



Ear Mountain

NATURAL RESOURCES

KEY FINDINGS

Teton County offers a diverse landscape from plains to mountains. This landscape results in rich wildlife and habitat resources with stunning scenic views throughout the area. While the County has excellent air quality and few natural hazards, water quality and water rights in the two major watersheds are issues. There are numerous Federal, State, and local agencies involved in managing the various aspects of natural resources. Co-ordination among these agencies is crucial to establishing successful policies. Following are the key issues:

- ◆ Teton County has a semi-arid climate and only infrequently experiences extreme heat or cold throughout the year.
- ◆ The Department of Environmental Quality has listed both the Teton and Sun Rivers as impaired waterbodies. Watershed groups for both rivers have been instrumental in preparing and implementing TDML plans.
- ◆ Aquifers are limited to the western part of Teton County and users in the east part of the County must rely on surface waters.
- ◆ Water users relying on the Burton Bench Aquifer in the Farmington area may have concerns on the effect of future development on the water table.
- ◆ There are extensive irrigation improvements throughout the County that provide irrigation to over 125,000 acres in the County. Greenfield Irrigation District, a Bureau of Reclamation project, is the largest irrigator in the County.
- ◆ Water rights for the Teton and Sun River Basins are in the “examination” state of adjudication and a decree by the Water Court is expected in the next two to three years.
- ◆ Teton River is subject to legislative closure to certain new appropriations for water rights.

- ◆ Mass movement of rock and soil is a potential hazard along transitional zones between benches and lowlands and along streambanks.
- ◆ Oil and gas production in Teton County has remained steady over the last four years at generally low levels of production.
- ◆ There are ample sand and gravel deposits but it has not been economically feasible for commercial mining of other mineral deposits.
- ◆ Air quality is generally excellent with the major concern being occasional high dust levels from gravel roads and cropland due to high winds and seasonal haze from forest fires or burning of agricultural fields.
- ◆ Teton County has a diverse landscape to support a wide range of wildlife. A number of public lands and private preserves provide protected habitat for this wildlife.
- ◆ The Lewis and Clark National Forest has a significant economic and quality of life impact on the County. The Forest Plan is scheduled to be updated in the next two to three years.

CLIMATE

The climate in Teton County is generally the “continental” type with four distinct seasons. Although a few times each year winters may be subject to bitterly cold air from the Arctic, these cold spells are generally brief and frequently interrupted by “Chinook” winds that produce warming trends with dramatic increases in temperatures in a short period of time. The winds are often gale force that remove snow and produce relatively clear, sunny winter weather. The lower elevations in the County will have average highs from 30 to 40 degrees in the coldest months of January and February .

Summer daytime temperatures in the plains average in the low 80's in July and August with only rare occasions of extreme heat near the 100 degree mark. Nighttime cooling occurs most summer days with low temperatures ranging from 45-50 degrees. Humidity in the summer is low. The growing season, defined as frost free days, averages 131 days per year and generally spans from the middle of May to the middle of September.

Due to the mountains, precipitation varies considerably from the higher to lower elevations. On the plains precipitation averages 11-12 inches per year with most of the rain falling during the growing season from April to September. May and June are the wettest months while less than an inch of precipitation is normal during the entire winter months. At Gibson Dam average precipitation is 18 inches. Snowpack in the higher mountain elevations is substantial and is critical for spring run-off that replenishes streams and reservoirs.

VEGETATION AND WEEDS

Teton County is approximately 1.4 million acres of rangeland, farmland, and forest along with several small towns and reservoirs. Soils in the County are able to support vegetation ranging from short and mid grasses and shrubs in most areas, to aspen, lodgepole pine, and Douglas-fir in the foothills and mountains. There are 32 plant species in Teton County. The number of endangered species are found primarily in the mountainous area in the western part of the County. Two rare orchid species are in Clary Coulee and the Muddy Creek drainage contains stands of old-growth spruce. Our Lake has three globally endangered plant species.

Weeds are a major concern. The main highway corridors in the County are also major corridors for the spread of weeds. These corridors, combined with the Sun and the Teton Rivers, contain a large portion of the weed problems in Teton County. The network of irrigation ditches is another source of weed movement throughout the area. The 23 noxious weeds on the Montana state list are non-native invaders with no natural mechanisms of control. These weeds propagate quickly and are very competitive. Canadian Thistle is the number one invader in Teton County followed by Spotted Knapweed Leafy Spurge, Russian Knapweed, and Dalmatian Toadflax.. These weeds are all difficult to eradicate because of a very extensive root system. Spotted Knapweed is the exception, but spreads very quickly due to its ability to produce an enormous amount of seed.

Noxious weeds threaten rangelands, croplands, and recreation lands equally. Watershed groups on the Sun and Teton rivers control noxious weeds along these two corridors. Montana Department of Transportation and Teton County Weed District work together to control Noxious Weeds on Highway and secondary road right-of-ways. Irrigation Districts work to control weeds on their ditches. Federal and State agencies are active land managers that have Weed Management Plans in place with control, prevention, and eradication of weeds as their goals.

WATERSHEDS

The watershed is the total area drained by a river and its tributaries. There are two watersheds that cover most of Teton County.

1. Sun River Watershed

The Sun River is a tributary of the Missouri River. The Sun River Basin includes parts of Teton, Cascade, and Lewis and Clark counties.

The Sun River watershed comprises 1,980 square miles and contains forest riparian habitat and agricultural/urban riparian habitat. There are 19 rivers and streams in the habitat and 210 lakes.

The Sun River Watershed planning effort started with Muddy Creek, a 40-mile tributary to the Sun River. Muddy Creek picks up substantial run-off from the Greenfields Irrigation Project and in combination with storm events and run-off from non-irrigated lands, contributes many times the natural flow, resulting in streambank erosion, and significant water quality related problems.

The Sun River Watershed effort began with the formation of the Muddy Creek Task Force in 1992, which was formed to resolve major erosion problems along Muddy Creek. During this time, other efforts in the area had also been initiated to address related issues of water quantity and quality, including; Fort Shaw Irrigation District (water quality), Greenfields Irrigation District (water conservation), and Elk Creek (stream restoration efforts). The process has involved a collaborative and largely volunteer effort to address common issues in a more effective manner. The DEQ listed the Sun River as an impaired waterbody and is in the process of approving a 303 (d) TMDL plan that should be accepted in 2002. Among the major accomplishments since the group's formation include:

- ◆ Significant reduction of erosion along Muddy Creek (an estimated 200,000T sediment to 40,000T)
- ◆ Establishment of 2 Agrimet stations in the area as a water management tool, primarily on Greenfields Irrigation District.
- ◆ Completion of various erosion control projects along the Sun River and tributaries including rock barbs, bio-engineering projects and vortex weirs.
- ◆ Land survey of the Muddy Creek channel by the NRCS and others.
- ◆ A 319 grant through EPA by DEQ, NRCS, Greenfields Irrigation District, and the Medicine River Canoe Club, for easements and permits for placement of rock drop structures.

2. Teton River Watershed

Figure 1: Sun River Watershed

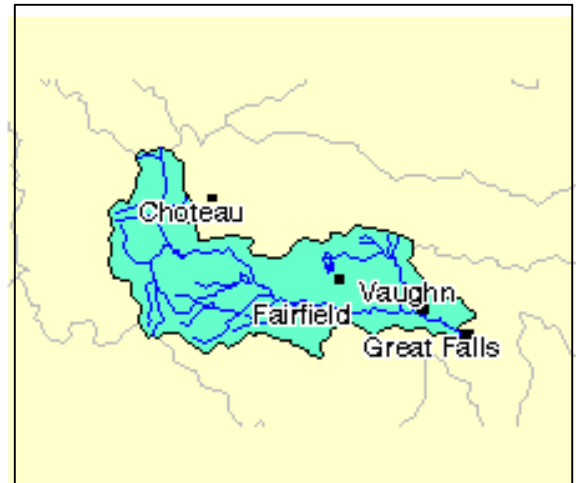
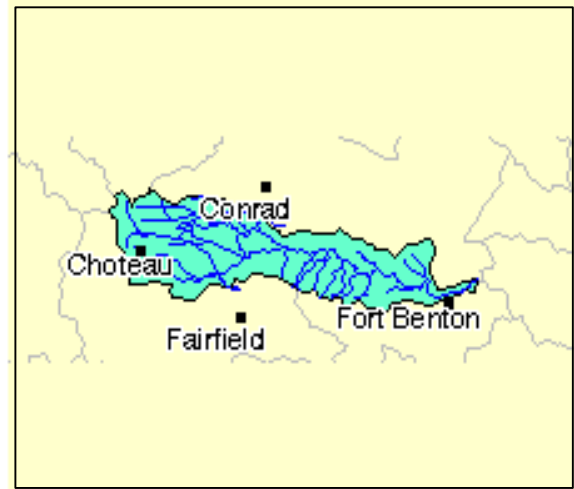


Figure 2: Teton River Watershed

The Teton River is a tributary of the Marias River. Total Length (Mi: 189.3) Headwaters in Teton County to mouth of the River in Chouteau Counties.

The Teton River watershed comprises 1941.76 sq. Mi and contains Forest Riparian Habitat and Agricultural/Urban Riparian Habitat. There are 21 rivers and streams in this watershed covering 1,867 river miles and 91 lakes in the with a surface area 5803.0 acres. Land use along river includes agriculture, irrigated and nonirrigated crop production, range land, and some streambank modification/destabilization.



The most common concerns include flow and habitat alteration, siltation, and suspended solids. The dewatering of the Teton River on nearly an annual basis has been identified as a concern by a multi-county watershed-group. The Teton River Watershed Group leads the watershed effort with the support and guidance of the Teton and Chouteau Counties Conservation Districts. An informal group of landowners met in the spring of 1994 to discuss resource concerns associated with the Teton River and adjacent lands, primarily focusing on water quality and quantity and weeds. After conducting a survey of landowners along the Teton River, a formal group was organized. Major accomplishments include:

- ◆ An aerial and on-the-ground assessment of the entire Teton River, Muddy Creek, and Deep Creek.
- ◆ A ground/surface water quality and quantity study of the Muddy Creek/Burton Bench watershed.
- ◆ Assessment of the upper Teton River to identify and prioritize irrigation diversion improvement needs.
- ◆ Installed two USGS gauging stations to help improve the monitoring program.
- ◆ Established a volunteer water quality-monitoring program testing at ten sites.
- ◆ Established a noxious weed control program.
- ◆ Work with Montana Salinity Control Association to identify key saline seep sites on the Teton Ridge.
- ◆ Installed stream stabilization at three sites to affect 3,000 feet of bank.
- ◆ Progress with two irrigation diversion improvement projects.
- ◆ Improved 20 miles of riparian corridor.

The DEQ listed the Teton River as an impaired waterbody and approved a 303(d) TMDL plan in March 1999. The Plan was a cooperative effort of the State and local groups including local government, land owners, Chouteau County, and Teton County. It controls for 19 pollutants that contribute to salinity, siltation, flow alteration, and suspended solids. Probable sources of impairment include grazing related sources, erosion and sedimentation, channelization, flow modification, and bank destabilization.

WATER QUALITY

Section 303(d) of the federal Clean Water Act requires states to identify state waters where quality is impaired (does not fully meet standards) or threatened (is likely to violate standards in the near future). Every two years the states are required to submit a list of these impaired or threatened waters to the EPA. This "303(d) List" must prioritize the waterbodies in order to develop plans to bring the listed waters into compliance with water quality standards.

The primary use of the term Total Daily Maximum Load (TMDL) represents a plan (also called a water quality restoration plan) which has specific goals designed to achieve water quality standards. The other use of the term "TMDL" relates to the amount of a pollutant that a waterbody can assimilate and still meet water quality standards.

Point source pollution is from a discernible source such as a pipe, ditch, conduit, well, or other precise location. "Nonpoint sources" originate from diffuse runoff, seepage, drainage, or infiltration, and cannot be traced to a specific polluter. TMDL deals with both sources.

The Monitoring and Data Management Bureau (Bureau) of the Department of Environmental Quality (DEQ) has responsibility under the Federal Clean Water Act and Montana Water Quality Act to monitor and assess the quality of Montana surface waters and to identify impaired or threatened stream segments and lakes. Under House Bill 546, DEQ sets TMDLs for each pollutant entering a body of water.

TMDLs describe the amount of each pollutant a waterbody can receive without violating water quality standards. DEQ considers future growth and development in establishing these limits and takes into account the pollution from all sources, including discharges from industrial plants and sewage treatment facilities, runoff from farms, forests and urban areas, and natural sources such as decaying organic matter or nutrients in soil.

DEQ works with wastewater dischargers, local conservation districts and watershed groups, and state and federal agencies to develop plans for threatened or impaired waterbodies or segments of waterbodies. For point source discharges, the waste load allocation of the TMDL are incorporated into a regulatory permit. For nonpoint sources, DEQ coordinates with local agencies and land owner/managers and provides technical assistance on implementing voluntary practices to achieve the water quality goals of the TMDL.

GROUNDWATER

1. Overview

Groundwater is that part of the rain or snow that infiltrates into the soil and rock to the water table. The unsaturated material above the water table contains air and rock and supports vegetation. In the saturated zone below the water table, ground water fills in the spaces between rocks and within bedrock fractures. Two characteristics of all rock that affect the presence and movement of groundwater are porosity and permeability. Unconsolidated material overlies bedrock and may consist of rock debris transported by glaciers or deposited by streams or lakes. This material can store ground water and yield groundwater to wells. Where the groundwater is stored and can readily transmit water to wells or springs, is an aquifer. Where water moves beneath a layer of clay or other dense, low permeability material, it is a confined aquifer. The pressure from the water will cause the water to flow from a well tapped into this source.

2. Aquifers in Teton County

Aquifers in Teton County are limited to 78 square miles in the Sun River watershed and 36 square miles in the Teton County watershed. The aquifers are generally in the western part of the County. Towns in the eastern part of the County, such as Dutton and Power, rely on surface water instead of wells while agricultural and residential uses in the eastern part of the county rely on the Tri-County water district to pump water to users.

