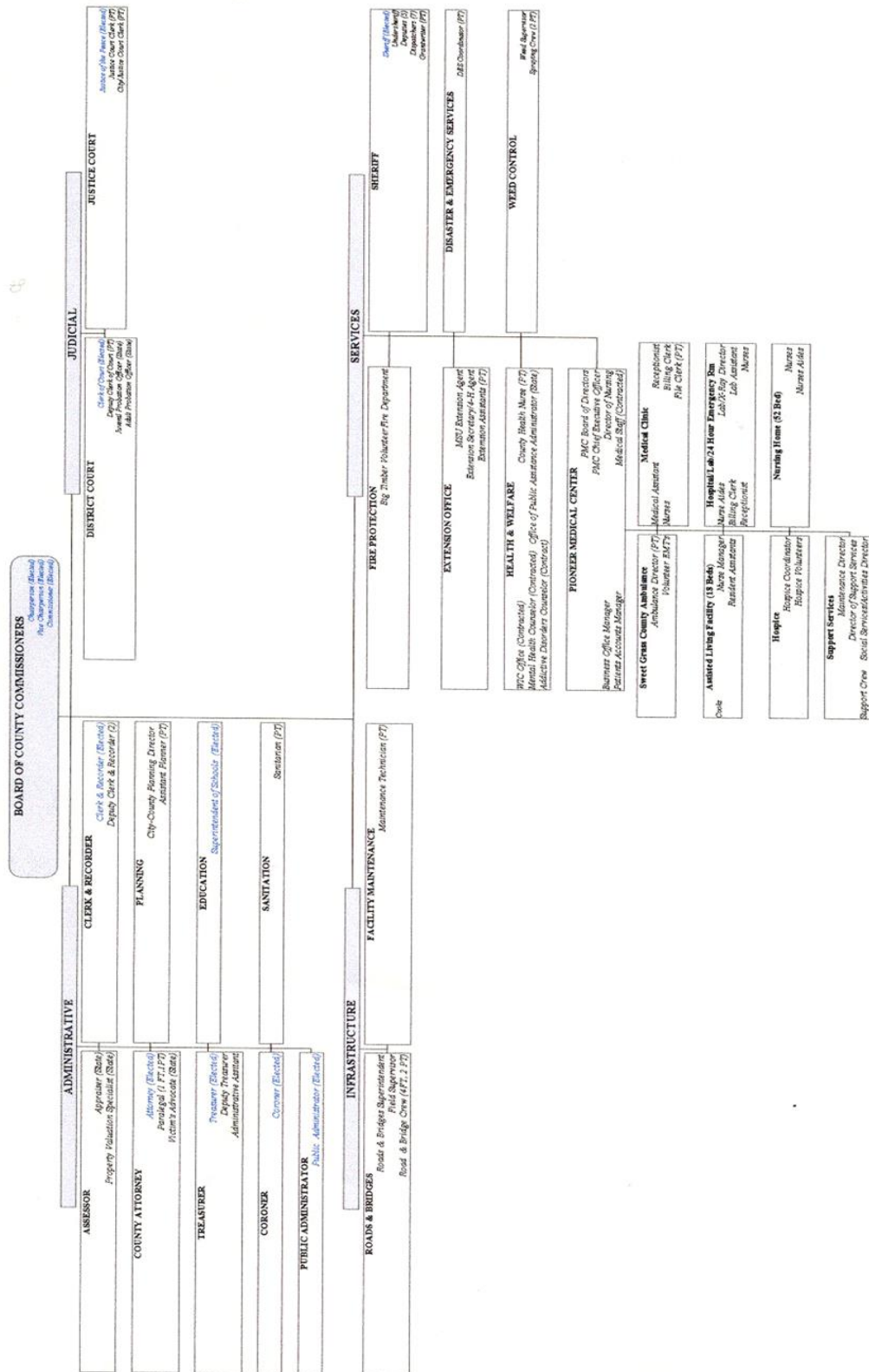


Figure 3.9 Sweet Grass County Organization Chart of Departments

**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, 25 acute care/swing beds and a 35 bed nursing home 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 151, 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. The PMC has recently received a CDBG grant and raised funds through a local fundraising effort which will enable it to renovate a portion of the facility to house a new CT scanner, and to build a new ambulance barn.

### **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, Yellowstone 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 and Livingston Ranger Districts were combined in the spring of 2010 to create the Yellowstone Ranger District. The Yellowstone District Ranger is located in Livingston and a field office with fire crew and limited services is located in Big Timber. 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 2013/14 fiscal year was \$383,994. Sweet Grass County also receives funds from the state Forest Reserve program. Forest Reserve funds are used exclusively for road and school needs. In 2008, Congress re-authorized the Secure Rural Schools Act and Community Self-Determination Act, which created additional funding for loss of revenue from timber harvest on federal lands.

**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).

**Bureau of Land Management (BLM):** There is no BLM office in Big Timber, but the BLM lands in Sweet Grass County (around 11,860 acres) are administered by the BLM office out of Billings, MT. Sweet Grass County is part of the Billings/Pompeys Pillar Resource Management Plan area.

### **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. In addition, the County operates fire, ambulance and search and rescue with a primarily volunteer force. As fewer people have the time or means to volunteer, these services may have to consider becoming paid positions.

## **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. One bus line 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 (13 miles to intersection of Berg Rd)	CLASS 2
SG2 – Cremer Road (9 miles to S. Shawmut Rd)	Class 4
SG 4 – Tony Creek Road (all)	CLASS 2
SG 5 – Rapelje Road (all) (FAS 478)	CLASS 2
SG 7 –Howie Road (all) (2 miles of FAS 478)	CLASS 2
SG 8 – Lower Sweet Grass Road from Howie junction to Hwy 10 E	CLASS 2
SG 14 – Bridger Creek Road (all)	CLASS 4
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 to County line. (All)	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 2
SG 1B – Orchard Road	CLASS 2
SG 2B – Berg Road	CLASS 3
SG 2C – S. Shawmut Road	CLASS 2
SG 3 – Jabs Road	CLASS 3
Melville Main Street -- Melville School Loop Road	CLASS 3
SG 5A – S. Shawmut Road	CLASS 3
SG 7A – Spanring Road	CLASS 3
SG 8A – Shanks Basin West Road abandoned county road	CLASS 3
SG 8B – Bainter Road	CLASS 4
SG 8C – East Fork Road	CLASS 3
SG 9 – Deadmans Canyon Road	CLASS 3
SG 10 – Stephens Hill Road (First 5 miles)	CLASS 3
SG 10 – Stephens Hill Road (remaining 9 miles)	Class 4
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 4
SG 13 – Work Creek Road	CLASS 3
SG 14C – Stockade Road	CLASS 3
SG 15 – Lower Deer Creek Road	CLASS 2
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 4
SG 21B – Cow Creek Road	CLASS 4
SG 22 – Featherbed Road	CLASS 3
SG 22A – Whitetail Road	CLASS 3
SG 23 – Swamp Creek Road to Robert. Burns Ranch	CLASS 2
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 4
SG 31 – East Boulder Road	CLASS 2
MT 298 – Main Boulder Road south of Natural Bridge (1.5 miles to county line)	CLASS 2
Main Boulder Road south of Natural Bridge (12 miles)	Class 4
SG 1C – Glasston Lake Road	CLASS 4
SG 1D – N Orchard Road	CLASS 4
SG 2A – Rupert Road	CLASS 5
SG 4A – Red Bridge Road	CLASS 5
Russell Gulch Road	CLASS 4
SG 6 – Sourdough Road	CLASS 6
SG 10A – Union hall road	CLASS 5
SG 14A – Terland Road	CLASS 4
SG 14B – West Bridger Creek Road	CLASS 5
SG 19 – Mendenhall Creek Road	CLASS 5
SG 20B – West Fork Duck Creek Road	CLASS 4
SG 22 – Featherbed Road from Arlian Ranch to Dugout Road	CLASS 6
SG 23 – Swamp Creek Road from Burns upper ranch gate to Little Timber crossing	CLASS 6
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 Sheep Mountain Road	CLASS 5
SG 21A – Dugout Road from junction with SG 22 to end of road	CLASS 5
SG 28 – Donald Road not abandoned on Wheatland County line	CLASS 6
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. US 191 through Sweet Grass County has been reconstructed in the last fifteen years.

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.

Route	Location		2003	2004	2005	2006	2010
I-90	Park Co. – Sweet Grass Co. border		8110	9340	8990	9210	9300
I-90	Springdale Interchange		8630	9630	10070	10310	9030
I-90	DeHart Interchange		8630	9630	10070	10310	9030
I-90	West Big Timber Interchange		7670	8140	8590	8800	8060
I-90	East Big Timber Interchange		8660	9760	9420	9650	8910
I-90	Greycliff Interchange to Stillwater County Border		8540	7570	8040	8230	7830
US 10	Big Timber City Limits, west		3010				3420
US 10	Junction of Main Boulder		3750				4530
US 10	Junction of US 191		2270				2275
US 10	Big Timber City Limits, east		1820				1750
US 191	Junction of US 10		1980				2430
US 191	Junction of Howie Rd		809				802
US 191	Sweet Grass Co. – Wheatland Co. border		615				562
Main Boulder	Junction US 10		1953				1960
Main Boulder	Big Timber City Limits, south		493				576
Howie Road	Junction US 191		233				229

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 2002 through 2007. 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.