The Montana Bureau of the Mines and Geology (MBMG) has conducted assessments of the aquifers on the Burton Bench (Farmington-Agawam-Bynum area), Teton Valley (Choteau area) and Fairfield area. The Burton Bench aquifer generally flows eastward following the topographic slope of the land. High water table in the recharge and discharge areas and deep water table in the middle storage zone characterizes the aquifer. Water level data for the study period did not show long-term trends for increasing or decreasing storage in the aquifers, but the MBMG study did indicate the following concern:

“The use of leaky irrigation ditches and flood irrigation of fields for decades had lead to an artificially high water table in the Burton Bench aquifer. The high water table has enlarged the area of ground-water discharge east and north of Farmington by causing subirrigated fields and springs to occur. Drains have been dug, individuals have appropriated water from the springs and drains, and subirrigated lands have been utilized to grow grass for feed. These uses require specific water levels at or near altitudes at the present times. Any activity which lowers the altitude of the water table in the discharge zone of the aquifer can adversely affect these rights. If the water-level dependent water rights in the discharge part of the aquifer are respected, little new development which potentially could lower water levels in the discharge zone should be. If; however, the means of diversion for the water-level dependent rights are converted to those which are not so dependent on specific water levels, such additional development of the aquifer could occur”

The Teton Valley aquifer is between the City of Choteau and the Rocky Mountain front. The aquifer generally flows down-valleys parallel to the Teton River. Recharge to the aquifer occurs through subsurface flow and from leakage from the Teton River. Water levels fluctuate seasonally, but there are no long-term upward or downward trends. Potential contamination from wellheads in the Choteau area is the major concern.

3. Wells

The Montana Tech Groundwater Information Center maintains statistics on wells. The total number of wells in Teton County is 2,093. Of these, the majority are held by private individuals for domestic use with stockwater use being the second most common type of well. Public entities holding well water rights are the City of Choteau, Town of Fairfield, and the State of Montana.

Well depths vary by location and range from shallow depths of 10 feet or less to over 150 feet. About 70% of wells are less than 50 feet in depth. There are about 150 wells that are over 100 feet. In Teton County, wells that yield between 1 to 25 gallons per minute are the most common.

Table 1: Selected Well Use in Teton County

Use	Number
Domestic	1136
Stockwater	785
Monitoring	258
Irrigation	211
Public Water Supply	54
Unused	35
Unknown	34
Commercial/Industrial	16
Fire Protection	10

Source: Montana Tech, Groundwater Information Center, Well Statistics, Feb. 2002

4. Water Quality

Ground-water quality concerns are hard water, a high concentration of salt or iron, sulfur, methane gas, petroleum or organic compounds, or bacteria. Some of these contaminants are naturally occurring and some are caused by human activities. Among potential threats to water quality are:

- ◆ Oil Spills- Leaking underground tanks.
- ◆ Methane gas – Occurs naturally. Wells need to be vented properly.
- ◆ Bacteria – Most common cause is septic-tank effluent.
- ◆ Barnyard runoff - Homes should be built upslope of barnyards.
- ◆ Pesticides & Fertilizers

IRRIGATION

1. Sun River Project – US Bureau of Reclamation - Greenfields Irrigation District

The District is located north of the Sun River and extends from Highway 287 eastward to Muddy Creek. The project is comprised of the Greenfields Division with headquarters in Fairfield and the Fort Shaw Division with headquarters in Fort Shaw. The Sun River Project uses waters of the Sun River and tributaries that are stored in Gibson, Pishkun, and Willow Creek Reservoirs. The watershed above Gibson Dam is 596 square miles. Stream runoff from this drainage area mostly comes from rain and snow with some underground springs contributing to the water supply. Waters from the Sun River serve about 81,000 acres on the Greenfields Division. Landowners within the Greenfields District are assessed a per acreage fee on their property tax bill for water usage. Although there is the possibility of pumping water from the project to increase the area served, existing storage facilities limit this option.

The Sun River Project is comprised of the following improvements:

- ◆ Gibson Dam - The principal structure of the project and is 199 feet high with a base width of 177 feet.
- ◆ Gibson Reservoir - Has an active irrigation storage capacity of 105,000 acre feet
- ◆ Diversion Dam – Located 3 miles downstream from Gibson Dam. The water is diverted into the Piskun Supply Canal and the Willow Creek Feeder Canal.
- ◆ Willow Creek Reservoir – Located 15 miles southeast of Gibson Dam in Lewis & Clark County. Has a storage capacity of 32,400 acre-feet.
- ◆ Pishkun Reservoir – Located 15 miles northeast of Gibson Dam. Has a storage capacity of 46,300-acre square feet.
- ◆ Pishkun Supply Canal- 12 miles from Diversion Dam to Pishkun Reservoir.
- ◆ Willow Creek Feeder Canal – 7.5 miles from Diversion Dam to Willow Creek Reservoir.
- ◆ Sun River Slope Canal – 18 miles from Pishkun Reservoir to Fairfield
- ◆ Greenfields Main Canal - 25.4 miles from Fairfield northeast through Greenfields District
- ◆ Greenfields South Canal – 16.7 miles starting 2 miles south of Fairfield and running easterly
- ◆ Mill Coulee Canal – 10.7 miles long southeasterly from the Greenfields South Canal

2. Private Irrigation Systems

In addition to the Bureau of Reclamation project, there are a number of private irrigation companies within the County. These companies are generally owned by shareholders and operated by a Board of Directors.

◆ Bynum Irrigation District

The system includes the Bynum Reservoir with an average storage of 75,000 acre feet and a main 26 mile canal from the Reservoir to Muddy Creek. Water is diverted to the Reservoir from the Teton River. Delivery of water is from lateral canals diverting water at various points along the creek. The Bynum Irrigation District includes 20,538 acres being classified as irrigable lands.

◆ Eldorado Co-Operative Canal Company

The system consists of a diversion out of the Teton River with several branch laterals to supply water. The main canal flows northeasterly from the Teton River in Section 33 for a distance of 14.5 miles. Approximately 13,000 to 15,000 acres are irrigated from this system.

◆ Eureka/Teton Co-Operative Canal Company

Water is stored at Eureka Reservoir located about five miles southeast of Bynum Reservoir. The canal is 16 miles in length with approximately 15 miles of lateral ditches in the distribution system. Approximately 4,700 acres are irrigated from this system.

◆ Farmers Co-Operative Canal Company

The two storage reservoirs with this irrigation project are Harvey Lake (a natural lake) and Farmers Lake (constructed). These lakes are located just east of Bynum Reservoir. A feeder canal from the Teton River supplies water for both lakes. The main irrigation canal flows from the lower end of Farmers Lake and follows an easterly direction for 22 miles. Irrigated lands are located in the Farmington area and include from 5,000 to 7,000 acres.

◆ Brady Irrigation Company

The majority of irrigated land is in Pondera County but there is some limited land under irrigation in Teton County.

WATER RIGHTS

The Montana Water Use Act (Title 85, Chapter 2, MCA) of 1973 was an overhaul of water rights administration that contained the following major provisions.

1. Adjudication

All water rights existing prior to July 1, 1973, were to be finalized through a statewide adjudication process in state courts. There have been several deadlines over the years for claimants to file for rights that were established prior to 1973. Since all the claims cannot be adjudicated at once, claims are being decreed by basins for each of Montana's 85 drainage basins. The Teton River Basin and Sun River Basin are currently in the examination stage of the adjudication process. This involves assembling data on claims and resources in the area and will likely be a two to three year process. Upon completion of this examination stage, the Water Court in Bozeman will issue a decree regarding the claims.

2. Permit System

A permit system was established for obtaining water rights for new or additional water developments. The permit system is administered by the Department of Natural Resources and Conservation (DNRC). The DNRC also reviews changes to a permit. A person does not need to apply for a permit to develop a well or a groundwater spring with an anticipated use of 35 gallons per minute or less, not to exceed ten acre-feet per year. When a person combines an appropriation of two or more wells or developed springs from the same source and uses more than 35 gallons per minute or ten acre-feet per year a permit is required.

3. Preservation for Future Use

The Act provides for a system to reserve water for future uses and to maintain minimum instream flows for water quality, and fish and wildlife. These include:

- ◆ Controlled groundwater areas may be proposed by DNRC, by petition of a state or local public health agency, or by a petition signed by at least 20 or one-fourth, whichever is less, of groundwater. In general, a petition must demonstrate that either current or future groundwater withdrawals are in excess of the recharge to the aquifer, that there are disputes regarding rights, groundwater levels are declining, withdrawals will adversely affect groundwater quality or water quality within the groundwater, the area is not suited for a specific beneficial use. There are no controlled groundwater areas within Teton County.
- ◆ Montana has closed some of its river basins to certain types of new water appropriations due to water availability problems, over appropriation, and a concern for protecting existing water rights. The Teton River Basin is among the streams subject to legislative closure to certain new appropriations of water.

4) Record System

The 1973 Act established a centralized records system. Prior to 1973, water rights were recorded, but not consistently, in county courthouses throughout the state.

GEOLOGY

1. Geological History

The surface of Teton County is the result of geological activity that has continued for over four billion years. The oldest rocks in the County are more than 600 million years old and consist primarily of Precambrian Belt sedimentary rocks. Seas continuously flooded most of Montana during the Paleozoic Era that lasted from 600 to 225 million years ago, and also during the Mesozoic Era which lasted from 225 million years ago. This resulted in many more layers of sediment being deposited on top of the Precambrian sedimentary rocks.

The Rocky Mountains began forming approximately 135 million years ago. The region began breaking up into uplifted fault-blocks containing many combination rocks from previous eras. Teton County occupies a transitional zone between the Rocky Mountains and the Northern Great Plains. The mountains were formed after the Mesozoic era by a fault known as the "Northern Overthrust Belt". They rise 2,000 to 4,000 feet above the gravel capped plateaus and are eroded into sharp barren peaks and serrated ridges. The mountains comprise a strip along the western border of the County approximately 10 to 12 miles wide and consist primarily of rock or shallow and poorly developed soils along the steeper slopes, with some soils along the streams and level areas that can support grass and other vegetation.

The intense geological activity continued on through the Tertiary Period until about 3 million years ago. During this time the climate was relatively dry and the valleys were filled with large amounts of sediment because of insufficient water to carry it out onto the plains. Since that time, a series of ice ages and increased rainfall during the inter-glacial periods resulted in sediment being spread across what is now the high plains of north-central Montana.

The eastern half of the County is characterized by these plains and consists primarily of Cretaceous sedimentary rock called Colorado Shale. This material was deposited 60 million years ago just prior to the draining of the last sea from Montana. As mentioned above, thick layers of gravel eroded from the mountains subsequently buried the Colorado shale. Since that time the landscape has been modified by continental glaciation and the continuing action of streams and rivers.

Currently geological activity includes the potential for the mass movement of earth and rock. Mass movement is the downslope movement of materials in response to gravity and can include rock fall, soil creep, earth flow, slumping, bedding plan failure, and debris slide or flow. Slumping or soil creep, the continuous slow downward movement of soil, is the most likely occurrence of mass movement in the County. Susceptible areas are along the transitional zone between benches and low lands and along streambanks where erosion on the outside curves of the creeks and rivers can gradually undercut the bank until it collapses. This is especially critical along Muddy Creek and portions of the Teton River.

2. Oil and Gas exploration

◆ Current Oil and Gas Production

The Montana Board of Oil and Gas keeps records for active wells on public and private lands as well as the number of new well completions each year. Although a total of over 700 wells have been drilled for oil and gas in Teton County, only one new well was completed over the last four years and it was dry. Levels of oil production has remained relatively constant while gas production has fluctuated. Among the 26 counties that were producing oil in 2001, Teton County was in the lower one third of oil producing. Among the 24 counties producing gas in 2001, Teton County was in the lower one-fourth of gas producing counties.

Table 2: Oil and Gas production in Teton County

	1998	1999	2000	2001
Oil (bbls)	56,976	54,827	57,818	44,743
Gas (mcf)	0	7,365	86,223	55,909

Source: Montana Board of Oil and Gas, "Production and Drilling Summary by County", 1998 - 2001

The majority of the drilling has taken place in western Teton County, near Bynum, on federal lands. The Montana Power Company natural gas pipeline runs north-south through the east-central part of Teton County. A gas plant is located north of Bynum.

◆ Lewis & Clark National Forest

Gas and oil leases were first approved on the Lewis and Clark National Forest in the late 1940's. These were located primarily in the Badger-Two Medicine drainages on the Rocky Mountain Division. During the 1950's, additional leases were issued covering nearly all the nonwilderness lands in the Division. In 1957, gas was discovered in Blackleaf Canyon, but was capped due to insufficient market conditions. This well was reopened in 1982. From 1968 to 1970 there was extensive exploration in the leased area.

From 1982 to 1997 leases were processed under guidelines that allowed for exploration but not production or field development until a decision on wilderness was made. Upon this decision, planning stipulations regarding timing restrictions, limited surface use and activity coordination would apply to the leases that went forward. In 1984, the Bob Marshall-Scapegoat-Great Bear Wilderness complex was withdrawn from mineral entry. In 1997, Forest Plan Amendment No. 21 amended the management direction as follows:

"No lands on the Rocky Mountain Division will be offered for lease under the Selected Alternative. This alternative responds to public concern regarding oil and gas development on the Rocky Mountain Division. Included in the areas that would not be offered for lease is the RM-1 Geographic Unit (Badger-Two Medicine area) on the Rocky Mountain Division. Although some of the area is not currently leased, most of the area is already under lease and existing leases are under suspension. When the suspension is lifted, those leases will have from three to seven years remaining on their ten year lease term. In addition, final determination of boundaries for an identified traditional cultural district are still pending."

3. Minerals

The Montana Bureau of Mines and Geology maintains records on industrial mineral commodities that are either being mined in the State or have the potential to be mined. These records indicate deposits known as the Choteau titaniferous magnetite beds that comprise a narrow belt that bisects the County from the southeast to the northeast slightly west of Choteau. These beds contain iron and titanium-bearing sediments but do not have significant concentrations to be economically feasible for extraction.

Teton County also contains a portion of the Blackfoot-Valier Coal Field that begins in Cascade County and extends north to the Canadian border. Throughout the field the coal is thin, bony and sporadic in distribution. The coal is of high volatile bituminous rank but there has been no commercial mining operation in Teton County.

4. Gravel Deposits

Teton County is rich in gravel and sand deposits. The Department of Environmental Quality database indicates that there are 50 permits for sand and gravel pits in the County. The "2000 Annual Report" indicates that three of these are currently active. The majority of the permits belong to the Teton County Road and Bridge Department. There are 19 private permits and four permits for the Montana Department of Transportation. Newer permits have a closure date for operation and a bond must be posted for private permits while the County and State must sign a release of liability. Operations are inspected before the bonds or liability waiver are released.

5. Paleontology Resources

Beginning in 1978, paleontologists began unearthing duck-billed dinosaurs and nests. The digs are located on the 18,000 Pine Butte Preserve. Since its discovery, Egg Mountain and Egg Island have yielded more than 500 dinosaur eggs, and is widely held to be one of the most active, productive, and important paleontological field in North America.

SOILS

The Soil Conservation Service and engineers can assist in site specific soil surveys for proposed developments. This section provides a general overview of the types of soils found in Teton County. The soil type may present limitations that either need to be mitigated through planning and design or may even be so severe that certain uses are prohibitive. Following are the characteristics that may pose limitations on development.

- ◆ Shrink-swell potential
- ◆ Depth to seasonal high water table
- ◆ Flood hazard
- ◆ Steepness of slope
- ◆ Depth to bedrock
- ◆ Amount of stone
- ◆ Salinity or alkalinity
- ◆ Load-bearing capacities
- ◆ Frost heave potential
- ◆ Inherent erodibility
- ◆ Soil texture of surface
- ◆ Total acidity & soil resistivity and conductivity
- ◆ Soil permeability

In western Teton County, a band following the eastern edge of the Lewis and Clark Forest that is approximately 2 – 5 miles wide is characterized by, “Gently sloping to very steep, shallow to deep well-drained soils of the foothills and mountains.” These soils have organic matter of duff on the surface one to two inches thick. Below this lies a thin layer of bleached material, followed by a block subsoil extending to a depth of one foot or more. The area was originally covered with conifer forest but a large portion has been logged or burned. The present cover consists of grass, pine, and an understory of brushy forbs and grass.

From the foothills to around Choteau, is a band of primarily, “Nearly level to Steep, shallow to deep, well drained soils of the shale and sandstone uplands”. These soils are interspersed with the, “Nearly level to steep, deep, well-drained soils of the upland fans and terraces.” Generally, the shallow and gravelly soils are likely to be more subject to drought than the developed upland soils because they generally do not have the capacity to store much moisture.

East of Choteau, there is a band of “Dominantly nearly level to moderately sloping, deep, well drained soils of the glaciofluvial and glaciolacustrine fans and terraces.” These soils are generally developed under lower precipitation than the areas near the mountains and can be subject to drought unless irrigated.

The eastern half of the county is characterized by soils that are, “Dominantly nearly level to moderately steep, deep, well drained soils of the continental glacial till plains.” In the southeast corner of the county, several square miles of clayey, salty soils occur, much of which is poorly drained. Some areas in the eastern part of the County contain soils that are adversely affected by absorbed sodium, which causes a dense impervious layer a few inches below the surface.

AIR QUALITY

“Teton County is located in the Montana Air Quality Control Region (AQCR) – 141, which comprises the north central part of Montana, a region of rolling glaciated plains. The Milk, Marias, Teton, and Missouri Rivers cut across the region from the west to east creating substantial river valleys that are hundreds of feet lower than the upland bench areas. Relatively small, isolated mountain ranges (Highwood, Bear Paw, and Little Rocky) rise up from the plains in the eastern half of the region. The western boundary of the region is formed by the Continental Divide and includes most of the area known as the Rocky Mountain Front. The foothills of the Big and Little Belt Mountains form the southern boundary along with the Missouri River. The eastern boundary cuts across the plains north of the Little Rocky Mountains to the Canadian border, which is the northern boundary of the region.”

“With the exception of the isolated mountainous areas most of the region experiences a similar climatological regime with warm dry summers and cold dry winters interrupted by occasional chinooks. Dispersion potential in the region is generally excellent due to persistent and often very strong winds. Temperature inversions in the area, though frequent, are usually shallow and seldom last past noon. The exceptions to this rule are to be found in the mountainous areas and occasionally in the river valleys. “

“During the winter it is possible to have a warm wind blowing along a bench while cold air remains trapped in the bottom of a valley only a few miles away. Persistent inversions have also been noted in the narrow valleys of the Little Rocky Mountains. The wind flow over the region is generally from the west or southwest unless cold northerly winds are sweeping down from the arctic. Precipitation amounts are uniformly low over the entire region.”

(Above excerpted from the , “Montana Air Monitoring – 1999 Network Review”)

Of the pollutants that the Environmental Protection agency monitors, only a few pose problems around the State and those are mostly limited to the larger cities in Montana. Particulate matter is the largest air pollution problem in the State. The most important factors contributing to this problem are a combination of meteorology and topography. Mountain valleys and frequent temperature inversions often lead to particulate being trapped close to their emission source for days at a time.

Of concern in Teton County are non-point area sources such as road and cropland dust. Extremely windy days increase dust levels from unpaved streets, especially in the gravel road system that is common in Teton County as well as the poorly protected dry cropland. Dust from cropland has been somewhat mitigated in recent years primarily due to programs such as the Conservation Resource Program. Additionally, there is occasional regional haze in late summer, primarily from forest fires in western Montana or in Canada.

There are three facilities in Teton County that are monitored for EPA emission standards. All are in compliance and well below allowable emission thresholds. These facilities include Ramaker-Swanson in Choteau and the Busch Agricultural Elevator and Seed Plant in Fairfield.

FISH & WILDLIFE

The majority of the central and eastern areas of the county are inhabited and agriculturally oriented. Consequently, the species of wildlife is limited primarily to deer, birds, fish, and grass plant species. The Rocky Mountain Front is recognized for exceptional wildlife values and supports a wide range of species including several endangered and threatened species. Some specific areas of wildlife importance include:

1. Lewis & Clark National Forest

The Lewis and Clark National Forest provides yearlong or seasonal habitat for 290 wildlife and fish species. Endangered or threatened species include grizzly bear, gray wolf, bald eagle, and peregrine falcon. Major big game and hunted species include elk, mule deer, bighorn sheep, and mountain goat. One of the State's largest elk herds ranges in the upper drainages of the Sun River. White-tailed deer and black bear are other big-game species but provide limited amount of hunting. The major fishing streams in Teton County include the Sun River and Teton River. Important game fish include rainbow, cutthroat trout, brook trout, and mountain whitefish. Trout have been stocked in the more heavily fished streams to supplement the native fish populations.

Table 3: Number of Vertebrate Species in the Lewis & Clark Forest

Type	Total Species	Game Species
Mammals	72	10
Birds	190	24
Reptiles	7	0
Amphibians	8	0
Fish	13	7
TOTAL	290	41

Source: Lewis and Clark National Forest Plan, 1986

2. Wildlife Areas

◆ Freezout Lake Wildlife Management Area

Freezout Lake is located on Highway 89 between Choteau and Fairfield. The area encompasses 12,000 square acres of interconnecting ponds and a series of ditches and dikes constructed to control water levels. Priest Lake lies seven miles to the north of the Freezout Lake headquarters and is also part of the management area. Montana Fish, Wildlife and Parks (FWP) manages the area to provide wetland vegetation and agricultural crops that provide habitat for a variety of waterfowl and wildlife. The FWP has established cooperative agreements with private land owners adjacent to the area to enhance this area.

During winter months the area supports many species of hawks, owls, pheasants, mule and white-tailed deer, red fox, coyotes, and jackrabbits. During spring and fall waterfowl migration can result in up to a million waterfowl at the area including snow geese, tundra swans, egrets, white-faced ibis, sandhill cranes, bald and golden eagles, and gyrfalcons. Many species nest on the area. Fur-bearing species include muskrats, mink, raccoons, fox, and skunks.

- ◆ Blackleaf Wildlife Management Area

The Blackleaf Wildlife Management Area is located in the northwest part of the County and is bordered by the Blackleaf Road on the north. Muddy Creek and Antelope Butte are located within the area. There is County road access from U.S. Highway 89 at Bynum. Main roads are open year-round as weather permits. Montana FWP manages the 11,000 acre WMA that provides winter home to elk and year round habitat for a wide range of species including mountain goats, golden eagles, and falcons. The Blackleaf WMA is part of a network of refuges for elk that also includes Sun River WMA, Ear Mountain WMA, and Pine Butte Swamp. The area also provides public access to adjacent public lands and provides spring and summer habitat for black and grizzly bears.

- ◆ Ear Mountain Wildlife Management Area

Ear Mountain Wildlife Management Area is in western Teton County, 22 miles west of Choteau. Montana FWP manages the 3,047 acres WMA. The area provides wildlife habitat for mule deer, bighorn sheep, grizzly bears and black bears, and access to public lands along the Rocky Mountain Front. There is no vehicular access inside the WMA.

- ◆ Pine Butte Swamp Preserve

The Pine Butte Swamp is owned and managed by The Nature Conservancy. It is located northwest of Choteau just south of the Teton River Road and contains 18,000 acres. The preserve was established in 1978 and provides habitat for over 700 species of plants, 200 species of birds, and most native species including the plains grizzly bear.

Other areas include:

- ◆ Pishkun Reservoir Wildlife Management Area

- ◆ Teton Spring Creek Bird Preserve

LEWIS AND CLARK FOREST

1. Overview

The Lewis and Clark Forest encompasses the western edge of Teton County. The Lewis and Clark Forest is comprised of two divisions. The Jefferson Division east of Great Falls includes the Little Belts, Highwoods, Snowy and Crazy Mountain Ranges. The Rocky Mountain Division spans Lewis and Clark, Teton, Pondera, and Glacier counties. It is bound on the west by the Continental Divide and Flathead National Forest and on the east by the Blackfoot Indian Reservation and State, BLM, and private lands. The Rocky Mountain Division includes major portions of the Bob Marshall and Scapegoat Wilderness areas. The Lewis and Clark Forest Office is located in Great Falls.

The National Forest land within the Lewis & Clark National Forest has been divided into 18 management areas, each with different goals, resource potential, and limitations. Following are the management areas in Teton County.

◆ Teton Geographic Unit

This area includes the North, South, Middle, and West Forks of the Teton River and Rocky, Old Baldy, Choteau, and Ear Mountains. The unit is southeast of the Bob Marshall Wilderness. Two roads from U.S. Highway 89 access the area. The unit contains narrow valleys, foothills, and steep reefs with forested slopes. The unit also contains range for bighorn sheep, grizzly bear, and mountain goat.

One guest ranch, the 7 Lazy P is in the unit in addition to some summer homes. Oil and gas leases are in the area. Exploration for oil and gas has taken place at various times in the past. Timber harvesting took place in the 1960's but currently is limited to firewood, posts, poles and houselogs being cut in the South and North Forks of the Teton drainages. Range allotments include parts of Deep Creek, Middle Fork Teton, Jones Creek and Chicken Coolee. Pastures are along the Jones Creek and West Fork. Other activities include fisheries, Teton Pass Ski Area, and cross-country ski trails.

◆ Deep Creek – Reservoir North Geographic Unit

This area is located entirely in Teton County and is bounded on the west by the Bob Marshall Wilderness, on the south by the Gibson Reservoir, the east by BLM and private land, and the north by National Forest lands. The area received primitive recreation use and has high wildlife value for grizzly bear, elk, mountain goat, bighorn sheep, mule deer, whitetailed deer, and black bear. Two roads constructed in 1960's for seismic exploration are closed to motorized use. The area also contains range allotments.

Deep Creek is situated in the Overthrust Belt, an extensive geologic structure that is considered to have high oil and gas potential. The entire study area was leased for oil and gas but is currently subject to the 1997 Forest Plan amendment.

The area provides high value non-motorized recreation along its southwestern portion and along its northern boundary. Visitor use includes day hiking, horseback riding, camping, and hunting.

◆ Sun River Geographic Unit

This unit includes the Sun River Canyon, Gibson Dam, Reservoir, Lake and Diversion Dam. The unit ranges from steep rock and scree slopes to gentle forested slopes. Range for bighorn sheep, mule deer, whitetail deer, and elk occur in this unit. A number of lodges and resorts are in the unit as well as summer homes. There are developed campgrounds and boat ramps at Mortimer Gulch and Home Gulch. The area around Gibson Reservoir is under the responsibility of both the Forest Service and Bureau of Reclamation. While oil and gas potential is high it is limited by slope and land type. There has been exploration activity at various times in the past. Timber was harvested in the 1920's and 1930's. Present harvest is limited to firewood and some small sales of posts, poles, and houselogs. There are limited grazing allotments.

2. Planning

The Forest Plan was issued in 1986. It provides the long-term direction for managing the Lewis and Clark National Forest. The Plan describes resource management practices, levels of resource production and management, and the availability and suitability of lands for resource management. The Plan includes amendments through the year 2000 and provides for a comprehensive update 15 years after issuance. Administrative rules for the update process are underway and the process will likely begin in 2003. It will be a several year process to update the plan.

The planning process considered several alternatives but the preferred alternative was as follows:

“Alternative G would increase the use of forest resources, while providing diverse wildlife habitat and maintaining dispersed recreation opportunities in a semi-primitive setting.”

Key Provisions:

- ◆ Timber harvest activities would be primarily in the Jefferson Division with some local needs provided in the Rocky Mountain Division.
- ◆ Arterial and collector road construction would decrease but local road construction would increase.
- ◆ Livestock grazing would increase where adverse impacts on wildlife habitat would be minimized.
- ◆ Wildlife habitat improvement would increase.
- ◆ Developed recreation would increase while retaining most semi-primitive recreation settings.
- ◆ Oil and gas leases would continue under no-surface occupancy, limited surface use activity coordination and time restrictions. (Amended in 1997)
- ◆ Recommends additions to the Bob Marshall and Scapegoat Wildernesses.

WETLANDS

Once, wetlands were considered wastelands that should be drained and filled. It is estimated that about one-fourth of Montana's wetlands have been lost to agriculture and urbanization. Today, wetlands are valued for providing wildlife habitat, improving water quality, recharging aquifers, and flood control.

1. Wetlands Defined

Government agencies have adopted a wetland definition developed jointly by the Army Corps of Engineers (ACOE) and Environmental Protection Agency (EPA), in "The Wetlands Delineation Manual of 1987":

"Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. "

The three types of wetlands in the County include:

- ◆ Palustrine – This is the most prevalent type of wetland in the County and generally refers to swamps or marshes. There are approximately 6,140 acres of this type of wetlands in the County.
- ◆ Riverine - These wetlands are associated with flowing water of rivers and streams. There are approximately 141 acres and 192 miles of this type of wetland in the county.
- ◆ Lacustrine – Associated with lakes and deep water holes. Examples are margins around mud flats, lakes, reservoirs, and ponds. There are only 3.3 acres of these types of wetlands in the county.