**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 Frk 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
L49102008+050 01	Off	20M S McLeod	Speculator Creek	Structurally sufficient	Oct-1998
	Off	East Big Timber	Boulder River	Structurally sufficient	Jan-1999
L49104002+070 01	Off	9M S Greycliff	Bridger Creek	Structurally sufficient	Oct-1998
L49107000+030 01	Off	9M SE Greycliff	Work Creek	Structurally sufficient	Apr-2000
L49109002+030 01	Off	6M SE Big Timber	Upper Deer Creek	Structurally deficient and eligible for replacement	Apr-2000
L49116000+030 01	Off	2M S McLeod	Boulder River	Functionally obsolete and eligible for replacement	Nov-1998
L49116001+010 01	Off	3M S McLeod	E. Boulder River	Structurally sufficient	Nov-1998
L49118000+010 01	Off	4M S McLeod	E. Boulder River	Structurally sufficient	Nov-1998
L49118001+030 01	Off	5M S McLeod	E. Boulder River	Structurally sufficient	Nov-1998

L49118001+090 01	Off	6M S McLeod	E. Boulder River	Structurally sufficient	Nov-1998
L49124000+020 01	Off	5M SE Grey Cliff	Bridger Creek	Structurally deficient and eligible for replacement	Apr-2000
L49126000+020 01	Off	1M S McLeod	Boulder River	Structurally deficient and eligible for replacement	Nov-1998
L49143000+060 01	Off	McLeod	West Boulder River	Structurally sufficient	Jan-2000
S00298000+088 41	On	Big Timber	SEP I-90	Structurally sufficient	
S00298004+070 01	On	4M S Big Timber	Stock pass		Nov-1998
S00298005+030 01	On	5M S Big Timber	Drainage		Nov-1998
S00298005+090 01	On	6M S Big Timber	Stock pass, drainage		Nov-1998
S00298008+030 01	On	8M S Big Timber	Boulder River		Jan-2000
S00298008+050 01	On	8M S Big Timber	Boulder River	Structurally sufficient	Dec-1998
S00298013+000 01	On	3M NE McLeod	Boulder River	Functionally Obsolete	Dec-1998
S00298016+032 61	On	McLeod	West Boulder River	Structurally sufficient	Jan-2000
S00478000+020 01	On	1M NE Big Timber	Big Timber Creek	Functionally Obsolete	Jan-1999
S00478001+070 01	On	2M NE Big Timber	Otter Creek	Functionally Obsolete	Jan-1999
S00478010+073 91	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 2003 and 2007 Interstate 90, within the county, experienced 330 accidents, FAS 298 logged 20 accidents, FAS 45 (US 191) had 45 accidents, and eight accidents were recorded on the Howie/Rapelje Road (FAS 478). . MDT Reports 97 vehicle crashes in Sweet Grass County in 2011, with 3 fatalities, 2 incapacitating injuries and 23 non-incapacitating injuries.

### 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 in the Yellowstone 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 trail mileage has decreased from 335 miles in 1977.

The 1987 Gallatin National Forest Plan identified several areas in Sweet Grass County where the Forest Service desires access or improved access to land. Forest Service and landowners have recently reached an agreement on Cherry Creek access. The Stillwater Mining Company's East Boulder project up the East Boulder has limited access to that drainage. The Forest Service's stated goals are to cooperate with other landowners in developing roads or road systems that serve mutual needs (U.S. Forest Service, 1987).

Beginning in 2002 through 2006, the Gallatin National Forest engaged in a travel management planning process that replaced portions of the 1987 Gallatin National Forest Plan. In the Travel management Plan Record of Decision, the Gallatin National Forest identified planned or desired future road, trail and dispersed recreational opportunities.

### **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. The County has prepared a Capital Improvements Plan and continues to seek funding and partnerships for road maintenance and improvement. The County does not wish to take over private roads and prefers subdivision roads to be owned and maintained by the homeowners association.

## **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 now house the County Attorney and Sheriff's Office downstairs and Justice and District Court, with jury rooms, upstairs. The additions add another 3,300 square feet.

The physical plant of the building has been updated in recent years, including new electrical, plumbing, windows and light fixtures. 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 was substantially remodeled in 2009 and is now used for most county offices other than the Courts and law enforcement, as well as a few federal offices. is now being used for county offices.

**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 affiliated with Billings Clinic. The campus includes a 52-bed nursing home, and a critical access hospital, 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. Recent remodeling has made room for a CT scanner and larger lab space.

**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. The facility consists of three ambulance stalls and an office. This building has now become the Weed office, as the County constructed a new Ambulance Station in 2012 through a CDBG grant and private donations. The new ambulance station provides 3 ambulance bays, a training area, offices, a large conference room for community events and DES purposes and even 2 rooms for crew that must stay overnight..

**COUNTY ROAD DEPARTMENT SHOP.** In 2009, the County moved the road department into the old Button building, in the Centennial Park, which provides a larger, more modern facility for the county shops.

### **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.

Many public meetings are held in the Carnegie Library Community Room.. The Carnegie Library was remodeled in 2006 and the remodel included a Community Room that can be used for various meetings and organizations. The Library has capacity for 75 people with a small kitchen facility. The Library is now handicapped accessible and has 6 public access computers. Library usage has doubled based on card holders. With the renovation of the old County-owned hospital, which was used for certain county and state offices, additional meeting space is available for county meetings. City Hall also has a small space used for City Council and other public meetings. Its 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 new Ag Pavilion was constructed in 2003 and has been used by the community for Weddings, Family Reunions, Auctions, etc. starting in January 2004. In 2008 the Ag Building was equipped with a new heating system for year round usage. There are plans to include a new well and underground water system to the Ag Pavilion to allow for winter usage. From 2004 to 2008, with the construction of the Ag Pavilion, usage of the Fairgrounds increased dramatically. It has been rented approximately 100 times over the last few years for events ranging from weddings/ family reunions, livestock events, auctions and other uses. The new ambulance barn also provides a large community room for events when not in use by ambulance, DES, LEPC, etc.

### **3.7.3 FUTURE NEEDS**

The City has constructed a new Public Works building by the City lagoons.. The County has recently completed a remodel of the old hospital, which provided office space for a few county departments and state agencies. This remodel allowed most county agencies to move out of the Courthouse and into the Annex. The Courthouse is now used as a law and justice center. The county is in 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.

## **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 2013-14 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 the County and plans were developed for a new building. A new facility, located on the west edge of town, was completed in 1981. In 1985, a gymnasium with locker rooms attached to the new building was completed. The building has had some remodeling and an addition was added in recent years. Presently the building houses 16 classrooms, two vocational laboratories with classrooms, a computer lab, library, kitchen and cafeteria, guidance office and four administrative offices. The grounds include a football field with a surrounding 5 land track, baseball field, and a multi-purpose field. Athletic teams are called the "Sheepherders" or "Herders" 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 2012-13 school year was 179 students with a student/teacher ratio of 10.6 to 1. After completing a new concession stand on the football field in the fall of 2012 with community support, the district is in the process of developing a plan to renovate the grounds and facilities. Other district needs being considered include parking area improvements, a bus shed, and continued building maintenance needs.

Presently, the District owns and operates 11 buses that serve 6 rural bus routes and school activities for the high school and the four elementary districts in the county. .

### **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 about 350 students. 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 2013-14 enrollment was at 6. 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**

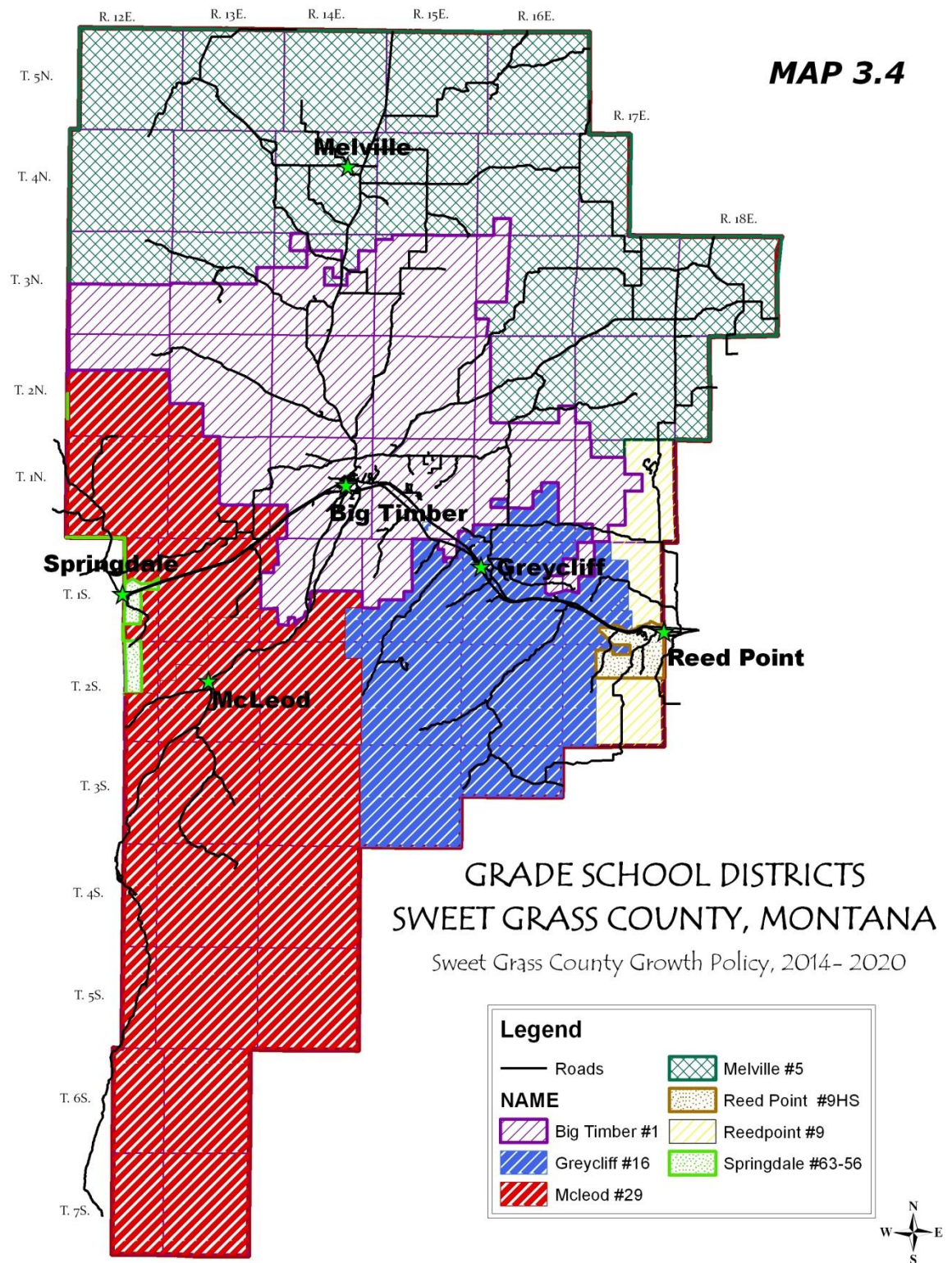
The present day McLeod School District began as the Loasby District in 1899. At that time, the district was part of Park County. The original school building was located near where the McLeod Bar now stands. In 1923, the schoolhouse was moved, from that location to its present location. Moving the structure 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 2012-13 enrollment was 10.