2. Wetland Regulations

The Clean Water Act (CWA) 1972 administered by the Environmental Protection Agency, the Army Corps of Engineers, and state agencies is the most common regulation that land owners will deal with regarding wetlands. Section 401 & 402 requires that states review and certify permits that may result in pollution discharges into surface waters and wetlands and established a permit system for this process. Section 404 jointly administered by the ACOE and EPA, governs dredging and filling of land. Additionally, the Montana Environmental Policy Act, Montana Administrative Rules, and the Endangered Species Act, also regulate activities that may affect wetlands. Creating artificial wetlands require a 404 permit and the acquisition of appropriate water rights.

3. Pine Butte Swamp Preserve

The preserve occurs along the Rocky Mountain front and encompasses land under various ownerships including The Nature Conservancy, private ranches, Bureau of Land Management and state lands. A large wetland complex comprised of pond, fen, carr and willow swamp vegetation is found along the north and west sides of the butte. The Teton River flows east along the north boundary of the Preserve. Water from the river flows south through glacial till and rises as numerous springs throughout the wetlands.



PUBLIC FACILITIES

KEY FINDINGS

Public facilities include the basic infrastructure such as roads, public water supply, wastewater treatment, and utilities. The capacity of these services indicates the area's ability to handle future growth. The current condition and needed upgrades are important to assess in order to set priorities for funding. Aging and obsolete facilities, safety, growth pressures, environmental concerns, and regulatory requirements are all issues that surround the operation and construction of public facilities. While the facilities located in the County are under the jurisdiction of various taxing districts and, in the case of utilities, private business, the County government still plays an important role in establishing policies that coordinate activities between agencies, facilitating the process for upgrades, and directing growth where there are adequate facilities.

- The primary transportation routes are under State jurisdiction. The majority of County roads are gravel and funds are limited to maintenance activities.
- Determining appropriate jurisdiction over public and private roads needs to be clarified and maintenance responsibilities clearly assigned.
- Each of the incorporated municipalities have significant improvements to their water systems that are required to meet current needs. Each municipality has completed thorough assessments of their systems and is in the process of developing solutions to meet their needs.
- Water systems are dealing with water quality issues such as compliance with the Safe Water Drinking Act and wellhead protection. Wellhead protection requirements place some limitations on land use.
- Each of the incorporated municipalities have identified significant improvements required for their wastewater systems. Some facilities are at capacity and cannot handle additional users until these problems are addressed.
- Finding funds for improvements to the water and sewer system is a major issue.
- The solid waste providers have adequate landfill capacity for their service areas. Solid waste disposal issues generally revolve around illegal dumping for those lacking access to solid waste roll-off sites.
- The area is well served by electric and telecommunications infrastructure.

TRANSPORTATION

1. City Streets

The incorporated municipalities maintain local streets within their City limits. The primary sources of funding for on-going maintenance are the general operating funds. Major improvement projects may be eligible for funding from the Montana Department of Transportation (MDT). The major arterial streets in the city limits are generally state or county highways while residential streets are local city streets.

Table 1: Selected Statistics on City Streets

	Choteau	Fairfield	Dutton
Miles of Streets	26.331	6.25	7.3 (includes alleys)
Surface	Alleys = Gravel Streets = Paved (Some gravel will be paved)	Paved	Majority are paved
Storm Sewer	No Storm Sewers	Some Storm Sewers Primarily Open Drainage	No Storm Sewers CIP notes some street flooding & need for drainage plan.
Improvements	Maintenance & Paving	Maintenance Only	Maintenance Only

Source: Compiled from Interviews with the Towns of Choteau, Fairfield, & Dutton, October, 01

2. County Roads

The County Road and Bridge department is responsible for maintaining public roads and bridges in the unincorporated area that are not part of the state highway system. Private roads in residential developments that have not been improved to County standards and have not been dedicated as public right-of-way are the responsibility of the private landowners. There is an issue determining which roads have been legally conveyed to the county. The County is using GPS technology to survey all roads.

Currently, the County maintains 1460 miles of roads and 85 bridges. The County is in the process of converting a road condition survey to a database that will be available in 2002. The capital improvement budget for roads contains funds for road maintenance, equipment, and personnel. There are no budgeted funds at this time for any major road improvements such as widening, reconstruction, or resurfacing. There is an ongoing program to replace selected bridges with culverts. Road and bridge maintenance funds come from the general fund, gas tax funds, grants and Payment in Lieu of Taxes (PILT) funds from the Federal government for public lands.

Table 2: Selected Statistics on County Roads & Bridges

Miles of Road	1460
Miles of Paved Roads	140
Miles of Gravel Roads	1320
# of Bridges over 20 feet in length	35
# of Bridges 20 feet or less in length	50

Source: Teton County Road and Bridge Department, Interview – October, 01

3. State & Federal Highways

The only north-south interstate corridor, I-15, extends for a stretch of 21 miles through the eastern portion of Teton County. The Interstate provides easy access to Great Falls, Montana for commuters, shoppers and those accessing regional services. It is also part of the trade corridor from Canada to Mexico that is becoming increasingly important to regional economic development. Average Daily Traffic (ADT) along the stretch of Interstate was about 3,400 vehicles in the year 2000.

US 89 and US 287 are part of the National Highway System and are classified as “Primary” highways. US 89 is a two-lane highway that extends throughout Montana providing access between Yellowstone National Park and Glacier National Park. The Towns of Fairfield, Choteau, and Bynum are along 48 miles of US 89 that stretches through Teton County. Traffic is heaviest between Fairfield and Choteau and drops dramatically between Choteau and the north County line. US 287 extends south from Choteau providing access between Choteau and Augusta and beyond.

Highway 221 between Choteau and Dutton and Highway 220 between Choteau and Conrad are classified as “Secondary” highways and are maintained by the Montana Department of Transportation (MDT). Highway 408 that extends east-to-west between Fairfield, Highway 431 between Fairfield and Power, Highway 219 from Pendroy to Conrad, and Highway 379 from Dutton to the east county line are also “Secondary” highways.

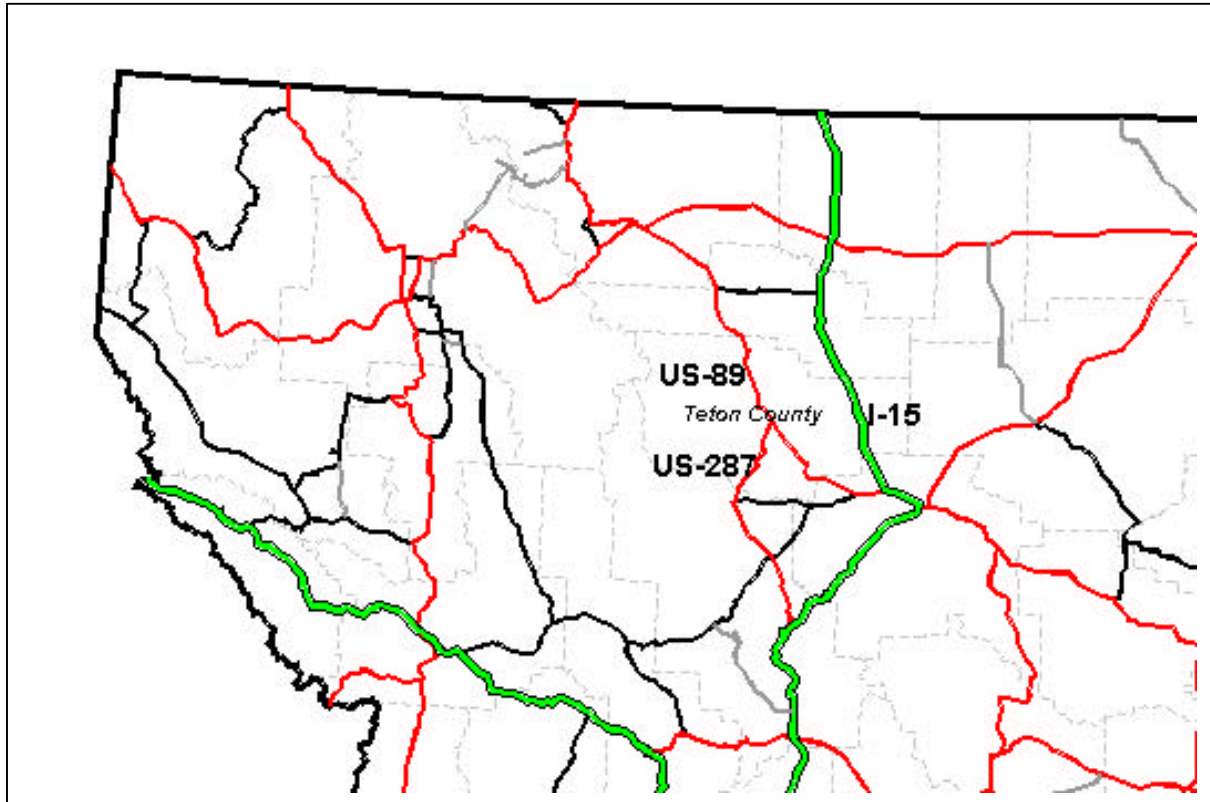
Federal and State secondary highways are all eligible for Federal funds and are all within the jurisdiction of the MDT. The MDT prepares a 3 year Statewide Transportation Improvement Program (STIP) that allocates funding for road improvements. The State is divided into districts that conduct planning and oversee maintenance and construction for the District. Teton County is in District 3, Great Falls office. The STIPs for the period between 2000 and 2004 contains funds primarily for Interstate maintenance. There is also funding for a bridge replacement on Muddy Creek and reconstruction on Highway 220.

Table 3: Average Daily Traffic for Highways in Montana

Segment	Total ADT	Commercial ADT
I-15 – Entering South Teton County	3540	927
I-15 – County Line (south) to Power	3620	926
I-15 – Power to Dutton	2450	911
I-15 – Dutton to Collins	3470	912
US89 – Fairfield to Choteau	1130	95
US89 – Choteau to County Line (north)	639	34
US 287 – Choteau to Hwy 408	380	26
MT 221 – Choteau to Dutton	288	N/A
MT 220 – Choteau to MT 219	488	N/A

Source: Montana Department of Transportation, MDT Congestion Management System, 2000

Figure 1: Teton County – National Highway System



4. Traffic Safety

The State of Montana publishes an annual report on Traffic Safety. It includes a County ranking for safety measures that include a severe crash rank (crashes with a fatality or incapacitating injury) and an alcohol rank crash. There is generally a correlation between population and rankings with the nine most populous counties ranking the highest in both categories. Teton County is ranked 31 in population among the 56 counties in Montana. Its rank for severe crashes was higher than expected at a rank of 21 while the rank for alcohol was somewhat lower than expected at a rank of 39. Some counties have special circumstances that underlie these rankings. In Teton County, the Interstate generates more traffic than would be found in other rural counties of similar size and may account in part for a higher severe crash ranking.

5. Air

There are three airports in Teton County located in Choteau, Fairfield, and Dutton. The County and each of the municipalities jointly operate the airports. An Airport Board, appointed by the County and cities, oversees operations at the airports. All airports are for general aviation with no commercial passenger service. The nearest passenger service is 30 miles south of the County in Great Falls. A helipad is located at Teton Medical Center in Choteau.

Table 4: Airport Facilities in Teton County

	Choteau	Fairfield	Dutton
Runways	1 – Paved surface (3800 feet-can handle DC3s and Lear Jets. 1 – Turf surface	1 – paved surface Light aircraft only	1-paved surface (2400') (turf expands past pavement)
Hangars	10 hangars – Private (2 planes per hangar) 1 Hangar – Temporary Storage	2 hangars	County/City own 5 hangars with 1 plane per hangar. Campbell Aviation owns a hangar.
Services	Fuel, hangar storage, runways lighted, radio		Campbell Aviation sells fuel on prearranged basis. Lighted Runways
Businesses	Nitumo Helicopters	N/A	Campbell Aviation (Crop dusting & flight lessons)
Upgrades	New runway completed in 2001	No upgrades planned at this time	No upgrades planned at this time.
Issues	Air Space Purchased near airport as part of 2001 upgrades		Future improvement would be to extend paving to 3140' feet.

Source: Compiled from Interviews with Airport Board, Campbell Aviation, and Nitumbo Helicopters (October, 01)

6. Rail

The Burlington Northern Sante Fe (BNSF) Railroad operates the freight rail system in Teton County. The BNSF has stations in Choteau, Eastham Jct., Fairfield, Power, Dutton, and Collins. Construction of new grain elevator facilities in Collins is expected to significantly increase the amount of grain shipped from this area.

There is no passenger service in Teton County. The closest Amtrak station is in Shelby about 35 miles north of Teton County. There are abandoned rail lines north of Choteau that previously provided service to the Farmington and Bynum areas.

COMMUNITY WATER FACILITIES

1. Town of Fairfield

- *Water Supply & Storage*

The Town of Fairfield currently obtains its water supply from six wells with an average depth of 20 to 30 feet. There was a seventh well but it failed in 2001 and needs to be replaced. The aquifer is limited, and the Town of Fairfield is located at its head, thereby limiting the quantity of water available from any single well. Combined pumping capacity when all seven wells were operational was an average of 100 g.p.m. Two elevated water tanks provide storage with storage capacities of 150,000 gallons and 60,000 gallons.

Between January through May, the water table is low resulting in inadequate well capacity and pump capacity for the system during this period. In dry years, this has resulted in water restrictions on lawn watering. Once irrigation begins, the water table is replenished and the water level increases. The current storage capacity cannot handle additional growth and has limited capacity for fire fighting from January through May. In case of power failure, storage capacity is adequate for one day. The Town recently installed a back-up generator on one well to keep water flowing during these periods.

- *Water Quality*

Two wells have received notice of violations for lead and nitrate levels. New wells or an alternate water supply would address these issues. The Town's Capital Improvement Plan recommends a wellhead protection plan to prevent contamination of groundwater sources. Another water quality issue is the lack of a centralized chlorination system to provide adequate contact time for treatment.

- *Water Distribution System*

The distribution system was originally constructed in the 1940's with asbestos cement piping. The system consists of an eight-inch main with four-inch and six-inch branches. The smaller four-inch mains in the north end of town have limitations on capacity and water pressure. Not all lines are looped, creating dead end lines with a potential for contamination from infiltration.

- *Usage*

Fairfield has 346 water users that are comprised of 304 single-family residential users and 42 commercial users. The majority of the system is not metered and single-family users are charged a flat rate of \$16.15 per month with a \$3.30 irrigation charge during June through October. There are 24 metered users on the system.