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 consisted 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. (The old School house, now closed, is used as a residence at its new location on Otter Creek Rd)

### **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 2013-14 school year, 15 students were enrolled.



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

## **3.9 SOILS, GEOLOGY, VEGETATION AND NATURAL HAZARDS**

### **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.

### 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 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. 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 year's 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, hoods 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.

### **3.9.5 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.

**BLUEWEED** - Blueweed is a biennial or short-lived perennial that can grow between two and five feet in height. The taproot of blueweed is black, stout and can reach depths of two feet. Leaves are stalked, grow up to eight inches long and one inch wide at the base and then grow narrower as they travel up the stem. Leaves are hairy and have white specks that give the leaves a dimpled appearance. Stems are hairy and can be painful to touch. At the base of the hair on the stem, there will be a red or black bump on the surface which gives the stem a flecked appearance. Flowers are a distinct bright blue or purple, five lobed and funnel-shaped. They also have stiff hairs on them. Seeds are formed in four rough or wrinkled, gray or brown nutlets and said to resemble a snake's head. Blueweed is found up the Main Boulder around the Natural Bridge area.

**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 hay lands by Canada thistle.

**COMMON TANSY** - Common tansy is a perennial forb that can grow up to five feet in height. Seedlings are petioled, hairy and slightly lobed margins. Later, as the plant matures, leaves take on a fern-like appearance. Leaves can reach ten inches long and up to three inches wide and are a dark green color. Stems grow in clusters, giving the plant a bush-like appearance. They are slightly hairy and purplish-red closer to the ground. Flowers are button-like, bright yellow to yellow-orange and formed in dense, flat topped clusters on the end of the stems. Flowering occurs from July into October, making it an appealing ornamental for gardeners. The entire plant has a strong odor due to small glands on the leaves that produce scent. Seeds are grayish-tan in color, ribbed and lack a pappus. Reproduction occurs through a shallow, but extensive root system and by seed. Common tansy is found in Sweet Grass County on the road to fairground, Big Timber Creek, along streams and right-of-ways.

**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. A few plants were also found and treated in 2010 in the Stagecoach Estates Subdivision near Reed Point.

**DIFFUSE KNAPWEED** - Diffuse knapweed has a deep taproot, which is highly competitive and aggressive weed species that quickly invades disturbed and undisturbed grasslands, shrub land, 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. Some plants have also been found in the right-of-way of 191 North about five miles north of Big Timber.

**DYER'S WOAD** - Dyer's 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. Dyer's 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.

**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.

**HOARY ALYSSUM** - Hoary alyssum is an annual, biennial, or perennial in the mustard family and can grow up to three feet tall. It is a newer listing to the Montana state list and is believed to be a plant that became more pronounced and invasive due to the recent drought in most of southern Montana. Leaves in the rosette are long-stalked and broader near the tip. Upper leaves are stalkless and taper to a long narrow point. All leaves are alternate, have smooth margins, and do not clasp the stem. All parts of the plant are covered with short, star-shaped hairs which give the plant a silver- grayish appearance. Stems are also a grayish-green in color. The flowers are similar to other mustards in that they are small, deeply lobed and have white petals. They are produced in long racemes along the stems. The plant flowers from early June until fall. Small, oblong, flattened seed pods appear along the stem and each seed pod can contain two to six brown seeds. This tap rooted plant reproduces only by seed. This weed is found scattered all over Sweet Grass County, especially, along the roadsides and in the right-of-ways.

**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 Sweet Grass County in the grasslands and riparian areas, especially in overgrazed grasslands.

**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 downstream 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 around 100,000 acres in the county.

**ORANGE HAWKWEED** - Orange Hawkweed produces leafy runners that can produce new plants. Orange hawkweed is a fibrous rooted perennial. It can grow from one to three feet in height and stems are covered with black, stiff hairs and contain a milky latex. Simple leaves are located at the base of the plant with one or two leaves that measure four to five inches in length. Both leaves and stems are covered with fine, black hairs. Bright orange-red ray flowers, resembling dandelions, bloom from June to September. Petals of this plant are square edged. One plant can produce five to thirty five flower heads and each flower can produce up to thirty nine seeds that are dark brown or black. Seeds are dispersed by wind, water or are often moved in soils that are moved and transplanted for gardens and flowerbeds. Roots of orange hawkweed are shallow and fibrous with above ground runners as well as extensive below ground root system that provides for aggressive reproduction. Orange Hawkweed is found up Big Timber Canyon.

**OXEYE DAISY** - Oxeye daisy is a perennial somewhat resembling the popular Shasta daisy. Stems are slender and may emerge from the root crowne or the extensive root system it produces. Lower leaves are spoon-shaped and broadly toothed. The leaves are alternate and can grow up to five inches long and two inches wide and they clasp the stem of the plant. Upper leaves grow smaller towards the top of the plant. A mature plant may grow up to two feet in height with a single flower head on each simple one-branched stem. Flower heads are made up of 15 – 30 white rays that circle a yellow button, depressed center. Flowers bloom from June to August. The fruit of this plant is a small flat seed, dark gray in color with no pappus. One plant can produce over 500 seeds and seeds can remain viable in the seed bank for up to three years. The roots of oxeye daisy are extensive and shallow. Reproduction occurs by root and seed. Oxeye Daisy is found primarily in the Boulder valley and in the Crazy Mountains.

**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.

**SALT CEDAR** - Saltcedar is a pretty evergreen shrub that can grow up to fifty feet in height. As an invasive shrub, saltcedar can form dense thickets of vegetation, especially along waterways. Leaves resemble juniper leaves; they are scale-like, overlap each other along the stem and are gray-green in color. Stems of saltcedar are slender, light red or orange-colored and flowers are pale pink to white and form dense masses of 2 inch long spikes at the branch tip. Dense plumes of flowers bloom from early spring to late fall, and each plant can produce 600,000 seeds annually. Saltcedar reproduces by root and seeds which are dispersed through water and air.

This plant prefers riparian areas, but can be found in drier soils as well. This weed is found in Sweet Grass County along the Yellowstone River.

**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.

**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. Sulfur 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.

**YELLOW TOADFLAX** - Yellow toadflax is a perennial plant introduced to North America as an ornamental. Unlike Dalmatian toadflax, yellow toadflax only grows to a height of one to two feet and plants have multiple stems. Seedlings of yellow toadflax resemble leafy spurge at young stages, but do not produce a milky sap when broken. Leaves are numerous, pale green to gray-green in color, narrow and pointed at both ends and have smooth margins. They are alternately arranged on the stem. The showy, snapdragon type flower grows on stalks in dense clusters of fifteen to twenty at the ends of the stems. Flowers are pale to bright yellow with orange throats and a downward pointing yellow spur that can be up to an inch long. Flowers bloom from June to July. Seeds are winged, brown, oval capsules with two chambers, each housing several seeds. Each toadflax plant can produce up to 30,000 seeds annually. Yellow toadflax has an extensive horizontal root system and it reproduces through creeping roots or by seed. This weed is mainly found west of Big Timber, around the Melville area, and in the Deer Creeks.

**WHITETOP** - Whitetop 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.

**Other Weed Species of Concern:**

*Black Henbane*  
*Common Burdock*  
*Common Cocklebur*  
*Common crupina*  
*Common Mullein*  
*Curlyleaf Pondweed*  
*Eurasian Water Milfoil*  
*Flowering Rush*  
*Japanese Knotweed Complex*  
*Meadow Hawkweed Complex*  
*Musk Thistle*  
*Perennial Pepperweed*  
*Poison Hemlock*  
*Purple Loosestrife*  
*Rush skeletonweed*  
*Scotch Broom*  
*Tall Buttercup*  
*Tansy Ragwort*  
*Yellowflag Iris*  
*Yellowstar Thistle*  
*Urban Spurge*  
*Woodland Sage*

Noxious weeds continue to pose an environmental and economic threat. Continued regulation by the county on new developments as well as cooperative actions by federal, state and local government and landowners will be necessary to control weed infestations. The County should investigate means and measures, through the County weed plan and state law, for enforcement and assistance on weed control implementation and monitoring requirements.

### **3.9.6 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 (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 was 80 miles per hour (SOURCE?). There is a .02 annual probability of this wind speed occurring. Localities within the county may experience greater wind speeds more frequently. While wind may provide some development potential, it also presents hazards with microbursts and wildfires.