- *Upgrades*

The five-year plan for improvements include improving the chlorination system, replacing the well, and looping the dead-end lines. The location of septic systems in the area limits the potential sites for a new well. The Capital Improvements Plan recommends the development of a Master Plan for the water system to provide a systematic and cost effective manner to correct these deficiencies.

2. City of Choteau

- *Water Supply and Storage*

The City water supply sources include the Water Works Well, Richem Lateral Collector, Stenson Upper Spring, and Stenson Lower Spring. The total capacity of these sources is 2.4 to 3.3 million gallons per day (gpd). All of these sources derive their water from the Teton Valley Aquifer and are located at the north and northwest end of the City. The City's two storage tanks are located on Airport Hill. There is a 250,000 gallon tank built in 1912 and a 500,000 gallon tank built in 1949. The tanks have been regularly cleaned and sealed. Even though the tanks are both older than the 50-year design life, both are in good condition and could continue in use with regularly scheduled rehabilitation and maintenance. Although the City's current municipal water rights filing is greater than its expected future maximum day demand, the City did not reserve its water rights prior to the 1993 deadline. Consequently, water rights will be reviewed and adjudicated within the next 10 years. The City needs to conduct tests to ensure that the water rights are equal to or greater than the actual production of the wells.

- *Water Quality*

The water supply is of high quality and requires no treatment other than the chlorination that has been ongoing since 1989. The City water system; however, does not possess an emergency "backup" water resource in the event of future contamination. All four water resources combine at the water works Well and Pump House. A 1994 "Wellhead Protection Plan" recommends three protection zones. The Water Plan recommends a fourth zone for the Upper Stenson Spring. The Plan also recommends that the Richem Lateral Collector be developed as an independent system as a backup to the main pump house.

- *Distribution System*

The City's distribution system is comprised of 4" to 12" mains with a total of 10.5 miles of water mains. The 4" pipe and 6" pipes could result in fire flow and pressure problems. A 4" pipe to the John Deere dealership is not adequate for additional development. Additionally, much of the distribution network is old and beyond its design life, creating leakage. The Water Plan recommends that these smaller pipes and any lead pipes should be replaced with a minimum 8" mains. There are very few dead-ends in the system. The approximately 100 fire hydrants have all been replaced with new models in the last 10 to 12 years. The network contains gate valves at most intersections that may be subject to leaking.

- *Water Usage*

The City water system currently serves 503 residential connections and 96 commercial connections. The City of Choteau is not metered except for a few users. The current usage is 579 gallons per capita per day (gpcd). This is significantly higher than the average in Montana of 180 gpcd. Testing indicated that 380 gpcd was unaccounted-for water (UAW) not attributed to consumer use. Meters and leak detection can reduce the high UAW. As the UAW is corrected and water is used more efficiently, actual water demand should decrease even as service population grows. The Water Plan accounts for a 0.5% population growth over the next 20 years. During summer months, the City issues watering restrictions that limit yard watering. As the City reduces the UAW, these restrictions may not be necessary.

- *Upgrades*

The City is currently installing meters and leak detectors. Main replacement is scheduled a few years out.

3. Town of Dutton

- *Water Supply & Storage*

The source of the Town of Dutton's water supply is a 35-foot well located five miles northeast of Town along the Teton River. The water is pumped five and one-half miles to a storage tank located one mile south of town where the water is distributed via gravity flow. The storage tank has a capacity of 500,000 gallons. The old storage tank, located downtown, is operational and can be used as a back-up in case of failure at the other site. The town relies on a single well and has been unable develop to other water sources.

- *Water Quality*

The water has a high mineral content that causes discoloration and odor. Although telemetry and a chlorination plant are in operation, the Dutton water system is expected to have difficulty meeting future regulatory requirements based on 1996 amendments to the Safe Drinking Water Acts. Concerns include the infiltration of surface water and bank erosion along the nearby Teton River. The riverbank was recently riprapped to minimize future erosion and a well head protection plan has been prepared.

- *Distribution System*

The distribution system includes two pumps feeding approximately 6 ½ miles of lines. The majority of town has 8-inch water lines. There is a ten-inch main from the storage tank to the railroad tracks where there is a hydrant to for fire protection for the grain elevators.

- *Usage*

Water use is metered with rates of \$17.30 (minimum) for the first 2,000 gallons, and \$1.40 for each additional 1,000 gallons. During drought years, the town does impose water restrictions as a precautionary measure. The well has never gone dry. The water system serves approximately 200 people. Average daily water use is 87,422 gallons. The per capita water usage is below the national and state average.

- *Upgrades*

A combination of Community Development Block Grant, Treasure State Grant, Department of Natural Resource and Conservation Loan and bonds funded the recent water improvements. One bond will be retired in 2007 and a second bond will be retired in 2012. The Town of Dutton is also participating in the Rocky Boy/North Central Montana Regional Water System.

4. North Central Montana Regional Water System

In 1997, The Chippewa Cree Tribe of the Rock Boy Reservation negotiated a settlement for water rights claims that provided a 10,000 acres feet allocation from the Tiber Reservoir. To import this water to the Reservation, the tribe has proposed a water treatment plant at the Tiber Reservoir and a 50 miles pipeline to the Reservation. Legislation is being introduced to authorize federal dollars for the project.

Once the treatment plan is completed, non-tribal agencies can purchase water from the Bureau of Reclamation at Tiber Reservoir, and it can be treated and piped from the treatment plant. A consortium of 20 non-tribal systems have formed the North Central Water Authority to construct a pipeline and buy water rights. The Authority would also pay operating and maintenance costs of the facility plan based on usage. The Authority's share of the project would be funded primarily by Federal grants with the remainder from state grants and loans. The time frame for completing the project is projected to be 12 years

The Town of Dutton is a member of the Authority and would receive water from a 10" service line from Sweet Grass to Dutton. Eventually, this source of water would replace the existing well and address water quality problems. Tiber Water District which serves some families in northern Teton County is also a member of the Authority. The authority could also sell water to private entities such as owner associations and Hutterite Colonies in Teton County.

5. Power

- *Water Supply & Storage*

Power has a Water and Sewer District that operates the public water system for this unincorporated area of 161 people. Muddy Creek is the source for the water supply. Water is pumped from the creek at the treatment plant located 2 miles west of town and is chemically treated in a retention pond at the plant. It is then pumped to a 12,000 gallon storage tank for further treatment before being pumped to the 40,000 gallon storage tank in town.

- *Distribution System*

The distribution system consists of two-inch water mains throughout town. Due to the small size of the lines, water pressure is an issue. The lines are too small to serve fire hydrants; there are flush hydrants in town.

- *Water Usage*

There are 84 hook-ups on the system and all users are metered. The District charges \$20 per month for the first 20,000 gallons of water and \$0.10 per 100 gallons over the set rate.

- *Upgrades*

The city uses a Treasure State Grant and revenue bond to fund an upgrade to the filter system.

6. Tri-County Water District

- *Water Supply & Storage*

The District operates a well on the Fairfield Bench at 5th Road and 2nd Street. Water is pumped 11 miles north to a storage tank on Teton Ridge. The system was built in 1981 and began operating in 1982.

- *Water Quality/ Distribution System*

The water is chlorinated and there is no filtering. The District maintains 215 miles of pipeline.

- *Water Usage*

Tri-County Water District serves a population of 460 people located in Teton, Cascade, and Choteau counties. The general area in the district spans from ten miles east of Choteau to approximately ten miles west of Floweree. The system was designed for 175 customers and is at capacity. No new users are being accepted to the District. Users are assessed a monthly fee and can draw up to 1440 gallons per day. The system is exclusively for domestic water and many users rely on cisterns instead of piped water.

- *Upgrades*

To accommodate new growth the pipes would need to be resized and would not be cost effective.

7. Private Water Systems

In addition to the public water systems, there are a number of private community systems that are regulated by the State and EPA. Although some systems have had minor violations, no system is listed on the EPA's Significant Non-Compliance list. These systems are divided into three categories and are subject to different levels of compliance and permitting.

- 1) Community Water Systems are defined as systems that serve the same people year-round (e.g. in homes or businesses).

Water System Name	Population Served	Primary Water Source Type
Miller Colony	130	Ground water
New Rockport Colony	88	Ground water
Rockport Colony	100	Ground water

- 2) Non-Transient Non-Community Water Systems: Water Systems that serve the same people, but not year-round (e.g. schools that have their own water system).

Water System Name	Population Served	Primary Water Source Type
Bynum School District #12	50	Ground water
Golden Ridge School Dist 45	25	Ground water
Greenfield Elem School Dist 75	70	Ground water

- 3) Transient Non-Community Water Systems: Water Systems that do not consistently serve the same people (e.g. rest stops, campgrounds, gas stations).

Water System Name	Population Served	Primary Water Source Type
A & K Lanes	60	Ground water
Katys Wildlife Sanctuary	50	Ground water
Rose Room Bar	32	Ground water
Teton Pass DBA Choteau	200	Ground water

Source: United States Environmental Protection Agency, Safe Drinking Water Information, July, 2001

All water systems must comply with the EPA Safe Water Drinking Act. The act requires increasingly more stringent standards that may create difficulty for compliance with small community water systems. Additionally, the Act requires source protection for community water systems. Communities or districts must prepare well head protection plans and limit certain land use within a specified distance from the well head. A combination of permitting procedures through the Montana Department of Environmental Quality (DEQ) and land use regulations are used to enforce these restrictions. Montana Rural Water Systems, a non-profit agency with funding from Rural Development and EPA, provides technical assistance and training to administer these regulations for water systems.

WASTE WATER TREATMENT

1. City of Choteau

- *Treatment Plant*

The City of Choteau's wastewater is collected in a large, 27 acre, single cell wastewater stabilization pond located south of town. After natural biological treatment, effluent is either discharged to the Teton River (in the winter) or used for irrigation on alfalfa fields during the summer. The lagoon has the capacity to serve a population of 3,000 people.

The system does not meet current design standards for cell number, leakage, and process flexibility. Much of the system is deteriorating from age and in need of repair. The lagoon is not lined and the wetlands located around the system have indications of leakage from the lagoon. The hydraulic control and transfer structures are badly deteriorated. Sludge build-up is another problem. The lagoon system has generally met the discharge permit requirements.

- *Collection System*

The majority of the collection system is comprised of nine-inch vitrified clay pipe up to 70 years old. Television inspections indicated that many of the lines are in relatively good structural condition. The branch lines and collector lines have ample capacity for the areas they serve. The main interceptor lines have a capacity of 3.8 mgd total with the main trunk line having a capacity of 2.3 mgd. Field measurements indicated that flows sometimes exceed capacity.

Flows experienced during peak period are 12 to 15 times more than would normally be expected for a city of Choteau's size and population. There is a severe problem with groundwater infiltration into the wastewater collection system. At times this has resulted in flows exceeding collection capacity with back-ups and surcharging. This is due to some old mains that are still entering the system that need repair or replacement.

- *Usage*

The wastewater system currently serves 1795 people with a projected growth rate of 0.5% annually. The City has a Sewer Use Ordinance that requires mandatory hook-up and prohibits discharge of deleterious materials in the system. The rate structure is based on a cost per unit. After water meters are installed, a rate system based on water usage may be preferable.

- *Upgrades*

The City has undertaken a sewer rehabilitation project for the collection system that is being funded by a combination of state grants and loans, and a mill levy. Upon completion of this project, groundwater infiltration should significantly decrease and flows will be reevaluated to provide the design criteria for lagoon improvements. The Wastewater Facility Plan recommends a three cell aerated system at the current location. This will be a more efficient design and the remaining portion of the existing system could be retained as a wildlife area with the ability to accept stormwater, pumped groundwater, and treated wastewater effluent.

2. Town of Fairfield

- *Treatment Plant*

The treatment plant consists of a single cell facultative lagoon. It is approximately 11 acres with an average depth of five feet. The volume of the lagoon does not meet standard requirements for detention. The Facility plan recommends this system be replaced with an aerated lagoons with stream discharge.

- *Collection System*

The existing collections system is comprised of approximately 25,000 feet of 8-inch, 10-inch, and 12-inch concrete mains. The main line runs south to north along 6th street. The outfall line to the lagoon is over 4,000 feet in length. The 1997 Facility Plan recommends replacement of the outfall line in order to reduce infiltration and inflow. The Plan estimates this would reduce flows by 600,000 gallons per day.

- *Usage*

There are 329 sewer users on the system. Residential users are charged a flat rate of \$7.00 per month with multiple family users charged multiples of this rate based on the number of units. The Department of Commerce has placed a target sewer rate for the Town of Fairfield at \$13.35. This increase could be used to fund improvements.

- *Upgrades*

In the fall of 2001, the Town Council voted to raise rates to build up a reserve for improvements. There is no timeline for the recommended upgrades. The potential for development south of Town near the golf course would require a lift station for sanitary service. A lift station would also be required if the area east of the town near the school wanted to convert from septic systems to municipal wastewater treatment.

3. Town of Dutton

- *Treatment Plant*

The treatment facility consists of a two-cell non-aerated lagoon system. The second cell is tested and drained once or twice a year from the second cell with the effluent discharged to the Dry Coulee Creek. Although the lagoon has adequate capacity for the service population, there is a significant accumulation of sludge in the first cell. This results in a rising water level on the dike. If uncorrected, the lagoon could be in violation of permits within three to five years. Possible solutions include dredging the existing lagoon or constructing a new lagoon. Additional evaluation and feasibility analyses are required to determine costs and an optimum solution.

- *Usage/Upgrades*

The rates for sanitary sewer service are \$5 per month. Under an EPA 104G1 Grant of the Clean Water Act, Montana State University Northern has funding to evaluate wastewater systems and conduct training for small systems in their service area. MSU-Northern completed an evaluation of the Dutton wastewater treatment facility in the fall of 2001. Although there are no current plans for upgrading the system, this evaluation can provide information to obtain funding for rehabilitation. Grant cycles are typically two years.

4. Power

- *Treatment Plant*

The sewage treatment facility was constructed in 1985 and is located one-half mile northeast of Power. It consists of a two-cell total retention lagoon. There is no discharge from the facility. Each lagoon is approximately 5 acres in size and are oversized for the service population. One lagoon is not even in use. The lagoon that is being used is not full. It would be possible to construct a dike in this lagoon and create two cells. When the first cell has sludge build-up the second cell can be used to extend the life of the facility.

- *Collection System*

The collection system was installed in 1985 and reports no problems with infiltration.

- *Usage*

There are 84 hook-ups on the system. Users are charged \$20 per month flat rate.