#### **Fire**

The following language is taken from the Sweet Grass County Pre-Disaster Mitigation Plan:

*"Fire is a fact of life in Sweet Grass County (SGC) and while urban fires are considered a risk, wildland fire is considered the biggest threat. With the increased development of subdivisions and vacation cabins built in the urban interface, wildland fires may threaten homes. Fire was determined to be the number one hazard in SGC mainly due to common weather patterns."*

The most common ignition source is lightning. Dry lightning storms have been responsible for igniting several fires simultaneously, and these multiple fires can quickly exhaust county resources and almost always require help from outside agencies. Power lines blown down in the wind, controlled burns which get out of control, and vehicles on the interstate may also be ignition sources of wildland fires, particularly during unexpected times of the year. From 2003-2009, wildland fires have burned almost 300,000 acres in the County.

The only major urban fire, which destroyed houses and business, took place in Big Timber in 1907. House fires in Big Timber have been isolated events since then with the exception of a fire in a hardware store in 1972 that created an explosion, damaging several other buildings. The potential for urban fire should not be overlooked, particularly with the aging electrical systems in downtown Big Timber. Recent occurrences around the state in similar dense downtown areas with connecting walls and aged structures and electrical systems have highlighted the need to address these concerns. A gas leak or electrical shortage could affect a number of Big Timber businesses.

The County has adopted a Pre-Disaster Mitigation Plan with proposed fuel reduction projects. Work on those projects is continuing. County subdivision regulations should consider the fire risk maps in the Pre-Disaster Mitigation Plan, as well as requirements for defensible space, alternative ingress and egress routes for development in high risk areas, and use of FireWise guidelines.

#### **FLOODS**

Floods are also a seasonal occurrence in Sweet Grass County, resulting from winter snowfalls creating above average spring runoff, sudden downpours creating flash floods, and ice jams. All creeks in the County flow into the Boulder and Yellowstone Rivers, which are areas of high flood

risk. However, smaller mountain stream flooding also poses risks to roads and bridges and the areas of their flood risk are: Lower Deer Creek, Otter Creek, Sweet Grass Creek, Big Timber Creek, Suzy Creek and Elk Creek. The 2011 floods did millions of dollars of damage in Sweet Grass County. Flood Insurance is available through the NFIP, and Sweet Grass County participates in the National Flood Insurance Program. New floodplain mapping of the Yellowstone River will be finalized in 2014-2015, and old FIRM maps are now digitized.

#### **4.0 Natural Resources:**

The vitality of Sweet Grass County is connected to the abundance of its natural resources. From the Native Americans to the early settlers, the beneficial use of natural resources has been to sustain lives and livelihoods. In the 21st century, industries such as ranching, mining, farming and some timber harvest in the county have shared the natural resources with development, tourism and outdoor recreational activities.

Sweet Grass County has a history of beneficial utilization of its natural resources and a record of stewardship. Agriculture has provided a solid economic base for the county, and tourism and mining are significant contributors to the economy. These resources are based on stable, ongoing production of essential product and their role in the protection of natural resources is recognized, as is the importance of the continued availability of these resources.

**FEDERAL AND STATE MANAGED LANDS:** Approximately 29% of the lands in Sweet Grass County are public lands, administered by the Forest Service, State of Montana or BLM. The administration of these lands often affects private land interests, the county's tax base, and economic and natural resources issues of importance to Sweet Grass County's citizens. Therefore, the County believes it appropriate that the County be involved in state and federal planning decisions that can affect local communities and citizens.

**AGRICULTURAL USE OF NATIONAL FOREST LANDS:** There are twenty-five cattle grazing allotments and one sheep allotment on the National Forest. These grazing allotments are on federal lands within the national forest system or a combination of federal and private lands within the boundaries of a national forest. Resource use decisions and plans on federal lands affect the livelihood of Sweet Grass County residents, including but not limited to water rights, mining, grazing, wildlife management, hunting and recreational use. Moreover the checker boarded ownership pattern of federal and private ownership necessitates consultation and coordination by federal agencies.

**RECREATIONAL USE OF NATIONAL FOREST LANDS:** Various permittees also offer hunting, outfitting and guiding services on a combination of national forest and private lands. The use of these federal lands is a vital component to the continuation of their businesses.

Sweet Grass County recognizes that federal law mandates multiple use of federally managed lands. Maintenance of such multiple use necessarily includes continued maintenance of the historic and traditional economic uses which have been made of federally managed and state managed lands in the County. It is therefore the policy of Sweet Grass County that federal and state agencies shall inform the County of all pending or proposed actions affecting local communities and citizens and to coordinate with the local government and consider the local land use plans in the process of planning and managing federal and state lands within the geographic boundaries of Sweet Grass County, Montana. As appropriate, Sweet Grass County may seek consulting or collaborating status with these federal and/or state agencies.

Regional, state and national planning efforts are increasing that may have an impact on local control. It is the intent of the governing body of Sweet Grass County to ensure local control and local involvement to the extent feasible in land use planning and natural resource management in Sweet Grass County. State and federal laws requiring local government involvement and consideration of and consistency with, local plans are too numerous to list in this document. Moreover, those laws are continually changing, but Appendix \_\_ includes a partial list of such laws. Many of those laws (Such as NFMA and FLPMA) contain provisions requiring federal resource management plans to consider “consistency, to the extent possible” with locally adopted plans and policies.

In adopting this Growth Policy, the County intends that the provisions contained herein be liberally construed to require consultation, cooperation and coordination by state and federal agencies in all land use and resource management plans. This Growth Policy is also adopted pursuant to Montana law allowing a growth policy to be used for cooperation and consultation.

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

Sweet Grass County wishes to protect its agricultural heritage, while still diversifying its economy. The County will seek to manage and ensure sustainable use of its natural resources, while encouraging economic development. The County does wish to encourage subdivision in and near existing towns, and to be vigilant in assessing and planning for impacts, as well as benefits, associated with development.

## **4.1 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.

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



**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 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.

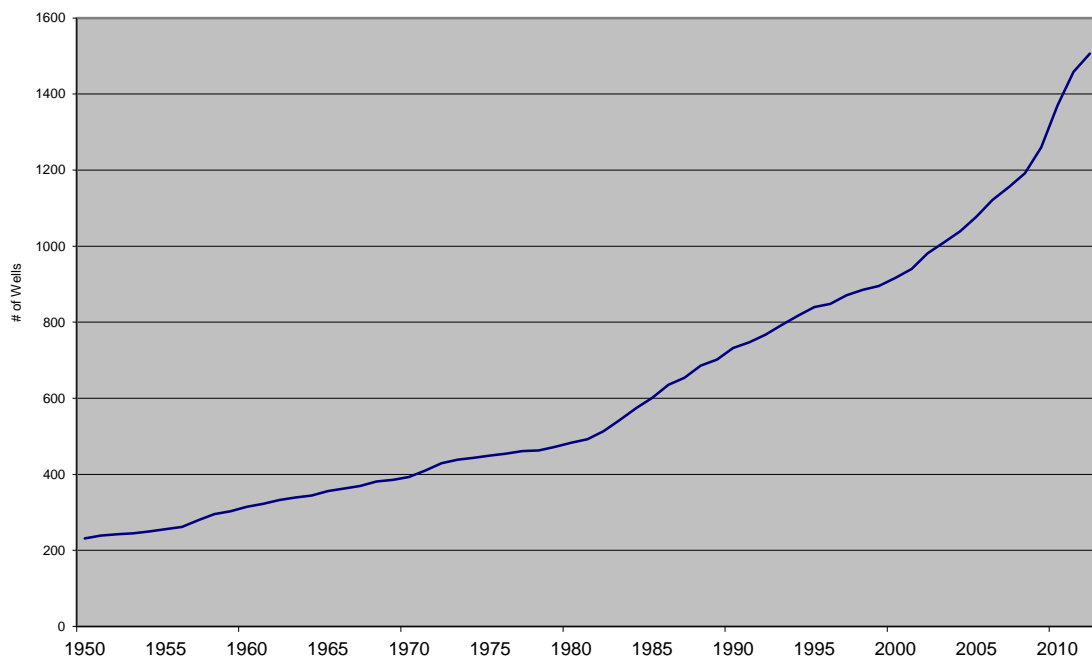
## **4.2 GROUNDWATER**

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 1972 wells have been drilled in Sweet Grass County as of June 2014. The deepest well on record is 2593 feet and the shallowest is 4 feet. However, the majority of wells (1165 thus far) fall within a depth range of 10-99 feet. The oldest well on record is 1880. Over one-half of the total wells are for domestic use with another 987 for stockwater and irrigation. T State of Montana has 7 monitoring wells in Sweet Grass County.



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

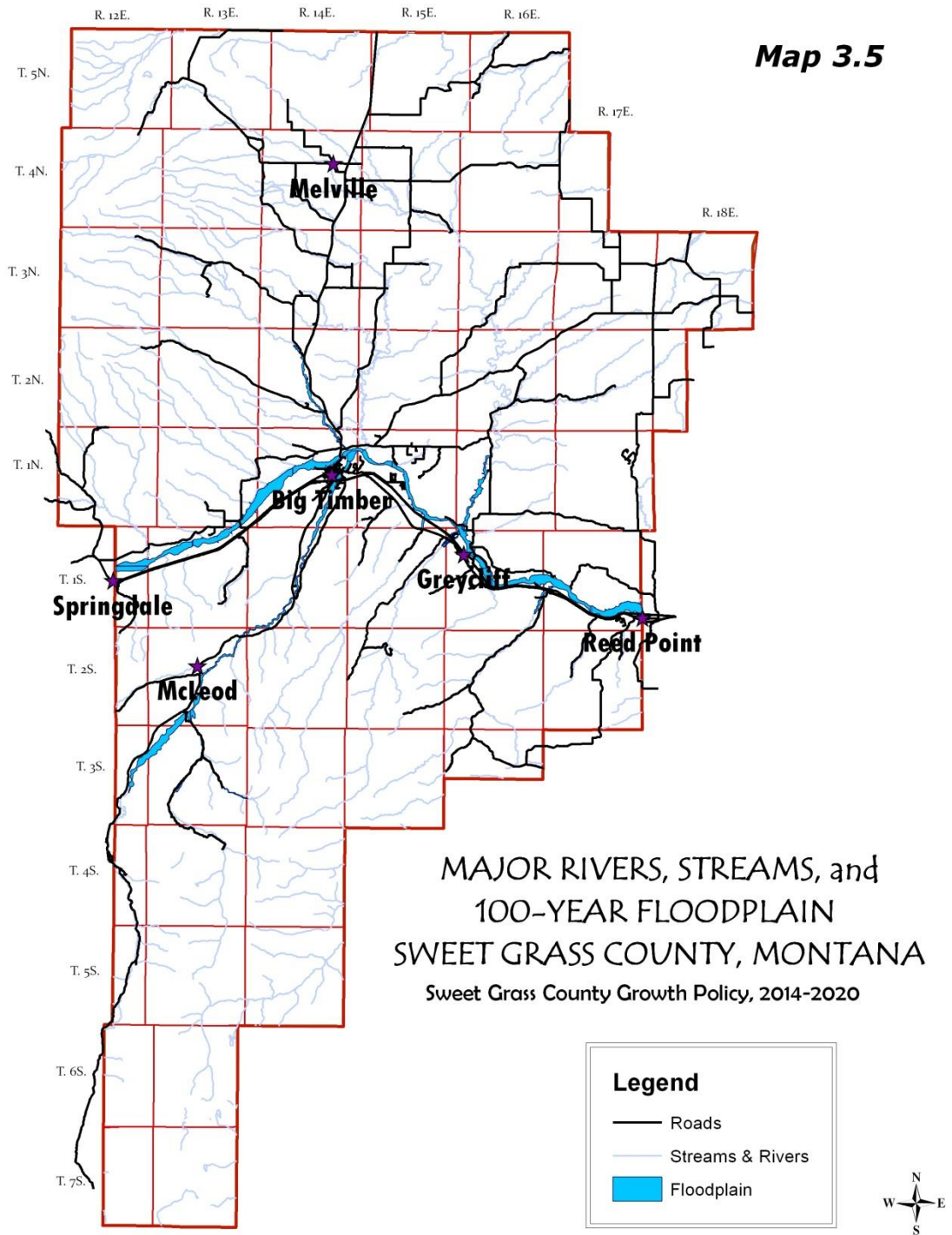
### 4.3 IRRIGATION FACILITIES

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 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 the early 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

**4.4 TIMBER:** Timber harvest has played a role in Sweet Grass County both for private land harvesting and for private and public projects related to fire mitigation. Timber harvest may also increase with the threats caused by the pine bark beetle but timber harvest is also subject to legal challenges and has not been a significant part of the economy in recent years..

**4.5 OIL, GAS AND MINERALS:** In addition to the ongoing East Boulder Mine platinum and palladium operation and expansions in the Graham Creek area, other companies have submitted plans for exploratory core drilling on Forest Service lands in the Chrome Mountain area between Nye and Big Timber, MT. From 2006 to 2008, companies leased a substantial amount of private land in Sweet Grass County for potential oil and gas exploration. Few wells were drilled and current county production, according to the Board of Oil and Gas is minimal. Most of the leases signed are expiring. However, the potential for future development exists.

**4.6 WIND:** A number of wind energy development companies have expressed interest in Sweet Grass County, with three wind farms in various stages of development. Wind development has potential in Sweet Grass County but it is limited by transmission capacity, lack of competition and the uncertainty of alternative energy tax credits. Wind development is also a source of controversy in the county. The City-County zoning district has a WECS ordinance, but it does not extend in to the County. While landowners in an area with potential wind development could consider citizen initiated zoning, none have done so thus far. The only zoning district in the County is the East Side Crazy Mountain zoning district which primarily addresses subdivision.

#### **4.7 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 becoming more numerous and are found both in foothills and in higher populations in the Beartooth and Crazy Mountain Ranges. Populations exist both north and south of the Yellowstone River 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 north of the Yellowstone River and in the Crazy Mountain Range. 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. 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 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 population of the Merriam Turkeys (wild turkey) is increasing and while once found primarily in the eastern part of the county (Between Bridger Creek and Reed Point & East of Sweet Grass Creek), are often seen north of the Yellowstone and in the foothills of the Crazy Mountains.

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, black-footed ferret; peregrine falcon, harlequin duck, and whooping crane have been listed as threatened or endangered species. Bison and elk out-migrating from Yellowstone National Park (YNP) may carry brucellosis, a serious animal and human disease that is listed on the federal Center for Disease Control's list of bioterrorism agents. YNP bison and elk have been shown to test sero-positive for brucellosis up to 60% of bison and up to 12% of elk. Brucellosis, if introduced into Sweet Grass County from these animals, may have serious negative effects on the local cattle industry because of federal and state regulations regarding this disease. Portions of adjoining Park County, as well as other counties near Yellowstone National Park, have been classified as a Designated Surveillance Area (DSA) where cattle owners face significant disease risk and expensive protocols including testing and movement restrictions for their cattle, seriously affecting the local cattle industry in these areas.

**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. The Gray Wolf was reintroduced in the Yellowstone Park area as an experimental population 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, there have been a handful of legal kills and confirmed sightings in Sweet Grass County. Due to the success of reintroduction efforts, the U.S. Fish and Wildlife Service has identified a distinct population segment (DPS) of the gray wolf (*Canis lupus*) in the Northern Rocky Mountains (NRM) of the United States and revised the List of Endangered and Threatened Wildlife by removing gray wolves within NRM DPS boundaries, except in Wyoming. All of Montana is encompassed in the NRM boundaries and the state has implemented a management plan approved by the US Fish and Wildlife Service. At present, Montana allows both a general rifle season and a trapping season with harvest quotas and management areas. The issue remains a litigious one, but at present wolves are de-listed in Montana and subject to state management

**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 sighted in Sweet Grass County. This information was taken from the National Heritage Program website and the local Montana Fish, Wildlife and Parks Game Biologist.

#### **4.8 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 Forest 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 areas 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.

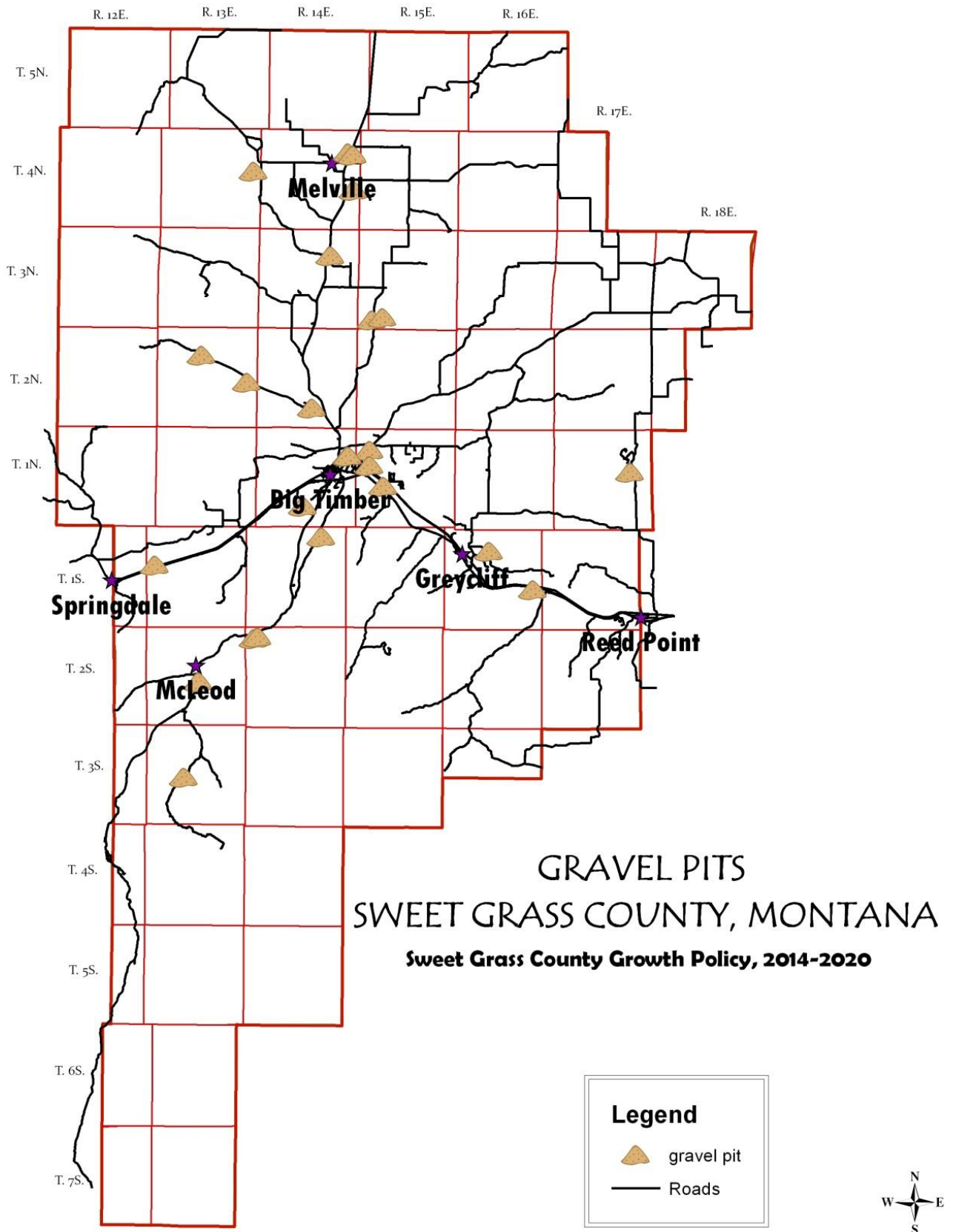
There are no developed subdivision parks located in the county. The City of Big Timber owns and maintains the only developed community park. City Park includes a public swimming pool with bathhouse, a ball field, horseshoe courts, tennis courts, basketball courts and picnic facilities. Sweet Grass County has a 25 acre fairground site which is used for the annual 4-H fair, rodeos and other events such as picnics. The City of Big Timber also owns Dornix Park, which is a 50 acre, primarily undeveloped, park with walking trails.