- *Upgrades*

There are no planned upgrades to the system. Montana State University Northern completed an evaluation of the system in the fall of 2001.

5. Septic Systems

In the unincorporated areas, residents rely on private septic systems. The County Sanitarian permits all septic systems in the County. The County reviews all septic permits for any parcel over 20 acres. Both the County Sanitarian and the Department of Environmental Quality must review any development on less than 20 acres.

The soil types in the county generally do not place limitations on septic systems. Groundwater levels around Choteau and Fairfield; however, are shallow and this could create the potential of contamination of the water supply from septic systems. The County requires that no drainfield be located within 600 feet of a public water supply.

SOLID WASTE

1. North Montana Joint Refuse District

North Montana Joint Refuse District serves Teton, Pondera, and Glacier Counties. Members of the District are assessed for service through their tax bills. In Teton County, the City of Choteau belongs to the District. The City collects garbage and takes it to the roll-off site at the former landfill. Individuals can also dispose of waste at the roll-off site. Rubble, clean wood waste, and motor oil are also collected at the roll-off site in Choteau.

The District collects from the roll-off site and transports the waste to the District landfill located 12 miles north of Conrad on the Valier Highway. The landfill is classified as a Class 2 landfill and can accept construction debris and asbestos but does not accept any hazardous waste or liquids. The landfill accepts appliances and does recycle these products. The projected life for the landfill at current levels is 70 years. The City of Choteau accounts for 200 tons per month at the landfill. This amount has remained steady over the years and is not projected to increase.

2. Montana Waste

Montana Waste, located in Great Falls, offers collection and disposal services. It operates a Class 2 landfill in Great Falls and accepts household and commercial waste and accepts construction debris. The landfill accepts solid waste from ten counties.

The City of Fairfield contracts with Montana Waste for residential curbside and commercial pick-up. Residential customers pay \$9 per month for once a week service. There are about 200 residential customers. Commercial service is also provided once a week. Additionally, Montana Waste collects waste at transfer container sites in Dutton and Power. The sites are picked-up on an as needed basis.

In addition to these services, Montana Waste has some rural customers that contract individually for service including the Brady area.

3. Garbage Districts

There are two Refuse Districts in Teton County. Residents in these districts are assessed for services and can bring their waste to roll-off sites in the district. The roll-off sites are located in Dutton and Power. Montana Waste collects the waste at these sites. There are also burn sites for tree limbs and building materials that are located at the roll-off sites.

If a County resident is not located in a refuse district, they must contract individually for garbage service or have the option to join a district. New subdivisions must state how they are providing for solid waste disposal. Residents on land greater than five acres can dispose of waste on site. There is a problem, however, with some county residents disposing of waste at commercial dumpsters in Choteau and Fairfield.

4. Recycling

Choteau Activities, 109 Main, is a non-profit organization offering services for the developmentally disabled. As a fundraiser for the organization they have a drop-off site at their offices at for aluminum cans. They also have arrangements with several local businesses to pick-up cans. Once a month, the organization takes the cans to sell back to Pacific Recycling in Great Falls.

There are no recycling services for glass, newspaper, cardboard, or other materials located in Teton County. The nearest buy-back location for these goods is in Great Falls.

ELECTRICITY & GAS

1. Montana Power

Montana Power is the electric and natural gas utility that serves the towns of Choteau, Fairfield, and Dutton, as well as the community of Power and a few irrigation customers. The Montana Power Company service territory covers approximately 107,600 square miles or 73% of Montana. This area includes 288,000 electric customers and 151,000 natural gas customers in the western two-thirds of Montana. The major customers in Teton County include the grain elevators in each of the towns.

Table 5: Montana Power Customers In Teton County

Town	# of Customers
Choteau	1300
Fairfield	550
Dutton	382
Power	124

Source: Montana Power – Interview, October, 01

Montana Power's electric transmission system consists of over 7,000 miles of transmission lines and associated terminal facilities. The Montana Power system has interconnections to five major transmission systems located in the Western Systems Coordinating Council (WSCC) area, as well as one interconnection to a system that connects with the Mid-Continent Area Power Pool (MAPP) region.

In Teton County, the transformer at the substation in Choteau is being upgraded to a higher voltage and will have the capacity to handle future residential and business growth. The substations in Fairfield and Power also have been upgraded within the last five years. Typically, new subdivisions install underground utilities.

In recent years, Montana Power has centered its growth on its telecommunication subsidiary, Touch America. In October, 2001 shareholders approved the sale of its utility business to Northwestern Corporation in South Dakota. The utility business will keep the Montana Power name and will operate as a subsidiary to Northwestern Corporation. The utility will continue to supply electricity in its existing service area. The Montana Public Service Commission must approve the sale before it is finalized.

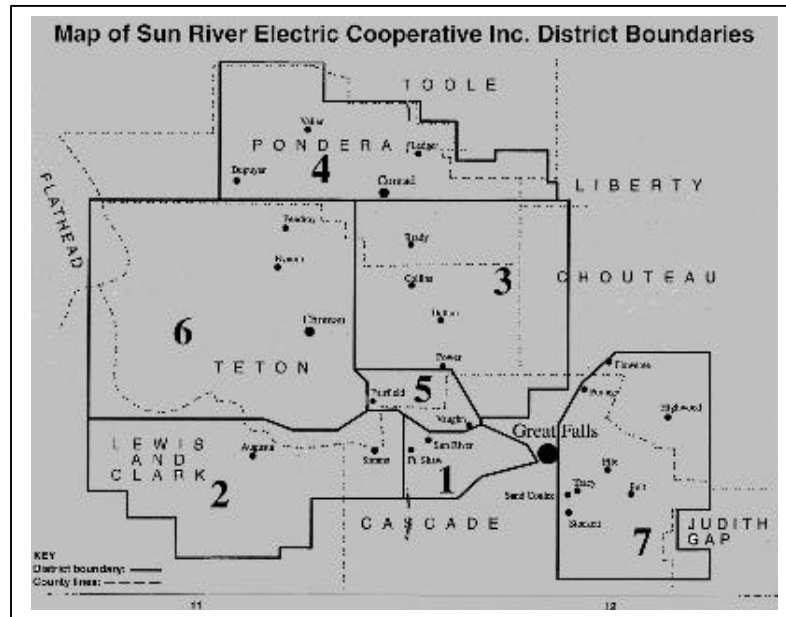
Under the Electric Act, the company is obligated to continue to supply electric energy to customers in their service area who have not chosen or have not had an opportunity to choose other power suppliers. Originally, the term of this arrangement ended in 2002. The State Legislature, however, has extended this obligation. Montana Power has agreed to buyback power from PPL Montana and will supply this energy to customers.

Montana Power's natural gas service area covers 70,500 square miles in the state and serves approximately 141,000 customers. They provide service in the towns of Choteau and Fairfield. Dutton does not have natural gas service.

2. Sun River Electric Cooperative

Sun River Electric Cooperative was first organized as Sun River Electrification in 1937. It opened its headquarters in Fairfield the following year and still operates at that location. The first electric service was installed in the Sun River Valley from Vaughn to Simms and north to the Fairfield Bench. Today Sun River Electric serves consumers in Cascade, Teton, Pondera, Lewis & Clark, Choteau, Liberty, Toole, and Judith Basin counties. In Teton County, Sun River serves all customers located outside the municipalities of Choteau, Fairfield, and Dutton. Sun River Electric currently has 24 employees and seven meter readers.

Figure 2: Map of Sun River Electric Cooperative Inc. District Boundaries



The Cooperative purchases power from Central Montana Generation and Transmission Company. This Company, located in Great Falls, buys power from the Bonneville Power Administration (BPA) and Western Area Power Administration (WAPA). Sun River Electric has a total of 5,000 meters with 1731 of those meters located in Teton County. As a group, irrigators comprise the largest customer for electricity. The largest individual customer is the U.S. Government contract for the missile sites in the service area. The Cooperative has experienced modest growth of less than 1% a year with most of that growth concentrated along the Rocky Mountain Front.

Sun River electric does not have any expansion projects scheduled and is primarily focused on maintenance of facilities. For new subdivisions in the County, the developer must pay for extending electric service to the development. Individual lots pay \$2,000 for service hook-ups. The cost of extending service ranges from \$12,000 to \$30,000 per mile depending on the number of conductors that are required.

Sun River will be testing fuel cell technology with the intent of offering this service in 2002. The projected costs for serving a residential home is approximately \$12,000. The Cooperative also sells propane gas in partnership with Mountainview Farmers Cooperative.

TELECOMMUNICATIONS

1. Telephone

The local telephone network consists of the switching offices, the interoffice backbone, and the local loop. The companies that own and operate the network are referred to as Local Exchange Carriers (LEC). In the study area Three Rivers Communications is the local exchange carrier that provides service to most of the County. Qwest (formerly US West) provides service to the Town of Dutton. Non-local voice and data traffic from Three Rivers is eventually routed to the Qwest network at the Great Falls central office.

A central office is the location where local exchange carriers terminate customer lines and locate the switching equipment to interconnect with other networks. New digital switches provide advanced calling features as well as services such as high-speed Internet. The Choteau and Fairfield central offices have Digital Subscriber Line (DSL) or high-speed Internet capability.

The interoffice transport system that connects the central offices is comprised primarily of fiber optic cable. In addition to the fiber backbone, Three Rivers maintains a microwave connection between Fairfield and Great Falls for redundancy (back-up system). The local loop is the line linking the customer premise with the local office. This is commonly referred to as “the last mile”. The quality of the line can effect the ability to provide advanced services. There are distance limitations to providing services such as DSL.

Table 6: Telephone Exchange Companies in Teton County

	3 Rivers	Qwest
Headquarters	Fairfield, MT 467-2535	Headquarters – Denver, CO Montana Office - Helena, MT
Central Offices in Teton County	Fairfield, Brady, Power, Choteau, Pendroy	Dutton (Digital Ericcson Switch – Remote)
Calling Services:	Custom calling, CLASS, Voice Mail	
Advanced Features:	DSL, Dedicated Circuits	Backhaul to Great Falls for Frame Relay, ISDN, ATM
Access lines:	Choteau – 1600 Fairfield – 1400 (+ part Cascade Cnty) Power – 300 Pendroy-132 Brady - 160	Dutton – 220
Interoffice Network:	All C.O.s connect to Fairfield switch via fiber. Fairfield to Qwest network via fiber & microwave. Fiber & microwave connections to Browning.	Fiber from Dutton to Great Falls. Great Falls redundant fiber ring to Qwest network.
Improvements:	Local loops are new and can handle high speed in towns. Rural area have loading coils but they are converting to Advance Fiber nodes every 6 miles.	No plans

Source: Information compiled from interviews and web site. October, 01.

2. Wireless

Cellular telephone received its name from the "cells" making up its transmission network. The coverage area for a cellular service is divided into a gridwork of cells containing low-powered transmitters and receivers. Cellular technology uses FM radio waves to transmit conversations.

Personal Communications Services (PCS) are digital wireless systems. Digital technology provides a platform for advanced calling services while increasing capacity and reducing operating costs. Digital service offers enhanced privacy and phones with longer talk time as compared to analog service. Digital encryption technology also reduces the potential for fraud by making it difficult to illegally obtain customers' phone numbers. Advanced features include caller id, nonvoice data, paging messages, e-mail, and faxes. Since PCS systems also operate at a higher frequency, their cells are smaller and closer together. Power consumption is reduced resulting in longer battery life and lighter handsets.

Three Rivers provides PCS service in Teton County and throughout Montana. Cellular Telephone Companies with licenses in all or parts of Teton County include AT&T wireless, Cellular One, and Verizon. Coverage from these companies; however, is sporadic and mainly limited to the Interstate.

3. Video Conferencing

- *Vision Net*

In 1995, five telephone cooperatives formed a collective to build an interactive video network that would link schools and colleges in the rural regions of the state. Three Rivers Communications is one of the participating cooperatives. As of 2001, there were 90 sites throughout the State of Montana. Although most sites are located in schools, there are a growing number of business sites being added to the network. VisionNet is headquartered in Great Falls and is comprised of a fiber optic backbone with eight hubs located statewide. The fiber ring topology allows traffic to be routed in case of a service outage on the network. There are three separate connections to the Internet backbone.

There are three VisionNet studios located in Teton County. The studios located at Fairfield and Power High Schools are used for teaching classes and community use. The studio located at the 3 Rivers Communications headquarters in Fairfield can be leased for business use.

- *METNET*

The Montana Educational Telecommunications Network (METNET) Interactive Video System consists of 20 locations that have two-way interactive compressed digital video facilities. The system is operated by the State of Montana Information Technology Division and is reserved for the State higher education system and State of Montana administrative meetings. The closest METNET studio is located in Great Falls. The Reach Montana Telemedicine Site in Choteau; however, can interface with the METNET sites.

4. Cable Television

Cable operators receive programs from satellite and broadcast signals and re-transmit those signals through coaxial cable and/or optical fiber to customers' homes. Generally, a large "trunk" cable carries the signals down through the center of town and the feeder cables connects to the trunk cable and branches off into local neighborhoods. The cable operator runs a smaller "drop" cable from the feeder cable directly into the customer's home and attaches it to the television set.

Digital cable is a new service that allows for as many as 85 additional channels of music, movies, enhanced pay-per-view movies, special events and special interest channels (exact channel lineup and number varies for each community.) Digital compression technology allows up to 12 digital services in the space normally occupied by one analog channel. It is not necessary to completely rebuild a cable system to enable delivery of the digital technology. Digital cable is not available in Teton County.

- *AT&T Broadband*

Local Office	Great Falls, MT
Service Area	Choteau & Fairfield
Head-end Equip	Located in Choteau. Fairfield receives signal from Choteau via Microwave
Basic Channels	13
Rate	\$12.25 per month. Additional for expanded basic and premium channels
Upgrades	Would need just minor upgrades to provide digital cable. This service likely to be offered in the future but currently there is no timeline to complete the upgrades. Cable modem would require major upgrades and there are no plans to offer this service.

- *Mallard Communications*

Local Office	Western Region – Soda Springs, ID Corporate – Traverse City, MI
Service Area	Dutton
Head-end Equip	Located in Dutton
Basic Channels	22
Rate	\$24.95 per month. Additional for premium channels
Upgrades	There are no plans to offer digital cable or cable modem service.

5. Internet

- *Dial-Up/DSL*

The most common access for residential users and small business with stand-alone computers is dial-up access. With dial-up access the user connects the PC to a telephone line through a modem and the computer dials the ISP's server. DSL modems also operate on the telephone line but split the line into voice and Internet channels. This technology offers higher speeds with direct access to the Internet. Three Rivers Telephone cooperative provides local dial-up access throughout the County and DSL modems in Choteau and Fairfield. Intermountain Internet based in Helena, also has a local dial-up number for Choteau. Dutton is in the local calling area for Great Falls and can access any internet service that has a local dial-up number in Great Falls.

- *Direct Access*

Direct access to the Internet provides a direct connection from the PC or network to the ISP. The connection is always active and there is no need to first dial-up the ISP through the phone line. Typically, leasing a dedicated line through the telephone company has provided direct access. This dedicated connection ranged in speeds from 56k to 1.4mb.

- *Wireless*

Within the last year, wireless connections have become an increasingly popular option for a direct connection to the Internet. For unlicensed wireless, the end-user pays a one-time charge for the antenna and equipment that will connect them to the ISP and a monthly charge for Internet service. Softworx in Great Falls provides wireless Internet for the Dutton, Brady, and Power Area. They have two antenna sites that serve the area with repeater sites that transmit the signal to Great Falls. The equipment is co-located with the County emergency service radio towers. Softworx is considering expanding the service to Choteau and Fairfield.

- *Cable Modems*

Cable modems provide high-speed connections over the same coaxial cable and fiber optic cabling used in cable TV networks. This provides a high-speed direct connection to the Internet. None of the municipalities with cable service have the fiber cable that would be necessary for this service and there are no plans to upgrade these systems.

- *Satellite*

DirecPC is currently the most widespread provider of Internet through satellites. The system was originally designed to deliver television programming and currently offers downstream rates of up to 400kbps. Upstream transmission is achieved via standard telephone lines. DirecPC is a division of Hughes Satellite Network. Hughes and StarBand began marketing two-way satellite service in 2001. The antenna both sends requests to the Internet and receives Internet content via the satellite. In Teton County, 3 Rivers Communications is a dealer for DirecPC. The nearest Starband dealer is in Great Falls.



LOCAL SERVICES

KEY FINDINGS

This section reviews the local services in Teton County, primarily focusing on those provided by local government, but also including some provided by state or non-profit organizations. This section addresses fire protection, law enforcement, libraries, education, public health, and social services. Other services such as water supply, sewer systems, solid waste collection, transportation systems (e.g., roads and bridges), utilities and telecommunications, are covered under the Public Facilities section of this report.

With a total population of 6,445 in 2000, Teton County has three libraries, four senior centers, one emergency facility/limited service hospital, three medical clinics, five volunteer fire departments (working jointly through the Fire Council), eight public schools, and two nursing homes. Teton County and the incorporated areas of Choteau, Dutton, and Fairfield coordinate on provision of law enforcement, fire protection, and libraries. Although there are fewer law enforcement officers serving the county now than when there were individual police departments as well as county law enforcement, crime rates are still far below state rates.

- ◆ Teton County and the incorporated areas of Choteau, Fairfield, and Dutton have worked creatively and cooperatively to address law enforcement and fire protection, providing service through cooperative agreements that provide mutual benefits for the governments and their citizens.
- ◆ Choteau, Fairfield, and Dutton, with a combined population of 2,799 each, have a library and a swimming pool. Great Falls, with a population of 68,000, has only one more pool (four total), and a single library.
- ◆ In Teton County, the city or town owns the library building and the County provides the majority of government cash funding.
- ◆ The incorporated areas get by with few staff, while still providing an array of services. Choteau has nine full-time employees, Fairfield has two full-time employees, and Dutton has one and a half full-time equivalent employees.
- ◆ There is a strong sense of community among residents in Choteau, Fairfield, and Dutton. Community residents work as volunteers to help provide local services. In Dutton, local residents put on the "Fun

Day,” proceeds from which are used for the pools and the parks. In Choteau, the Lion’s Club operates the swimming pool.

- ◆ Providing fire protection in the County has been aided with the development of a County-wide district fee area that provides stable funding for operations, maintenance, and purchase of fire-fighting vehicles and equipment. The County has a well-coordinated approach among the fire districts, including a County-wide Fire Council and Fee Board with representation from each of the fire districts.
- ◆ Continuing to operate the volunteer fire departments, ambulance, and emergency medical services on a totally volunteer basis may be more difficult in the future because fewer people are volunteering for these demanding jobs, complicated by two-worker families, and time limitations.
- ◆ Teton County must consider emergencies in a new light given the September 11 terrorist event.
- ◆ Teton County Sheriff’s Office provides all law enforcement services in the County, including the incorporated areas of Choteau, Dutton, and Fairfield. Nine officers cover the same territory previously covered by 13 officers.
- ◆ “Meth Labs” pose a serious hazard for law enforcement, fire department, and emergency medical service providers. Teton County is working to develop policies and protocols for this issue.
- ◆ Public school enrollment is projected to decline overall in the County.
- ◆ The school district may be faced with closing the Golden Ridge and Bynum schoolhouses if there is much decline in enrollment in the future. They had 10 and 18 students respectively in 2000.
- ◆ Teton Medical Center provides full-time 24 hour emergency care facilities in Teton County.

LOCAL GOVERNMENT

Local government in Teton County consists of the County and the incorporated city of Choteau, and the towns of Dutton, and Fairfield.

1. Teton County

Teton County has a three-member Board of Commissioners, which is responsible for governing and guiding county operations. Commissioners oversee County departments including Road, Public Health, Public Assistance, Sanitarian, Disaster and Emergency Services, Planning, Weed Control, and Extension as well as other contract services. The various offices of county government are described at the County's website at www.tetoncomt.org.

Teton County has a number of boards and commissions including:

- Airport Commission
- City-County Board of Health
- Cemetery District
- Teton County Conservation District
- Teton Council on Aging
- Local Drought Advisory Committee
- Teton County Planning Board
- Weed Board

Teton County owns a number of buildings and grounds including:

- County Courthouse
- Weed Barn
- 3 Ambulance Barns (one each in Choteau, Power, and Fairfiled)
- Road Shops/Garage (in Choteau, Power, Dutton, Fairflied)
- Sheriff's Office
- Park in Bynum

The County is renovating the Court House, scheduled to be completed in December of 2001. The County is also making plans to build an ADA-compliant Sheriff's office within the next five years, with a current estimated cost of \$600,000 to \$1,000,000.

The Commissioners are responsible for producing the annual budget for Teton County. Teton County employs 53 people in its various departments.

2. Choteau

Choteau, with a population of 1,751, is the County seat of Teton County. Choteau has a commission-executive form of government with four council members and a mayor. The city has nine full-time staff, one part-time staff, and additional season staff. Local services provided by the city include the maintenance and operation of two city parks, city pavilion, cemetery district, and some local animal control.

The city contracts with and/or shares responsibility with the County for law enforcement, fire protection, and the library.

The City of Choteau owns the city hall/fire department building, library building, the enclosed pavilion (which is used for meetings and gatherings year-round), two well pump houses, city shop, visitor information center, storage buildings, and the pool and bathhouse. The pool and bathhouse are operated by the Lion's Club. There are no major renovation plans for these buildings at the current time.

Choteau boards and commissions include the following:

- Zoning Commission
- Board of Adjustment
- Library Board
- Revolving Loan Committee
- Cemetery District

In addition, there are city representatives on the County's airport board and Conservation District board.

3. Fairfield

Fairfield, with a population of 659 in 2000, has a commission-executive form of government with four council members and a mayor. The town employs two full-time employees and two part-time employees. Local services provided by the town include fire and police protection, library, cemetery, swimming pool, and local animal control. Some of these services, such as police and fire protection, and library, are funded and operated in cooperation with the County.

The town owns the town shop, well houses, and the fire hall building. Town offices are located in rented space in the community hall.

Fairfield boards and commissions include the following.

- Library Board
- Swimming Pool Committee
- Economic Development-Revolving Loan Committee
- Cemetery Board

Although the town does not have a separate planning board, it does appoint a representative to the County planning board. The town council functions as the town's zoning committee.

4. Dutton

The town of Dutton, with a population of 389 in 2000, has a commission-executive form of government with four city council members and a mayor, who are responsible for city government and city infrastructure and services. The town employs 1.5 FTE (full-time equivalents) year-round, with more help hired on a seasonal basis. Local services include fire and police protection (in cooperation with the county), library, cemetery, swimming pool, and two parks. Dutton provides some services, such as police and fire protection and library, in cooperation with the County.

The town owns the town shop (where town offices are located), fire hall, parks, the old railroad depot (next to one of the parks and which houses equipment and operating space for “Toys for Tots,”) and library. The parks are run almost entirely by donations, much of which is raised at the annual “Fun Day.” In addition, the town received a donation of \$200,000 to set up a trust fund for parks.

Dutton boards and commissions include the following.

- Library Board
- Housing Board (responsible for reviewing applications for rehabilitation projects)
- Cemetery Board

In addition, the local community forms its own committees for the annual “Fun Day” that raises money for the swimming pool and parks.

5. Taxes

There are 25 separate taxing districts in Teton County. These include the local governments, school districts, special districts, State taxes and improvement districts. The mill levy for property owners is comprised of the levy that are assessed county-wide any school, city, or improvement levies that may apply to specific properties depending on location. Generally, education accounts for the largest share of the property tax.

The *Compendium of Government Finances* provides information on overall revenues (not just property tax revenues) and expenditures. This report on all states and local governments in the U.S. is useful for comparison purposes. The most recent data (released December 2000) are for the 1996-1997 fiscal year. The following is comparative information for Montana Counties with populations of similar size to Teton County.

Table 1: Comparative Information from the Compendium of Government Finances, 1997: Selected Montana Counties Revenues 1996-1997

County	Population	Total General Revenues	Revenue from Property Tax	Prop. Tax as % of General Revenue
Blaine	7,114	\$19.49 m	\$4.82 m	25%
Madison	6,773	\$19.40 m	\$6.58 m	34%
Pondera	6,344	\$15.11 m	\$4.50 m	30%
Powell	7,115	\$10.79 m	\$3.71 m	34%
Teton	6,371	\$18.66 m	\$5.26 m	28%

Source: *Compendium of Government Finances, 1997.*

FIRE PROTECTION

Rural fire companies, municipal fire departments, and federal staff provide fire protection in Teton County. Five fire companies, located in Choteau, Dutton, Fairfield, Pendroy, and Power, provide fire protection to all the unincorporated areas in the county except wildfire protection on federal lands. These companies are funded from a fire fee service area and County funding. The US Forest Service or BLM cover wildland fire on federal lands, depending on jurisdiction.

1. Municipal Fire Departments

The incorporated towns of Choteau, Fairfield, and Dutton have municipal fire departments. All the personnel on the municipal fire departments are also on the rural fire companies and mutual aid agreements are in place between County and all municipalities in the County. The County also has two fire districts near the communities of Choteau and Dutton. These districts receive fire protection from the respective municipal fire departments. The County has a cooperative fire control agreement with the Montana DNRC and mutual aid agreements with several surrounding counties.

2. Teton County Fire Districts

Teton County has a well-coordinated fire district system. The districts coordinate county-wide with the Fire Council, established by County resolution in 1977, with two delegates from each district on the Council. The Fire Council establishes policies, sets up training, and prioritizes projects.

County funding comes from the general fund, Payment-in-Lieu-of-Taxes (PILT) funds from federal lands in the county, and from fees for a County-wide fire protection service area. In 2001, the general fund appropriation for fire was \$15,000 and PILT was \$10,000. The County district fees are \$25 per structure for structures outside of incorporated areas. The Fee Board, comprised of one representative from each fire district, is responsible for managing the County-wide funding and allocating to individual fire districts.

The heavily forested Rocky Mountain Front is an area of particular concern for fire prevention and fire fighting. The County recently received a grant to conduct a study of the best ways to manage fuels in the area. More homes are being built in the forested area, which creates difficulties for fighting structure fires.

Challenges facing the fire districts over the next 10 years include concerns about addressing biohazards, especially after the September 11 terrorist attack, and the ability to continue to rely on volunteers. Fewer people are volunteering for these unpaid positions. (Van Auken).

Teton County has a cooperative agreement with Montana Department of Natural Resource Conservation (DNRC) whereby the County provides wildland fire protection on state and private lands and DNRC provides resources. DNRC provides training and will also provide cash resources after the County has expended most of their resources, regardless of whether the fire is on state or private land. Last year, for example, DNRC contributed \$130,000 for the fire fighting work on the Ear Mountain fire, which cost a total of approximately \$400,000.

Table 2: Teton County Fire Districts

	Choteau	Dutton	Fairfield	Pendroy	Power
Number of Paid Staff	0	0	0	0	0
Number of Volunteers	24	20	19	28	16
Fire Hall	owned by individual town, leased to county on 30 year basis—lease paid up-front			owned by County	owned by County
Equipment					
Wildland Fire Truck	2—1976 and 1982 models	1—1979 model	1—1976 model	2—1979 and 1980 models	2—1961 and 1976 models
Structure Fire Truck	1- 2001 model	1—2000 model	1-1995 model	1—1984 model	1—1960s model
Water Tender	2,000 gallon	4,000 gallon	2,800 gallon	1,000 gallon	3,000 gallon

The Sun River Canyon area and the Arrowleaf Subdivision in Teton Canyon were the most remote areas of the County for fire-related protection issues. These areas include a number of seasonal and year-round homes. It takes approximately 30 minutes to reach these areas with emergency and fire-fighting equipment. These areas are problematic not only because of distance and time from fire-fighting equipment, but because they are against the forest boundary and urban-wildland interface. Most of the year-round residents are retired, which makes it difficult to set up a local volunteer fire department in the area.