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 as licensed public accommodations 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	Acres
<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	—
Dornix Park		City of Big Timber	Nature trails, walking paths and proposed future development to include an environmental learning center, brownfields redevelopment at the lagoons, a pavilion and constructed wetland areas	50
<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
<b>Fishing Accesses</b>				
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	
Grey Bear	9	MT Dept. FWP	Toilet, parking, boat ramps, camp sites	26.55
Glasston Lakes	10	Private	Toilet, parking, boat ramps	
Otter Creek	11	MT Dept. FWP	Toilet, parking, boat ramps	26.86
Pelican	12	MT Dept. FWP	Toilet, parking, boat ramps	167.76

<b>Recreation Site</b>	<b>Map Index No.</b>	<b>Owner</b>	<b>Available Facilities</b>	<b>Acres</b>
<b>State Parks</b>				
Greycliff Dog Town	13	MT Dept. FWP	Toilets, parking	95.69
Natural Bridge	14	MT Dept. FWP	Toilets, parking, nature trail	39.25
<b>Campgrounds</b>				
Aspen	15	US Forest Service	10 camp sites, 10 picnic sites, toilets, drinking water	
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	10.019
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	
<b>Licensed Public Accommodations</b>				
Big Timber Lodge		Private		
Bunk House Bed & Breakfast		Private		
Burnt-out Lodge		Private		
Big Timber Inn		Private		
Campbell Ranch		Private		
Crazy Mountain Cabin		Private		
The Grand		Private		
The Homestead Bed and Breakfast		Private		
Java Inn Bed & Breakfast		Private		
Langston House		Private		
Lazy J Motel		Private		
Lewis N Clark Cabin		Private		
River Valley Inn		Private		

**Table 3.11** County Recreation Sites

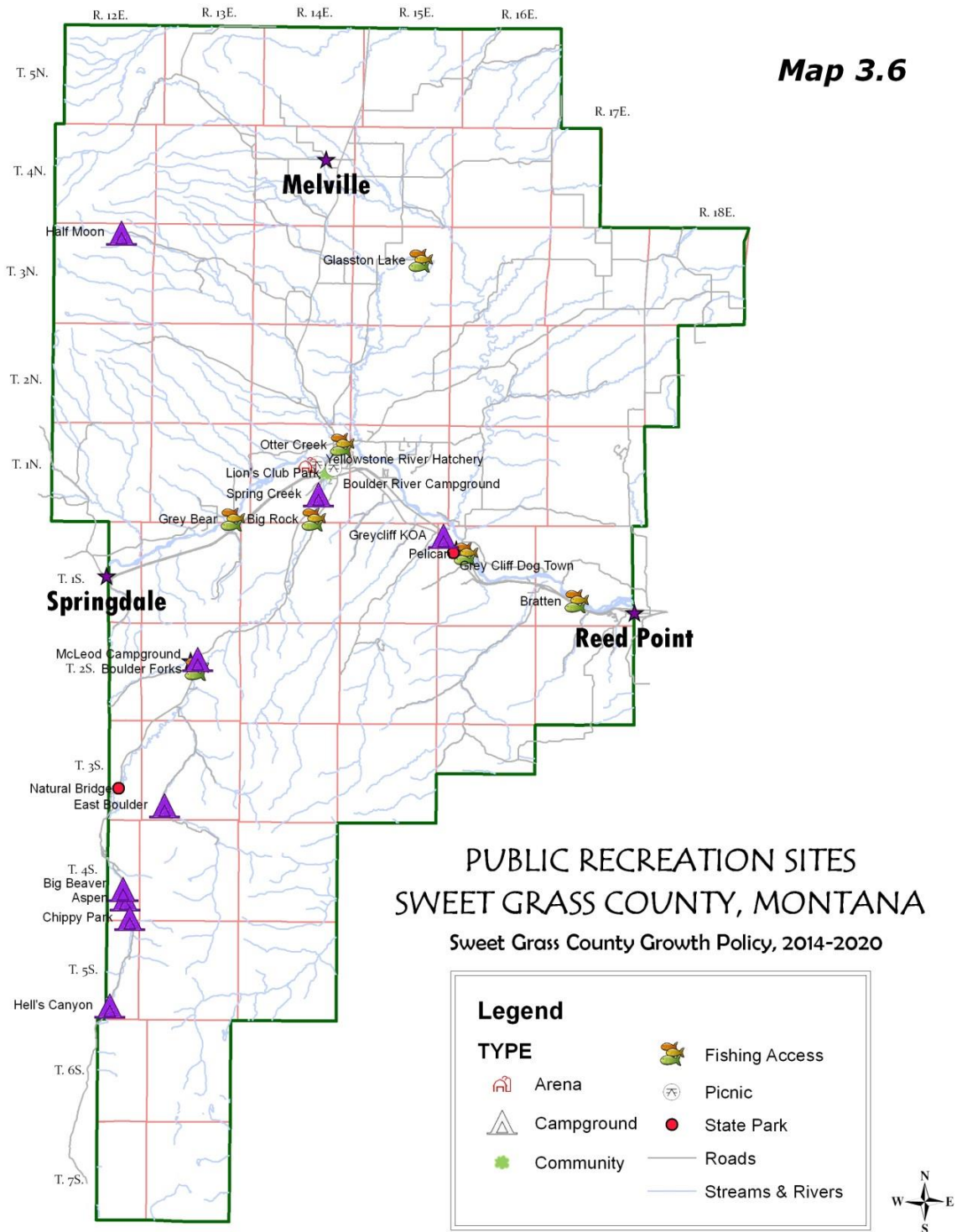


#### **4.9 PROJECTED TRENDS FOR NATURAL RESOURCES**

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. Agriculture, mining, tourism and timber harvest are part of the historic culture in Sweet Grass County and remain critically important to a stable tax base and economic diversity. Both traditional and alternative energy sources are found in Sweet Grass County and may play a larger role in the economy in the future. All uses are dependent on continued multiple use of resources, stewardship and integrated utilization of the resources.

**SAND AND GRAVEL RESOURCES:** Pursuant to legislative changes, the growth policy must now identify sand and gravel resources. Sweet Grass County Road Department has contracts for sand and gravel resources on Swamp Creek, Wheeler Creek, Stephens Hill, Otter Creek.

As a means of avoiding some of the problems seen in other jurisdictions, city zoning ordinances, which encompass the area immediately adjacent to the city limits as well as within the city limits, should address sand and gravel operations.



**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 principles 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. 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 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 Wildlife, Natural Resources, Housing Needs and Historic Preservation, 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 and 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 further study the recommended actions and implement them if there are favorable review findings, as time and resources permit. 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.*
- ❖ *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, tax revenues and services.*

#### **OBJECTIVES**

- a) 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 being supportive of the local agricultural economy which has an ancillary benefit of maintaining significant amounts of undeveloped agricultural and range land and by encouraging development that maintains or enhances the beauty of the area.
- d) Promote high quality subdivisions and manufactured home parks through the continued application and refinement of local subdivision regulations, consistent with this Growth Policy.
- e) Encourage new development to pay its proportionate share of costs associated with required infrastructure improvements and to avoid excessive costs in providing public services;
- f) Continue evaluation of the potential for fire and wildland fire in the county and measures to mitigate that fire potential. Protect private property rights and encourage no net gain of state or federal land.

#### ***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. The West End has a completed Master Plan and the City of Big Timber has completed a Capital Improvement Plan

- d) 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.
- 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) Require subdivision applicants to provide a list of other individuals with water rights off a source or ditch that traverses through or is adjacent to the proposed subdivision.
- g) Maintain and update 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.
- h) Maintain and update 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.
- i) Maintain and update subdivision regulations that require the appropriate representatives from affected canal or ditch companies be notified of any subdivision that may affect their facility.
- j) Maintain and update 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.
- k) Include reference to State statutes concerning rights of farming and agricultural operations in subdivision regulations and covenants on subdivisions.

***Recommended New Actions:***

- a) The County shall strongly urge state and federal entities to ensure that there be no net loss of private lands, or net gains of state and federal lands, within the County.
- b) Investigate methods to encourage preferred location, density and type of development through the use of legal development incentives as opposed to development restrictions and continue to incorporate subdivision regulations which encourage the continued agricultural production on irrigated and dry cropland and protect private property rights.

- c) 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.
- d) Prepare and distribute guidelines for Citizen Initiated zoning to interested citizens.
- e) Explore the creation of a map showing preferred development areas for different types of residential development.
- f) Encourage appropriate width easements for installations within or adjacent to a ditch.
- g) Monitor the feasibility of cellular telephone service for subdivisions in terms of reliability and usability for public safety concerns, although land lines should continue to be required unless the superiority of cellular service is demonstrated and subdivision regulations are amended to allow such usage.
- h) Implement defensible space and firewise requirements in subdivisions constructed in high risk areas, pursuant to the County Pre-Disaster Mitigation Plan. and best management practices in cooperation with the local fire departments and emergency services agencies at county, state and federal levels.
- i) Explore an ordinance or other means of enforcing no net gain of state or federal lands, within the County.
- j) Coordinate subdivision recommended mitigation measures with the County Fire Protection Plan.
- k) Explore partnerships to reduce hazardous fuels and to improve fire prevention and suppression capabilities.

#### **4.2.2 ENVIRONMENT AND WILDLIFE RESOURCES**

##### **GOALS**

- ❖ *To maintain, preserve, and enhance the environmental, ecological, and historical qualities of Sweet Grass County.*
- ❖ *To maintain or mitigate critical wildlife habitat and to consider the effects humans have on wildlife.*
- ❖ *Review subdivisions for their effects on humans and wildlife*

##### **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.
- d) Encourage responsible livestock grazing practices as an essential process in maintaining healthy grasslands.

##### ***Implementation Strategies for Environment and Wildlife Resources:***

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

- a) Review resource management proposals and activities and evaluate their impact on the physical environment of the county.

- b) Base recommendations and decisions concerning environmental issues on the best available data and investigations.
- c) Establish and maintain good communications and coordination between Big Timber, Sweet Grass County, Forest Service, Bureau of Land Management, State of Montana, and other agencies concerning resource use and management.

*Noxious Weed Control:*

- a) Contain the existing infestation of weeds with the goal of control and strive to prevent the infestation of new weeds.
- b) Monitor road, utilities, and highway construction activities to ensure all is being done to prevent new infestation and the spread of existing ones.
- c) Conduct public education programs aimed at plant recognition, effects on agriculture and wildlife habitat, landowner responsibilities and effective control measures.
- d) Coordinate weed control and education efforts with other governmental agencies.
- e) Aggressively seek supplemental funding for noxious weed control through state and federal sources.
- f) 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.
- g) Assess subdivider a fee for a weed evaluation to be conducted by the county weed supervisor of the area proposed for subdivision and to provide the subdivider with a weed inventory.
- h) Require subdividers to include a weed management plan and a method to assess fees to cover implementation of the plan.
- i) Continue to advertise weed sprayer loan units and increase or replace units as needed.

*Wildlife:*

- j) Review subdivisions for the effects on humans and wildlife.
- k) Consider subdivision proposals which include provisions to maintain critical wildlife habitat.

***Recommended New Actions:***

*Noxious Weed Control:*

- a) Update the county noxious weed management plan
- b) Require DFWP to engage in meaningful noxious weed control on their Fishing Access Sites and State Parks within the County. Require a procedure for bonding or posting security in conjunction with any weed management plan for development projects, including but not limited to, subdivision, energy and road development.
- c) Educate the public on noxious weeds, treatment methods and management alternatives.
- d) Require Montana Rail Link to engage in meaningful noxious weed control along their rights of way.
- e) Seek stronger enforcement provisions for violation of weed control laws
- f) Participate in the process to develop a consistent definition of wetlands

***Water Quality:***

- a) Encourage partnerships on watershed plans;
- b) Work with DNRC to establish additional well monitoring sites to obtain background water quality and quantity data;
- c) Consider partnerships with interested stakeholders to develop best management practices for oil, gas, and other activities that require large amounts of water withdrawal and disposal;
- d) Specify subdivision participation in water quality studies in areas of existing or potential high density development.
- e) Encourage reasonable basin wide watershed management planning
- f) Encourage land development practices that do not contribute to total maximum daily loads;
- g) Seek additional SNOTEL sites in Sweet Grass County

***Wildlife:***

- a) Encourage DFWP to manage wildlife populations that are in balance with available natural habitat, public safety and other resource uses, especially agricultural.
- b) Encourage development patterns that allow for wildlife movement.
- c) Encourage wildlife agencies to be aware of the “carrying capacity” of land for existing livestock when -- evaluating resource needs of wildlife in their wildlife management plans and address this issue in the annual harvest numbers
- d) Coordinate with the Montana Department of Fish, Wildlife and Parks in consultation with affected landowners to develop specific wildlife management plans;
- e) Wildlife management plans should maintain healthy balanced wildlife;
- f) Initiate cooperative studies with willing private landowners on wildlife damage
- g) Collaborate and coordinate with federal and state agencies on planning and regulations affecting wildlife to ensure coordination with the Growth Policy;
- h) Encourage late season hunts when expected harvest quotas are not met;
- i) Assist in processes to minimize conflicts between landowners, hunters and anglers
- j) Preserve the fishery resources in Sweet Grass County with landowner and FWP cooperation and coordination
- k) Facilitate policies that allow for predator control that maintains a balance between predator, habitat and prey, and that protect humans, livestock and pets.
- l) Strongly discourage DFWP and other appropriate state and federal agencies from allowing the introduction or migration of diseased wildlife (brucellosis or other serious diseases affecting humans or livestock) to Sweet Grass County that may jeopardize public health or safety, or the county’s livestock industry, and explore ordinances and other measures that may be useful to this end.
- m) Utilize the county’s right under state and federal law to be involved in all local decisions regarding predators, game species, and endangered species.

- n) Develop suggested wildlife impact mitigation measures for critical wildlife habitat.
- o) Consider subdivision regulations that require building envelopes and limited numbers of roads;
- p) Support wildlife management techniques that minimize conflicts with agricultural operations

#### **4.2.3 NATURAL RESOURCES**

##### **GOALS**

- ❖ *To maintain a policy of wise use of natural resources, including a focus on sustainability, economic growth, conservation strategies and involvement in land use planning decisions at the local, state and federal level.*

##### **OBJECTIVES**

- a) To ensure that federal and state agencies proposing or implementing natural resource policy, uses or restrictions and/or administration of federal and state lands within Sweet Grass County require the involvement and participation of local government and Sweet Grass County citizens in the development and implementation of actions that affect the County's tax base, local economy, private property rights, self-determination and/or the use and protection of agricultural resources.
- b) To balance growth and development with protection of agricultural land and heritage, as well as water quality, tourism, and quality of life.
- c) To recognize Sweet Grass County has a heritage of agriculture, mineral activities, timber, and tourism that provide economic benefits and that the administration of natural resources should ensure the utilization and availability of the natural resources, in conjunction with sustainable preservation of the resource.

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

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

- a) Promote development in areas with public facilities or appropriate depth to groundwater to preserve water quality and water supply.
- b) Support the continued multiple use of federal and state lands in Sweet Grass County;
- c) Require conservation easement proposals to be in final form before being submitted to the Planning Board for determination of consistency with the Growth Policy. Notify Montana conservation easement entities of this requirement.

###### **New policies:**

- 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, and to strongly encourage these

- agencies to develop their land use decisions consistent with Sweet Grass County planning efforts.
- b) Sweet Grass County shall be involved in the planning of federal and state land adjustments occurring within the county's political boundaries,
  - c) Land use decisions should take into account the effect on the economy and agricultural production;
  - d) The County shall be notified of all state and federal actions that have any impact on the water resources in Sweet Grass County
  - e) Designation of any resource areas, wilderness, wild and scenic rivers or national monuments must be done in consultation and coordination with Sweet Grass County and its residents, to the maximum extent allowed by law.
  - f) Encourage background monitoring and data collection to establish water quality baselines.
  - g) Enhance the economic impact of the use and production of natural resources through value added enterprises.
  - h) Encourage and plan for responsible, orderly energy development, including alternative energy.
  - i) Support agricultural producers in their efforts to maintain brucellosis-free status, and keep Sweet Grass County out of any Designated Surveillance Area (DSA) for brucellosis.
  - j) Support proper forest management, including timber harvest.
  - k) Require consultation by federal and state agencies when developing any plans for land use or management of federal or state lands within the geographic boundaries of Sweet Grass County, especially where such plans may affect the economic health of the citizens or businesses of Sweet Grass County. Federal and state agencies proposing actions that will impact land use and natural resources in Sweet Grass County are obligated to ensure "consistency, to the extent possible" with the local growth policy and other planning documents adopted by Sweet Grass County.

***Implementation Measures:***

- a) Develop and Adopt Resource Management Plan
- b) Develop and Adopt a Right to Farm Ordinance
- c) Revise all local planning policies and regulations to require consultation and coordination from state and federal agencies in the review of proposed state or federal actions affecting resources within Sweet Grass County
- d) Encourage active and responsible timber harvesting to reduce fire hazards and promote healthier, sustainable timberlands on both public and private property.
- e) The County recognizes the interest in energy development in the county. Consider procedures for energy development recognizing the importance of private property rights and diversification of the tax base, while addressing concerns with potential impacts.

**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) Encourage and plan for responsible energy exploration and development, including alternative energy
- c) To encourage and support economic development that would create more jobs, enhance community commerce, and improve the quality of life that residents now enjoy.
- d) Strengthen and broaden the economy of Sweet Grass County in order to reduce the adverse effects of a downturn in a specific economic sector.
- e) Explore the capacity for public land resources to provide more economic return for rural economies.
- f) Encourage economic diversity to avoid over-reliance on any industry segment.

***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 Chamber of Commerce
  - Local realtors
  - Montana Department of Commerce programs
  - Sweet Grass Conservation District
  - MSU Extension Service
  - Sweet Grass Foods
- (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 maintaining a county website.
- b) Consider public-private partnership in creating a local economic development organization to provide education, training and assist with potential economic opportunities.
- c) Explore new economic opportunities and marketing for local businesses in conjunction with the extension office.
- d) Consider tax assistance, where specified by law, to encourage siting of new or expanded businesses.