3. Unites States Forest Service (USFS) and Federal Lands

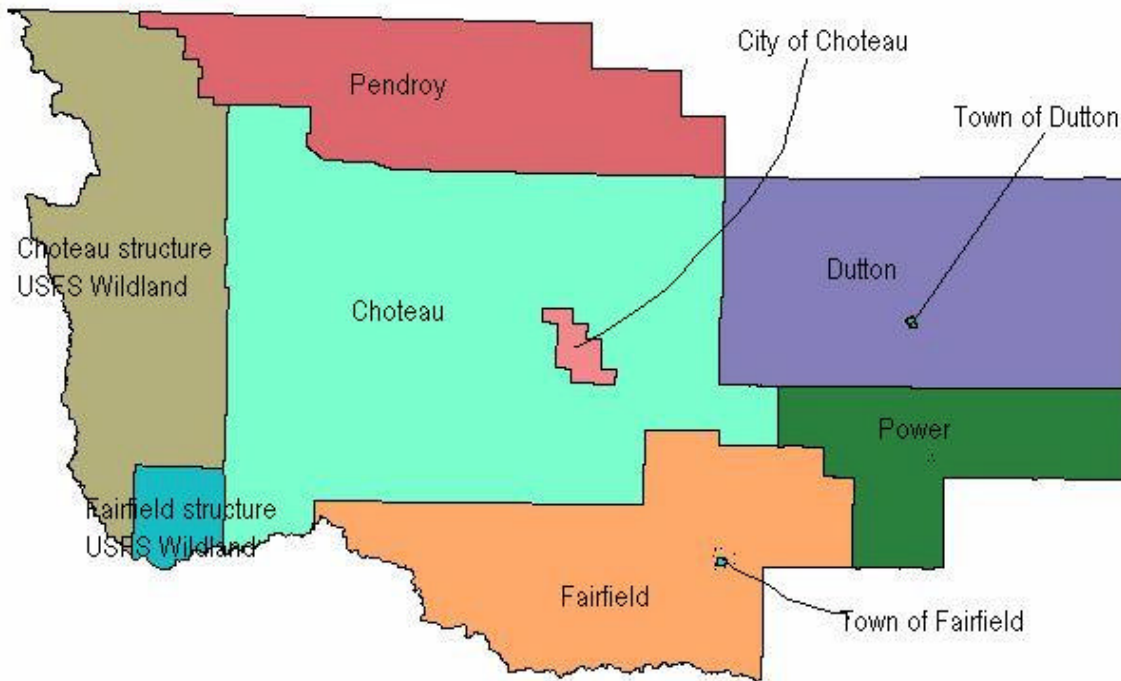
Under state law, the federal departments have jurisdiction on fires on federal lands. The USFS is the only federal agency that has fire equipment in Teton County. The USFS provides wildland fire fighting on Bureau of Land Management lands. The County is responsible for structural fire protection. Teton County is currently working to develop a formal mutual aid agreement with the USFS that will give the USFS authority to use their equipment on fires that may not directly threaten USFS administered lands. The issue is that fires can strike the County and the County has to bring in equipment from other places (such as Jefferson County for the last fire) when equipment is sitting idle at the USFS. The USFS local administrators are currently not authorized to use the equipment for fires other than those that directly affect their jurisdiction. The cooperative agreement would address that issue.

There are some Bureau of Land Management and United States Fish and Wildlife lands scattered in the County. The County has been responding to fires in these areas and hopes to have an agreement with these agencies that will reimburse the County for their efforts.

The federal Bureau of Reclamation also has some lands that require wildland fire protection, but they have shifted responsibility to the local irrigation district that benefits from their project. The County is working to develop a mutual aid agreement with the local irrigation district whereby some of the irrigation district's equipment could be used on County fires in emergency situations in exchange for County protection on Bureau of Reclamation lands.

Figure 1: Teton County Fire District Map

Map provided by the



County Fire Warden, October 2001.

LAW ENFORCEMENT

The County Sheriff's department is the single local law enforcement entity for the County, including all incorporated and unincorporated towns. Choteau, Dutton, and Fairfield contract with the County for law enforcement services. Choteau has been contracting for three years, and Dutton and Fairfield for five years. Both Dutton and Fairfield recently renewed their contracts. A Forest Service law enforcement officer serves all federal forest lands along the Rocky Mountain Front, an area that includes several Counties.

In 2001, staff included the sheriff, eight full-time deputies, three full-time dispatchers, three part-time dispatchers, and five sworn reserve deputies. The sheriff and under-sheriff are stationed in Choteau. The remaining deputies reside throughout the County as dictated by need and coverage agreements with the municipalities.

The County jail was built in 1893, but is no longer used for prisoners. The County has agreements with Pendroy County, Choteau County, and Toole County for prisoners.

The Sheriff's office responsibilities include County animal control, DARE program, Search and Rescue Command, County 9-1-1 coordinator, and County coroner duties. All of Teton County is covered by 9-1-1 emergency phone services.

Crime rates in Teton County, averaging about 4.7 per 1000 persons between 1989 and 1997, are well below state rates ranging from 38.4 to 51.2 per 1000 over the same period (Montana Board of Crime Control). Crime rates are based on the "indexed" offenses of homicide, rape, robbery, assault, burglary, larceny, and motor vehicle theft. In 1999, there were a total of 134 indexed offenses in Teton County. According to the Montana Board of Crime Control, Teton County ranked 22nd among the 52 Counties in Montana for crime rate (ranking based on highest to lowest crime rates). (Montana Board of Crime Control, *Crime in Montana Annual Report 1999*)

The biggest challenge over the next ten years will be to maintain the same quality of service. The Sheriff's Department in 2001 was providing law enforcement work with nine officers that had previously been done by 13, when the municipalities and County had their own officers. With limits set at the state level by "1-105," the county's law enforcement budget is the same as it was in 1986. (Anderson).

LIBRARIES

Teton County has three public libraries, one each in Choteau, Dutton, and Fairfield. The libraries are free for all county residents. For three small country schools in the County and for three Hutterite Colony schools, the Choteau library also essentially serves as the school library, sometime shipping books out in boxes.

In the late 1990s, County residents voted for a joint City-County approach to library support. The towns each provide the building space and related utilities and maintenance. The County provides the majority of the funding, comprising approximately three-quarters of all government funding at each of the three libraries in 2000. Private party donations are also a critical component of total library funding, constituting nearly one third of the total income for Choteau and Fairfield libraries in 2000.

The three libraries function independent from one another, with their own separate advisory boards, but each is also represented on a County wide board. There are five members on this board—one appointee from each city and two appointed at large by the County commissioners.

Future plans are for the three libraries to have an electronic catalog of all collections in the County available via the Internet. This will make it easier for people to identify books from their home. Securing adequate funding for libraries is likely to continue to be a challenge. Despite restricted hours of service, and few paid staff, per capita circulation is high in Teton County.

Table 3: Teton County Library Facts, 2000

	Choteau	Dutton	Fairfield	State
Branches/Bookmobiles	0	0	0	--
Service Area Population	3,326	1,389	1,618	--
% Registered Borrowers	NA*	18.36%	19.16%	44.15%
Collection Size (Books, Audio, Video, and other)	21,704	6,569	7,725	--
Collection Per Capita	6.53	4.73	4.77	3.15
Per Capital Circulation	10.29	2.9	2.46	5.47
Library Staff Per Capita	.00029	.00027	.00037	.00034
Hours Open per Week (average)	28	20	19	--
# of Computers	3	2	1	--
# of Internet connections	2	2	1	--

**Choteau Library has not kept records on registered borrowers*

Source: Montana State Library. Montana Public Library Annual Report of Statistics, July 1998 through June 2000.

EDUCATION

1. Education – K-12

Teton County has eight public schools. As of October 12, 2001, a total of 17 elementary and 12 high school students were home school students. The school districts were unaware of any private schools operating in October 2001. Private schools at the Rockport, New Rockport, and Miller Hutterite Colonies have opted to be included as “attendance centers” in the public school system. The Rockport Colony school is the single school location in the Pendroy district. There were 18 students at the Bynum School House in 2000, the remaining 27 were students at the Miller Colony attendance center. In the Golden Ridge District, 10 students attended at the school house in 2000, the remaining 23 attended at the New Rockport Colony.

Public school attendance fluctuated by approximately 100 students between 1990 and 2000, from a low of 1,296 in 1990/91 to a high of 1,406 in 1993/94. Total attendance in 1999/2000 was 1,371. (Montana Office of Public Instruction) With the exception of the Fairfield schools, where attendance numbers grew during the 1990s, most of the districts have had an overall decline in enrollment over the decade. Enrollment has begun to plateau at Fairfield. (Maloney). The Pendroy schoolhouse closed and attendance shifted to the Rockport Colony in the 1990s. Dutton and Power consolidated their superintendent in the early 1990s. They remain two separate districts for taxing purposes.

Table 4: Enrollment in Public Schools in Teton County, 2000

	Grades	Elementary	High School
Choteau	K-12	319	191
Dutton	K-12	74	57
Fairfield	K-12	222	158
Power	K-12	94	66
Bynum	K-8	45	--
Pendroy	K-8	29	--
Greenfield	K-8	67	--
Golden Ridge	K-6	33	--

Source: Maloney

Anticipated changes over the next ten years include difficulty in attracting teachers, continued need for more funding, and potential for the Golden Ridge and Bynum schoolhouses to close if enrollment continues to decrease. Because of the quality of life, accessibility to public lands and outdoor recreation, Choteau and other towns in Teton County have not had much trouble attracting new teachers, even with low salaries that cannot compete nationally. However, in the past year or so it has been more difficult to bring new teachers to the area, and as a result new teachers are being hired that are not certified. (Maloney)

Table 5: School Facilities

District	Buildings	Improvements Planned	Notes
Golden Ridge	1 school building	No	
Golden Ridge- New Rockport Colony (attendance center)	1 school building	Potential	Potentially planning a new school building; would come from colony funding only
Greenfield	1 school building	No	Added 2 classrooms last year
Bynum	1 building in Bynum 1 attendance center in Miller Colony	No	
Pendroy	1 building	No	
Choteau	1996 addition created a new wing that connected the elementary and high school buildings	No	Work continues to upgrade the heating system. A local volunteer group developed tennis courts on the campus last year and is working on a new separate building for weight room, wrestling.
Fairfield	3 connected buildings— elementary/cafeeteria, gym, and high school	Yes	\$2.8 million bond passed in Nov. 2001 for renovation, remodel, and addition of new classrooms and other facilities (band, library media center, locker rooms and more)
Power	one building, K-12	Yes	Looking at redoing the heating system; currently redoing the carpeting
Dutton	one building, K-12	No	roof replaced within last ten years, still good; recently did some interior remodeling and new carpet

Sources: Superintendents and clerks at districts

2. Post Secondary Opportunities

Other than Internet courses available to individuals, there are no college level course available on a regular basis to adults in Teton County. Classes via video-conferencing are available throughout the state on the Metnet program. Nearby institutions offering post secondary education include:

- ◆ Montana State University College of Technology, Great Falls
- ◆ Montana State University Northern, Havre
- ◆ Park College, Great Falls (Malstrom Air Force Base; programs open to civilians)
- ◆ Troy State University, Great Falls (Malstrom Air Force Base; programs open to civilians)
- ◆ University of Great Falls, Great Falls

HEALTH CARE

1. County Health Department

The County Health Department, located in Choteau, provides a number of public health services. These include a number of programs for low income individuals, especially programs for women and children. The County Health Department provides breast and cervical cancer screening for qualified individuals, provides flu shots, and administers the local Women, Infants, and Children (WIC) program. It is the local office for Healthy Start Programs, such as the Montana Initiative for the Abatement of Mortality Infants. County Health Department information is available at www.tetoncomt.org.

2. Emergency Facilities and Hospitals

Teton Medical Center (TMC), located in Choteau, is the County's single critical access, or limited service, hospital. The facility provides emergency room services 24 hours per day and accepts any emergency regardless of ability to pay. Other services include X-Ray, laboratory, physical therapy, occupational therapy, outpatient surgical procedures, and consulting specialty clinics. As of September 2001, there were five in-patient beds, and approval was received in October 2001 for two additional in-patient beds. The facility also includes a nursing home wing with 31 general nursing home beds (22 occupied in October 2001) and a special care locked facility with eight beds. The locked facility is full and there is a waiting list. The facility is funded in part by a hospital district, which covers most, but not all of Teton County. TMC is affiliated with the Benefis Healthcare and is part of the REACH videoconferencing through the Benefis Regional Emergency Center in Great Falls. Great Falls is the nearest location for a full-service hospital.

3. Nursing Homes and Other Medical Facilities

Teton County Nursing Home, located in Choteau, is a licensed forty-one bed skilled nursing home. Teton County Nursing Home is Medicare/Medicaid certified. It provides physical therapy, occupational therapy, Alzheimer Care, respiratory care, nursing rehabilitation, short and long term care, adult day care, and speech therapy. In July 2001, 27 of the 41 beds were occupied (Fleming). Other medical services in the county include a licensed personal care home with 12 beds (Census and Economic Information Center), hospice, provided by Westmont Home Care Services, Golden Triangle Community Mental Health Center (Choteau), and three outpatient clinics. Choteau Clinic and Fairfield Clinics are satellites of the Great Falls Clinic and are jointly staffed by two physicians and two physician assistants. Moore Medical Clinic, located in Choteau, is staffed by a family nurse practitioner full-time and part-time physicians (three days per week).

4. Ambulance and Emergency Medical Services

Teton County has a County ambulance service. There are two ambulances in Choteau, one in Fairfield and one in Power. The ambulance units are on call 24 hours per day, seven days a week. Ambulances are manned by Emergency Medical Technicians (EMTs) and are assisted by Quick Response Units (QRUs) in Dutton and Pendroy. County ambulance service also has access to a medical helicopter (Mercy Flight) stationed in Great Falls. Information on the ambulance service and emergency medical service are available on the County's website at www.tetoncomt.org. Challenges facing the ambulance and emergency include the declining enrollment of volunteers, the proliferation of "meth labs" around the County and the medical risks they pose for all emergency providers. The County is currently working on developing protocol and policies for "meth lab" incidents. In addition, there is concern about pandemic flu outbreaks and County response (Reiding).

SOCIAL SERVICES

1. Office of Public Assistance

The local office of the state's public assistance program is located in Choteau. They provide Medicaid, Food Stamps, and other types of cash assistance to qualified individuals.

2. Child and Family Services

The community social worker is located at the Child and Family Services office in Choteau.

3. Seniors

Teton County supports the four senior centers with a mill levy. The Teton County Council on Aging Coordinator works with all four centers. The centers provide senior meals, meals-on-wheels, homemaker/home chore services, and Choteau senior center also provides some limited transportation assistance.

There are four senior centers in Teton County, in Power, Choteau, Dutton, and Fairfield. The North Central Agency on Aging, located in Conrad, serves Teton County.

4. Other Programs

A number of other social service programs are also available to County residents, but program offices are out of County. These include the following, all of which are located in Great Falls:

- Human Resources and Development Corporation
- Opportunities, Inc.
- Blind and Low Vision Services
- Childcare Resource and Referral
- Developmental Disabilities Program
- Vocational Rehabilitation Program
- Child Support Enforcement

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