- e) Continually monitor local regulations and locally enforced regulations and permitting to avoid unnecessary and excessive costs to individuals and businesses.
- f) Encourage an environment for working ranches.

#### **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.
- d) Locate fire substations within every service area. There are now substations in Big Timber, Melville and McLeod)
- e) Educate new and existing property owners of potential fire risks through availability of information at county offices and encourage availability through local realtors and lenders
- f) Adopt new subdivision regulations that establish measures to mitigate and address wildland fire risks and fire facility requirements.
- g) Complete and periodically update the County Disaster Plan, Flood Hazard Mitigation Plan and Floodplain regulations.
- h) Complete and maintain county rural addressing and development of an E-911 plan.

*Cultural/Recreation:*

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

*Transportation:*

- a) 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.
- b) Insure county road railroad crossing areas are kept visible and free of obstructions.
- c) 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.
- d) Review and update the county’s road encroachment permit policy and procedures.
- e) Develop road encroachment permits that address weed control, safety measures and liability concerns for encroachments
- f) Implement procedures for impacts to roads to be assessed so that new development pays its proportionate share if impacts are significantly increased

*General Administration of Services:*

- a) 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.
- b) The county shall monitor the effects of mining developments on county revenue, population, and local services.
- c) 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.

- d) 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.
- e) 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, when possible, through well planned network of services and facilities.
- b) Investigate methods for recruitment and retention incentives of volunteers in EMS, including Emergency Medical Technicians, firefighters and Search and Rescue.
- c) Explore alternative funding sources or increased mill levy for the emergency medical service funding.
- d) Explore the feasibility of jail replacement/expansion options
- e) Encourage community watch programs for communities and subdivisions within the county by offering training courses to interested organizations.

*Cultural/Recreation:*

- a) 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
- b) Consider Historical Preservation opportunities and assistance to local businesses

*Transportation:*

- a) Master Plan the airport and maintain an Airport Influence Area and maintain regulations for development within this area..
- b) maintain a Capital Improvement Plan for county roads and bridges. Include on-MDT system priorities, which are recommended to the Montana Department of Transportation.
- c) Produce a County Road Department annual work plan that will specify projects and budgets scheduled for the following year.
- d) 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.
- e) Review and update the county's road encroachment permit policy and procedures.
- f) Consider permit rules for tower construction/abandonment within the county to insure unhampered air transportation.

*General Administration of Services:*

- a) Prepare and maintain a capital improvement plan for all county facilities and property.

- b) Develop an organized reference library within the courthouse containing all county regulations, policies and procedure manuals and plan documents.
- c) Review fees charged for permitting such as sanitation, subdivision, Buildings for Lease or Rent and road encroachment and revise as necessary to reflect current review costs.
- d) Explore the feasibility of implementing a local option tax or other revenue to fund county infrastructure.
- e) 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
- Buildings for Lease or Rent Regulations
- Sweet Grass County Rules Governing Individual Subsurface Wastewater Treatment Systems
- Airport Influence Area and regulations
- Sweet Grass County Floodplain Development Regulations
- Road Encroachment Permits and 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
- Disaster and Emergency Plan
- Growth Policy

Finally, regulations that impact the City-County jurisdictional area encompassed by this Growth Policy include:

- Zoning Regulations
- Other city ordinances may be applicable on a case by case basis.

#### **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 for the purpose of analyzing whether a proposed development is consistent with nearby development patterns and land use classifications. 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.

<b>LAND USE CLASS</b>	<b>DESCRIPTION</b>
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 or maintained as open space under another state statutory mechanism approved by the County Planning Board. 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 under state or federal law.
Open Space	Designated open space areas protected under specific state statutes.
Resource Lands	Lands in agricultural production, used for livestock grazing, or timber harvest. These lands are classified by the Montana Department of Revenue as agricultural, grazing 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 [76-3-608(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 land that is 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. These maps provide information on soil suitability for particular purposes and whether the land is of local or statewide importance. Whether the land proposed for subdivision is irrigated land will also be considered.
- 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. Review of land use classifications to analyze the consistency of a subdivision land classification with nearby land classifications
- e. 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
- f. where conflicts exist, mitigation measures may be imposed.

## 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 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. Mitigation measures can be required to protect the associated water rights or alleviate the potential problems.
- c. Ownership of water rights and the historic and current use of the 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 so as to avoid fractionalizing water rights to such an extent that the divided right has limited utility.

## 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
  - Atypical wildland fire hazards
  - Offsite impacts

## 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.

**Open space land** means land that is essentially free of significant man-made structures, and that possesses an intrinsic aesthetic, agricultural, historic, natural resource, recreation or scenic value, and that is designated and

retained under current specific provisions of state law for use as active or passive recreation areas or for resource protection in an essentially undeveloped state.

2. Evaluation Criteria

- a. Expected alteration of any stream banks 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. The effect of a proposed subdivision on open space, as defined above, shall be considered in the subdivision review process. Open space land can be encouraged through the use of zoning, subdivision design, park-land dedication and protective covenants, such as permitted by applicable statutes.

EFFECT ON WILDLIFE AND WILDLIFE HABITAT

1. Definitions

**Wildlife** means game animals, game fish, migratory game birds, and upland game birds as defined in 87-2-101, MCA, that currently reside in Sweet Grass County, and other species officially declared threatened or endangered under the federal Endangered Species Act, that currently reside in Sweet Grass County.

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

**Critical wildlife habitat** means a specific geographic area such as big game wintering range, calving areas, migration routes, nesting areas, or wetlands that have been declared critical for the health of game wildlife species by the Montana Department of Fish, Wildlife and Parks (DFWP) and concurred in by the local biologist; or for threatened or endangered species (under the Federal Endangered Species Act), by the US Fish and Wildlife Service (FWS). Critical wildlife habitat should be specifically delineated as such on currently applicable published maps developed and approved by DFWP or FWS for this purpose.

2. Evaluation Criteria

- a. Consider the expected effects of wildlife on human activity, landscaping and pets, understanding that wildlife populations have a great propensity to adapt to the activity of humans, critical wildlife habitat is to be distinguished from wildlife habitat that is simply used by and available to wildlife. Unless specific habitat has been declared critical to a wildlife species by an official government agency, a habitat area must be presumed not to be critical, and not in need of protection or mitigation for the survival and proliferation of the species within the county.
- b. Evaluate the effect of a proposed subdivision on critical wildlife habitat. Protection of these critical areas can be encouraged through the use of zoning, subdivision design, protective covenants or other mitigation measures where necessary.



## **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. Consider 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.
- d. Evaluate 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. (Legal notice may simply be posted notice of the agenda or it may be a public hearing notice in the paper.) All adjoining landowners shall be notified of any proposed subdivision.
- c. 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.
- d. Record public hearings.

### **2. Public Hearing**

- a. Circulate a sign-up sheet, provide a place for public to indicate whether they intend 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. Establish ground rules for speaking – go over subdivision review criteria to be considered. When public comment is anticipated, emphasize that the only pertinent comments that will be considered by the Planning Board are those directly relevant to the subdivision review criteria and other applicable statutes.
  - 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
    - Public input on the proposal
      - Information submitted should be factual, relevant to the subdivision review criteria 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.
      - Public comments are to be directed to the Board, not to the applicant.
- 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 to close the public hearing.
- j. Close the public hearing
- k. Decisions are made after the public hearing is closed, not during the hearing. The Board may make a decision the night of the public hearing, or if additional time is desired by the Board and the review schedule permits additional time, then the Board may set a new date to make a recommendation on the subdivision to the County Commissioners.

**5.1.2 INDIVIDUAL SUBSURFACE WASTEWATER TREATMENT SYSTEMS RULES** The Sweet Grass County Board of Health has adopted wastewater and sanitation requires. That 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, except that subdivisions meeting specific requirements as set forth in the Sweet Grass County subdivision regulations, Appendix F, may need to conduct further flood studies and determination of base flood elevations.. 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. Encroachments must be permitted by the County.

**5.1.5 COUNTY ORDINANCES** Currently Sweet Grass County has adopted 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 junction 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.

Other ordinances include . . .

**5.2 OTHER GUIDING DOCUMENTS** The county also maintains planning documents such as this Growth Policy, subdivision regulations, and 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** The County has adopted bridge standards which specify design requirements for bridge upgrades and replacement.

**5.2.3 CAPITAL IMPROVEMENT PLAN** The County's engineering firm has prepared a County CIP. The CIP will be utilized for planning capital investment requirements and budgeting, subject to county funding limitations.

**5.2.4 EMERGENCY OPERATIONS PLAN** The City and County have an adopted Emergency Operations Plan, as well as a Pre-Disaster Mitigation Plan. The EOC Plan identifies and assign 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. The Pre-Disaster Mitigation plan provides a risk assessment for various natural disasters, identifies prior occurrences and the probability of future events, and proposes mitigation strategies. The provisions of this plan dealing with Fire and Flood should also be considered in land use and natural resource decisions and implementations of the goals and objectives contained in the Growth Policy.

**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 provided 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. The plan describes financial assistance that the developer will give to local government units. Sweet Grass County is now beyond the term of years specified in the Plan for initial impacts. However, certain situations may still trigger amendment to the Impact Plan.

**5.2.8 OTHER TAX PREPAYMENT AND/OR IMPACT FEES:** State law provides that "major new industrial facilities" as defined by statute, may need to prepay property taxes as a means of allowing the town or county to address anticipated and associated impacts from the new facility. Certain electrical generation facilities, as defined by statute, are also required to pay impact fees to local governments, with such impact fees being assessed based on the construction costs of the electrical generation facility.